

# **AUTOMOBILE DICTIONARY**

 $\mathbf{C}$ 

- 1. Abbreviation for Celsius or Centigrade.
- 2. Abbreviation for Coulomb.
- 3. Abbreviation for Comfort.
- 4. Abbreviation for <u>carbon</u>
- 5. Symbol for the speed of light in a vacuum.

C-3

Abbreviation for Computer command control system

C3I

Abbreviation for Computer controlled coil ignition

 $C_4H$ 

A mixture of light hydrocarbons that have the general formula  $C_4H_n$ , where n is the number of hydrogen atoms per molecule. Examples include <u>Butane</u> ( $C_4H_{10}$ ) and <u>Butylene</u> ( $C_4H_8$ ).

C-4 system

Abbreviation for computer-controlled catalytic converter

C&C

Abbreviation for Cab and chassis

CA

- 1. An API classification for <u>diesel engine oil</u> widely used in the late 1940s and '50s that operated in mild to moderate duty with high quality fuels; occasionally has included gasoline engines in mild service. Oils designed for this service provide protection from bearing corrosion and ring-belt deposits in some naturally aspirated diesel engines when using fuels of such quality that they impose no unusual requirements for wear and deposits protection. It was replaced by <u>CB</u> designated oil in 1949.
- 2. Abbreviation for *Cab/Axle* describing the distance from the rear of the cab to the rear axle.

#### **CAA**

- 1. Abbreviation for Clean Air Act
- 2. Abbreviation for Civil Aviation Authority

### **CAAA**

Abbreviation for Clean Air Act Amendments of 1990

#### **CAAM**

Abbreviation for China Association of Automobile Manufacturers.

### **CAB**

- 1. Abbreviation for Civil Aeronautics Board
- 2. Abbreviation for Controller, Anti-lock brake

## Cab

- 1. A taxi or car for hire.
- 2. The closed part of a truck (or even a car) where the driver sits.

#### See

- Access Cab
- Cabover
- Chassis cab
- Club Cab
- Crew Cab
- <u>Double Cab</u>
- Easy Access Cab
- Extended Cab
- King Cab
- Quad Cab
- Regular Cab

### Cab Aside Engine

(CAE) A truck where the driver's cab sits to one side of the engine as seen on refuse trucks and some construction equipment.

## Cabbage

Trucker slang for a long steep incline in Eastern Oregon as in 'I jammed the brakes pullin' off of Cabbage'

Cab & chassis

(CC, or C & C) The front of a tractor trailer unit

Cab and chassis

The front of a tractor trailer unit

Cab-Behind Engine

(CB) (CBE) Conventional style of a large truck which has a hood and an engine in front of the occupant cab.

Cab chassis

A truck chassis which includes the driver compartment.

Cab Forward

### Cab Forward

A truck that is similar to a <u>cabover</u> in that the cab is positioned ahead of the engine. Most commonly seen on refuse trucks and some construction equipment.

# Cab-forward design

A car design in which the front end is short and the footwells extended to the front axle. This design gave more passenger space and pushed the windshield further from the passengers

Cabin

A passenger compartment of an enclosed vehicle.

Cabin altitude

The normal pressure altitude maintained in the cabin of a pressurized aircraft.

Cabin blower

An engine-driven pump, usually of displacement type, for maintaining an aircraft cockpit or cabin above atmospheric pressure. Also called *cabin supercharger*.

Cabin differential pressure

The pressure in excess of that of the surrounding atmosphere which is needed to maintain comfortable conditions at high altitude. For an aircraft flying at 9000m this differential would be about 60 kNm<sup>-2</sup>.

Cabin forward

See

Cab-forward design

Cabin-forward design

See

Cab-forward design

Cabin supercharger

#### See

• <u>Cabin blower</u>

#### Cable

- 1. A distance of 120 fathoms where 1 fathom=6 feet. Thus a cable is 720 feet (219.456 m).
- 2. A cord generally made of strands of thin wire. Electrical cables are covered with a protective non-conducting material. Control cables are housed within an outer sleeve.

#### See

- Balanced-pair Cable
- Bowden cable
- Brake cable
- Clutch cable
- Control cable
- Derailleur Cable
- Gearchange cables
- Heavy cable
- Ignition cable
- <u>Jumper cables</u>
- Light cable
- Parking-brake Cable
- Shift cables
- Spark plug cable
- Speedometer cable
- Starter switch control cable
- Stirrup cable
- Universal Cable

#### Cable activated

A device which is controlled by a cable. As a lever or pedal is engaged, the device is correspondingly moved. The longer the cable the less efficient is the system. Cables tend to stretch and fray with use.

### Cable-angle indicator

An indicator showing the vertical angle between the longitudinal axis of a glider and its towing cable, also its yaw and roll attitude relative to the towing aircraft.

#### Cable brake

A braking device which is activated by a cable

# Cable buoy

A buoy attached to an anchor and serving to mark its position.

#### Cablecar

A tram pulled by a moving underground cable, in the same manner as the <u>Cable railway</u>.

#### Cable Chain

See Leaf Chain.

## Cable clamp

- 1. A device for securing a cable end to the point where it connects.
- 2. A device which secures the outer sheath of a cable

## Cable cover strip

See

• Spark plug cable cover strip

## Cable crimp

A small aluminum or plastic cap installed on the ends of bicycle brake and shift inner cables to keep them from fraying; also known as a *cable end*. The outer cable sheath end is protected from fraying by a <u>Ferrule</u>

#### Cable cutter

### Cable Cutter

A tool for severing a cable cleanly without leaving frayed ends.

#### Cable ducts

Earthenware, steel, plastic, or concrete pipes containing cables.

#### Cable end

A small aluminum or plastic cap installed on the ends of bicycle brake and shift inner cables to keep them from fraying; also known as a *cable crimp*. The outer cable sheath end is protected from fraying by a Ferrule

#### Cable form

The normal scheme of cabling between units of apparatus. The bulk of the cable is made up on a board, using nails at the appropriate corners, each wire of the specified color identification being stretched over its individual route with adequate <a href="skinner">skinner</a>. When the cable is bound with twine and waxed, it is fitted to the apparatus on the racks and the skinners connected, by soldering, to the <a href="tag blocks">tag blocks</a>.

### Cable grip

A flexible cone of wire which is put on the end of a cable. When the cone is pulled, it tightens and bites into the sheath of the cable, and can be used to pull the cable into a duct.

## Cable guide

A tube which is secured in place to channel the cable which runs through it Cable Housing

- Brake Cable Housing
- Derailleur Cable Housing

## Cable-laid rope

A rope formed of several strands laid together so that the twist of the rope is in the opposite direction to the twist of the strands.

#### Cable lock

A thick cable with a lock at one end and which can be wrapped around a bicycle frame and a post to protect the bike from being stolen.

## Cable logging

A system of transporting logs from stump to landing by means of steel cables and winch. This method is usually preferred on steep slopes, wet areas, and erodible soils where tractor logging cannot be carried out effectively.

#### Cable loom

See

• Spark plug cable loom

## Cable marker

See

• Spark plug cable marker

#### Cable median barrier

A series of wire cables stretched along the median parallel to the flow of traffic. In the event that a vehicle loses control and runs into the median, the barrier prevents the vehicle from entering the oncoming lane and will entangle the vehicle so that it will not bounce back into its own lane. While the vehicle may incur damage to itself, it is prevented from striking other vehicles.

## Cable operated

An item which is controlled by a cable

## Cable railway

Means of transport whereby carriages are pulled up an incline by an endless overground or underground cable.

#### Cables

See

• <u>Cable</u>

### Cable seal

A heavy steel cable used to keep trailer doors closed.

# Cable separator

See

• Spark plug cable separator

## Cable-stayed bridge

A bridge type for medium spans in which the decking is suspended by diagonal cables attached directly to the supporting tower. Can be of fan or harp design. The decking is always in compression and is self-supporting during construction. See

## • Bridge

### Cable-way

A construction consisting of cables slung over and between two or more towers, so that skips suspended from the cables may be moved often over long distances. It is used for transport of ore etc. Also called *blondin*.

### Caboose

A railcar that is placed at the rear of the train to provide an office and quarters for the conductor and train crew. Most railroads no longer use cabooses.

#### Cabover

#### Cabover truck

A truck or tractor design in which the cab sits over the engine on the chassis. The cabover is identified by the windshield being located directly over the front bumper and the driver is directly over the steering axle. Also called *flat-faced*, *butt-nosed*, or *Cab-over-engine* Cab-Over-Engine

(COE) A truck or tractor design in which the cab sits over the engine on the chassis. The cabover is identified by the windshield being located directly over the front bumper and the driver is directly over the steering axle. Also called *flat-faced* or *butt-nosed*.

#### Cab Plus

A type of pickup truck (by Mazda) which has a second row of seating; but unlike a <u>Crew cab</u> (which has four full size doors) it has a *half-door* that can be opened only after the main door is opened. The seating is usually a little more cramped than in a <u>Crew cab</u>. Also called <u>Club Cab</u>, <u>Extended Cab</u>, <u>King Cab</u>, <u>Xtracab</u>, <u>Access Cab</u>, <u>Supercab</u>

Cabriolet

French for *convertible*. A vehicle type similar to a sport coupé, it has a provision for converting to an open-type body (i.e., <u>convertible</u>). A <u>rumble seat</u> is a common on older vehicles, but not a mandatory feature. Mercedes-Benz distinguishes the cabriolet from the roadster in that the former has a soft-top which folds up while the roadster has a hard-top which is stored in the trunk. Also called a <u>Drophead coupé</u>.

**CAC** 

- Abbreviation for *Charge Air Cooler*
- Abbreviation for Citizens Advisory Committee

#### **CACIS**

Abbreviation for Continuous AC Ignition System

**CAD** 

Abbreviation for *computer aided design* software

Cadastral survey

Land survey, boundary delineation.

Caddy

An euphemistic name for <u>Cadillac</u> See

• Plug caddy

#### Cadence

The speed your bicycle pedals turn. Professional bicycle riders have cadence of over 100 rpm

## Cadence braking

A braking method in which the driver rapidly depresses and releases the brake pedal to bring a vehicle to an emergency stop much in the more effective way an ABS system works. Cadence braking in non-ABS brakes is effective in slippery conditions where the brakes tend to lock up. The driver applies the footbrake in a series of very rapid jabs at the pedal taking the wheels up to the point of brake locking and then releasing them before the inevitable fall-off in braking efficiency takes place. Produces improved braking in any extremely slippery conditions such as ice, snow, wet mud, or rain.

## Cadillac

Click image for books on Cadillac

The following Cadillacs are classic cars

- All 1925-35 models
- All 12-cylinder models
- All 16 cylinder models
- All 1938-41 60 Special models

- All 1936-48 series #63, #67, #70, #72, #75, #80, #85, #90
- All V-63 from 1923
- All 1940-47 62 Series

For a history of Cadillac, see <u>Cadillac History</u>. Models include the following:

- <u>Allanté</u> (1987-1993)
- Brougham (1985-1992)
- Calais (1965-1976)
- Castilian Station Wagon (1975-1976)
- <u>Catera</u> (1997-2001)
- Cimarron (1982-1988)
- commercial chassis (1935-83) used for funeral cars and ambulances
- <u>Coupe de Ville</u> (1949-93)
- CTS (2003-current)
- CTS-V (2004-current)
- DeVille (1949-2005)
- <u>DTS</u> (2006-current)
- Eldorado (1953-2002)
- <u>Eldorado Biarritz</u> (1956-64, 1976-91)
- Eldorado Brougham (1957-60)
- Eldorado Seville (1956-60)
- Escalade (1999-current)
- Escalade ESV (2003-current)
- Escalade EXT (2002-current)
- Fleetwood (1927-1996)
- Fleetwood Eldorado (1965-2003)
- Seventy-Five (1936-76)
- <u>Seville</u> (1975-2004)
- Sixty-one (1939-51)
- Sixty-Two (1940-64)
- Sixty Special (1938-1993)
- <u>SRX</u> (2004-current)
- STS (2005-current)
- STS-V (2006-current)
- XLR (2004-current)
- <u>XLR-V</u> (2006-current)

#### Cadmium cell

A reference voltage standard, giving 1.0186 V at 20°C. Also called *Weston standard cadmium cell*.

## Cadmium copper

A variety of copper containing 0.7 to 1.0% cadmium. Used for trolley, telephone, and telegraph wires because it gives high strength in cold-drawn condition combined with good conductivity.

## Cadmium photocell

A photoconductive cell using cadmium disulfide or cadmium selenide as the photosensitive semiconductor. Sensitive to longer wavelengths and infrared. It has a rapid response to changes in light intensity.

## Cadmium-plated

Something that is covered with a coating of cadmium. It is usually used to protect aluminum and steel nuts and bolts

#### Cadmium red line

Spectrum line formerly chosen as a reproducible standard of length, wavelength 643.8496 nm.

#### CAE

- 1. Abbreviation for Computer Aided Engineering
- 2. Abbreviation for <u>Cab Aside Engine</u> -- a vehicle with a cab off to one side of the engine as seen on refuse trucks and some construction equipment. The cab is designed for only the driver.

#### Caesium

British spelling for Cesium

### **CAFE**

Abbreviation for <u>Corporate Average Fuel Economy</u>. Under CAFE, which was enacted in 1975, a motor vehicle manufacturer must place its U.S. automobile and light truck fleet sales in one of two vehicle fleets, either domestic or import, for fuel economy averaging purposes. It became effective in 1978 where the average was supposed to reach a minimum of 18 mpg and was scheduled to reach 19 mph in 1979 and 20 mpg in 1980.

## Café chop

Converting a stock motorcycle into a café racer is known as doing a café chop on a bike Café racer

- 1. Motorcycle modified to resemble racing motorcycles from the 1950s and 60s. They are called *café racers* because their owners supposedly raced from café to café in London, where the bikes first appeared in the 1960s
- 2. An early <u>sportbike</u> motorcycle which originated in Europe. They had a low <u>windshield</u> and the rider was bent forward to optimize the flow of air. Its name came from those who raced from one restaurant (café) to another.

### Cage

- 1. Any enclosure.
- 2. On a front derailleur of a
- 3. bicycle, it is a pair of parallel plates that push the
- 4. chain from side to side; on a rear
- 5. derailleur, it is a set of plates in which
- 6. Pulleys are mounted to hold and guide the
- 7. chain from Cog to cog.
- 8. Any device for holding or securing something, e.g., a bottle cage on a
- 9. bicycle.

- o Bottle Cage
- 10. When referring to bearings, it is the part which holds the balls or
- 11. rollers in place. Usually called
- 12. Ball cage.

### See

- o Needle cage
- o Roller cage
- Squirrel Cage
- 13. When referring to a vehicle, it is the safety enclosure called a
- 14. Roll cage.

## See

- o <u>Differential cage</u>
- o Integrated roll cage
- Multi-reed cage
- 15. The platform on which goods are hoisted up or lowered down a vertical shaft or guides; in mines, the steel box used to raise and lower workers, materials, or tubs. May have two or three decks.

## Cage pedal

### Cage Pedal

A bicycle pedal that is surrounded by a cage. It is found on all terrain bikes.

# Cage rotor

A form of rotor, used for induction motors, having on it a <u>Cage winding</u>. Also called *squirrel-cage rotor*.

## Cage winding

A type of winding used for rotors of some types of induction motors, and for the starting or damping windings of synchronous machines. It consists of a number of bars of copper or other conducting materials, passing along slots in the core and welded to rings at each end. Also called *squirrel-cage winding*.

## Cailletet's process

A method for the liquefaction of gases based on the free expansion of a gas from a higher to a lower pressure.

### **CAJAD**

Abbreviation for Canadian Association of Japanese Automobile Dealers

#### Cake

The rectangular casting of copper or its alloys before rolling into sheet or strip.

Cal

Abbreviation for Calorie

CAL

Abbreviation for Computer Aided Lighting

Calais

Click image for books on Oldsmobile Calais

A model of automobile built by Oldsmobile from 1985-91

#### Calandria

Closed vessel penetrated by pipes so that liquids in each do not mix. In evaporating plant the tubes carry the heating fluid and in certain types of nuclear reactor, e.g., <u>CANDU</u> reactors, the sealed vessel is called a calandria

### Calcination

A process in which a material is heated to a high temperature without fusing, so that hydrates, carbonates, or other compounds are decomposed and the volatile material is expelled.

### Calcium chloride

- 1. A chemical (salt) which is added to water in a <u>liquid ballast</u>.
- 2. A soluble compound produced from calcium carbonate and hydrogen chloride generally used in cold temperatures (18° -10°C) to deice roads or to pre-wet salt before applying to roads.

### Calcium magnesium acetate

A compound produced from limestone and acetic acid used for anti-icing and deicing of roads. It is less corrosive than salt, but more expensive.

### Calcium sulfate

Chemical compound (CaSO<sub>4</sub>), which is used as a drying agent or desiccant in liquid line driers

See

• Anhydrous calcium sulphate

### Calcium tungstate screen

A fluorescent screen used in a cathode-ray tube; it gives a blue and ultraviolet luminescence.

#### Calculation

See

• Load distribution calculation

### Calendering

A thin layer of rubber inside the <u>Tire casing</u> which covers the carcass cords to protect them from moisture and to protect the tube from chafing by the cord body. In tubeless tires, calendering consists of a layer of air proof <u>Butyl</u> rubber.

#### Caliber

Also spelled calibre

- 1. The internal diameter or bore of a pipe, esp. the barrel of a fire-arm.
- 2. The arrangement of the various components of a watch or clock.

#### Calibrate

- 1. As applied to test instruments it is the procedure of adjusting the dial
- 2. Needle to the correct zero or load setting to determine accurate measurements.
- 3. Position indicators to determine accurate measurements

## Calibrated airspeed

(CAS) In automobiles, speed is calculated by the rotation of the driving axle. In an airplane, however, speed is determined by the amount of air rushing past the plane. In a turn, air will rush past faster on one side than the other. Calibrated airspeed makes adjustment for this factor (called position error) and for any error in the instrument. Also called *rectified airspeed* 

#### Calibration

Marking the measuring units on an instrument or checking their accuracy

# Calibration assembly

A memory module that plugs into an on-board computer and contains instructions for engine operation

## Calibration oil

Oil which is used in a tester for checking injection nozzles, meeting SAE J967D specifications

#### Calibration Unit

See

• Engine Calibration Unit

#### Calibre

See

Caliber

### California Air Resources Board

(CARB) The state agency that regulates the air quality in California. Air quality regulations established by CARB are often stricter than those set by the federal government.

California Low-Emission Vehicle Program

State requirement for automakers to produce vehicles with fewer emissions than current EPA standards. The five categories of California Low-Emission Vehicle Program standards from least to most stringent are TLEV, LEV, ULEV, SULEV, and ZEV.

# California Pilot Program

Federal program, administered by the EPA under the Clean Air Act, which sets lower emission standards (relative to cars in the general U.S. market) for a set number of new passenger cars and light trucks sold in California. The program specified that at the beginning of 1996, there would be the sale of 150,000 clean vehicles in the state. Beginning in 1999, this was to increase to 300,000 annually. California must mandate availability of any fuel necessary to operate clean fuel vehicles.

## California Power Exchange

A State-chartered, non-profit corporation which provides day-ahead and hour-ahead markets for energy and ancillary services in accordance with the power exchange tariff. The power exchange is a scheduling coordinator and is independent of both the independent system operator and all other market participants.

# California top

A solid top with sliding glass windows on a touring car to replace the standard folding top in order to provide better weather protection.

## California wheel

A name given to a spoked wheel produced by particular manufacturer. Although the wheel is popular in the East and Midwest of United States, it is not common in California or other Western states.

## Caliper

1.

Click image to supersize Caliper

The clamping device on <u>disc brakes</u> which straddles the rotating disc and by hydraulic action it presses the pads against the disc to stop or slow the vehicle.

- o Brake caliper
- Floating caliper disc brake

- Fixed Caliper
- o Four Piston Caliper
- o Low-drag Caliper
- o Single-piston Caliper
- o Sliding Caliper
- o Pin slider caliper disc brake
- Swinging caliper

2.

# Bicycle Caliper

On <u>bicycles</u>, the brake arms that reach around the sides of a wheel to press <u>brake</u> <u>pads</u> against the wheel rim.

3.

# Caliper

(British spelling is *calliper*). An adjustable measuring tool that is placed around (<u>outside caliper</u>) or within (<u>inside caliper</u>) an object and adjusted until it just makes contact. It is then withdrawn and the distance measured between the contacting points.

### See

- Dial caliper
- o Digital caliper
- o Inside Caliper
- o <u>Inside spring caliper</u>
- Machinists' caliper
- Outside Caliper
- Outside spring caliper
- o Pocket caliper
- Pocket slide caliper
- Vernier caliper

## Caliper diameter

The distance measured between one tooth gap and the nearest opposite gap for a sprocket with an odd number of teeth.

## Caliper disc

- Floating caliper disc brake
- Pin slider caliper disc brake

## Caliper disc brake

See

- Floating caliper disc brake
- Pin slider caliper disc brake

## Caliper gauge

A <u>caliper</u> (definition #3)

## Caliper mounting bracket

The component that connects a brake caliper to the steering knuckle, hub carrier, or rear axle

## Calk

To fill seams in a wood deck with oakum or hammer the adjoining edges of metal together to stop leaks. Also spelled *caulk* 

### Calking

See

• <u>Caulking</u>

Call

See

Close call

#### Call Distribution

See

• Automatic Call Distribution

## Calliper

Alternate spelling for <u>caliper</u>

#### Cal-look

A style modification of small vehicles which first started in California. Most of the chrome is removed and the vehicle is painted a bright color like yellow, light blue, and red.

#### Call-out

The mobilization of plow operators to initiate snow and ice control activities Calorescence

The absorption of radiation of a certain wavelength by a body, and its re-emission as radiation of shorter wavelength. The effect is familiar in the emission of visible rays by a body which has been heated to redness by focusing infrared heat rays onto it.

#### Calorie

Two different calorie units are used by scientists.

- 1. The calorie used by medical science is a small heat unit. It equals the heat required to raise the temperature of one gram of water one degree Celsius. (251,996 calories = 1 Btu)
- 2. The calorie used by engineering science is a large heat unit. It is equal to the amount of heat required to raise the temperature of one kilogram of water one degree C.

In the <u>SI</u> system it is recommended that the <u>Joule</u> unit of energy be used in place of the calorie

### Calorific value

A measure of heating value of fuel. Amount of heat produced by the complete combustion of a unit weight of fuel. Usually expressed in calories per gram or BTU's per pound, the latter being numerically 1.8 times the former.

#### Calorimeter

An instrument to measure amount of heat given off by a substance when burned See

• Bomb Calorimeter

### CAM

Abbreviation for Computer Aided Manufacturing

Cam

1. A designed bump on a shaft or <u>disc</u> which causes a rocking motion in an adjacent part.

See

- o camshaft
- 2. A metal <u>disc</u> with irregularly shaped lobes used in the <u>camshaft</u> to activate the opening and closing of the valves and in the <u>distributor</u>, to force the points to open.
- 3. A stepped or curved eccentric wheel mounted on a rotating shaft. As a cam is turned, objects in contact with it are raised or lowered.
- 4. The triangular piece of metal that fits between the rollers on rollercam bicycle brakes and moves the brake arms when the brake lever is squeezed
- 5. A colloquial name for the <u>camshaft</u>.
- 6. A name for the breaker cam.

- Adjuster cam
- Adjusting Cams
- Barrel Cam
- breaker Cam
- Closing cam

- Distributor cam
- Double overhead cam
- Exhaust cam
- Face Cam
- Fast idle cam
- Floating cam
- Full Cam
- Inlet cam
- Intake cam
- Race Cam
- Semi-race Cam
- Single Overhead Cam
- Single-overhead cam
- Three-quarter Cam

## Cam-and-lever steering

A steering system in which a conical peg mounted on a lever engages in a helically cut groove on a cylindrical drum. Also called *cam-and-peg steering* 

Cam-and-peg steering

See

• <u>Cam-and-lever steering</u>

## Cam-and-roller steering

A steering system in which a tapered disc or a set of discs or rollers engage with a helically cut, tapered groove on a cylindrical drum

Cam angle

See

Dwell

### Camaro

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Camaro

A series of <u>Pony</u> cars from the <u>Chevrolet</u> division of <u>General Motors</u> produced from 1967 to 2002. It is often misspelled as *Camero* because of a mispronunciation. It should be pronounced *ka-MAH-roh*, not *ka-MERR-oh*. The 1967-69 SS/RS V-8 and Z-28 models are <u>Milestone cars</u>.

Cam belt

See

• Timing belt

#### Camber

- 1. The rise of a deck of a ship,
- 2. Athwartship

3.

#### Camber

A wheel <u>Alignment</u> adjustment of the inward or outward tilt on the top of the wheel when viewed from the front of the vehicle. Tipping the top of the wheel center line outward produces

4. <u>Positive camber</u>. Tipping the wheel center line inward at the top produces <u>Negative camber</u>. When the camber is positive, the tops of the tires are further apart than the bottom. Correct camber improves handling and cuts tire wear. Camber is measured in degrees.

#### Cambered axle

An axle that has a slight arch which curves upward at the center so that the wheels can tilt outward at the top. In this way it is better than an axle which might sag under load.

#### Camber thrust

The side force generated when a tire rolls with <u>Camber</u>. Camber thrust can add to or subtract from the side force a tire generates.

#### Cam bolt

A bolt fitted with an eccentric that will cause parts to change position when the bolt is turned.

#### Cam chain

A <u>Timing chain</u> which controls the overhead camshaft. It runs between the crankshaft and camshaft.

## Cam design

See

• Cam profile

#### Camel

A padded fender to keep a vessel away from a pier or quay to prevent damage to the hull or pier

#### Camelback

Uncured retread rubber in crescent shape, available in various widths and depths according to size and type of tire being retreaded.

See

• Die size

## Camelbak®

### Camelbak

A brand name for a hydration pack that fits on the back of a cyclist or hiker. It is filled with water and has a tube placed within reach for supplying water for the user.

## Camel Grand Touring Prototype

(GTP) An International Motorsports Association's (IMSA) premier racing category until 1993 when it was replaced by the controlled cars World Sports Car Championship. GTP cars were the most powerful and the fastest on most road racing circuits in North America at that time. Over the years, many automakers fielded factory teams in this series including Ford, Toyota, Jaguar, Nissan, and Porsche.

### Cam engine

See

• Overhead camshaft

#### Camera

Trucker slang for Police radar unit as in 'There's a local yokal with a camera just ahead.' See

- Boys Camera
- Automatic Camera

#### Camero

See

Camaro

### Cam face

The surface of a cam lobe

Cam follower

#### Cam Follower

The unit that contacts the end of the <u>Valve stem</u> and the <u>camshaft</u>. The follower rides on the <u>camshaft</u> and when the <u>Cam lobes</u> move it upward, it opens the valve. Also called <u>Valve lifter</u> or *tappet*.

### Cam grind

- 1. A type of brake shoe arcing that produces a lining thinner at its ends than at its center.
- 2. The intake and exhaust timing of a particular cam profile.

### Cam ground piston

See

• Cam-ground piston

## Cam-ground piston

A <u>piston</u> with a <u>Skirt</u> that is ground slightly egg-shaped or oval-shaped. The widest diameter of the skirt is at right angles to the piston-pin axis. When it is heated, it becomes round. The design allows for a closer fit in the <u>cylinder</u> so that there is a reduction of <u>Blowby</u> gas, cylinder scuffing, and <u>Piston slap</u>.

#### Cam heel

The lowest point of a cam opposite the lobe. Also called Base circle

#### Cam lobe

See

Cam lobes

### Cam lobes

The bumps on a camshaft that contact and activate such devices as the <u>Lifters</u>, which operate the valves, and the <u>Rubbing block</u>, which causes the points to open and close, as the cam spins with the <u>Distributor shaft</u>.

## Cam lubricator

A device, often in the form of a wick, for lubricating the contact breaker cam in the distributor

### Campaigning

Racing a particular vehicle for an entire season.

### Camper

## Camper

A structure which fits into a truck bed for camping purposes. It usually has beds and possibly cooking and washing facilities. Also called a <u>Truck camper</u> or *slide-in camper*. See

- Slide-in Camper
- Truck Camper

## Camping

See

• Folding camping trailer

### Camping trailer

A trailer containing camping equipment.

## See

- Folding camping trailer
- Soft-top trailer
- Hard-top trailer
- Trailer

# Cam plate

Flat plate with slots that engage pins on the shift forks. As the plate is rotated, slots cause shift forks to move sliding gears or dogs, causing engagement and disengagement of transmission ratios.

## Cam profile

The shape of each lobe on a <u>camshaft</u>. These shapes determine when the valves open or close.

Cam pulley holder

Click image to supersize Cam Pulley Holder

A tool for securing the camshaft when other adjustments are being made.

## Cam/rocker

See

• Opening cam/rocker

## Cam/rocker

See

• Opening cam/rocker

### Cam roller

Rotating wheel acting as a cam follower

Camry

Click image for books on Camry

A model of automobile manufactured by Toyota Camshaft

#### Camshaft

A shaft with <u>Cam lobes</u> (bumps) which is driven by gears, a belt, or a <u>Chain</u> from the <u>crankshaft</u>. The lobes push on the <u>Valve lifters</u> to cause the valves to open and close. The camshaft turns at half the speed of the <u>crankshaft</u>.

See

- Double-overhead cam
- Exhaust camshaft
- Inlet camshaft
- Intake camshaft
- Overhead camshaft
- Race camshaft
- Three-quarter race camshaft
- Single Overhead Camshaft
- Single-overhead camshaft
- Twin camshaft

## Camshaft bearing

Usually a plain bearing which supports the camshaft

## Camshaft drive

A connection between the crankshaft and camshaft by means of gears, chain, drive belt, shaft, or eccentric shaft to maintain the ratio of 12.

#### Camshaft drive belt

A Timing belt

### Camshaft drive sprocket

A sprocket attached to a crankshaft (either at one end or somewhere in the middle) which drives the camshaft with the use of a chain

# Camshaft end play

The amount of lateral movement of the camshaft once it is installed

### Camshaft engine

See

• Twin camshaft engine

### Camshaft gear

A gear that is used to drive the <u>camshaft</u>.

# Camshaft housing

That part of the engine which encloses the camshaft and often other parts of the valve train.

## Camshaft journal

That part of the camshaft that runs in one of its bearings

# Camshaft position sensor

(CMP) A detection device that signals to the (<u>ECU</u>) the rotational position of the camshaft. This enables the computer to more precisely time the fuel injection and ignition system for faster starting of the engine.

# Camshaft pulley

The pulley on the end of the camshaft for the camshaft drive belt Camshaft sensor

- 1. A detection device that signals to the (<u>ECU</u>) the rotational position of the camshaft. This enables the computer to more precisely time the fuel injection and ignition system for faster starting of the engine.
- 2. A trigger device found on some distributorless ignition systems that synchronizes when the proper ignition coil should be fired.

## Camshaft sprocket

The sprocket on the camshaft which (through a chain) is driven by the <u>Camshaft drive</u> <u>sprocket</u>

# Camshaft timing

The relationship between the opening and closing of the valves and the movement of the pistons must be coordinated. The camshaft which operates the valves must therefore turn in relation to the crankshaft by means of a timing belt or timing chain.

## Camshaft timing belt

The rubber belt that transfers power from the crankshaft to the camshaft to operate it. The belt must be installed so it maintains the relationship between the camshaft and crankshaft so the valves for each cylinder open and close at the right time for proper engine operation, a factor called camshaft timing

## Camshaft timing chain

The metal chain that transfers power from the crankshaft to the camshaft to operate it. The chain must be installed so it maintains the relationship between the camshaft and crankshaft so the valves for each cylinder open and close at the right time for proper engine operation, a factor called camshaft timing

## Can

- 1. A tube in a canned motor pump which insulates the motor winding.
- 2. A muffler.
- 3. A container for liquid or other substances.

- o Safety Can
- o Tin Can
- o Oil can

## Canada-U.S. Free Trade Agreement

(FTA) Implemented in January 1989 to eliminate all tariffs on U.S. and Canadian goods by January 1998 and to reduce or eliminate many non-tariff barriers.

# Canadian Automotive Repair and Service Council

(CARS) A not-for-profit organization established to serve the human resource and training needs of the Canadian car and truck repair and service industry.

## Canadian cross border shopping

Cross border shopping describes the purchasing by Canadian consumers of products in the United States. Of particular interest is the decision by these buyers to obtain their products in the U.S., even though similar products are available in the Canadian market.

### Canadian Deuterium Uranium Reactor

(CANDU) Uses heavy water or deuterium oxide (D2O), rather than light water (H2O), as the coolant and moderator. Deuterium is an isotope of hydrogen that has a different neutron absorption spectrum from that of ordinary hydrogen. In a deuterium-moderated-reactor, fuel made from natural uranium (0.71 U-235) can sustain a chain reaction.

## Canadian Environmental Protection Act

(CEPA) act where the goal is pollution prevention and protection of Canadians from toxic substances.

### Canadian Gas Association

(CGA) A trade organization representing all segments of the gas industry in Canada. Founded in 1907, it specifically represents distributors, transmission companies, producers, pipeline contractors, manufacturers and allied service organizations. CGA set up a standards writing, inspection and product certification program in the mid 1950's at a time when natural gas was being extended to Eastern Canada and the West Coast. CGA has been accredited by the National Standards Council of Canada to prepare National Standards of Canada in the area of equipment for use with natural gas and propane.

### Canadian Standards Association (CSA)

The organization that sets safety standards for electric motors and other electrical equipment used in Canada

## Canadian Value Added

See

• Auto Pact Canadian Value Added

#### Cancellation

See

• Noise cancellation

#### Candela

(cd) A basic unit of luminous intensity. If, in a given direction, a source emits monochromatic radiation of frequency  $540 \times 10^{12}$  Hz, and the radiant intensity in that direction is 1/683 watt per <u>Steradian</u>, then the luminous intensity of the source is 1 candela.

## Candle

# • <u>Candle power</u>.

## Candle power

A measurement of the light producing ability of a light **Bulb**.

#### Candlestick barriers

Plastic poles used to channel traffic. Normally used in long-term traffic control in lieu of orange drums in tight construction areas.

### **CANDU**

Abbreviation for Canadian Deuterium Uranium Reactor

# Candy apple paint

A bright color (usually red) paint (often with metal flakes) with a transparent clear coat Candy paint

A bright color (usually red) paint (often with metal flakes) with a transparent clear coat Candy store

An automobile dealership with lots of vehicle inventory.

#### Canister

A small metal box or can. Usually refers to a container in an emission control system that contains charcoal to trap fuel vapors from the fuel system

See

- Activated carbon canister
- Charcoal canister

### Canister air filter

A Centrifugal force air filter

## Canister purge shut-off valve

(CPSOV) a vacuum-operated valve that shuts off canister purge when the air injection diverter valve dumps air downstream

## Canister purge solenoid

An electrical solenoid that opens the canister purge valve between the fuel vapor canister line and the intake manifold when energized

### Canister purge valve

Valve used to regulate the flow of vapors from the evaporative canister to the engine Canned motor pump

A glandless pump with a special type of submersible or *canned* motor, whose stator winding is insulated from the fluid pumped by a tube, the so-called can

#### Cannibalize

The action of removing good parts from one vehicle in order to put them into another vehicle.

## Canning

The insertion of the catalyst element into the converter shell of a catalytic converter Cannular combustion chamber

A gas turbine combustion system with individual flame tubes inside an annular casing. Canonical assembly

Term used in statistical thermodynamics to designate a single assembly of a large number of systems

## Canopy

- 1. The transparent cover of a cockpit.
- 2. The fabric (nylon, silk, or cotton) body of a parachute, which provides high air drag. Usually hemispherical, but may be lobed or rectangular in shape.

#### **CANP**

Abbreviation for *canister purge* solenoid that opens the fuel vapor canister to the intake manifold when energized

#### Cant

Slope of rail or road curve whereby outer radius is superelevated, to counteract centrifugal thrust of traffic.

#### Cant beam

Beams supporting the deck plating in the overhanging portion of the stern.

#### Canted deck

The flight deck of an aircraft carrier prolonged diagonally from one side of the ship, so that aircraft may fly off and land on without interference to or from aircraft parked at the bows. The British term is Angled deck

## Cant frame

A frame connected at the upper end to the cant beams

#### Cantilever

An arm that projects from a source and supports cables.

See

Cantilever brake

#### Cantilever brake

- 1. A bicycle Rim brake with pivoting arms mounted on Fork blades or
- 2. <u>Seatstays</u> at or below rim level. The two brake arms are connected by a straddle cable with the brake cable attached to the midpoint of the straddle cable.
- 3. A type of ATB brake characterized by having the two brake arms connected by a straddle cable with the brake cable attached to the midpoint of the straddle cable. This type of brake was used on ATB bicycles (as well as tandems, touring, and cyclocross bicycles) before the invention of the V-Brake

### Cantilever brakes

See

• Cantilever brake.

#### Cantilever bridge

A bridge formed of self-supporting projecting arms built outward from the piers and meeting in the middle of the span, where they are connected together.

Cantilever deck

A bridge where the deck slab is fixed above the main beams or trusses and is cantilevered beyond the outer beams or trusses.

#### Cantilever load

A load which tends to impose a radial force (perpendicular to the shaft axis) on an electric motor or gearmotor output shaft

# Cantilever spring

- 1. A leaf spring which is mounted upside down and attached to the vehicle at its mid-point. This system is no longer in use in modern vehicles.
- 2. A Quarter-elliptic leaf spring

### Cantrail

The Roof rail

## Canvas top

The convertible top.

## Canyon

A nuclear energy term for a long narrow space often partly underground with heavy shielding for essential processing of wastes from reactors.

## Cap

- 1. A protective round cover which is secured to something.
- 2. A covering over the bed of a truck.
- 3. The base of a light bulb which fits into a socket.
- 4. Cleaner air package system for reducing the amount of unburned
- 5. <u>hydrocarbons</u> in the automobile
- 6. exhaust.

- Battery cap
- Bayonet cap
- Bearing cap
- Big-end cap
- Breast Cap
- Car cap
- Cold cap
- <u>Distributor cap</u>
- Double cap nut
- Dust cap
- End cap
- External mix air cap
- Filler cap
- Flip-top filler cap
- Fuel cap
- Full cap
- Gas Cap

- Hot cap
- Hubcap
- <u>Idle Limiter Cap</u>
- <u>Inner cap nut</u>
- <u>Insulating cap</u>
- Internal mix air cap
- Net cap cost
- Oil filler cap
- Orifice Cap
- Outer cap nut
- Pile caps
- Plug cap
- Pressure cap
- Pressure-vacuum Cap
- Radiator cap
- Roto cap
- Spark plug cap
- Spindle cap
- Top cap
- Valve cap
- Valve spring cap

## Capable of being fueled

A vehicle is capable of being fueled by a particular fuel(s) if that vehicle has the engine components in place to make operation possible on the fuel(s). The vehicle does not necessarily have to run on the fuel(s) in order for that vehicle to be considered capable of being fueled by the fuel(s). For example, a vehicle that is equipped to operate on either gasoline or natural gas but normally operates on gasoline is considered to be capable of being fueled by gasoline and natural gas.

## Capacitance (c)

- 1. The property which opposes any change in <u>voltage</u> in an electrical circuit. The property of a nonconductor by which it stores electrical energy when separated surfaces of the nonconductor are maintained at a difference of <u>potential</u>. Capacitance is measured by the ratio of the charge induced to the potential difference and is proportional to the area of the conducting plates and the dielectric constant of the nonconducting material, and inversely proportional to the separation of the plates (mks unit farad).
- 2. Property of a nonconductor (condenser or capacitor) that permits storage of electrical energy in an electrostatic field.
- 3. Of an isolated conductor, the ratio of the total charge on it to its potential; C=Q/V.

See

Farad

## Capacitance bridge

An ac bridge network for the measurement of capacitance.

## Capacitance coupling

Interstage coupling through a series capacitance or by a capacitor in a common branch of a circuit.

# Capacitance grading

Grading of the properties of a dielectric, so that the variation of stress from conductor to sheath is reduced. The inner dielectric has the higher permittivity. Ideally, the grading is continuous and the permittivity varies as the reciprocal of the distance from the center.

## Capacitance integrator

Resistance-capacitance circuit whose output voltage is approximately equal to the time integral of the input voltage.

# Capacitative load

Terminating impedance which is markedly capacitative, taking an ac leading in phase on the source emf, e.g., electrostatic loudspeaker.

## Capacitative reactance

Impedance associated with a capacitor. Has a magnitude in ohms equal to the reciprocal of the product of the capacitance (in farads) and the angular frequency of the supply (in rads  $\rm s^{-1}$ ). Also introduces a 90° phase angle such that the current through the device leads the applied voltage.

## Capacities

See

## • Fluid capacities

### Capacitive discharge

(CD) A type of <u>ignition system</u>. It can be either all-electronic or <u>breaker point</u> controlled. The primary power is drawn from the engine's <u>battery</u> and put into the CD power supply, where it is changed from 12 volts <u>Direct current</u> to about 300 volts of pulsating <u>Direct current</u> that is stored in a <u>capacitor</u> (<u>condenser</u>). The release of this energy through the <u>coil</u> is governed by a silicon-controlled <u>rectifier</u> (SCR). When the SCR switch is closed, the <u>voltage</u> stored in the <u>capacitor</u> is supplied to the <u>coil</u>, which acts as a voltage step-up <u>transformer</u> boosting firing voltage to around 30,000 volts to fire the plugs.

## Capacitive reactance

The opposition or resistance to an alternating current as a result of capacitance; expressed in ohms

## Capacitor

- 1. A device which gives <u>capacitance</u>, usually consisting of conducting plates or foil separated by layers of a dielectric. A <u>potential</u> difference applied across the plates induces a separation of charge centers in the dielectric, thus storing electrical energy.
- 2. Type of electrical storage device used in starting and/or running circuits on many electric motors
- 3. A device that, when connected in an alternating current circuit, causes the current to lead the voltage in time phase. The peak of the current wave is reached ahead

- of the voltage wave. This is the result of the successive storage and discharge of electric energy
- 4. A device which consists essentially of two conductors (such as parallel metal plates) insulated from each other by a dielectric and which introduces capacitance into a circuit, stores electrical energy, blocks the flow of direct current, and permits the flow of alternating current to a degree dependent on the capacitor's capacitance and the current frequency.

#### See

- Absorption capacitor
- Air Capacitor
- Blocking Capacitor
- By-pass Capacitor
- Ceramic Capacitor
- condenser
- Ignition capacitor
- Motor Capacitor

## Capacitor Condenser

See

• Dry Capacitor Condenser

# Capacitor controlled electronic ignition

See

- Electronic ignition system
- Capacitive discharge

# Capacitor discharge ignition (CDI)

See

• Capacitive discharge

#### Capacitor modulator

Capacitor microphone, or similar <u>Transducer</u>, which, by variation in capacitance, modulates an oscillation either in amplitude or frequency

## Capacitor motor

Single-phase induction motor with an auxiliary starting winding connected in series with a condenser (capacitor) for better starting characteristics.

# Capacitor-resistance law

(C-R law) Law relating to exponential rise or decay of charge on capacitor in series with a resistor, and, by extension, to signal distortion on long submarine cables.

## Capacitor start

Starting unit for electric motor using series capacitance to advance phase of current.

Capacitor-start motor

Motor which has a capacitor in the starting circuit

# Capacitron

See

• Band ignitor tube

# Capacity

- 1. The ability to contain or hold something.
- 2. Maximum production attainable under normal conditions. With regard to normal conditions, the company's operating practices are to be followed with respect to the use of production facilities, overtime, workshifts, holidays, etc.
- 3. The output of an electric motor or other electrical equipment.
- 4. The volume of fluid which a pump can handle.
- 5. A measure of the theoretical maximum amount of refrigeration-produced output, measured in tons or BTUs per hour
- 6. Refrigeration rating system. Usually measured in BTU per hour or watts.
- 7. Sometimes used to mean capacitance

- Ampere hour capacity
- Battery capacity
- Boiler Capacity
- Breaking Capacity
- Breathing capacity
- Bunker Capacity
- Carrying capacity
- Charge Capacity
- Energy
- Engine capacity
- <u>fuse</u>
- Maximum Regulation Capacity
- Net capacity
- Nominal capacity
- Oxygen Storage Capacity
- passenger capacity
- Ply rating
- Rated capacity
- Reserve capacity
- Seating capacity
- Specific Heat Capacity
- Top off
- Work capacity

## Capacity load

- 1. A trailer loaded to the maximum legal weight limit.
- 2. A load in a trailer that has reached its maximum available amount

## Capacity plan

A plan outlining the spaces available for fuel, <u>Cargo</u>, ballast, fresh water, etc, with guides on weight and volume for spaces at various drafts and displacements

## Capacity rating

See

• Rated capacity

## Cap-and-pin type insulator

A special form of the <u>Suspension insulator</u>

### Cap cost

See

- Capitalized cost
- Net cap cost

## Cap cost reduction

See

• Capitalized cost reduction

## Cape chisel

A metal cutting chisel shaped to cut or work in channels or grooves

## Capillarity

A phenomenon associated with surface tension, which occurs in fine bore tubes or channels.

## Capillary

A tube with a very small bore used for temperature gauges

### Capillary action

The property of a liquid to move into small spaces if it has the ability to wet these surfaces

## Capillary tube

A tube usually gas-filled, with a precisely calibrated length and inside diameter, used to connect the remote bulb or coil to the expansion valve or thermostat. A tube with a very small bore used for temperature gauges. Also called <u>Pressure sensing line</u>

# Capitalized

See

Net capitalized cost

### Capitalized cost

The total price of the vehicle, in effect, its purchase price. In theory, the cap cost should equal the amount you would pay for the vehicle if you were purchasing the vehicle. When a lease is made, the dealer sells that vehicle to the leasing company (for the cap cost), which then leases the vehicle to you. See

• Net capitalized cost

## Capitalized cost reduction

A fancy name for a cash down payment, money you pay up front that is applied to the final purchase price of a lease. A large cap cost reduction will, of course reduce the monthly payments, but it will also negate one of the big advantages of leasing. However, if you own your present car, you may be able to use it, as a trade-in, to satisfy the cap cost reduction to start the lease. Remember, you must pay sales tax on any cap cost reduction you make. Another source of capital cost reduction may be dealer or manufacturer participation. Dealers and manufacturers will sometimes lower the cap cost or offer a rebate that reduces the cap cost. A dealer or manufacturer cap cost reduction does lower your total out-of-pocket dollars, unlike a cap cost reduction that you must pay.

## Capital expenditures

Expenditures to acquire or add to capital assets that will yield benefits over several accounting periods. Included are cost of procuring, construction, installing new durable plants, machinery and equipment where for replacement, addition or for lease or rent to other companies including subsidies.

Cap nut

### Cap Nut

A threaded <u>nut</u> that is closed (blind) at one end often with a dome or acorn-shaped top. It is used to protect the projecting threads or to protect a person from being hurt by the sharp edge of projecting threads. Also called *box nut* or *dome nut*. See

- Double cap nut
- Inner cap nut
- Outer cap nut

## Capping

1. Installing a new tread on a tire carcass.

- Retread
- 2. Door molding or capping

## Caprice

Click image for books on Chevrolet Caprice

A model of automobile manufactured by the <u>Chevrolet</u> division of <u>General Motors</u> from 1967-92.

## Cap screw

A screw with a hexagon head, slotted head, square head, or socket head See

- Button socket head cap screw
- Socket head cap screw

## Capstan

- 1. A stump with a vertical axis used for handling mooring and other lines.
- 2. A vertical drum or spindle on which rope is wound, it is rotated by manpower or by a hydraulic or electric motor.
- 3. Roller providing the constant speed drive in a magnetic tape recorder.

## Capstan-head screw

A screw having a cylindrical head provided with radial holes in its circumference. It is tightened by a tommy bar inserted in these holes.

### Capstan lathe

A cutting device (lathe) in which the tools required for successive operations are mounted radially in a tool-holder resembling a capstan; by revolving this, each tool in turn may be brought into position in exact location.

## Capstan nut

A nut which is tightened in the same way as a <u>Capstan-head screw</u>

#### Capstan screw

A screw or bolt with a round head and one or more holes through it into which a bar may be inserted for securing or removing it

### Capstan winch

A winch, generally mounted on or just behind the front bumper, usually run from an engagable extension to the engine crankshaft. The active component is usually a slowly revolving drum, about 15 cm in diameter, round which a rope may be wound to effect a winching operation. Has the advantage of being powered by the engine at idling speed and being a very low-stress unit that may be used all day without overheating or high electrical load.

## Capstat

A wax-type thermostat at the base of the jet of a SU carburetor, which expands and reduces fuel flow when the underhood temperature rises. See

• Temperature compensator

## Capsule

See

- Altitude Correction Capsule
- <u>Vacuum capsule</u>

## Captive

Something that is permanently located in the desired position

## Captive balloon

A balloon anchored or towed by a line. Usually the term refers only to spherical balloons. Special shapes (e.g., for stability) are called *kite balloons* 

# Captive finance company

A <u>Leasing</u> or finance company which is affiliated with an automobile manufacturer or distributor.

## Captive import

An imported motor vehicle or part manufactured by another automaker usually for sale under the brand name of the importer.

## Captive nut

A nut which fits into a cage and is welded in place. This is done where the nut is not easily accessible.

# Captive Pallet

A pallet for the exclusive use of a particular facility or company

## Captive refinery MTBE plants

MTBE production facilities primarily located within refineries. These integrated refinery units produce MTBE from Fluid Cat Cracker isobutylene with production dedicated to internal gasoline blending requirements.

## Captive refinery oxygenate plants

Oxygenate production facilities located within or adjacent to a refinery complex. Captive screw

## Captive screw

A screw where the threads are a larger diameter than the shoulder

### Capture

Any process in which an atomic or nuclear system acquires an additional particle. In a nuclear radiative capture process there is an emission of electromagnetic radiation only, e.g., the emission of gamma rays subsequent to the capture of a neutron by a nucleus.

Cap wrench

Cap wrench

A cup-shaped tool used to fit on one end of an oil filter in order to install or remove the filter.

# Car

- 1. A wheeled vehicle such as an automobile, a section of a train, or a streetcar. The word is an abbreviation of <u>Carriage</u> -- a device to carry people or goods.
- 2. In an airship, the part intended for the carrying of the load (crew, passengers, goods, engines, etc.). It may be suspended below, or may be inside the hull of envelope.

- 49-state car
- Bubble car
- Champ car
- City car
- classic car
- Collector car
- Compact car
- Company car
- Competition car
- Concept car
- Cult car
- Cycle car
- Donor car
- Dream car
- Edwardian car
- Electric car
- Estate car
- Executive car
- Family car
- Fleet car
- Formula Car
- Forty-nine state car
- Full-size car
- Funny car
- Ghost Car
- Hybrid car
- Intermediate car
- Kit car
- <u>Large Passenger Car</u>
- Luxury car
- Mass-produced car
- Mid-size car
- milestone car Society
- milestone cars

- Motor car
- Multi-storey car park
- New car dealer
- Open car
- Pace car
- Parts car
- Passenger car wheel
- Passenger car
- Pony car
- Production car
- Program cars
- Recycling car
- Shopping car
- Solar car
- sports car
- Stock car
- Street car
- Sun car
- Supercar
- Touring car
- Town car
- Veteran car
- Vintage car
- Volume car

# Car accident

A collision between two or more vehicles (or between a vehicle and a stationary object), whether the vehicles are cars or trucks. Some are minor like a <u>Fender bender</u> while others are <u>Totalled</u>.

See

• Written off

# Car alarm

A chime, bell, siren, or horn that sounds when a problem exists (e.g., door ajar, seat belt undone, lights on after engine is off, key left in ignition switch, unauthorized entry)

#### Caravan

- 1. A group of vehicles (belonging to one organization) which follows after one another.
- 2. A British term for camping trailer or a mobile home.
- 3. The name of a minimal produced by Chrysler (Daimler-Chrysler) from 1983.

See

• Hard-sided Caravan

# Motor Caravan

# Caravanning

A British term for traveling with a camping trailer

#### Carb

An abbreviation for <u>carburetor</u>.

#### **CARB**

Abbreviation for *California Air Resource Board* -- The state agency that regulates the air quality in California. Air quality regulations established by CARB are often stricter than those set by the federal government.

# Car banger

A British term for a person or organization which fakes a <u>Car accident</u> in order to defraud an insurance company

# Car banging

The act of faking a Car accident in order to defraud an insurance company

# Carbide

A binary compound of metals with carbon. Carbides of group IV to VI metals (e.g., silicon, iron, tungsten) are exceptionally hard and refractory. In group I and II, calcium carbide (ethynide) is the most useful.

See

- Cementite
- Silicon carbide

# Carbide blade

A snowplow blade composed of a carbon compound that generally wears longer and requires less frequent changes than steel blades

# Carbide precipitation

Carbon that breaks loose from its bond within the stainless solution when material is heated between 427° - 760°C. Under severe corrosive conditions, it can result in extra oxidation and surface corrosion.

# Carbide tools

Cutting and forming tools used for hard materials or at high temperatures. They are made of carbides of tungsten, tantalium, and other metals held in a matrix of cobalt, nickel, etc., and are very hard with good compressive strength.

## Carb kit

A collection of gaskets, O-rings, jets, etc. to rebuild a carburetor

# Car blind

A curtain or pull-down covering for the <u>backlight</u> (i.e., rear window) to obscure the bright headlights of a following vehicle. Some are also used for side windows for privacy. It is generally illegal to use them on the driver's side window or the windshield.

#### Carbon

1. The hard or soft, black deposits found in the <u>combustion chamber</u>, on the plugs, under the rings, on and under the <u>Valve heads</u>, etc. Although it is not a metal, it is a good <u>conductor</u> of electricity.

- 2. An element which forms various kinds of steel when combined with iron. In steel, it is the changing carbon content which changes the physical properties of the steel. Adds strength to stainless steel, but also lowers corrosion resistance. The more carbon there is, the more chromium must be added, because carbon offsets 17 times its own weight in chromium to form carbides, thus reducing the chromium available for resisting corrosion.
- 3. Carbon is used in a solid form as an electrode for arc welding, as a mold to hold weld metal, or for motor brushes.

#### See

- Activated carbon
- Degradable Organic Carbon
- Elemental Carbon
- High carbon steel
- Low carbon steel
- Medium carbon steel
- Total Carbon

#### Carbon arc

An arc between carbon electrodes, usually limited to pure carbon rather than flame carbon electrodes

# Carbon-arc lamp

Obsolete light source from the arc between carbon electrodes.

# Carbon-arc welding

Arc welding carried out by means of an arc between a carbon electrode and the material to be welded.

#### Carbonate Fuel Cell

See

• Molten Carbonate Fuel Cell

## Carbon black

A by-product of the petroleum industry used as a pigment and to give body in the manufacture of rubber products, both natural and synthetic. Carbon is the black residue from burning petroleum.

# Carbon brush

A block of carbon to which a copper wire (or braided cable) is attached at one end and the other end rubs against a commutator, collector ring, or slip ring to transmit electricity Carbon brush spring

See

• Brush spring

# Carbon build-up

A deposit of burned oil which collects in the combustion chamber on the top of the piston and the head. Too much carbon build-up can lead to an inefficient engine and sticky valves.

#### Carbon button

See

• Carbon microphone

#### Carbon canister

See

• Activated carbon canister

# Carbon contact

In a switch, an auxiliary contact designed to break contact after and to make contact before the main contact to prevent burning of the latter; it is of carbon and designed to be easily removable.

# Carbon-core leads

High tension wire going from the distributor to the coil or the spark plugs. Each wire has a core of carbon or graphite rather than copper wire to conduct the electricity. Carboncore wire is not recommended for most small engines such as motorcycle engines.

# Carbon dating

Dating method which uses the fact that atmospheric carbon dioxide contains a constant proportion of radioactive  $C^{14}$ , formed by cosmic radiation. Living organisms absorb this isotope in the same proportion. After death it decays with a half-life of  $5.57x10^3$  years. The proportion of  $C^{12}$  to the residual  $C^{14}$  indicates the period elapsed since death. Also called *radiocarbon dating* 

# Carbon deposits

The residue of carbon from burning fuel, which can clog grooves in pistons, combustion chambers, and valves, and cause engine hesitation and other operational problems Carbon dioxide

(CO<sub>2</sub>) A colorless, odorless, non-toxic gas which is a product of breathing and the combustion process. Sometimes used as refrigerant. (Identified as Refrigerant #R-744)

# Carbon dioxide equivalent

The amount of carbon dioxide by weight emitted into the atmosphere that would produce the same estimated radiative forcing as a given weight of another radiatively active gas.

# Carbon dioxide laser

Laser in which the active gaseous medium is a mixture of carbon dioxide and other gases. It is excited by glow-discharge and operates at a wavelength of  $10.6 \, \mu m$ . Carbon dioxide lasers are capable of pulsed output with peak power up to  $100 \, MW$  or continuous output up to  $60 \, kW$ .

# Carbon-dioxide welding

Metal <u>arc welding</u> using CO<sub>2</sub> as the shielding gas.

# Carboned up

Covered with a thick deposit of carbon. In Britain it is called *coked up* 

Carbon fiber

- 1. A high-tech material favored in many motorcycle and bicycle applications because it is extremely strong, light and expensive. The distinctive look of carbon fiber has become trendy.
- 2. Threadlike strands of pure <u>carbon</u> that are strong and flexible. Carbon fiber can be bound in a plastic <u>resin</u> matrix to form a strong
- 3. <u>composite</u>. It is light-weight and stronger than steel. Can also be spelled *carbon fibre*.

#### Carbon fibre

A high-tech material favored in many motorcycle applications because it is extremely strong, light and expensive. The distinctive look of carbon fiber has become trendy. See

# • Carbon fiber.

# Carbon filter

An air filter using activated carbon as a cleansing agent

# Carbon fouling

The situation that occurs when the two electrical terminals of the spark plug are coated with carbon causing a reduction in efficiency leading to intermittent firing or complete failure.

# Carbon gland

A type of gland used to prevent leakage along a shaft. It consists of carbon rings cut into segments and pressed into contact with the shaft by an encircling helical spring or <u>Garter spring</u>

# Carbon intensity

The amount of carbon by weight emitted per unit of energy consumed. A common measure of carbon intensity is weight of carbon per British thermal unit (Btu) of energy. When there is only one fossil fuel under consideration, the carbon intensity and the emissions coefficient are identical. When there are several fuels, carbon intensity is based on their combined emissions coefficients weighted by their energy consumption levels.

# Carbonitriding

A process of <u>case hardening</u>

# Carbonization

The steeping of wool in a dilute solution of sulfuric acid, or its treatment by hydrochloric acid gas (dry process). This converts any cellulosic impurities into carbon dust and thereby facilitates their removal.

# Carbonize

Building up of carbon on objects such as spark plugs, pistons, heads, etc.

# Carbonized filament

Thoriated tungsten filament coated with tungsten carbide to reduce loss of thorium from the surface.

# Carbonizing

Another term for **Carburizing** or reducing

## Carbon knock

When there is a build-up of carbon in the combustion chamber, uncontrolled ignition will take place causing a knocking noise.

# Carbon microphone

A microphone in which a normally DC energizing current is modulated by changes in the resistance of a cavity filled by granulated carbon which is compressed by the movement of the diaphragm. The diameter of the cavity is frequently very much less than that of the diaphragm, and it is then known as a *carbon button*.

# Carbon monoxide

(CO) A deadly, colorless, odorless, and tasteless gas found in the engine <u>exhaust</u>. Toxic even in relatively small concentrations. Formed by incomplete burning of <u>Hydrocarbons</u>. Thus at its greatest with a rich mixture.

# Carbon pile voltage transformer

Variable electrical resistor made from disks or plates of carbon arranged to form a pile. Carbon pin

A thin cylinder of carbon located in the distributor cap to transfer high tension electricity from the coil to the rotor to the high tension leads going to the spark plugs.

#### Carbon resistor

Negative temperature coefficient, non-inductive resistor formed of powdered carbon with ceramic binding material. Used for low-temperature measurements because of the large increase in resistance as temperature decreases.

# Carbon Sequestration

- 1. The absorption and storage of CO<sub>2</sub> from the atmosphere by the roots and leaves of plants; the carbon builds up as organic matter in the soil.
- 2. The fixation of atmospheric carbon dioxide in a carbon sink through biological or physical processes.

#### Carbon steel

A steel whose properties are determined principally by the amount of carbon present and contains no other deliberate alloying ingredient except those necessary to ensure deoxidation and physical quality. Also called *plain carbon steel*. See

- High carbon steel
- Low carbon steel
- Medium Carbon Steel
- Steel

# Carbon tetrachloride

A liquid often used in fire extinguishers. The fumes are toxic -- avoid inhaling.

# Carbon tracking

A trace of carbon found inside the distributor cap which leads away some electricity, thus causing the engine to misfire.

# Carbon tracks

Fine lines from burned carbon (such as from oil film) that may be found in a distributor cap. Carbon tracks may cause engine misfire

# Carbonyl powders

Metal powders produced by reacting carbon monoxide with the metal to form the gaseous carbonyl. This is then decomposed by heat to yield powder of high purity.

# Carborundum

Trade name for Silicon carbide abrasives.

# Carborundum wheel

See

# • Grinding wheel

# Carboy

Large, narrow-necked container, usually of balloon shape, having a capacity of 201 or more.

#### Carbs

Abbreviation for carburetors.

See

# • Dual carbs

# Carburation

British term for Carburetion

#### Carburetion

The mixture of vaporized fuel and air in the proper proportions for combustion in an engine

See

Closed-Loop Carburetion

# Carburetor

Click image to supersize Carburetor

(Carb) Optionally spelled *carburetter* or *carburettor*. A device that <u>Vaporizes</u> fuel and mixes it with air in proper quantities and proportions to suit the varying needs of the engine. A <u>Filter</u> screens the air which is drawn into the carburetor. Here the <u>gasoline</u> mixes with the air and this fuel vapor enters the <u>combustion chamber</u> through the <u>intake valve</u> where it is compressed and burned.

# See

- Air valve carburetor
- Compound carburetor
- Double-barrel carburetor
- Downdraft carburetor
- <u>Downdraught Carburetor</u>
- Dual carbs
- Dual carburetors
- Feedback carburetor
- Fixed-choke carburetor
- Fixed-jet carburetor
- Flood the carburetor
- Four-barrel carburetor
- HIF carburetor
- Non-staged Carburetor
- Sidedraft carburetor
- Sidedraught Carburetor
- Single-barrel carburetor
- Slide carburetor
- Staged Carburetors
- Starting carburetor
- <u>Stromberg carburetor</u>
- SU carburetor
- Tamperproof carburetor
- Twin-choke carburetor
- Twin barrel carburetor
- Twin carburetors
- Two-stage carburetor
- Updraft carburetor
- Variable-venturi carburetor
- Weber Carburetor

# Carburetor Actuator

See

• Feedback Carburetor Actuator

# Carburetor adapter

An adapter that is used to fit or place one type of <u>carburetor</u> on an <u>intake manifold</u> that may not be originally designed for it. Also used to adapt four-barrel <u>carburetors</u> to two-barrel manifolds.

# Carburetor air horn

See

• Air horn

#### Carburetor barrel

The tube-like part of the vehicle through which air flows and is mixed with <u>Vaporized</u> fuel. The <u>choke butterfly</u> valve is located at the top of the <u>carburetor</u> barrel, and the <u>Throttle valve</u> is located at the bottom. Midway through, the barrel narrows, and this part is called the <u>Venturi</u>. Carburetors can have one, two, or four barrels.

# Carburetor base

The lower part of the carburetor in which the throttle plate is located Carburetor circuit

A series of passageways and units designed to perform a specific function <u>Idle circuit</u>, full power circuit, etc.

# Carburetor circuits

See

# • Carburetor circuit

# Carburetor cleaner

A petroleum solvent for cleaning the carburetor

# Carburetor engine

A combustion engine which uses a carburetor instead of fuel injection.

# Carburetor fuel bowl

A small fuel storage area in the carburetor, located at the carburetor fuel inlet. Also called the float bowl because it contains the carburetor float

#### Carburetor fuel bowl vent

A vent on the <u>float bowl</u>. It typically is connected to an <u>Carbon canister</u>, which absorbs vapors when the engine is off, and it also may be vented to the atmosphere when the engine is running.

# Carburetor fuel filter

# Carburetor Fuel Filter

A filter made of pleated paper or sintered bronze that is mounted into the body of the carburetor at the float bowl fuel inlet. It is held in place by the fuel hose/pipe fittings. On some cars, a small <u>in-line filter</u> is screwed directly into the carburetor's fuel inlet. Also called an <u>integral fuel filter</u>.

#### Carburetor fuel inlet

A threaded fitting on the side of the carburetor to which tubing from the <u>fuel pump</u> is connected. Fuel enters the carburetor at this point.

# Carburetor icing

The formation of ice on the <u>Throttle plate or valve</u> during certain atmospheric conditions. As the fuel <u>Nozzles</u> feed fuel into the <u>Air horn</u> it turns to a vapor. This robs heat from the air and when weather conditions are just right (fairly cool and quite humid) ice may form. See

# • Icing

# Carburetor jet

A fitting (usually brass) located inside a carburetor that permits a measured amount of fuel which is mixed with air going into the combustion chamber. Some look like a small brass screw with a hole in the center; others look like a long wide needle with holes along the sides; others look like a thin tapered needle.

# Carburetor kit

A collection of gaskets, O-rings, jets, etc. to rebuild a carburetor. Also called a *carb kit*. Carburetor throat

See

Venturi

## Carburetor venturi

See

Venturi

#### Carburetter

British spelling for carburetor.

# Carburettor

See

• carburetor

# Car burglar

A person who steals object from a car, but does not steal the car itself. See

Car thief

# Carburization

The process of creating carbon steel by increasing the carbon content of steel to reach the desired degree of hardness

#### Carburizing

- 1. A carburizing flame in welding terms is an oxygen-fuel gas flame with a slight excess of the fuel gas.
- 2. A method of <u>Case-hardening</u> low carbon steel in which the metal component is heated above its ferrite-austenite transition in a suitable carbonaceous atmosphere. Carbon diffuses into the surface and establishes a concentration gradient. The steel can subsequently be hardened by quenching either directly or after reheating to refine the grain structure. It is usually lightly tempered afterwards, producing a hard case over a tough core.

Car cap

A waterproof cover which encloses just the <u>Greenhouse</u> (i.e., the roof, windshield, side glass, and <u>Backlight</u>)

# Car care product

One of several items for taking care of the outward finish of the car (i.e., cleaners, polish, wax, preservers) as well as the interior pieces (e.g., <u>instrument panel</u> cleaners, upholstery cleaners and sealers)

#### Carcass

The primary structure of a tire body with its cords, plies, rim wires, etc. apart from the tread itself. Structurally the carcass should hold air and provide strength to the tire, but would not wear well without the tread.

# Carcinogens

Chemicals and other substances known to cause cancer.

# Car Club of America

See

• Classic Car Club of America

#### Car cover

A cover which encloses the entire vehicle to protect the finish from the elements.

# Car crash

A Car accident

# Card

The graduated dial or face of a magnetic compass to which the card and needle are firmly connected.

See

File card brush

# Cardan

See

• Cardan joint

# Cardan joint

# Cardan Joint

A type of <u>Universal joint</u> named after the Italian Cardan who developed the concept in the 16th century. In the 17th century, Robert Hooke of England developed and patented the conventional universal joint. Sometimes it is called the *Cardan universal* or the *Hooke universal*. It has two <u>yokes</u> at right angles to each other.

# Cardan mount

Type of gimbal mount used for compasses and gyroscopes.

Cardan shaft

A shaft with universal joints at each end

## Cardan universal

See

• Cardan joint

# Card brush

See

• File card brush

# Car dealer

See

- New car dealer
- Used Car Dealer

# Cardinal planes

In a lens, planes perpendicular to the principal axis, and passing through the cardinal points of the lens.

#### Cardioid

A heart-shaped curve with polar equation  $r=2a(1+cos\theta)$ . An epicycloid in which the rolling circle equals the fixed circle.

# Cardioid directivity

Special shape of a directivity. It is produced by superimposing the fields of a monopole and a dipole, and has the shape of a cardioid.

# Care product

See

• Car care product

#### Car-floor contact

A contact attached to the false floor of an electrically controlled lift; it is usually arranged to prevent operation of the lift by anyone outside the car while a passenger is in the lift.

# Cargo

Freight carried by a ship but the term is sometimes used for freight on a truck in place of shipment.

- Building Materials cargo
- Bulk cargo
- Farm Products cargo
- Gases in Bulk cargo
- General cargo
- General Freight cargo
- Heavy Machinery cargo

- Household Goods cargo
- Liquids in Bulk cargo
- Lumber cargo
- Metal cargo
- Motor Vehicles cargo
- Piggyback cargo
- Refrigerated Foods cargo
- Solids in Bulk cargo
- Towaway
- logs cargo
- poles cargo

# Cargo area

The space within a station wagon or van for carrying goods or the bed of a pickup truck for carrying goods

# Cargo battens

Strips of wood secured to the inside of the frame to keep the cargo away from steel sides of the hull or truck trailer bodywork. Also called *sparring* 

# Cargo Body Style Auto Carrier

A truck cargo body typified by the multi-decked auto carrier trailer and/or power unit.

# Cargo Body Style Bottom Dump

Dry bulk truck bodies which empty by means of gravity alone through the bottom.

# Cargo Body Style Dump

A truck body with a hydraulic, electric, or mechanical lifting mechanism that tilts to unload cargo. Dump includes side dumps, walking dumps, flatbed dumps, and dump trucks with snow plows or blades.

# Cargo Body Style Flatbed

A cargo truck body style typified by a flat cargo area. Includes angle beds, rollback beds, and ramp hoists, which are flatbeds that tilt down to the ground so vehicles can be driven onto the bed.

## Cargo Body Style Flatbed with Sides

A cargo truck body style typified by flatbeds with sides to hold and protect cargo. See

# • <u>stake body</u>

# Cargo Body Style Flatbed with Equipment

This cargo truck body style is typified by flatbeds with permanent cranes, loaders, pumps, winches, or other significantly heavy and large apurtenances.

# Cargo Body Style Garbage

A cargo body style typified by garbage trucks that often have hydraulic packing mechanisms or hydraulic arms for lifting dumpsters. Included are roll-offs, vehicles used for transporting refuse containers. Roll-offs have rails or a flat bed and a hoist for loading and unloading the refuse container.

# Cargo Body Style Livestock Carrier

A cargo truck body style typically with slotted or slatted sides. Trailers may have a double deck. Livestock trailers sometimes have 'possum belly' compartments in the bottom for holding smaller animals.

Cargo Body Style Low Boy

Gooseneck flatbed trucks slung very low to the ground. Often the gooseneck is detachable so that equipment can be loaded from the front. Sometimes ramps are at the rear. Typically about 12' off the ground.

Cargo Body Style Open Top Van

A totally enclosed cargo area but without a permanent, fixed, solid top.

Cargo Body Style Pole Logging

Pole trailers with a set of axles with a cradle to hold logs and a long, sometimes adjustable pole attached to the rear of a power unit. Others are framed with support stakes. Some have double decks. Most will have cradle-like features called <u>bunks</u> to hold the logs in place.

Cargo Body Style Refrigerated Van

A cargo body style with a totally enclosed box with a refrigeration unit.

Cargo Body Style Tank Dry

A truck used exclusively for hauling dry bulk material. Cargo is emptied pneumatically. Also called air can trailer

Cargo Body Style Tank Liquid or Gas

A cargo body truck style characterized by tankers which can carry only liquids or gases in bulk.

Cargo Body Style Van

A totally enclosed cargo area truck. Included are beverage vans, or bay vans, and sealed shipping containers mounted on a special bodiless chassis.

Cargo Boom

Boom

A heavy, long pole with cables and pulleys used to lift and place cargo. Also called a crane

Cargo box

Cargo Box

A type of container mounted on the roof of a vehicle Cargo net

Cargo Net

A type of <u>Bungee net</u> usually found in the <u>trunk</u> of a car to secure packages from moving around; but also found behind or beside a seat.

# Cargo port

Opening in a ship's side for loading and unloading cargo.

# Cargo shifting

Movements or changing positions of cargo from one place to another which can easily endanger the seaworthiness of the ship

# Cargo ship

See

• <u>Dry cargo ship</u>

# Cargo trailer

Cargo Trailer

A trailer with sides.

# Cargo Weight

The combined weight of all loads, gear, and supplies on a vehicle.

# Car Guide

See

NADA Used Car Guide

# Carina

Click image for books on Toyota Carina

A model of automobile manufactured by Toyota

# Car insurance

An insurance policy (mandatory in most states and all of Canada) to cover possible damage to the vehicle or property or passengers, etc. Sometimes basic insurance is abbreviated PL&PD (public liability and property damage). Also called *motor insurance* 

# Car jacker

A person who steals a car at gunpoint.

# Car jacking

A process of stealing a car while the driver is still in it. The car may be stopped at a traffic light when a car jacker appears with a gun and demands that the driver get out, then he drives away with the car. If it happens to you, give him the car -- your life is worth more than the vehicle.

## Car key

An unlocking device for the ignition switch, doors, trunk, gas cap, etc.

# Carload

(CL or C/L)

- 1. The total amount of freight within a full railcar.
- 2. The specified quantity of freight necessary to qualify for a carload rate.

#### Car lot

A place where vehicles are sold by an independent dealer

#### Car mechanic

See

## Mechanic

# Carnot cycle

An ideal heat engine cycle of maximum thermal efficiency. It consists of isothermal expansion, adiabatic expansion, isothermal compression, and adiabatic compression to the initial state.

#### Carnot's theorem

Theorem stating that no heat engine can be more efficient than a reversible engine working between the same temperatures. It follows that the efficiency of a reversible engine is independent of the working substance and depends only on the temperatures between which it is working.

#### Carousel

A flat turntable (horizontal) or ferris-wheel-like (vertical) device which a picker uses to move product from the warehouse to those who are filling the orders.

# Car park

A parking area usually located within a building.

See

#### • Multi-storey car park

# Carpeting

The action of covering the passenger compartment floor (and sometimes the trunk floor) with a form-fitting rug or carpet.

# Car phone

A telephone that is installed in a vehicle, but has recently been replaced by personal cell phones.

See

# • <u>Cellular phone</u>

#### Car polish

A product which enhances the shine of the paintwork of a vehicle Car Pool

# **HOV Car Pool Sign**

A system where the use of a vehicle is shared by a number of riders going in the same direction. In some cases the same driver will use his vehicle and pick up the passengers along the way. The passengers reimburse the driver for his costs. In other cases each of the riders will take a turn at driving his own vehicle so that no one person is burdened with vehicle costs. The concept of the car pool is to reduce traffic, conserve fuel, and reduce the amount of parking space. Car pool vehicles are allowed to drive in the HOV lane designated by the diamond symbol.

#### Car radio

A radio receiver which is installed (usually in the <u>instrument panel</u>) in a vehicle Carrene

Refrigerant in Group One (R-11). Chemical combination of carbon, chlorine, and fluorine Carriage

- 1. A horse-drawn vehicle for people to ride in.
- 2. A railroad vehicle for passengers.

See

- Hackney Carriage
- <u>Invalid-carriages</u>

# Carriage bolt

# Carriage Bolt

A bolt that has a smooth dome head (like a mushroom) so that no screwdriver or wrench can remove it from the dome-side, a square neck under the head, and a unified thread pitch. The square neck (which fits into a corresponding square hole) is designed to keep the bolt from turning when a nut is tightened. See

- Fin neck carriage bolt
- Square Neck Carriage Bolt

Carriage Paid To

(CPT) the seller pays the freight for the carriage of the goods to the named destination. Carriage spring

See

• Laminated spring

Carriage-type switchgear

• Truck-type switchgear

# Carriageway

A British term for that part of the road on which vehicles travel in one direction. See

<u>Dual carriageway</u>

#### Carrier

- 1. A thin substance that helps another substance to reach its goal. For example, a spray grease may have a carrier which transports the grease to its destination. Then the carrier dries up leaving the grease behind.
- 2. A real or imaginary particle responsible for the transport of electric charge in a material. In oxide ceramics, electrons hopping between ions, diffusing oxygen ions and mobile cations can also transport charge.

See

## Carriers

- 3. A device for conveying the drive of a face-plate of a lathe to a piece of work which is being turned between centers. It is clamped to the work and driven by a pin projecting from the face-plate.
- 4. A frame for holding a negative in an enlarger or slides in a projector.
- 5. Non-active material mixed with, and chemically identical to, a radioactive compound. Carrier is sometimes added to carrier-free material.
- 6. A vehicle for communicating in formation, when the chosen medium itself cannot convey the information but can convey a carrier, on to which the information is impressed by Modulation.
- 7. In radio transmission, the output of the transmitter before it is modulated.

See

# Frequency modulation

- 8. The frequencies chosen for sending many signals simultaneously along a single communication channel
- 9. A transport company which takes goods from the shipping client (consignor) either to a central terminal and then to the receiving client (consignee) or directly to the receiving client. In some cases the goods are picked up, transported, and delivered in the same truck (usually by a local courier); but in most cases the goods are moved from the pick up truck to a terminal where it is united with other goods going in the same direction. This process may take place at several terminals until the goods are finally received by the consignee.

#### See

- Authorized Carrier
- Auto Carrier
- Barge carriers
- Bent-tail Carrier
- Bicycle carrier
- Bulk carrier
- Carrier bearing
- Common Carrier
- Connecting Carrier
- Contract carrier
- Differential carrier
- Exempt Carrier
- For-Hire Carrier
- Front Wheel Carrier
- Hub carrier
- Jet carrier
- Livestock Carrier
- LNG carrier
- LTL Carrier
- Luggage carrier
- Minority Carrier
- Motor Carrier
- Ore-bulk-oil carrier
- Ore carrier
- Pinion carrier
- Planet carrier
- Private Carrier
- Product carrier
- Spare tire carrier
- TL Carrier
- Top Carriers

# Carrier bearing

The bearings upon which the <u>Differential case</u> is mounted.

# Carrier bearings

See

• Carrier bearing.

# Carrier mobility

The mean drift velocity of the charge carriers in a material per unit electric field.

# Carrier noise

Noise which has been introduced into the carrier of a transmitter before modulation. Carrier, pinion

See

Pinion carrier.

# Carrier, planet

See

• Planet carrier.

# Carrier power

Power radiated by a transmitter in absence of modulation.

#### **Carriers**

In a crystal of semiconductor material thermal agitation will cause a number of electrons to dissociate from their parent atoms; in moving about the crystal they act as carriers of negative charge. Other electrons will move from neighboring atoms to fill the space left behind, thus causing the holes where no electrons exist in the lattice to be transferred from one atom to another. As these holes move around they can be considered as carriers of positive charge.

See

- Barge carriers
- <u>Top carriers</u>

# Carrier Transmission

See

• Quiescent Carrier Transmission

## Carrier wave

An unmodulated radio wave produced by a transmitter on which information is carried by amplitude or frequency modulation.

#### Carrosserie

French term for Coachwork.

#### Carrozzeria

Italian term for Coachwork.

# Carrying capacity

The maximum load that a tire is allowed to carry with a particular wheel and rim. Also called *load capacity*.

# **CARS**

Abbreviation for Canadian Automotive Repair and Service Council

# Car society

See

• milestone car Society

#### Carson top

A customizing procedure where an automobile roof that has been removed (usually when the car's cab is being lowered) and modified so that it becomes a one-piece removable unit to turn the car into a convertible. The top is often stored in the trunk and may be removed manually or by a series of electric or hydraulic motors.

# Car sponge

A large sponge for washing the exterior of a vehicle

#### Car stands

Pedestal-type supports for holding up a car once the car has been raised.

# Car stereo

A listening device in an automobile which usually has an AM/FM radio and often a cassette player, CD player, and/or CD changer. It also includes at least a pair of speakers.

# Cart

A wagon with four wheels used in the vicinity of a warehouse to move freight between the warehouse and the truck. The advantage over a <u>dolly</u> is that more freight can be moved at one time. The cart may be pulled by a long tongue or be motorized. See

Tool cart

# Cartage

- 1. The charge for the pickup and delivery of goods
- 2. The act of moving goods (usually short distances)

# Cartage company

A company that provides local pick-up and delivery within a town, city, or municipality.

## Car tax

A government imposed tax which is added to the price of a new car. Some governments charge a road-use tax and call it a car tax.

#### Car test

A test of a vehicle's roadworthiness, reliability, and performance.

#### Car theft

Unauthorized removal (i.e., stealing) of a car or the items in or on a car. See

• Car jacking

# Car thief

A person who steals a car. If someone steals just the objects from a car, he is a <u>Car</u> <u>burglar</u>.

See

• Car jacker

#### Car tire

An automotive tire which is used exclusively on a passenger car, not a light truck, etc.

# Cartography

The preparation and drawing of maps which show, generally, a considerable extent of the Earth's surface.

#### Carton

A single packaged product, usually in a cardboard box

# Cartridge

See

- Burst Cartridge
- Can
- Filter cartridge
- Oil filter cartridge
- Quarter-inch Cartridge

# Cartridge bottom bracket

A <u>bottom bracket</u> with protective seals to keep water and grime from penetrating to the bearings. Also called *sealed bottom bracket* 

# Cartridge brass

Copper-zinc alloy containing approximately 30% zinc. Possesses high ductility; capable of being heavily cold-worked. Widely used for cold pressings, cartridges, tubes, etc. See

• Copper alloy.

# Cartridge starter

A device for starting aero-engines in which a slow-burning cartridge is used to operate a piston or turbine unit which is geared to the engine shaft.

# Cart spring

A leaf spring used in small trailers.

# Car types

Automobiles can be divided into several groups based on design, technology, rarity, and age. However a particular vehicle can bridge a number of these categories. See

- Antique Car
- Brass Car
- classic car
- Custom Car
- Dragster
- Grand Tourer
- Hot Hatch
- Hot Rod
- Low Rider
- Milestone car
- Muscle Car
- Pony Car

- Roadster
- Spyder
- Supercar
- Veteran Car
- Vintage Car

#### Carvac

A small, hand-held vacuum cleaner which is either battery-operated or which is plugged into the accessory outlet or cigarette lighter socket.

#### Car wash

1. A place where you can get your car cleaned. Some are automatic (you drive through and large brushes clean the car) while others provide a bay with spray wands and brushes for you to do the labor.

See

- o Automatic car wash
- 2. A product like soap which is added to water for the purpose of cleaning a vehicle.

#### Car wax

A polish which may be in a paste or a cream and used in protecting the finish of a car. Car wheel

See

• Passenger car wheel

#### CAS

- 1. Abbreviation for *cleaner air system*
- 2. Abbreviation for crank angle sensor

# Cascade

The arrangement of stages in an enrichment or reprocessing plant in which the products of one stage are fed either forward to the next closely similar or identical stage or backward to a previous stage, eventually resulting in two more or less pure products at each end of the cascade. The classic examples are gaseous or centrifugal enrichment plants. An ideal cascade is the arrangement of stages in series and in parallel which gives the highestyield for a given number of units (e.g., centrifuges) and a given separation factor.

# Cascade generator

High-voltage generator using a series of voltage-multiplying stages, esp. when designed for X-ray tubes or low-energy accelerators.

# cascade particle

Particle formed by a cosmic ray in a Cascade shower

Cascades

Fixed airfoil blades which turn the airflow around a bend in a duct, e.g., in wind tunnels or engine intakes.

#### Cascade shower

Manifestations of cosmic rays in which high-energy mesons, protons, and electrons create high-energy photons, which produce further electrons and positrons, thus increasing the number of particles until the energy is dissipated. Also called *air shower*.

# Cascade systems

Arrangement in which two or more refrigerating systems are used in series; uses evaporator of one machine to cool condenser of other machine. Produces ultra-low temps Cascading of insulators

Flashover of a string of suspension insulators; initiated by the voltage across one unit exceeding its safe value and flashing over, thereby imposing additional stress across the other units, and resulting in a complete flashover of the string.

# Case

- 1. That part near the surface of a ferrous alloy which as been so altered as to allow case-hardening.
- 2. One of the two clam-shell-like halves in the bottom end of the engine surrounded by a metal shell

# See

- Basket case
- Battery case
- Chaincase
- Converter case
- Differential case
- Open Display Case
- Splitting The Cases
- Top case
- Transfer case

## **CASE**

Abbreviation for *Cranking Angle Sensing Error* 

#### Case harden

The action of hardening the surface of iron or steel so that the outer portion or *case* is made substantially harder than the inner portion or *core*. Typical processes used for case hardening are carburizing, cyaniding, carbonitriding, nitriding, induction hardening, and flame hardening.

# Casehardened

A piece of steel that has had the outer surface hardened while the inner portion remains relatively soft.

# Casehardening

The action of adding carbon to the surface of a mild steel object and heat treating to produce a hard surface.

## Case Mark

Information usually in printed sticker attached to the outside of a shipping carton which includes destination and contents.

#### Cases

The two clam-shell-like halves in the bottom end of the engine surrounded by a metal shell

# Cash and carry

<u>Kerosene</u>, fuel oil, or bottled gas (tank or <u>Propane</u>) purchased with cash, by check, or by credit card and taken home by the purchaser. The purchaser provides the container or pays extra for the container.

# Cash Before Delivery

(CBD) A shipping term where the seller has received payment before shipping. It contrasts with <u>cash on delivery</u> (COD)

## Cash On Delivery

(COD) A shipping term where the receiver must pay the price of the goods to the carrier at the time of delivery and may refuse reception. Contrasts with <u>Cash before delivery</u> (CBD)

# Cash register

Trucker slang for Toll booth as in 'I'm comin' up on a cash register at highway 88'

See

Actual cash value

# Casing

- 1. The Tire casing.
- 2. The outside shell of something such as the shell of an alternator or starter motor.

# See

- Axle casing
- Differential casing
- Tire Casing
- Turbine casing
- Volute casing

# Casing Bulkheads

- 1. Walls enclosing portion of a vessel, such as the boiler room casing.
- 2. A covering for parts of machinery.

# Casing factor

That portion of the load supported by <u>Tire casing</u> stiffness instead of air pressure.

# Casing head gasoline

A term used to describe the lighter parts of petroleum products, which were obtained from natural gasoline by condensing natural gas from an oil well

# **Casing Service**

A drilling service; from drill casings.

Cask

See

• Flask

# Casket

See

Flask

#### Cassette

- 1. A type of bicycle gear cluster that slides on a freehub rather than threads on it. The freehub body is attached to the rear hub.
- 2. A cartridge containing magnetic tape that can be inserted into a player for listening or viewing (e.g., an audio cassette or video cassette).

# Cassette cogs

The individual cogs that make up a bicycle cassette.

Cassette compartment

A storage place for audio cassettes

Cassette Deck

See

• Radio cassette Deck

## Cassette hub

More recent type of rear hub designed to accept the cassette type of gear cluster. The cassette hub has the rotating, ratcheting freehub body attached to the hub for the cassette to slide onto and be secured by a lockring.

# Cassette player

A unit which plays (but does not record) audio cassettes and is often linked with a stereo unit in an automobile

#### Cassette size

The size of a bicycle cassette is described by the number of teeth on the smallest cog and the number of teeth on the largest cog. An example of a common size for road racing would be 12 x 21.

#### Cast

- 1. To shape molten metal by pouring it into a mold.
- 2. A model or result made by pouring metal into a mold.

- Cast iron
- casting
- Die cast

# Cast alloy wheel

A one piece wheel made of cast alukminum or magnesium alloy. This design is more rigid than a wire spoked wheel.

Cast Aluminum wheel

#### Cast Aluminum Wheel

See

• Alloy wheel

#### Castellate

Formed to resemble a castle battlement e.g., a Castellated nut

# Castellated

See

• Castellated nut.

# Castellated nut

# Castellated Nut

A nut with several lugs protruding from one end making it look like the turrets on the top of the wall of a castle. This nut is used on a shaft with a hole drilled in it. It is secured to the shaft by passing a <u>Cotter pin</u> through an opening in the nut and through the shaft hole.

# Caster

1. A small wheel at the front of a wheelchair or shopping cart that swivels and is tilted at an angle.

See

o Swivel caster

2.

Caster

A wheel <u>Alignment</u> adjustment that positions the wheels like the casters on a chair or shopping cart, so the tires follow naturally in a forward straight line. In a truck or older car, the top of the <u>kingpin</u> is either forward (<u>Negative</u>) or toward the rear of the vehicle (<u>Positive</u>). On a turn, the wheels will tend to straighten out when the <u>steering wheel</u> is released. If the car has independent front suspension, the upper ball joint is set forward or rearward in relation to the lower ball joint. Caster is measured in degrees.

#### See

- Negative Caster
- Positive Caster
- Trail distance

#### Caster action

The self-centering action which causes a caster wheel to move into a straight-ahead position when the steering wheel is released. The opposite action takes place when in reverse. See Caster angle. Caster action is a basic ingredient of steering feel.

# Caster angle

The inclination or angle that a wheel makes when measuring the distance between the vertical post and the offset of the wheel placement. When the front wheels are moved right or left to steer the vehicle they each move about a steering axis. Consider the casters on the front of a wheelchair as the same phenomenon occurs in a vehicle. When the chair is pushed forward, the casters spin on their axis until the caster angle is toward the back of vertical. If the chair is pulled backward, the casters spin so that the wheels are forward of vertical. In a vehicle, the normal caster angle of the front wheels is also toward the back so that when you release the steering wheel, the front wheels tend to straighten out. However when in reverse, the wheels want to spin around on its axis, but cannot, so they spin toward full lock in one direction or the other. This tendency can best be seen when driving on sand or snow.

#### Caster offset

The distance on the ground between where the vertical post would touch the ground if it were extended and the point where the wheel touches the ground. Also called caster trail

#### Caster trail

The distance on the ground between where the vertical post would touch the ground if it were extended and the point where the wheel touches the ground. Also called caster offset

# Caster wobble

A condition generally produced in the front wheels when they are attached to the ends of a <u>Beam axle</u>. It is particularly noticeable on rough roads and the <u>Shimmy</u> at the <u>steering</u> <u>wheel</u> makes it difficult to control the vehicle. You have probably seen this condition in a shopping cart that has caster wheels that wiggle or fluctuate back and forth and will not roll in a straight line.

#### Cast holes

Holes made in cast objects by the use of cores, in order to reduce the time necessary for machining, and to avoid metal wastage.

# Click image to supersize Casting

- 1. A process technology that delivers a liquid molten metal into a purpose-built mold. After cooling, the solid metal surface has the shape of the mold cavity.
- 2. Pouring metal into a Mold to form an object.
- 3. A metallic article cast in the shape required, as distinct from one shaped by working.

# See

- Blown Casting
- Die casting
- Lost-foam casting process
- Malleable castings
- Monobloc casting
- Sand casting
- Steel Casting
- Thin-wall casting

# Casting copper

Metal of lower purity than <u>Best selected copper</u>. Generally contains about 99.4% of copper.

# Casting ladle

A steel ladle, lined with refractory material, in which molten metal is carried from the furnace to the mold in which the casting is to be made.

# Casting number

The number cast into a block, head, or other component when the part is cast. Casting numbers can be helpful when identifying an engine or its parts, but they are not completely accurate, because castings are sometimes machined differently

# Casting process

See

• Lost-foam casting process

# Castings

Metallic forms which are produced by pouring molten metal into a shaped container or mold.

See

• Malleable castings

# Casting wheel

Large wheel on which ingot molds are arranged peripherally and filled from stream of molten metal issuing from furnace or pouring ladle.

# Cast-in-situ concrete piles

A type of pile formed by driving a steel pipe into the ground and filling it with concrete, using the pipe as a mold, or by a similar method.

#### Cast-in sleeve

An aluminum cylinder block cast around an iron cylinder sleeve.

# Cast iron

- 1. An <u>Alloy</u> of iron and more than 2% <u>carbon</u>. It is used for engine <u>Blocks</u> and <u>transmission</u> and <u>Differential cases</u> because it is relatively cheap and easy to <u>Mold</u> into complex shapes.
- 2. Any iron-carbon alloy in which the carbon content exceeds the solubility of carbon in austenite at the eutectic temperature. Widely used in engineering on account of their high fluidity and excellent casting characteristics. Carbon content usually in the range of 2-2.3%. Some kinds are brittle and others difficult to machine.

## See

- Alloy Cast-iron
- Ductile cast-iron
- Grey iron
- Spherulitic graphite cast-iron

# Cast-iron

See

Cast iron

# Cast iron cylinder

A one-piece cylinder assembly made of cast iron with a machined bore.

#### Castle

See

• Castellated nut.

# Castle nut

#### Castle nut

A <u>Castellated nut</u> -- a six-sided nut in the top of which six radial slots are cut. Two of these line up with a hole drilled in the bolt or screw, a split pin can be inserted to prevent turning. Also called *hex slotted nut* 

# Castle section

A panel with humps or ribs which strengthen the panel. They are called *castle* because from the end they look like the turrets of a castle

#### Castor

British spelling of Caster.

## Cast piston

A piston made by pouring molten aluminum alloy into a mold.

## Cast silicon

Crystalline silicon obtained by pouring pure molten silicon into a vertical mold and adjusting the temperature gradient along the mold volume during cooling to obtain slow, vertically advancing crystallization of the silicon. The polycrystalline ingot thus formed is composed of large, relatively parallel, interlocking crystals. The cast ingots are sawed into wafers for further fabrication into photovoltaic cells. Cast silicon wafers and ribbon silicon sheets fabricated into cells are usually referred to as polycrystalline photovoltaic cells.

# Cast spoke assembly

That part of the vehicle consisting of the brake drum and wheel spider, having 3, 5 or 6 spokes.

# Cast spoke wheel

- 1. A type of dual mounting wheels where two demountable rims are mounted directly on the spoke wheel and drum assembly held apart by a spacer band and locked in place by clamps and nuts which attach to studs in the spoke face.
- 2. A wheel with five or six spokes originating from a center hub. The spoked portion, usually made of cast steel, is bolted to a multiple-piece steel rim

- Demountable Rim
- Disc Wheel

#### Cast steel

Shapes that have been formed directly from liquid by casting into a mold. Formerly applied to wrought objects produced by working steel made by the crucible process to distinguish from that made by cementation of wrought-iron, but both of these methods are long obsolete.

# Cast welded rail joint

A joint between the ends of two adjacent rails made in position using the thermite process in which aluminum powder and sodium peroxide are ignited causing the rails to weld together.

Cat

An abbreviation for Catalytic converter

# Catadioptric

An optical system using a combination of refracting and reflecting surfaces designed to reduce <u>aberrations</u> in a telescope.

# Catalan process

Reduction of haematite to wrought-iron by smelting with charcoal.

## Catalog

See

• Parts catalog

## Catalog custom

A vehicle bodywork sold through an automaker's dealer catalog. See

Series custom

# Catalyst

- A substance that changes the rate of a chemical reaction without itself being used up. Catalysts are used in many processes in the chemical and petroleum industries. Emission control catalysts are used to promote reactions that change exhaust pollutants from internal combustion engines into harmless substances. After the reaction it can potentially be recovered from the reaction mixture chemically unchanged.
- 2. A special agent which is added to a plastic body filler or resin or paint to speed up the hardening process.

- <u>Diesel Oxidation Catalyst</u>
- Lean NOx Catalyst
- Metal catalyst
- Oxidizing catalyst
- Particulate catalyst
- Pellet-type catalytic converter

- Reducing catalyst
- Three-way catalyst

# Catalyst bed

A layer of catalyst-coated material such as pellets or ceramic in a catalytic converter through which the gases pass.

# Catalyst charge

A catalyst-coated material such as pellets or ceramic in a catalytic converter.

# Catalyst coated membrane

(CCM) Term used to describe a membrane (in a PEM fuel cell) whose surfaces are coated with a catalyst layer to form the reaction zone of the electrode. See

# • Membrane Electrode Assembly

# Catalyst coating

A Catalytic layer

# Catalyst container

A housing of a catalytic converter. Also called a *converter shell* 

# Catalyst contamination

A reduction of efficiency because of impurity deposits

# Catalyst degradation

A reduction of efficiency because of impurities or overheating. Also called catalyst deterioration

# Catalyst deterioration

A reduction of efficiency because of impurities or overheating. Also called catalyst degradation

# Catalyst efficiency

See

# • Catalytic efficiency

# Catalyst indicator

A light on the instrument panel which glows when a prescribed distance has passed in order to remind the driver to have the catalytic converter replaced.

# Catalyst loading

The amount of catalyst incorporated in the fuel cell per unit area.

# Catalyst substrate

A base material which carries the <u>Catalytic layer</u> or coating. Also called catalyst support Catalyst support

A base material which carries the <u>Catalytic layer</u> or coating. Also called catalyst substrate Catalytic

- Catalytic converter
- Dual-bed catalytic converter

- Mini catalytic converter
- Open-loop catalytic converter
- Pellet-type catalytic converter
- Primary catalytic converter
- Three-way catalytic converter

# Catalytic activity

The rate a catalytic converter purifies the exhaust system Catalytic converter

# Catalytic converter

- 1. A pollution-control device found on the
- 2. exhaust system of all cars since its introduction in 1974 which acts like an
- 3. <u>afterburner</u> to reburn unburned gas in the <u>tail pipe</u>. It looks like a small <u>muffler</u> and is usually made of stainless steel. It contains
- 4. <u>platinum</u>, rhodium, or palladium which is a catalyst for the chemical reaction needed to burn off any unburned <u>hydrocarbons</u> and
- 5. <u>carbon monoxide</u> by turning them into water vapor, carbon dioxide, and other less toxic gases.
- 6. A device containing a <u>catalyst</u> for converting automobile exhaust into mostly harmless products.

#### See

- Dual-bed catalytic converter
- Lean burn engine
- Mini catalytic converter
- Open-loop catalytic converter
- Pellet-type catalytic converter
- Primary catalytic converter
- Single-bed 3-way catalytic converter
- Three-way catalytic converter

# Catalytic cracking

The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil. Catalytic cracking processes fresh feeds and recycled feeds.

# Catalytic efficiency

The effectiveness of a catalyst in purifying exhaust gases Catalytic Fines

Hard, <u>abrasive</u> crystalline particles of alumina, silica, and/or alumina silica that can be carried over from the fluidic catalytic cracking process of residual fuel stocks. Particle size can range from sub-micron to greater than sixty (60) microns in size. These particles become more common in the higher viscosity marine bunker fuels.

# Catalytic hydrocracking

A refining process that uses hydrogen and <u>catalysts</u> with relatively low temperatures and high pressures for converting middle boiling or residual material to high octane gasoline, reformer charge stock, jet fuel, and /or high grade fuel oil. The process uses one or more <u>catalysts</u>, depending on product output, and can handle high sulfur feedstocks without prior desulfurization.

# Catalytic hydrotreating

A refining process for treating petroleum fractions from atmospheric or vacuum distillation units (e.g., naphthas, middle distillates, reformer feeds, residual fuel oil, and heavy gas oil) and other petroleum (e.g., cat cracked naphtha, coker naphtha, gas oil, etc.) in the presence of <u>catalysts</u> and substantial quantities of hydrogen. Hydrotreating includes desulfurization, removal of substances (e.g., nitrogen compounds) that deactivate <u>catalysts</u>, conversion of <u>Olefins</u> to paraffins to reduce gum formation in gasoline, and other processes to upgrade the quality of the fractions.

# Catalytic layer

A thin layer of catalyst such as platinum and supported by a ceramic or metal carrier material

# Catalytic Reduction

See

• <u>Selective Catalytic Reduction</u>

# Catalytic reforming

A refining process using controlled heat and pressure with <u>catalysts</u> to rearrange certain hydrocarbon molecules, thereby converting paraffinic and naphthenic type hydrocarbons (e.g., low octane gasoline boiling range fractions) into petrochemical feedstocks and higher octane stocks suitable for blending into finished gasoline. Catalytic reforming is reported in two categories. They are:

- Low Pressure. A processing unit operating at less than 225
- PSIG measured at the outlet separator.
- High pressure. A processing unit operating at either equal to or greater than 225 PSIG measured at the outlet separator.

#### Catamaran

A double hulled vessel

# Cataphoretic painting

A process of applying the first coat of paint to the body of a vehicle by positively charging the paint particles and then dunking the metal into the paint. A current is turned on so that the positively charged paint is attracted to the negative metal panel. Also called cathodic electropainting

# Catapult

an accelerating device for launching an aircraft in a short distance. It may be fixed or rotatable to face the wind. It is usually used on ships which have no landing deck, having been superseded on aircraft carriers by the <u>accelerator</u>. During World War II, fighters were carried on (catapult armed merchant ships) for defense against long-range bombers. Land catapults have been tried but have been superseded by RATOG and STOL aircraft.

#### Catback

A performance exhaust system upgrade which consists of new pipes from the catalytic converter to the <u>Tail pipe</u> which increases horsepower. These new pipes are larger, thus, more exhaust can exit the system. The faster the exhaust can exit, the more horsepower you gain.

#### Catch

See

## • Safety catch

#### Catch basin

An opening in the road surface with grated lid to allow water into a storm drainage system.

See

#### • Catch pit

#### Catcher

The element in a velocity-modulated ultrahigh frequency or microwave beam tube which abstracts, or catches, the energy in a bunched electron stream as it passes through it. See

#### Buncher

#### Catcher foil

Aluminum sheet used for measuring power levels in nuclear reactor by absorption of fission fragments.

# Catching diode

Diode used to clamp a voltage or current at a predetermined value. When it becomes forward-biased it prevents the applied potential from increasing any further.

#### Catchment area

The area from which water runs off to any given river valley or collecting reservoir. Also called <u>Catchment basin</u>

#### Catchment basin

The area from which water runs off to any given river valley or collecting reservoir. Also called <u>Catchment area</u>

## Catch net

A mesh construction that is electrically grounded and placed below high-voltage transmission lines that cross over a road or railway. In the event that the lines break, they will fall into the net. Also called a *cradle* 

## Catch pit

A small pit constructed at the entrance to a length of sewer or drain pipe to catch and retain matter which would not easily pass through the pipes. Also called *catch basin*. See

#### • <u>sump</u>

## Catch plate

A disk on the spindle nose of a lathe, driving a carrier locked to the work.

#### Catch points

A section of a railroad track which is activated when a train is supposed to be going uphill, but starts to slide back. The catch points prevent the train from rolling back any farther.

#### Catch-water drain

A drain to catch water on a hillside, with open joints or multiple perforations to take in water in as many places as possible.

#### Cat Cracker

A large refinery vessel for processing reduced crudes or other feed-stocks in the presence of a <u>catalyst</u>, as opposed to the older method of thermal cracking, which employs heat and pressure only. Catalytic cracking is generally preferred since it produces less gas and other highly volatile byproducts. It produces a motor fuel of higher octane than the thermal process.

## Cat E

Category E damage to an aircraft; equivalent to a total loss or write off.

#### Catenary construction

A method of construction used for overhead contact wires of traction systems. A wire is suspended, in the form of catenary, between two supports, and the contact wire is supported from this by droppers of different lengths, arranged so that the contact wire is horizontal.

#### Catera

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Cadillac Catera

A model of automobile manufactured by the <u>Cadillac</u> division of <u>General Motors</u> from 1997-2001

## Caterpillar bus

A colloquial term for an articulated bus

# Caterpillar Drive Chain

A chain with pushers which is used to drive Drop Forged chain.

#### Cathead

1. The sheave assembly on the top of crane jib.

2. A lathe accessory consisting of a turned sleeve having four or more radial screws at each end; used for clamping on to rough work of small diameter and running in the <u>Steady</u> while centering. Also called *spider* 

#### Cathetometer

An optical instrument for measuring vertical distances not exceeding a few decimetres. A small telescope, held horizontally can move up and down a vertical pillar. The difference in position of the telescope when the images of the two points whose separation is being measured are lined up with the cross-wires of the telescope, is obtained from the difference in vernier readings on a scale marked on the pillar. Also called *reading microscope* and *reading telescope* 

#### Cathode

- 1. In an electric circuit, the
- 2. negative terminal. Electrons leave from this terminal.
- 3. In an electronic tube or valve, an electrode through which a primary stream of electrons enters the inter-electrode space. During conduction, the cathode is negative with respect to the anode. Such a cathode may be cold, electron emission being due to electric fields, photo-emission, or impact by other particles, or thermionic, where the cathode is heated by some means.
- 4. In a semiconductor diode, the electrode to which the forward current flows.
- 5. In a thyristor, the electrode by which current leaves the thyristor when it is in the ON state.
- 6. In a light-emitting diode, the electrode to which forward current flows within the device.
- 7. In electrolytic applications, the electrode at which positive ions are discharged, or negative ions formed.
- 8. The electrode at which reduction occurs. In an electrochemical cell, oxidation occurs at the anode and reduction at the cathode.

## Cathode coating

A low-work function surface layer applied to a thermionic or photocathode in order to enhance electron emission or to control spectral characteristics. The cathode coating impedance is between the base metal and this layer.

# Cathode copper

The product of electrolytic refining, after which the cathodes are melted, oxidized, poled, and cast into wire-bars, cakes, billets, etc.

## Cathode efficiency

Ratio of emission current to energy supplied to cathode. Also called *emission efficiency* Cathode follower

A valve circuit in which the input is connected between the grid and ground, and the output is taken from between the cathode and ground, the anode being grounded to signal frequencies. It has a high input impedance, low output impedance, and unity voltage gain. Cathode glow

Glow near the surface of a cathode, its color depends on the gas or vapor in the tube. Cathode luminous sensitivity

Ratio of cathode current of photoelectric cell to luminous intensity.

#### Cathode modulation

Modulation produced by signal applied to cathode of valve through which carrier wave passes.

#### Cathode poisoning

Reduction of thermionic emission from a cathode as a result of minute traces of adsorbed impurities.

## Cathode ray

A stream of negatively charged particles (electrons) emitted normally from the surface of a cathode in a vacuum or low-pressure gas. The velocity of the electrons is proportional to the square root of the accelerating potential, being6x10<sup>5</sup>ms<sup>-1</sup> for one volt. They can be deflected and formed into beams by the application of electric or magnetic fields, or a combination of both, and are widely used in oscilloscopes and TV (in cathode-ray tubes), electron microscopes and electron-beam welding, and electron-beam tubes for high frequency amplifiers and oscillators.

# Cathode-ray oscillograph

An oscillograph in which a permanent (photographic or other) record of a transient or time-varying phenomenon is produced by means of an electron beam in a cathode-ray tube. Deprecated term for <u>Cathode-ray oscilloscope</u>

# Cathode-ray oscilloscope

(CRT) Device for displaying electronic signals by modulating a beam of electrons before it impinges on a <u>Fluorescent screen</u>

# Cathode ray tube

A sealed tube on which graphs or pictures are displayed like a TV screen

#### Cathodic electropainting

A process of applying the first coat of paint to the body of a car by positively charging the paint particles and then dunking the metal into the paint. A current is turned on so that the positively charged paint is attracted to the negative metal panel. Also called cataphoretic painting

#### Cathode spot

Area on a cathode where electrons are emitted into an arc, the current density being much higher than with simple thermionic emission

#### Cathodic chalk

A coating of magnesium and calcium compounds formed on a steel surface during Cathodic protection in sea water

# Cathodic etching

Erosion of a cathode by a glow discharge through positive-ion bombardment, in order to show microstructure

#### Cathodic protection

- 1. The action of protecting metal from electrochemical corrosion by using it as the cathode of a cell with a
- 2. Sacrificial anode.
- 3. In ships and offshore structures, corrosion can be prevented by passing sufficient direct current through the sea water to make the metal hull a cathode.

4. The method of preventing corrosion in metal structures that involves using electric voltage to slow or prevent corrosion. It is used along natural gas pipelines, as well as in certain bridges or other large metal structures that need to resist corrosion over an extended period of time. It is also used in some devices for a vehicle to prevent rusting.

#### Cathodoluminescence

The emission of light, with a possible afterglow, from a material when irradiated by an electron beam, such as occurs in the phosphor of a cathode-ray tube

## Cathodophone

Microphone using the silent discharge between a heated oxide-coated filament in air and another electrode. The discharge is modulated directly by the motion of the air particles in a passing sound wave. Also called *ionophone* 

## Catholyte

See

Catolyte

#### Cation

Ion in an electrolyte which carries a positive charge and which migrates toward the cathode under the influence of a potential gradient in electrolysis. It is the deposition of the cation in a primary cell which determines the positive terminal.

# Catolyte

That portion of the electrolyte of an electrolytic cell which is in the immediate neighborhood of the cathode. Also called *catholyte* 

#### Catoptric element

A component of an optical system that uses reflection, not refraction, in the formation of an image

## Cat's paw

A light puff of wind.

# Cattle guard

A series of pipes or bars spaced a few inches apart and placed across the road to discourage animals from entering or leaving a particular area. Similar to a <u>Texas gate</u> except a Texas gate always uses round pipes not flat bars.

#### Catwalk

1. A raised walkway running fore and aft from the midship.

2.

#### Catwalk

An obsolete term for the section between the fender and the hood. On modern cars, this section does not exist at all. But on older cars (like the 1937 Cadillac), the fender was spaced a little way apart from the hood. The headlights were mounted toward the front of the catwalk or above it.

## Cauchy's dispersion formula

$$\mu = A + (B/\lambda^2) + (C/\lambda^{21}) + ...$$

An empirical expression for the relation between the refractive index  $\mu$  of a medium and the wavelength  $\lambda$  of light; A, B, and C are the constants for a given medium.

#### Caulk

To fill seams in a wood deck with oakum or hammer the adjoining edges of metal together to stop leaks. Also spelled *calk* 

#### Caulker

A person who applies caulking.

#### Caulking

The process of closing the spaces between overlapping riveted plates or other joints by hammering the exposed edge of one plate into intimate contact with the other. A filler material is also used esp. for closing (e.g., deck planking). Also called *calking* See

# • Weather Caulking

## Caulking tool

A tool, similar in form to a cold chisel but having a blunt edge, for deforming the metal rather than cutting it.

#### Causal chain

A technique used to assess connections between measures and objectives using a series of measurable logical steps.

#### Causality

The principle that an event cannot precede its cause.

## Caustic curve

A curve to which rays of light are tangential after reflection or refraction at another curve Caustic embrittlement

The intergranular corrosion of steel in hot alkaline solutions, e.g., in boilers Caustic etching

The removal of metal by dipping aluminum parts in caustic soda

# Caution

A period in racing in which track conditions are too hazardous for racing due to an accident or debris on the racing surface. The cars remain in their racing positions behind the pace car until it is determined that it is safe to resume the race.

# Cavalier

Click image for books on Chevrolet Cavalier

A model of automobile manufactured by the <u>Chevrolet</u> division of <u>General Motors</u> from 1982-2005.

#### Caved

Dented inward as in When the car hit me, it caved in the door.

#### Cavitation

A condition in which a partial <u>vacuum</u> forms around the blades or <u>Impeller</u> wheels of a <u>pump</u>, reducing the pump's output because part of the pump blades lose contact with the liquid. It can be a problem in <u>fuel</u> and <u>water pumps</u>, <u>fluid couplings</u>, and <u>torque</u> <u>converters</u>. When severe, it can result in the erosion of the pump blades and other internal surfaces.

#### Cavity

- 1. An empty space in a body structure, either in a box section or a double-skinned area.
- 2. A holder and contact for fuses

## Cavity sealant

A product made of oil, wax, and rust inhibitors which is painted or sprayed into a cavity to prevent rust and corrosion.

C

- 1. Abbreviation for Celsius or Centigrade.
- 2. Abbreviation for Coulomb.
- 3. Abbreviation for Comfort.
- 4. Abbreviation for carbon
- 5. Symbol for the speed of light in a vacuum.

C-3

Abbreviation for Computer command control system

C3I

Abbreviation for Computer controlled coil ignition

 $C_4H$ 

A mixture of light hydrocarbons that have the general formula  $C_4H_n$ , where n is the number of hydrogen atoms per molecule. Examples include <u>Butane</u> ( $C_4H_{10}$ ) and <u>Butylene</u> ( $C_4H_8$ ).

C-4 system

Abbreviation for computer-controlled catalytic converter

C&C

Abbreviation for *Cab and chassis* 

CA

- 1. An API classification for <u>diesel engine oil</u> widely used in the late 1940s and '50s that operated in mild to moderate duty with high quality fuels; occasionally has included gasoline engines in mild service. Oils designed for this service provide protection from bearing corrosion and ring-belt deposits in some naturally aspirated diesel engines when using fuels of such quality that they impose no unusual requirements for wear and deposits protection. It was replaced by <u>CB</u> designated oil in 1949.
- 2. Abbreviation for *Cab/Axle* describing the distance from the rear of the cab to the rear axle.

#### CAA

- 1. Abbreviation for Clean Air Act
- 2. Abbreviation for *Civil Aviation Authority*

#### **CAAA**

Abbreviation for Clean Air Act Amendments of 1990

#### **CAAM**

Abbreviation for China Association of Automobile Manufacturers.

#### CAB

- 1. Abbreviation for Civil Aeronautics Board
- 2. Abbreviation for Controller, Anti-lock brake

#### Cab

- 1. A taxi or car for hire.
- 2. The closed part of a truck (or even a car) where the driver sits.

#### See

- Access Cab
- <u>Cabover</u>
- Chassis cab
- Club Cab
- Crew Cab
- Double Cab
- Easy Access Cab
- Extended Cab
- King Cab
- Quad Cab
- Regular Cab

#### Cab Aside Engine

(CAE) A truck where the driver's cab sits to one side of the engine as seen on refuse trucks and some construction equipment.

#### Cabbage

Trucker slang for a long steep incline in Eastern Oregon as in 'I jammed the brakes pullin' off of Cabbage'

#### Cab & chassis

(CC, or C & C) The front of a tractor trailer unit

#### Cab and chassis

The front of a tractor trailer unit

#### **Cab-Behind Engine**

(CB) (CBE) Conventional style of a large truck which has a hood and an engine in front of the occupant cab.

#### Cab chassis

A truck chassis which includes the driver compartment.

#### Cab Forward



#### Cab Forward

A truck that is similar to a <u>cabover</u> in that the cab is positioned ahead of the engine. Most commonly seen on refuse trucks and some construction equipment.

## Cab-forward design

A car design in which the front end is short and the footwells extended to the front axle. This design gave more passenger space and pushed the windshield further from the passengers

#### Cabin

A passenger compartment of an enclosed vehicle.

#### Cabin altitude

The normal pressure altitude maintained in the cabin of a pressurized aircraft.

## Cabin blower

An engine-driven pump, usually of displacement type, for maintaining an aircraft cockpit or cabin above atmospheric pressure. Also called *cabin supercharger*.

#### Cabin differential pressure

The pressure in excess of that of the surrounding atmosphere which is needed to maintain comfortable conditions at high altitude. For an aircraft flying at 9000m this differential would be about 60 kNm<sup>-2</sup>.

## Cabin forward

See

# • <u>Cab-forward design</u>

#### Cabin-forward design

#### See

• <u>Cab-forward design</u>

# Cabin supercharger

See

• Cabin blower

#### Cable

- 1. A distance of 120 fathoms where 1 fathom=6 feet. Thus a cable is 720 feet (219.456 m).
- 2. A cord generally made of strands of thin wire. Electrical cables are covered with a protective non-conducting material. Control cables are housed within an outer sleeve.

#### See

- Balanced-pair Cable
- Bowden cable
- Brake cable
- Clutch cable
- Control cable
- Derailleur Cable
- Gearchange cables
- Heavy cable
- Ignition cable
- Jumper cables
- Light cable
- Parking-brake Cable
- Shift cables
- Spark plug cable
- Speedometer cable
- Starter switch control cable
- Stirrup cable
- Universal Cable

## Cable activated

A device which is controlled by a cable. As a lever or pedal is engaged, the device is correspondingly moved. The longer the cable the less efficient is the system. Cables tend to stretch and fray with use.

# Cable-angle indicator

An indicator showing the vertical angle between the longitudinal axis of a glider and its towing cable, also its yaw and roll attitude relative to the towing aircraft.

## Cable brake

A braking device which is activated by a cable

Cable buoy

A buoy attached to an anchor and serving to mark its position.

Cablecar

A tram pulled by a moving underground cable, in the same manner as the <u>Cable railway</u>. Cable Chain

See Leaf Chain.

Cable clamp

- 1. A device for securing a cable end to the point where it connects.
- 2. A device which secures the outer sheath of a cable

# Cable cover strip

See

• Spark plug cable cover strip

# Cable crimp

A small aluminum or plastic cap installed on the ends of bicycle brake and shift inner cables to keep them from fraying; also known as a *cable end*. The outer cable sheath end is protected from fraying by a <u>Ferrule</u>

#### Cable cutter



Cable Cutter

A tool for severing a cable cleanly without leaving frayed ends. Cable ducts

Earthenware, steel, plastic, or concrete pipes containing cables.

#### Cable end

A small aluminum or plastic cap installed on the ends of bicycle brake and shift inner cables to keep them from fraying; also known as a *cable crimp*. The outer cable sheath end is protected from fraying by a <u>Ferrule</u>

#### Cable form

The normal scheme of cabling between units of apparatus. The bulk of the cable is made up on a board, using nails at the appropriate corners, each wire of the specified color identification being stretched over its individual route with adequate <a href="mailto:skinner">skinner</a>. When the cable is bound with twine and waxed, it is fitted to the apparatus on the racks and the skinners connected, by soldering, to the tag blocks.

#### Cable grip

A flexible cone of wire which is put on the end of a cable. When the cone is pulled, it tightens and bites into the sheath of the cable, and can be used to pull the cable into a duct.

# Cable guide

A tube which is secured in place to channel the cable which runs through it Cable Housing

See

- Brake Cable Housing
- Derailleur Cable Housing

## Cable-laid rope

A rope formed of several strands laid together so that the twist of the rope is in the opposite direction to the twist of the strands.

#### Cable lock

A thick cable with a lock at one end and which can be wrapped around a bicycle frame and a post to protect the bike from being stolen.

## Cable logging

A system of transporting logs from stump to landing by means of steel cables and winch. This method is usually preferred on steep slopes, wet areas, and erodible soils where tractor logging cannot be carried out effectively.

#### Cable loom

See

Spark plug cable loom

#### Cable marker

See

• Spark plug cable marker

#### Cable median barrier

A series of wire cables stretched along the median parallel to the flow of traffic. In the event that a vehicle loses control and runs into the median, the barrier prevents the vehicle from entering the oncoming lane and will entangle the vehicle so that it will not

bounce back into its own lane. While the vehicle may incur damage to itself, it is prevented from striking other vehicles.

## Cable operated

An item which is controlled by a cable

## Cable railway

Means of transport whereby carriages are pulled up an incline by an endless overground or underground cable.

#### Cables

See

#### • Cable

#### Cable seal

A heavy steel cable used to keep trailer doors closed.

# Cable separator

See

# • Spark plug cable separator

## Cable-stayed bridge

A bridge type for medium spans in which the decking is suspended by diagonal cables attached directly to the supporting tower. Can be of fan or harp design. The decking is always in compression and is self-supporting during construction. See

## • Bridge

#### Cable-way

A construction consisting of cables slung over and between two or more towers, so that skips suspended from the cables may be moved often over long distances. It is used for transport of ore etc. Also called *blondin*.

#### Caboose

A railcar that is placed at the rear of the train to provide an office and quarters for the conductor and train crew. Most railroads no longer use cabooses.

## Cabover



#### Cabover truck

A truck or tractor design in which the cab sits over the engine on the chassis. The cabover is identified by the windshield being located directly over the front bumper and the driver is directly over the steering axle. Also called *flat-faced*, *butt-nosed*, or *Cab-over-engine* Cab-Over-Engine

(COE) A truck or tractor design in which the cab sits over the engine on the chassis. The cabover is identified by the windshield being located directly over the front bumper and the driver is directly over the steering axle. Also called *flat-faced* or *butt-nosed*.

## Cab Plus

A type of pickup truck (by Mazda) which has a second row of seating; but unlike a <u>Crew cab</u> (which has four full size doors) it has a *half-door* that can be opened only after the main door is opened. The seating is usually a little more cramped than in a <u>Crew cab</u>. Also called <u>Club Cab</u>, <u>Extended Cab</u>, <u>King Cab</u>, <u>Xtracab</u>, <u>Access Cab</u>, <u>Supercab</u>

#### Cabriolet

French for *convertible*. A vehicle type similar to a sport coupé, it has a provision for converting to an open-type body (i.e., <u>convertible</u>). A <u>rumble seat</u> is a common on older vehicles, but not a mandatory feature. Mercedes-Benz distinguishes the cabriolet from the roadster in that the former has a soft-top which folds up while the roadster has a hard-top which is stored in the trunk. Also called a <u>Drophead coupé</u>.

#### **CAC**

- Abbreviation for *Charge Air Cooler*
- Abbreviation for Citizens Advisory Committee

#### **CACIS**

Abbreviation for Continuous AC Ignition System

CAD

Abbreviation for *computer aided design* software Cadastral survey

Land survey, boundary delineation.

#### Caddy

An euphemistic name for <u>Cadillac</u> See

• Plug caddy

#### Cadence

The speed your bicycle pedals turn. Professional bicycle riders have cadence of over 100 rpm

## Cadence braking

A braking method in which the driver rapidly depresses and releases the brake pedal to bring a vehicle to an emergency stop much in the more effective way an ABS system works. Cadence braking in non-ABS brakes is effective in slippery conditions where the brakes tend to lock up. The driver applies the footbrake in a series of very rapid jabs at the pedal taking the wheels up to the point of brake locking and then releasing them before the inevitable fall-off in braking efficiency takes place. Produces improved braking in any extremely slippery conditions such as ice, snow, wet mud, or rain.

## Cadillac



Click image for books on Cadillac

The following Cadillacs are classic cars

- All 1925-35 models
- All 12-cylinder models
- All 16 cylinder models
- All 1938-41 60 Special models
- All 1936-48 series #63, #67, #70, #72, #75, #80, #85, #90
- All V-63 from 1923
- All 1940-47 62 Series

For a history of Cadillac, see <u>Cadillac History</u>. Models include the following:

• <u>Allanté</u> (1987-1993)

- Brougham (1985-1992)
- Calais (1965-1976)
- Castilian Station Wagon (1975-1976)
- Catera (1997-2001)
- Cimarron (1982-1988)
- commercial chassis (1935-83) used for funeral cars and ambulances
- Coupe de Ville (1949-93)
- <u>CTS</u> (2003-current)
- CTS-V (2004-current)
- <u>DeVille</u> (1949-2005)
- DTS (2006-current)
- <u>Eldorado</u> (1953-2002)
- <u>Eldorado Biarritz</u> (1956-64, 1976-91)
- Eldorado Brougham (1957-60)
- Eldorado Seville (1956-60)
- Escalade (1999-current)
- Escalade ESV (2003-current)
- Escalade EXT (2002-current)
- Fleetwood (1927-1996)
- Fleetwood Eldorado (1965-2003)
- Seventy-Five (1936-76)
- Seville (1975-2004)
- Sixty-one (1939-51)
- Sixty-Two (1940-64)
- Sixty Special (1938-1993)
- SRX (2004-current)
- STS (2005-current)
- STS-V (2006-current)
- XLR (2004-current)
- XLR-V (2006-current)

## Cadmium cell

A reference voltage standard, giving 1.0186 V at 20°C. Also called *Weston standard cadmium cell*.

#### Cadmium copper

A variety of copper containing 0.7 to 1.0% cadmium. Used for trolley, telephone, and telegraph wires because it gives high strength in cold-drawn condition combined with good conductivity.

#### Cadmium photocell

A photoconductive cell using cadmium disulfide or cadmium selenide as the photosensitive semiconductor. Sensitive to longer wavelengths and infrared. It has a rapid response to changes in light intensity.

#### Cadmium-plated

Something that is covered with a coating of cadmium. It is usually used to protect aluminum and steel nuts and bolts

#### Cadmium red line

Spectrum line formerly chosen as a reproducible standard of length, wavelength 643.8496 nm.

#### CAE

- 1. Abbreviation for Computer Aided Engineering
- 2. Abbreviation for <u>Cab Aside Engine</u> -- a vehicle with a cab off to one side of the engine as seen on refuse trucks and some construction equipment. The cab is designed for only the driver.

#### Caesium

British spelling for **Cesium** 

#### **CAFE**

Abbreviation for Corporate Average Fuel Economy. Under CAFE, which was enacted in 1975, a motor vehicle manufacturer must place its U.S. automobile and light truck fleet sales in one of two vehicle fleets, either domestic or import, for fuel economy averaging purposes. It became effective in 1978 where the average was supposed to reach a minimum of 18 mpg and was scheduled to reach 19 mph in 1979 and 20 mpg in 1980.

## Café chop

Converting a stock motorcycle into a café racer is known as doing a café chop on a bike Café racer

- 1. Motorcycle modified to resemble racing motorcycles from the 1950s and 60s. They are called *café racers* because their owners supposedly raced from café to café in London, where the bikes first appeared in the 1960s
- 2. An early <u>sportbike</u> motorcycle which originated in Europe. They had a low <u>windshield</u> and the rider was bent forward to optimize the flow of air. Its name came from those who raced from one restaurant (café) to another.

#### Cage

- 1. Any enclosure.
- 2. On a front derailleur of a
- 3. bicycle, it is a pair of parallel plates that push the
- 4. chain from side to side; on a rear
- 5. derailleur, it is a set of plates in which
- 6. Pulleys are mounted to hold and guide the
- 7. chain from Cog to cog.
- 8. Any device for holding or securing something, e.g., a bottle cage on a
- 9. bicycle.

#### See

- o Bottle Cage
- 10. When referring to bearings, it is the part which holds the balls or
- 11. rollers in place. Usually called
- 12. Ball cage.

#### See

- o Needle cage
- o Roller cage
- Squirrel Cage
- 13. When referring to a vehicle, it is the safety enclosure called a
- 14. Roll cage.

#### See

- o <u>Differential cage</u>
- o Integrated roll cage
- Multi-reed cage
- 15. The platform on which goods are hoisted up or lowered down a vertical shaft or guides; in mines, the steel box used to raise and lower workers, materials, or tubs. May have two or three decks.

# Cage pedal



## Cage Pedal

A bicycle pedal that is surrounded by a cage. It is found on all terrain bikes.

#### Cage rotor

A form of rotor, used for induction motors, having on it a <u>Cage winding</u>. Also called *squirrel-cage rotor*.

# Cage winding

A type of winding used for rotors of some types of induction motors, and for the starting or damping windings of synchronous machines. It consists of a number of bars of copper or other conducting materials, passing along slots in the core and welded to rings at each end. Also called *squirrel-cage winding*.

## Cailletet's process

A method for the liquefaction of gases based on the free expansion of a gas from a higher to a lower pressure.

#### **CAJAD**

Abbreviation for Canadian Association of Japanese Automobile Dealers

#### Cake

The rectangular casting of copper or its alloys before rolling into sheet or strip.

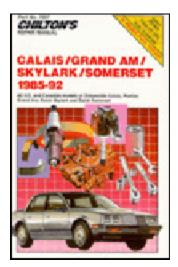
Cal

Abbreviation for Calorie

CAL

Abbreviation for Computer Aided Lighting

#### Calais



Click image for books on Oldsmobile Calais

A model of automobile built by Oldsmobile from 1985-91

## Calandria

Closed vessel penetrated by pipes so that liquids in each do not mix. In evaporating plant the tubes carry the heating fluid and in certain types of nuclear reactor, e.g., <u>CANDU</u> reactors, the sealed vessel is called a calandria

## Calcination

A process in which a material is heated to a high temperature without fusing, so that hydrates, carbonates, or other compounds are decomposed and the volatile material is expelled.

## Calcium chloride

- 1. A chemical (salt) which is added to water in a <u>liquid ballast</u>.
- 2. A soluble compound produced from calcium carbonate and hydrogen chloride generally used in cold temperatures (18° -10°C) to deice roads or to pre-wet salt before applying to roads.

#### Calcium magnesium acetate

A compound produced from limestone and acetic acid used for anti-icing and deicing of roads. It is less corrosive than salt, but more expensive.

#### Calcium sulfate

Chemical compound (CaSO<sub>4</sub>), which is used as a drying agent or desiccant in liquid line driers

See

• Anhydrous calcium sulphate

#### Calcium tungstate screen

A fluorescent screen used in a cathode-ray tube; it gives a blue and ultraviolet luminescence.

#### Calculation

See

• <u>Load distribution calculation</u>

#### Calendering

A thin layer of rubber inside the <u>Tire casing</u> which covers the carcass cords to protect them from moisture and to protect the tube from chafing by the cord body. In tubeless tires, calendering consists of a layer of air proof <u>Butyl</u> rubber.

#### Caliber

Also spelled *calibre* 

- 1. The internal diameter or bore of a pipe, esp. the barrel of a fire-arm.
- 2. The arrangement of the various components of a watch or clock.

#### Calibrate

- 1. As applied to test instruments it is the procedure of adjusting the dial
- 2. <u>Needle</u> to the correct zero or load setting to determine accurate measurements.
- 3. Position indicators to determine accurate measurements

## Calibrated airspeed

(CAS) In automobiles, speed is calculated by the rotation of the driving axle. In an airplane, however, speed is determined by the amount of air rushing past the plane. In a turn, air will rush past faster on one side than the other. Calibrated airspeed makes adjustment for this factor (called position error) and for any error in the instrument. Also called *rectified airspeed* 

## Calibration

Marking the measuring units on an instrument or checking their accuracy

## Calibration assembly

A memory module that plugs into an on-board computer and contains instructions for engine operation

#### Calibration oil

Oil which is used in a tester for checking injection nozzles, meeting SAE J967D specifications

#### Calibration Unit

See

• Engine Calibration Unit

## Calibre

#### • Caliber

#### California Air Resources Board

(CARB) The state agency that regulates the air quality in California. Air quality regulations established by CARB are often stricter than those set by the federal government.

## California Low-Emission Vehicle Program

State requirement for automakers to produce vehicles with fewer emissions than current EPA standards. The five categories of California Low-Emission Vehicle Program standards from least to most stringent are TLEV, LEV, ULEV, SULEV, and ZEV.

# California Pilot Program

Federal program, administered by the EPA under the Clean Air Act, which sets lower emission standards (relative to cars in the general U.S. market) for a set number of new passenger cars and light trucks sold in California. The program specified that at the beginning of 1996, there would be the sale of 150,000 clean vehicles in the state. Beginning in 1999, this was to increase to 300,000 annually. California must mandate availability of any fuel necessary to operate clean fuel vehicles.

# California Power Exchange

A State-chartered, non-profit corporation which provides day-ahead and hour-ahead markets for energy and ancillary services in accordance with the power exchange tariff. The power exchange is a scheduling coordinator and is independent of both the independent system operator and all other market participants.

## California top

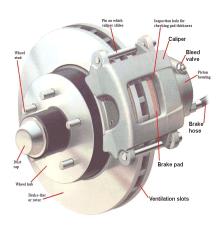
A solid top with sliding glass windows on a touring car to replace the standard folding top in order to provide better weather protection.

#### California wheel

1.

A name given to a spoked wheel produced by particular manufacturer. Although the wheel is popular in the East and Midwest of United States, it is not common in California or other Western states.

## Caliper



# Click image to supersize Caliper

The clamping device on <u>disc brakes</u> which straddles the rotating disc and by hydraulic action it presses the pads against the disc to stop or slow the vehicle.

## See

- o Brake caliper
- o Floating caliper disc brake
- o Fixed Caliper
- o Four Piston Caliper
- o <u>Low-drag Caliper</u>
- o Single-piston Caliper
- o Sliding Caliper
- o Pin slider caliper disc brake
- Swinging caliper



Bicycle Caliper

2.

On <u>bicycles</u>, the brake arms that reach around the sides of a wheel to press <u>brake</u> <u>pads</u> against the wheel rim.



3.

# Caliper

(British spelling is *calliper*). An adjustable measuring tool that is placed around (<u>outside caliper</u>) or within (<u>inside caliper</u>) an object and adjusted until it just makes contact. It is then withdrawn and the distance measured between the contacting points.

#### See

- o <u>Dial caliper</u>
- o Digital caliper
- o Inside Caliper
- o <u>Inside spring caliper</u>
- o Machinists' caliper
- o Outside Caliper
- o Outside spring caliper
- Pocket caliper
- Pocket slide caliper
- Vernier caliper

## Caliper diameter

The distance measured between one tooth gap and the nearest opposite gap for a sprocket with an odd number of teeth.

# Caliper disc

See

- Floating caliper disc brake
- Pin slider caliper disc brake

# Caliper disc brake

See

• Floating caliper disc brake

• Pin slider caliper disc brake

# Caliper gauge

A <u>caliper</u> (definition #3)

# Caliper mounting bracket

The component that connects a brake caliper to the steering knuckle, hub carrier, or rear axle

Calk

To fill seams in a wood deck with oakum or hammer the adjoining edges of metal together to stop leaks. Also spelled *caulk* 

#### Calking

See

Caulking

Call

See

• Close call

#### Call Distribution

See

• <u>Automatic Call Distribution</u>

## Calliper

Alternate spelling for <u>caliper</u>

#### Cal-look

A style modification of small vehicles which first started in California. Most of the chrome is removed and the vehicle is painted a bright color like yellow, light blue, and red.

#### Call-out

The mobilization of plow operators to initiate snow and ice control activities Calorescence

The absorption of radiation of a certain wavelength by a body, and its re-emission as radiation of shorter wavelength. The effect is familiar in the emission of visible rays by a body which has been heated to redness by focusing infrared heat rays onto it.

## Calorie

Two different calorie units are used by scientists.

- 1. The calorie used by medical science is a small heat unit. It equals the heat required to raise the temperature of one gram of water one degree Celsius. (251,996 calories = 1 Btu)
- 2. The calorie used by engineering science is a large heat unit. It is equal to the amount of heat required to raise the temperature of one kilogram of water one degree C.

In the <u>SI</u> system it is recommended that the <u>Joule</u> unit of energy be used in place of the calorie

#### Calorific value

A measure of heating value of fuel. Amount of heat produced by the complete combustion of a unit weight of fuel. Usually expressed in calories per gram or BTU's per pound, the latter being numerically 1.8 times the former.

#### Calorimeter

An instrument to measure amount of heat given off by a substance when burned See

• Bomb Calorimeter

#### **CAM**

Abbreviation for Computer Aided Manufacturing

Cam

1. A designed bump on a shaft or <u>disc</u> which causes a rocking motion in an adjacent part.

See

- o camshaft
- 2. A metal <u>disc</u> with irregularly shaped lobes used in the <u>camshaft</u> to activate the opening and closing of the valves and in the <u>distributor</u>, to force the points to open.
- 3. A stepped or curved eccentric wheel mounted on a rotating shaft. As a cam is turned, objects in contact with it are raised or lowered.
- 4. The triangular piece of metal that fits between the rollers on rollercam bicycle brakes and moves the brake arms when the brake lever is squeezed
- 5. A colloquial name for the camshaft.
- 6. A name for the breaker cam.

#### See

- Adjuster cam
- Adjusting Cams
- Barrel Cam
- breaker Cam
- Closing cam
- Distributor cam
- Double overhead cam
- Exhaust cam
- Face Cam
- Fast idle cam
- Floating cam
- Full Cam

- Inlet cam
- Intake cam
- Race Cam
- Semi-race Cam
- Single Overhead Cam
- Single-overhead cam
- Three-quarter Cam

## Cam-and-lever steering

A steering system in which a conical peg mounted on a lever engages in a helically cut groove on a cylindrical drum. Also called *cam-and-peg steering* 

# Cam-and-peg steering

See

• <u>Cam-and-lever steering</u>

#### Cam-and-roller steering

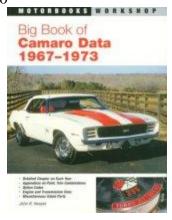
A steering system in which a tapered disc or a set of discs or rollers engage with a helically cut, tapered groove on a cylindrical drum

## Cam angle

See

Dwell

# Camaro



Click image for books on Camaro

A series of <u>Pony</u> cars from the <u>Chevrolet</u> division of <u>General Motors</u> produced from 1967 to 2002. It is often misspelled as *Camero* because of a mispronunciation. It should be pronounced *ka-MAH-roh*, not *ka-MERR-oh*. The 1967-69 SS/RS V-8 and Z-28 models are <u>Milestone cars</u>.

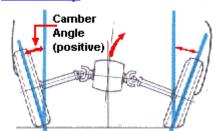
#### Cam belt

See

# • Timing belt

#### Camber

- 1. The rise of a deck of a ship,
- 2. Athwartship



3.

#### Camber

A wheel <u>Alignment</u> adjustment of the inward or outward tilt on the top of the wheel when viewed from the front of the vehicle. Tipping the top of the wheel center line outward produces

4. <u>Positive camber</u>. Tipping the wheel center line inward at the top produces <u>Negative camber</u>. When the camber is positive, the tops of the tires are further apart than the bottom. Correct camber improves handling and cuts tire wear. Camber is measured in degrees.

#### Cambered axle

An axle that has a slight arch which curves upward at the center so that the wheels can tilt outward at the top. In this way it is better than an axle which might sag under load.

#### Camber thrust

The side force generated when a tire rolls with <u>Camber</u>. Camber thrust can add to or subtract from the side force a tire generates.

#### Cam bolt

A bolt fitted with an eccentric that will cause parts to change position when the bolt is turned.

## Cam chain

A <u>Timing chain</u> which controls the overhead camshaft. It runs between the crankshaft and camshaft.

## Cam design

See

# • Cam profile

#### Camel

A padded fender to keep a vessel away from a pier or quay to prevent damage to the hull or pier

# Camelback

Uncured retread rubber in crescent shape, available in various widths and depths according to size and type of tire being retreaded. See

• Die size

#### Camelbak®



#### Camelbak

A brand name for a hydration pack that fits on the back of a cyclist or hiker. It is filled with water and has a tube placed within reach for supplying water for the user.

## Camel Grand Touring Prototype

(GTP) An International Motorsports Association's (IMSA) premier racing category until 1993 when it was replaced by the controlled cars World Sports Car Championship. GTP cars were the most powerful and the fastest on most road racing circuits in North America at that time. Over the years, many automakers fielded factory teams in this series including Ford, Toyota, Jaguar, Nissan, and Porsche.

## Cam engine

See

• Overhead camshaft

#### Camera

Trucker slang for Police radar unit as in 'There's a local yokal with a camera just ahead.' See

- Boys Camera
- Automatic Camera

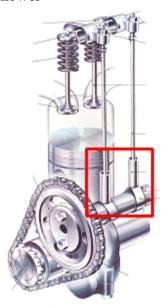
## Camero

See

## • <u>Camaro</u>

#### Cam face

The surface of a cam lobe Cam follower



# Cam Follower

The unit that contacts the end of the <u>Valve stem</u> and the <u>camshaft</u>. The follower rides on the <u>camshaft</u> and when the <u>Cam lobes</u> move it upward, it opens the valve. Also called <u>Valve lifter</u> or *tappet*.

# Cam grind

- 1. A type of brake shoe arcing that produces a lining thinner at its ends than at its center.
- 2. The intake and exhaust timing of a particular cam profile.

## Cam ground piston

See

# • <u>Cam-ground piston</u>

# Cam-ground piston

A <u>piston</u> with a <u>Skirt</u> that is ground slightly egg-shaped or oval-shaped. The widest diameter of the skirt is at right angles to the piston-pin axis. When it is heated, it becomes round. The design allows for a closer fit in the <u>cylinder</u> so that there is a reduction of <u>Blowby</u> gas, cylinder scuffing, and <u>Piston slap</u>.

#### Cam heel

The lowest point of a cam opposite the lobe. Also called <u>Base circle</u>

#### Cam lobe

See

## • Cam lobes

#### Cam lobes

The bumps on a camshaft that contact and activate such devices as the <u>Lifters</u>, which operate the valves, and the <u>Rubbing block</u>, which causes the points to open and close, as the cam spins with the <u>Distributor shaft</u>.

#### Cam lubricator

A device, often in the form of a wick, for lubricating the contact breaker cam in the distributor

#### Campaigning

Racing a particular vehicle for an entire season.

## Camper



#### Camper

A structure which fits into a truck bed for camping purposes. It usually has beds and possibly cooking and washing facilities. Also called a <u>Truck camper</u> or *slide-in camper*. See

- Slide-in Camper
- Truck Camper

# Camping

See

• Folding camping trailer

## Camping trailer

A trailer containing camping equipment.

See

- Folding camping trailer
- Soft-top trailer
- Hard-top trailer

#### Trailer

# Cam plate

Flat plate with slots that engage pins on the shift forks. As the plate is rotated, slots cause shift forks to move sliding gears or dogs, causing engagement and disengagement of transmission ratios.

# Cam profile

The shape of each lobe on a <u>camshaft</u>. These shapes determine when the valves open or close.

# Cam pulley holder



Click image to supersize Cam Pulley Holder

A tool for securing the camshaft when other adjustments are being made.

#### Cam/rocker

See

• Opening cam/rocker

## Cam/rocker

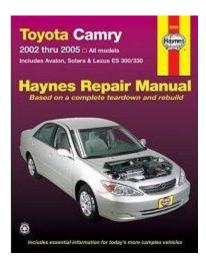
See

• Opening cam/rocker

# Cam roller

Rotating wheel acting as a cam follower

Camry



Click image for books on Camry

A model of automobile manufactured by Toyota Camshaft



## Camshaft

A shaft with <u>Cam lobes</u> (bumps) which is driven by gears, a belt, or a <u>Chain</u> from the <u>crankshaft</u>. The lobes push on the <u>Valve lifters</u> to cause the valves to open and close. The camshaft turns at half the speed of the <u>crankshaft</u>. See

- Double-overhead cam
- Exhaust camshaft
- Inlet camshaft
- Intake camshaft
- Overhead camshaft
- Race camshaft
- Three-quarter race camshaft
- Single Overhead Camshaft

- Single-overhead camshaft
- Twin camshaft

## Camshaft bearing

Usually a plain bearing which supports the camshaft

#### Camshaft drive

A connection between the crankshaft and camshaft by means of gears, chain, drive belt, shaft, or eccentric shaft to maintain the ratio of 12.

#### Camshaft drive belt

A Timing belt

# Camshaft drive sprocket

A sprocket attached to a crankshaft (either at one end or somewhere in the middle) which drives the camshaft with the use of a chain

# Camshaft end play

The amount of lateral movement of the camshaft once it is installed

# Camshaft engine

See

## • Twin camshaft engine

#### Camshaft gear

A gear that is used to drive the <u>camshaft</u>.

# Camshaft housing

That part of the engine which encloses the camshaft and often other parts of the valve train.

## Camshaft journal

That part of the camshaft that runs in one of its bearings

## Camshaft position sensor

(CMP) A detection device that signals to the (<u>ECU</u>) the rotational position of the camshaft. This enables the computer to more precisely time the fuel injection and ignition system for faster starting of the engine.

#### Camshaft pulley

The pulley on the end of the camshaft for the camshaft drive belt

## Camshaft sensor

- 1. A detection device that signals to the (<u>ECU</u>) the rotational position of the camshaft. This enables the computer to more precisely time the fuel injection and ignition system for faster starting of the engine.
- 2. A trigger device found on some distributorless ignition systems that synchronizes when the proper ignition coil should be fired.

## Camshaft sprocket

The sprocket on the camshaft which (through a chain) is driven by the <u>Camshaft drive</u> <u>sprocket</u>

# Camshaft timing

The relationship between the opening and closing of the valves and the movement of the pistons must be coordinated. The camshaft which operates the valves must therefore turn in relation to the crankshaft by means of a timing belt or timing chain.

## Camshaft timing belt

The rubber belt that transfers power from the crankshaft to the camshaft to operate it. The belt must be installed so it maintains the relationship between the camshaft and crankshaft so the valves for each cylinder open and close at the right time for proper engine operation, a factor called camshaft timing

# Camshaft timing chain

The metal chain that transfers power from the crankshaft to the camshaft to operate it. The chain must be installed so it maintains the relationship between the camshaft and crankshaft so the valves for each cylinder open and close at the right time for proper engine operation, a factor called camshaft timing

#### Can

- 1. A tube in a canned motor pump which insulates the motor winding.
- 2. A muffler.
- 3. A container for liquid or other substances.

#### See

- o Safety Can
- o <u>Tin Can</u>
- o Oil can

#### Canada-U.S. Free Trade Agreement

(FTA) Implemented in January 1989 to eliminate all tariffs on U.S. and Canadian goods by January 1998 and to reduce or eliminate many non-tariff barriers.

# Canadian Automotive Repair and Service Council

(CARS) A not-for-profit organization established to serve the human resource and training needs of the Canadian car and truck repair and service industry.

## Canadian cross border shopping

Cross border shopping describes the purchasing by Canadian consumers of products in the United States. Of particular interest is the decision by these buyers to obtain their products in the U.S., even though similar products are available in the Canadian market.

# Canadian Deuterium Uranium Reactor

(CANDU) Uses heavy water or deuterium oxide (D2O), rather than light water (H2O), as the coolant and moderator. Deuterium is an isotope of hydrogen that has a different neutron absorption spectrum from that of ordinary hydrogen. In a deuterium-moderated-reactor, fuel made from natural uranium (0.71 U-235) can sustain a chain reaction.

#### Canadian Environmental Protection Act

(CEPA) act where the goal is pollution prevention and protection of Canadians from toxic substances.

#### Canadian Gas Association

(CGA) A trade organization representing all segments of the gas industry in Canada. Founded in 1907, it specifically represents distributors, transmission companies,

producers, pipeline contractors, manufacturers and allied service organizations. CGA set up a standards writing, inspection and product certification program in the mid 1950's at a time when natural gas was being extended to Eastern Canada and the West Coast. CGA has been accredited by the National Standards Council of Canada to prepare National Standards of Canada in the area of equipment for use with natural gas and propane.

Canadian Standards Association (CSA)

The organization that sets safety standards for electric motors and other electrical equipment used in Canada

Canadian Value Added

See

Auto Pact Canadian Value Added

#### Cancellation

See

• Noise cancellation

#### Candela

(cd) A basic unit of luminous intensity. If, in a given direction, a source emits monochromatic radiation of frequency  $540 \times 10^{12}$  Hz, and the radiant intensity in that direction is 1/683 watt per <u>Steradian</u>, then the luminous intensity of the source is 1 candela.

#### Candle

See

• Candle power.

#### Candle power

A measurement of the light producing ability of a light Bulb.

## Candlestick barriers

Plastic poles used to channel traffic. Normally used in long-term traffic control in lieu of orange drums in tight construction areas.

#### **CANDU**

Abbreviation for Canadian Deuterium Uranium Reactor

#### Candy apple paint

A bright color (usually red) paint (often with metal flakes) with a transparent clear coat Candy paint

A bright color (usually red) paint (often with metal flakes) with a transparent clear coat Candy store

An automobile dealership with lots of vehicle inventory.

#### Canister

A small metal box or can. Usually refers to a container in an emission control system that contains charcoal to trap fuel vapors from the fuel system

See

- Activated carbon canister
- Charcoal canister

#### Canister air filter

A Centrifugal force air filter

Canister purge shut-off valve

(CPSOV) a vacuum-operated valve that shuts off canister purge when the air injection diverter valve dumps air downstream

Canister purge solenoid

An electrical solenoid that opens the canister purge valve between the fuel vapor canister line and the intake manifold when energized

Canister purge valve

Valve used to regulate the flow of vapors from the evaporative canister to the engine Canned motor pump

A glandless pump with a special type of submersible or *canned* motor, whose stator winding is insulated from the fluid pumped by a tube, the so-called can

Cannibalize

The action of removing good parts from one vehicle in order to put them into another vehicle.

Canning

The insertion of the catalyst element into the converter shell of a catalytic converter Cannular combustion chamber

A gas turbine combustion system with individual flame tubes inside an annular casing. Canonical assembly

Term used in statistical thermodynamics to designate a single assembly of a large number of systems

# Canopy

- 1. The transparent cover of a cockpit.
- 2. The fabric (nylon, silk, or cotton) body of a parachute, which provides high air drag. Usually hemispherical, but may be lobed or rectangular in shape.

#### **CANP**

Abbreviation for *canister purge* solenoid that opens the fuel vapor canister to the intake manifold when energized

Cant

Slope of rail or road curve whereby outer radius is superelevated, to counteract centrifugal thrust of traffic.

Cant beam

Beams supporting the deck plating in the overhanging portion of the stern.

Canted deck

The flight deck of an aircraft carrier prolonged diagonally from one side of the ship, so that aircraft may fly off and land on without interference to or from aircraft parked at the bows. The British term is Angled deck

Cant frame

A frame connected at the upper end to the cant beams

#### Cantilever

An arm that projects from a source and supports cables. See

Cantilever brake

#### Cantilever brake

- 1. A bicycle <u>Rim brake</u> with pivoting arms mounted on <u>Fork blades</u> or
- 2. <u>Seatstays</u> at or below rim level. The two brake arms are connected by a straddle cable with the brake cable attached to the midpoint of the straddle cable.
- 3. A type of ATB brake characterized by having the two brake arms connected by a straddle cable with the brake cable attached to the midpoint of the straddle cable. This type of brake was used on ATB bicycles (as well as tandems, touring, and cyclocross bicycles) before the invention of the V-Brake

#### Cantilever brakes

See

• Cantilever brake.

### Cantilever bridge

A bridge formed of self-supporting projecting arms built outward from the piers and meeting in the middle of the span, where they are connected together.

#### Cantilever deck

A bridge where the deck slab is fixed above the main beams or trusses and is cantilevered beyond the outer beams or trusses.

### Cantilever load

A load which tends to impose a radial force (perpendicular to the shaft axis) on an electric motor or gearmotor output shaft

# Cantilever spring

- 1. A leaf spring which is mounted upside down and attached to the vehicle at its mid-point. This system is no longer in use in modern vehicles.
- 2. A Quarter-elliptic leaf spring

### Cantrail

The Roof rail

# Canvas top

The convertible top.

# Canyon

A nuclear energy term for a long narrow space often partly underground with heavy shielding for essential processing of wastes from reactors.

Cap

1. A protective round cover which is secured to something.

- 2. A covering over the bed of a truck.
- 3. The base of a light bulb which fits into a socket.
- 4. Cleaner air package system for reducing the amount of unburned
- 5. hydrocarbons in the automobile
- 6. exhaust.

- Battery cap
- Bayonet cap
- Bearing cap
- Big-end cap
- Breast Cap
- Car cap
- Cold cap
- Distributor cap
- Double cap nut
- Dust cap
- End cap
- External mix air cap
- Filler cap
- Flip-top filler cap
- Fuel cap
- Full cap
- Gas Cap
- Hot cap
- Hubcap
- <u>Idle Limiter Cap</u>
- Inner cap nut
- Insulating cap
- <u>Internal mix air cap</u>
- Net cap cost
- Oil filler cap
- Orifice Cap
- Outer cap nut
- Pile caps
- Plug cap
- Pressure cap
- Pressure-vacuum Cap
- Radiator cap
- Roto cap
- Spark plug cap
- Spindle cap
- Top cap
- Valve cap
- Valve spring cap

### Capable of being fueled

A vehicle is capable of being fueled by a particular fuel(s) if that vehicle has the engine components in place to make operation possible on the fuel(s). The vehicle does not necessarily have to run on the fuel(s) in order for that vehicle to be considered capable of being fueled by the fuel(s). For example, a vehicle that is equipped to operate on either gasoline or natural gas but normally operates on gasoline is considered to be capable of being fueled by gasoline and natural gas.

# Capacitance (c)

- 1. The property which opposes any change in <u>voltage</u> in an electrical circuit. The property of a nonconductor by which it stores electrical energy when separated surfaces of the nonconductor are maintained at a difference of <u>potential</u>. Capacitance is measured by the ratio of the charge induced to the potential difference and is proportional to the area of the conducting plates and the dielectric constant of the nonconducting material, and inversely proportional to the separation of the plates (mks unit farad).
- 2. Property of a nonconductor (condenser or capacitor) that permits storage of electrical energy in an electrostatic field.
- 3. Of an isolated conductor, the ratio of the total charge on it to its potential; C=Q/V.

#### See

#### • Farad

### Capacitance bridge

An ac bridge network for the measurement of capacitance.

#### Capacitance coupling

Interstage coupling through a series capacitance or by a capacitor in a common branch of a circuit.

# Capacitance grading

Grading of the properties of a dielectric, so that the variation of stress from conductor to sheath is reduced. The inner dielectric has the higher permittivity. Ideally, the grading is continuous and the permittivity varies as the reciprocal of the distance from the center.

# Capacitance integrator

Resistance-capacitance circuit whose output voltage is approximately equal to the time integral of the input voltage.

# Capacitative load

Terminating impedance which is markedly capacitative, taking an ac leading in phase on the source emf, e.g., electrostatic loudspeaker.

### Capacitative reactance

Impedance associated with a capacitor. Has a magnitude in ohms equal to the reciprocal of the product of the capacitance (in farads) and the angular frequency of the supply (in rads s<sup>-1</sup>). Also introduces a 90° phase angle such that the current through the device leads the applied voltage.

# Capacities

# Fluid capacities

### Capacitive discharge

(CD) A type of <u>ignition system</u>. It can be either all-electronic or <u>breaker point</u> controlled. The primary power is drawn from the engine's <u>battery</u> and put into the CD power supply, where it is changed from 12 volts <u>Direct current</u> to about 300 volts of pulsating <u>Direct current</u> that is stored in a <u>capacitor</u> (<u>condenser</u>). The release of this energy through the <u>coil</u> is governed by a silicon-controlled <u>rectifier</u> (SCR). When the SCR switch is closed, the <u>voltage</u> stored in the <u>capacitor</u> is supplied to the <u>coil</u>, which acts as a voltage step-up <u>transformer</u> boosting firing voltage to around 30,000 volts to fire the plugs.

### Capacitive reactance

The opposition or resistance to an alternating current as a result of capacitance; expressed in ohms

# Capacitor

- 1. A device which gives <u>capacitance</u>, usually consisting of conducting plates or foil separated by layers of a dielectric. A <u>potential</u> difference applied across the plates induces a separation of charge centers in the dielectric, thus storing electrical energy.
- 2. Type of electrical storage device used in starting and/or running circuits on many electric motors
- 3. A device that, when connected in an alternating current circuit, causes the current to lead the voltage in time phase. The peak of the current wave is reached ahead of the voltage wave. This is the result of the successive storage and discharge of electric energy
- 4. A device which consists essentially of two conductors (such as parallel metal plates) insulated from each other by a dielectric and which introduces capacitance into a circuit, stores electrical energy, blocks the flow of direct current, and permits the flow of alternating current to a degree dependent on the capacitor's capacitance and the current frequency.

#### See

- Absorption capacitor
- Air Capacitor
- Blocking Capacitor
- By-pass Capacitor
- Ceramic Capacitor
- condenser
- Ignition capacitor
- Motor Capacitor

# Capacitor Condenser

See

• Dry Capacitor Condenser

# Capacitor controlled electronic ignition

See

- Electronic ignition system
- <u>Capacitive discharge</u>

# Capacitor discharge ignition (CDI)

See

• Capacitive discharge

### Capacitor modulator

Capacitor microphone, or similar <u>Transducer</u>, which, by variation in capacitance, modulates an oscillation either in amplitude or frequency

# Capacitor motor

Single-phase induction motor with an auxiliary starting winding connected in series with a condenser (capacitor) for better starting characteristics.

#### Capacitor-resistance law

(C-R law) Law relating to exponential rise or decay of charge on capacitor in series with a resistor, and, by extension, to signal distortion on long submarine cables.

#### Capacitor start

Starting unit for electric motor using series capacitance to advance phase of current.

### Capacitor-start motor

Motor which has a capacitor in the starting circuit

### Capacitron

See

• Band ignitor tube

### Capacity

- 1. The ability to contain or hold something.
- 2. Maximum production attainable under normal conditions. With regard to normal conditions, the company's operating practices are to be followed with respect to the use of production facilities, overtime, workshifts, holidays, etc.
- 3. The output of an electric motor or other electrical equipment.
- 4. The volume of fluid which a pump can handle.
- 5. A measure of the theoretical maximum amount of refrigeration-produced output, measured in tons or BTUs per hour
- 6. Refrigeration rating system. Usually measured in BTU per hour or watts.
- 7. Sometimes used to mean <u>capacitance</u>

- Ampere hour capacity
- Battery capacity

- Boiler Capacity
- Breaking Capacity
- Breathing capacity
- Bunker Capacity
- Carrying capacity
- Charge Capacity
- Energy
- Engine capacity
- fuse
- Maximum Regulation Capacity
- Net capacity
- Nominal capacity
- Oxygen Storage Capacity
- passenger capacity
- Ply rating
- Rated capacity
- Reserve capacity
- Seating capacity
- Specific Heat Capacity
- Top off
- Work capacity

# Capacity load

- 1. A trailer loaded to the maximum legal weight limit.
- 2. A load in a trailer that has reached its maximum available amount

# Capacity plan

A plan outlining the spaces available for fuel, <u>Cargo</u>, ballast, fresh water, etc, with guides on weight and volume for spaces at various drafts and displacements

# Capacity rating

See

• Rated capacity

Cap-and-pin type insulator

A special form of the **Suspension insulator** 

Cap cost

See

- Capitalized cost
- Net cap cost

Cap cost reduction

# • Capitalized cost reduction

### Cape chisel

A metal cutting chisel shaped to cut or work in channels or grooves

### Capillarity

A phenomenon associated with surface tension, which occurs in fine bore tubes or channels.

# Capillary

A tube with a very small bore used for temperature gauges

# Capillary action

The property of a liquid to move into small spaces if it has the ability to wet these surfaces

### Capillary tube

A tube usually gas-filled, with a precisely calibrated length and inside diameter, used to connect the remote bulb or coil to the expansion valve or thermostat. A tube with a very small bore used for temperature gauges. Also called <u>Pressure sensing line</u>

# Capitalized

See

# • Net capitalized cost

# Capitalized cost

The total price of the vehicle, in effect, its purchase price. In theory, the cap cost should equal the amount you would pay for the vehicle if you were purchasing the vehicle. When a lease is made, the dealer sells that vehicle to the leasing company (for the cap cost), which then leases the vehicle to you.

See

### Net capitalized cost

# Capitalized cost reduction

A fancy name for a cash down payment, money you pay up front that is applied to the final purchase price of a lease. A large cap cost reduction will, of course reduce the monthly payments, but it will also negate one of the big advantages of leasing. However, if you own your present car, you may be able to use it, as a trade-in, to satisfy the cap cost reduction to start the lease. Remember, you must pay sales tax on any cap cost reduction you make. Another source of capital cost reduction may be dealer or manufacturer participation. Dealers and manufacturers will sometimes lower the cap cost or offer a rebate that reduces the cap cost. A dealer or manufacturer cap cost reduction does lower your total out-of-pocket dollars, unlike a cap cost reduction that you must pay.

# Capital expenditures

Expenditures to acquire or add to capital assets that will yield benefits over several accounting periods. Included are cost of procuring, construction, installing new durable plants, machinery and equipment where for replacement, addition or for lease or rent to other companies including subsidies.

### Cap nut



# Cap Nut

A threaded <u>nut</u> that is closed (blind) at one end often with a dome or acorn-shaped top. It is used to protect the projecting threads or to protect a person from being hurt by the sharp edge of projecting threads. Also called *box nut* or *dome nut*. See

- Double cap nut
- Inner cap nut
- Outer cap nut

# Capping

1. Installing a new tread on a tire carcass.

See

- Retread
- 2. <u>Door</u> molding or capping

# Caprice



Click image for books on Chevrolet Caprice

A model of automobile manufactured by the <u>Chevrolet</u> division of <u>General Motors</u> from 1967-92.

Cap screw

A screw with a hexagon head, slotted head, square head, or socket head

#### See

- Button socket head cap screw
- Socket head cap screw

# Capstan

- 1. A stump with a vertical axis used for handling mooring and other lines.
- 2. A vertical drum or spindle on which rope is wound, it is rotated by manpower or by a hydraulic or electric motor.
- 3. Roller providing the constant speed drive in a magnetic tape recorder.

### Capstan-head screw

A screw having a cylindrical head provided with radial holes in its circumference. It is tightened by a tommy bar inserted in these holes.

# Capstan lathe

A cutting device (lathe) in which the tools required for successive operations are mounted radially in a tool-holder resembling a capstan; by revolving this, each tool in turn may be brought into position in exact location.

### Capstan nut

A nut which is tightened in the same way as a <u>Capstan-head screw</u>

# Capstan screw

A screw or bolt with a round head and one or more holes through it into which a bar may be inserted for securing or removing it

# Capstan winch

A winch, generally mounted on or just behind the front bumper, usually run from an engagable extension to the engine crankshaft. The active component is usually a slowly revolving drum, about 15 cm in diameter, round which a rope may be wound to effect a winching operation. Has the advantage of being powered by the engine at idling speed and being a very low-stress unit that may be used all day without overheating or high electrical load.

# Capstat

A wax-type thermostat at the base of the jet of a SU carburetor, which expands and reduces fuel flow when the underhood temperature rises. See

• <u>Temperature compensator</u>

# Capsule

See

- Altitude Correction Capsule
- Vacuum capsule

### Captive

Something that is permanently located in the desired position

### Captive balloon

A balloon anchored or towed by a line. Usually the term refers only to spherical balloons. Special shapes (e.g., for stability) are called *kite balloons* 

# Captive finance company

A <u>Leasing</u> or finance company which is affiliated with an automobile manufacturer or distributor.

# Captive import

An imported motor vehicle or part manufactured by another automaker usually for sale under the brand name of the importer.

# Captive nut

A nut which fits into a cage and is welded in place. This is done where the nut is not easily accessible.

# Captive Pallet

A pallet for the exclusive use of a particular facility or company

# Captive refinery MTBE plants

MTBE production facilities primarily located within refineries. These integrated refinery units produce MTBE from Fluid Cat Cracker isobutylene with production dedicated to internal gasoline blending requirements.

# Captive refinery oxygenate plants

Oxygenate production facilities located within or adjacent to a refinery complex.

# Captive screw



Captive screw

A screw where the threads are a larger diameter than the shoulder Capture

Any process in which an atomic or nuclear system acquires an additional particle. In a nuclear radiative capture process there is an emission of electromagnetic radiation only, e.g., the emission of gamma rays subsequent to the capture of a neutron by a nucleus. Cap wrench



Cap wrench

A cup-shaped tool used to fit on one end of an oil filter in order to install or remove the filter.

### Car

- 1. A wheeled vehicle such as an automobile, a section of a train, or a streetcar. The word is an abbreviation of <u>Carriage</u> -- a device to carry people or goods.
- 2. In an airship, the part intended for the carrying of the load (crew, passengers, goods, engines, etc.). It may be suspended below, or may be inside the hull of envelope.

- 49-state car
- Bubble car
- Champ car
- City car
- classic car
- Collector car
- Compact car
- Company car
- Competition car
- Concept car
- Cult car
- Cycle car
- Donor car
- Dream car
- Edwardian car
- Electric car
- Estate car
- Executive car
- Family car
- Fleet car
- Formula Car
- Forty-nine state car
- Full-size car
- Funny car
- Ghost Car
- Hybrid car
- Intermediate car
- Kit car
- <u>Large Passenger Car</u>
- Luxury car
- Mass-produced car
- Mid-size car
- milestone car Society
- milestone cars

- Motor car
- Multi-storey car park
- New car dealer
- Open car
- Pace car
- Parts car
- Passenger car wheel
- Passenger car
- Pony car
- Production car
- Program cars
- Recycling car
- Shopping car
- Solar car
- sports car
- Stock car
- Street car
- Sun car
- Supercar
- Touring car
- Town car
- Veteran car
- Vintage car
- Volume car

### Car accident

A collision between two or more vehicles (or between a vehicle and a stationary object), whether the vehicles are cars or trucks. Some are minor like a <u>Fender bender</u> while others are <u>Totalled</u>.

See

• Written off

# Car alarm

A chime, bell, siren, or horn that sounds when a problem exists (e.g., door ajar, seat belt undone, lights on after engine is off, key left in ignition switch, unauthorized entry)

#### Caravan

- 1. A group of vehicles (belonging to one organization) which follows after one another.
- 2. A British term for camping trailer or a mobile home.
- 3. The name of a minivan produced by Chrysler (Daimler-Chrysler) from 1983.

See

• Hard-sided Caravan

### • Motor Caravan

# Caravanning

A British term for traveling with a camping trailer

#### Carb

An abbreviation for <u>carburetor</u>.

#### **CARB**

Abbreviation for *California Air Resource Board* -- The state agency that regulates the air quality in California. Air quality regulations established by CARB are often stricter than those set by the federal government.

### Car banger

A British term for a person or organization which fakes a <u>Car accident</u> in order to defraud an insurance company

# Car banging

The act of faking a Car accident in order to defraud an insurance company

#### Carbide

A binary compound of metals with carbon. Carbides of group IV to VI metals (e.g., silicon, iron, tungsten) are exceptionally hard and refractory. In group I and II, calcium carbide (ethynide) is the most useful.

See

- Cementite
- Silicon carbide

### Carbide blade

A snowplow blade composed of a carbon compound that generally wears longer and requires less frequent changes than steel blades

### Carbide precipitation

Carbon that breaks loose from its bond within the stainless solution when material is heated between 427° - 760°C. Under severe corrosive conditions, it can result in extra oxidation and surface corrosion.

#### Carbide tools

Cutting and forming tools used for hard materials or at high temperatures. They are made of carbides of tungsten, tantalium, and other metals held in a matrix of cobalt, nickel, etc., and are very hard with good compressive strength.

#### Carb kit

A collection of gaskets, O-rings, jets, etc. to rebuild a carburetor

### Car blind

A curtain or pull-down covering for the <u>backlight</u> (i.e., rear window) to obscure the bright headlights of a following vehicle. Some are also used for side windows for privacy. It is generally illegal to use them on the driver's side window or the windshield.

#### Carbon

1. The hard or soft, black deposits found in the <u>combustion chamber</u>, on the plugs, under the rings, on and under the <u>Valve heads</u>, etc. Although it is not a metal, it is a good <u>conductor</u> of electricity.

- 2. An element which forms various kinds of steel when combined with iron. In steel, it is the changing carbon content which changes the physical properties of the steel. Adds strength to stainless steel, but also lowers corrosion resistance. The more carbon there is, the more chromium must be added, because carbon offsets 17 times its own weight in chromium to form carbides, thus reducing the chromium available for resisting corrosion.
- 3. Carbon is used in a solid form as an electrode for arc welding, as a mold to hold weld metal, or for motor brushes.

#### See

- Activated carbon
- Degradable Organic Carbon
- Elemental Carbon
- High carbon steel
- Low carbon steel
- Medium carbon steel
- Total Carbon

#### Carbon arc

An arc between carbon electrodes, usually limited to pure carbon rather than flame carbon electrodes

# Carbon-arc lamp

Obsolete light source from the arc between carbon electrodes.

# Carbon-arc welding

Arc welding carried out by means of an arc between a carbon electrode and the material to be welded.

#### Carbonate Fuel Cell

See

• Molten Carbonate Fuel Cell

### Carbon black

A by-product of the petroleum industry used as a pigment and to give body in the manufacture of rubber products, both natural and synthetic. Carbon is the black residue from burning petroleum.

### Carbon brush

A block of carbon to which a copper wire (or braided cable) is attached at one end and the other end rubs against a commutator, collector ring, or slip ring to transmit electricity Carbon brush spring

See

• Brush spring

# Carbon build-up

A deposit of burned oil which collects in the combustion chamber on the top of the piston and the head. Too much carbon build-up can lead to an inefficient engine and sticky valves.

#### Carbon button

See

• Carbon microphone

#### Carbon canister

See

• Activated carbon canister

### Carbon contact

In a switch, an auxiliary contact designed to break contact after and to make contact before the main contact to prevent burning of the latter; it is of carbon and designed to be easily removable.

### Carbon-core leads

High tension wire going from the distributor to the coil or the spark plugs. Each wire has a core of carbon or graphite rather than copper wire to conduct the electricity. Carboncore wire is not recommended for most small engines such as motorcycle engines.

### Carbon dating

Dating method which uses the fact that atmospheric carbon dioxide contains a constant proportion of radioactive  $C^{14}$ , formed by cosmic radiation. Living organisms absorb this isotope in the same proportion. After death it decays with a half-life of  $5.57x10^3$  years. The proportion of  $C^{12}$  to the residual  $C^{14}$  indicates the period elapsed since death. Also called *radiocarbon dating* 

### Carbon deposits

The residue of carbon from burning fuel, which can clog grooves in pistons, combustion chambers, and valves, and cause engine hesitation and other operational problems

### Carbon dioxide

 $(CO_2)$  A colorless, odorless, non-toxic gas which is a product of breathing and the combustion process. Sometimes used as refrigerant. (Identified as Refrigerant #R-744)

# Carbon dioxide equivalent

The amount of carbon dioxide by weight emitted into the atmosphere that would produce the same estimated radiative forcing as a given weight of another radiatively active gas.

### Carbon dioxide laser

Laser in which the active gaseous medium is a mixture of carbon dioxide and other gases. It is excited by glow-discharge and operates at a wavelength of  $10.6~\mu m$ . Carbon dioxide lasers are capable of pulsed output with peak power up to 100~MW or continuous output up to 60~kW.

# Carbon-dioxide welding

Metal arc welding using CO<sub>2</sub> as the shielding gas.

### Carboned up

Covered with a thick deposit of carbon. In Britain it is called *coked up* 

Carbon fiber

- 1. A high-tech material favored in many motorcycle and bicycle applications because it is extremely strong, light and expensive. The distinctive look of carbon fiber has become trendy.
- 2. Threadlike strands of pure <u>carbon</u> that are strong and flexible. Carbon fiber can be bound in a plastic <u>resin</u> matrix to form a strong
- 3. <u>composite</u>. It is light-weight and stronger than steel. Can also be spelled *carbon fibre*.

#### Carbon fibre

A high-tech material favored in many motorcycle applications because it is extremely strong, light and expensive. The distinctive look of carbon fiber has become trendy. See

# • Carbon fiber.

### Carbon filter

An air filter using activated carbon as a cleansing agent

### Carbon fouling

The situation that occurs when the two electrical terminals of the spark plug are coated with carbon causing a reduction in efficiency leading to intermittent firing or complete failure.

# Carbon gland

A type of gland used to prevent leakage along a shaft. It consists of carbon rings cut into segments and pressed into contact with the shaft by an encircling helical spring or <u>Garter spring</u>

# Carbon intensity

The amount of carbon by weight emitted per unit of energy consumed. A common measure of carbon intensity is weight of carbon per British thermal unit (Btu) of energy. When there is only one fossil fuel under consideration, the carbon intensity and the emissions coefficient are identical. When there are several fuels, carbon intensity is based on their combined emissions coefficients weighted by their energy consumption levels.

### Carbonitriding

A process of <u>case hardening</u>

# Carbonization

The steeping of wool in a dilute solution of sulfuric acid, or its treatment by hydrochloric acid gas (dry process). This converts any cellulosic impurities into carbon dust and thereby facilitates their removal.

### Carbonize

Building up of carbon on objects such as spark plugs, pistons, heads, etc.

# Carbonized filament

Thoriated tungsten filament coated with tungsten carbide to reduce loss of thorium from the surface.

### Carbonizing

Another term for **Carburizing** or reducing

#### Carbon knock

When there is a build-up of carbon in the combustion chamber, uncontrolled ignition will take place causing a knocking noise.

# Carbon microphone

A microphone in which a normally DC energizing current is modulated by changes in the resistance of a cavity filled by granulated carbon which is compressed by the movement of the diaphragm. The diameter of the cavity is frequently very much less than that of the diaphragm, and it is then known as a *carbon button*.

### Carbon monoxide

(CO) A deadly, colorless, odorless, and tasteless gas found in the engine <u>exhaust</u>. Toxic even in relatively small concentrations. Formed by incomplete burning of <u>Hydrocarbons</u>. Thus at its greatest with a rich mixture.

# Carbon pile voltage transformer

Variable electrical resistor made from disks or plates of carbon arranged to form a pile. Carbon pin

A thin cylinder of carbon located in the distributor cap to transfer high tension electricity from the coil to the rotor to the high tension leads going to the spark plugs.

#### Carbon resistor

Negative temperature coefficient, non-inductive resistor formed of powdered carbon with ceramic binding material. Used for low-temperature measurements because of the large increase in resistance as temperature decreases.

# Carbon Sequestration

- 1. The absorption and storage of CO<sub>2</sub> from the atmosphere by the roots and leaves of plants; the carbon builds up as organic matter in the soil.
- 2. The fixation of atmospheric carbon dioxide in a carbon sink through biological or physical processes.

#### Carbon steel

A steel whose properties are determined principally by the amount of carbon present and contains no other deliberate alloying ingredient except those necessary to ensure deoxidation and physical quality. Also called *plain carbon steel*. See

- High carbon steel
- Low carbon steel
- Medium Carbon Steel
- Steel

### Carbon tetrachloride

A liquid often used in fire extinguishers. The fumes are toxic -- avoid inhaling.

### Carbon tracking

A trace of carbon found inside the distributor cap which leads away some electricity, thus causing the engine to misfire.

# Carbon tracks

Fine lines from burned carbon (such as from oil film) that may be found in a distributor cap. Carbon tracks may cause engine misfire

### Carbonyl powders

Metal powders produced by reacting carbon monoxide with the metal to form the gaseous carbonyl. This is then decomposed by heat to yield powder of high purity.

# Carborundum

Trade name for Silicon carbide abrasives.

### Carborundum wheel

See

# Grinding wheel

# Carboy

Large, narrow-necked container, usually of balloon shape, having a capacity of 201 or more.

#### Carbs

Abbreviation for carburetors.

See

### • Dual carbs

### Carburation

British term for Carburetion

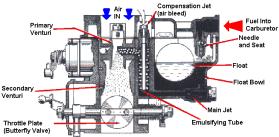
#### Carburetion

The mixture of vaporized fuel and air in the proper proportions for combustion in an engine

See

# • Closed-Loop Carburetion

### Carburetor



WEBER CARBURETOR

# Click image to supersize Carburetor

(Carb) Optionally spelled *carburetter* or *carburettor*. A device that <u>Vaporizes</u> fuel and mixes it with air in proper quantities and proportions to suit the varying needs of the engine. A <u>Filter</u> screens the air which is drawn into the carburetor. Here the <u>gasoline</u> mixes with the air and this fuel vapor enters the <u>combustion chamber</u> through the <u>intake valve</u> where it is compressed and burned.

### See

- Air valve carburetor
- Compound carburetor
- Double-barrel carburetor
- Downdraft carburetor
- Downdraught Carburetor
- Dual carbs
- Dual carburetors
- Feedback carburetor
- Fixed-choke carburetor
- Fixed-jet carburetor
- Flood the carburetor
- Four-barrel carburetor
- HIF carburetor
- Non-staged Carburetor
- Sidedraft carburetor
- Sidedraught Carburetor
- Single-barrel carburetor
- Slide carburetor
- <u>Staged Carburetors</u>
- Starting carburetor
- <u>Stromberg carburetor</u>
- SU carburetor
- Tamperproof carburetor
- Twin-choke carburetor
- Twin barrel carburetor
- Twin carburetors
- Two-stage carburetor
- Updraft carburetor
- Variable-venturi carburetor
- Weber Carburetor

### Carburetor Actuator

See

• Feedback Carburetor Actuator

# Carburetor adapter

An adapter that is used to fit or place one type of <u>carburetor</u> on an <u>intake manifold</u> that may not be originally designed for it. Also used to adapt four-barrel <u>carburetors</u> to two-barrel manifolds.

### Carburetor air horn

See

• Air horn

#### Carburetor barrel

The tube-like part of the vehicle through which air flows and is mixed with <u>Vaporized</u> fuel. The <u>choke butterfly</u> valve is located at the top of the <u>carburetor</u> barrel, and the <u>Throttle valve</u> is located at the bottom. Midway through, the barrel narrows, and this part is called the <u>Venturi</u>. Carburetors can have one, two, or four barrels.

### Carburetor base

The lower part of the carburetor in which the throttle plate is located Carburetor circuit

A series of passageways and units designed to perform a specific function <u>Idle circuit</u>, full power circuit, etc.

### Carburetor circuits

See

### • Carburetor circuit

### Carburetor cleaner

A petroleum solvent for cleaning the carburetor

### Carburetor engine

A combustion engine which uses a carburetor instead of fuel injection.

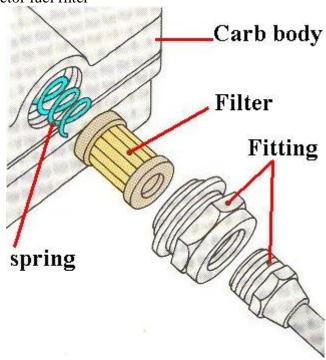
### Carburetor fuel bowl

A small fuel storage area in the carburetor, located at the carburetor fuel inlet. Also called the float bowl because it contains the carburetor float

#### Carburetor fuel bowl vent

A vent on the <u>float bowl</u>. It typically is connected to an <u>Carbon canister</u>, which absorbs vapors when the engine is off, and it also may be vented to the atmosphere when the engine is running.

# Carburetor fuel filter



#### Carburetor Fuel Filter

A filter made of pleated paper or sintered bronze that is mounted into the body of the carburetor at the float bowl fuel inlet. It is held in place by the fuel hose/pipe fittings. On some cars, a small <u>in-line filter</u> is screwed directly into the carburetor's fuel inlet. Also called an <u>integral fuel filter</u>.

### Carburetor fuel inlet

A threaded fitting on the side of the carburetor to which tubing from the <u>fuel pump</u> is connected. Fuel enters the carburetor at this point.

### Carburetor icing

The formation of ice on the <u>Throttle plate or valve</u> during certain atmospheric conditions. As the fuel <u>Nozzles</u> feed fuel into the <u>Air horn</u> it turns to a vapor. This robs heat from the air and when weather conditions are just right (fairly cool and quite humid) ice may form. See

#### Icing

### Carburetor jet

A fitting (usually brass) located inside a carburetor that permits a measured amount of fuel which is mixed with air going into the combustion chamber. Some look like a small brass screw with a hole in the center; others look like a long wide needle with holes along the sides; others look like a thin tapered needle.

#### Carburetor kit

A collection of gaskets, O-rings, jets, etc. to rebuild a carburetor. Also called a *carb kit*. Carburetor throat

See

Venturi

#### Carburetor venturi

See

Venturi

### Carburetter

British spelling for carburetor.

### Carburettor

See

carburetor

### Car burglar

A person who steals object from a car, but does not steal the car itself. See

Car thief

#### Carburization

The process of creating carbon steel by increasing the carbon content of steel to reach the desired degree of hardness

# Carburizing

- 1. A carburizing flame in welding terms is an oxygen-fuel gas flame with a slight excess of the fuel gas.
- 2. A method of <u>Case-hardening</u> low carbon steel in which the metal component is heated above its ferrite-austenite transition in a suitable carbonaceous atmosphere. Carbon diffuses into the surface and establishes a concentration gradient. The steel can subsequently be hardened by quenching either directly or after reheating to refine the grain structure. It is usually lightly tempered afterwards, producing a hard case over a tough core.

### Car cap

A waterproof cover which encloses just the <u>Greenhouse</u> (i.e., the roof, windshield, side glass, and <u>Backlight</u>)

### Car care product

One of several items for taking care of the outward finish of the car (i.e., cleaners, polish, wax, preservers) as well as the interior pieces (e.g., <u>instrument panel</u> cleaners, upholstery cleaners and sealers)

# Carcass

The primary structure of a tire body with its cords, plies, rim wires, etc. apart from the tread itself. Structurally the carcass should hold air and provide strength to the tire, but would not wear well without the tread.

### Carcinogens

Chemicals and other substances known to cause cancer.

#### Car Club of America

See

• Classic Car Club of America

### Car cover

A cover which encloses the entire vehicle to protect the finish from the elements.

#### Car crash

A Car accident

#### Card

The graduated dial or face of a magnetic compass to which the card and needle are firmly connected.

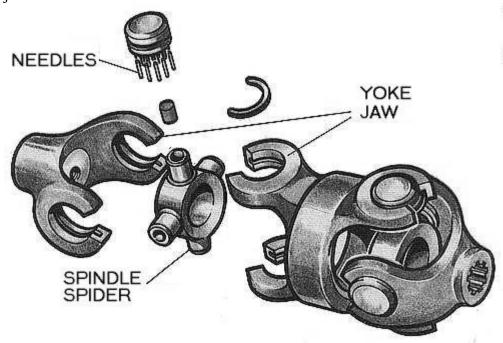
See

• File card brush

### Cardan

# • Cardan joint

# Cardan joint



### Cardan Joint

A type of <u>Universal joint</u> named after the Italian Cardan who developed the concept in the 16th century. In the 17th century, Robert Hooke of England developed and patented the conventional universal joint. Sometimes it is called the *Cardan universal* or the *Hooke universal*. It has two <u>yokes</u> at right angles to each other.

Cardan mount

Type of gimbal mount used for compasses and gyroscopes.

Cardan shaft

A shaft with universal joints at each end

Cardan universal

See

• Cardan joint

Card brush

See

• File card brush

Car dealer

See

• New car dealer

### • Used Car Dealer

# Cardinal planes

In a lens, planes perpendicular to the principal axis, and passing through the cardinal points of the lens.

#### Cardioid

A heart-shaped curve with polar equation  $r=2a(1+cos\theta)$ . An epicycloid in which the rolling circle equals the fixed circle.

# Cardioid directivity

Special shape of a directivity. It is produced by superimposing the fields of a monopole and a dipole, and has the shape of a cardioid.

# Care product

See

### • Car care product

#### Car-floor contact

A contact attached to the false floor of an electrically controlled lift; it is usually arranged to prevent operation of the lift by anyone outside the car while a passenger is in the lift.

### Cargo

Freight carried by a ship but the term is sometimes used for freight on a truck in place of shipment.

See

- Building Materials cargo
- Bulk cargo
- Farm Products cargo
- Gases in Bulk cargo
- General cargo
- General Freight cargo
- Heavy Machinery cargo
- Household Goods cargo
- Liquids in Bulk cargo
- Lumber cargo
- Metal cargo
- Motor Vehicles cargo
- Piggyback cargo
- Refrigerated Foods cargo
- Solids in Bulk cargo
- Towaway
- <u>logs cargo</u>
- poles cargo

### Cargo area

The space within a station wagon or van for carrying goods or the bed of a pickup truck for carrying goods

### Cargo battens

Strips of wood secured to the inside of the frame to keep the cargo away from steel sides of the hull or truck trailer bodywork. Also called *sparring* 

### Cargo Body Style Auto Carrier

A truck cargo body typified by the multi-decked auto carrier trailer and/or power unit.

# Cargo Body Style Bottom Dump

Dry bulk truck bodies which empty by means of gravity alone through the bottom.

# Cargo Body Style Dump

A truck body with a hydraulic, electric, or mechanical lifting mechanism that tilts to unload cargo. Dump includes side dumps, walking dumps, flatbed dumps, and dump trucks with snow plows or blades.

# Cargo Body Style Flatbed

A cargo truck body style typified by a flat cargo area. Includes angle beds, rollback beds, and ramp hoists, which are flatbeds that tilt down to the ground so vehicles can be driven onto the bed.

# Cargo Body Style Flatbed with Sides

A cargo truck body style typified by flatbeds with sides to hold and protect cargo. See

# • stake body

# Cargo Body Style Flatbed with Equipment

This cargo truck body style is typified by flatbeds with permanent cranes, loaders, pumps, winches, or other significantly heavy and large apurtenances.

# Cargo Body Style Garbage

A cargo body style typified by garbage trucks that often have hydraulic packing mechanisms or hydraulic arms for lifting dumpsters. Included are roll-offs, vehicles used for transporting refuse containers. Roll-offs have rails or a flat bed and a hoist for loading and unloading the refuse container.

# Cargo Body Style Livestock Carrier

A cargo truck body style typically with slotted or slatted sides. Trailers may have a double deck. Livestock trailers sometimes have 'possum belly' compartments in the bottom for holding smaller animals.

# Cargo Body Style Low Boy

Gooseneck flatbed trucks slung very low to the ground. Often the gooseneck is detachable so that equipment can be loaded from the front. Sometimes ramps are at the rear. Typically about 12' off the ground.

# Cargo Body Style Open Top Van

A totally enclosed cargo area but without a permanent, fixed, solid top.

# Cargo Body Style Pole Logging

Pole trailers with a set of axles with a cradle to hold logs and a long, sometimes adjustable pole attached to the rear of a power unit. Others are framed with support stakes. Some have double decks. Most will have cradle-like features called <u>bunks</u> to hold the logs in place.

### Cargo Body Style Refrigerated Van

A cargo body style with a totally enclosed box with a refrigeration unit.

# Cargo Body Style Tank Dry

A truck used exclusively for hauling dry bulk material. Cargo is emptied pneumatically. Also called air can trailer

# Cargo Body Style Tank Liquid or Gas

A cargo body truck style characterized by tankers which can carry only liquids or gases in bulk.

# Cargo Body Style Van

A totally enclosed cargo area truck. Included are beverage vans, or bay vans, and sealed shipping containers mounted on a special bodiless chassis.

# Cargo Boom



#### Boom

A heavy, long pole with cables and pulleys used to lift and place cargo. Also called a <u>crane</u>

# Cargo box



Cargo Box

A type of container mounted on the roof of a vehicle

# Cargo net



# Cargo Net

A type of <u>Bungee net</u> usually found in the <u>trunk</u> of a car to secure packages from moving around; but also found behind or beside a seat.

Cargo port

Opening in a ship's side for loading and unloading cargo.

Cargo shifting

Movements or changing positions of cargo from one place to another which can easily endanger the seaworthiness of the ship

Cargo ship

See

• Dry cargo ship

# Cargo trailer



Cargo Trailer

A trailer with sides.

Cargo Weight

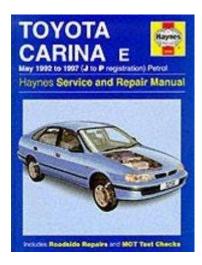
The combined weight of all loads, gear, and supplies on a vehicle.

Car Guide

See

• NADA Used Car Guide

Carina



Click image for books on Toyota Carina

A model of automobile manufactured by Toyota

### Car insurance

An insurance policy (mandatory in most states and all of Canada) to cover possible damage to the vehicle or property or passengers, etc. Sometimes basic insurance is abbreviated PL&PD (public liability and property damage). Also called *motor insurance* Car jacker

A person who steals a car at gunpoint.

### Car jacking

A process of stealing a car while the driver is still in it. The car may be stopped at a traffic light when a car jacker appears with a gun and demands that the driver get out, then he drives away with the car. If it happens to you, give him the car -- your life is worth more than the vehicle.

### Car key

An unlocking device for the ignition switch, doors, trunk, gas cap, etc.

#### Carload

(CL or C/L)

- 1. The total amount of freight within a full railcar.
- 2. The specified quantity of freight necessary to qualify for a carload rate.

#### Car lot

A place where vehicles are sold by an independent dealer Car mechanic

See

• Mechanic

Carnot cycle

An ideal heat engine cycle of maximum thermal efficiency. It consists of isothermal expansion, adiabatic expansion, isothermal compression, and adiabatic compression to the initial state.

#### Carnot's theorem

Theorem stating that no heat engine can be more efficient than a reversible engine working between the same temperatures. It follows that the efficiency of a reversible engine is independent of the working substance and depends only on the temperatures between which it is working.

#### Carousel

A flat turntable (horizontal) or ferris-wheel-like (vertical) device which a picker uses to move product from the warehouse to those who are filling the orders.

# Car park

A parking area usually located within a building.

See

# • Multi-storey car park

# Carpeting

The action of covering the passenger compartment floor (and sometimes the trunk floor) with a form-fitting rug or carpet.

### Car phone

A telephone that is installed in a vehicle, but has recently been replaced by personal cell phones.

See

### • Cellular phone

### Car polish

A product which enhances the shine of the paintwork of a vehicle Car Pool



# **HOV Car Pool Sign**

A system where the use of a vehicle is shared by a number of riders going in the same direction. In some cases the same driver will use his vehicle and pick up the passengers along the way. The passengers reimburse the driver for his costs. In other cases each of the riders will take a turn at driving his own vehicle so that no one person is burdened with vehicle costs. The concept of the car pool is to reduce traffic, conserve fuel, and reduce the amount of parking space. Car pool vehicles are allowed to drive in the HOV lane designated by the diamond symbol.

### Car radio

A radio receiver which is installed (usually in the <u>instrument panel</u>) in a vehicle Carrene

Refrigerant in Group One (R-11). Chemical combination of carbon, chlorine, and fluorine Carriage

- 1. A horse-drawn vehicle for people to ride in.
- 2. A railroad vehicle for passengers.

- Hackney Carriage
- Invalid-carriages

# Carriage bolt



# Carriage Bolt

A bolt that has a smooth dome head (like a mushroom) so that no screwdriver or wrench can remove it from the dome-side, a square neck under the head, and a unified thread pitch. The square neck (which fits into a corresponding square hole) is designed to keep the bolt from turning when a nut is tightened. See

- Fin neck carriage bolt
- Square Neck Carriage Bolt

# Carriage Paid To

(CPT) the seller pays the freight for the carriage of the goods to the named destination. Carriage spring

See

Laminated spring

# Carriage-type switchgear

See

• Truck-type switchgear

# Carriageway

A British term for that part of the road on which vehicles travel in one direction. See

Dual carriageway

#### Carrier

1. A thin substance that helps another substance to reach its goal. For example, a spray grease may have a carrier which transports the grease to its destination. Then the carrier dries up leaving the grease behind.

2. A real or imaginary particle responsible for the transport of electric charge in a material. In oxide ceramics, electrons hopping between ions, diffusing oxygen ions and mobile cations can also transport charge.

See

#### Carriers

- 3. A device for conveying the drive of a face-plate of a lathe to a piece of work which is being turned between centers. It is clamped to the work and driven by a pin projecting from the face-plate.
- 4. A frame for holding a negative in an enlarger or slides in a projector.
- 5. Non-active material mixed with, and chemically identical to, a radioactive compound. Carrier is sometimes added to carrier-free material.
- 6. A vehicle for communicating in formation, when the chosen medium itself cannot convey the information but can convey a carrier, on to which the information is impressed by Modulation.
- 7. In radio transmission, the output of the transmitter before it is modulated.

See

### o Frequency modulation

- 8. The frequencies chosen for sending many signals simultaneously along a single communication channel
- 9. A transport company which takes goods from the shipping client (consignor) either to a central terminal and then to the receiving client (consignee) or directly to the receiving client. In some cases the goods are picked up, transported, and delivered in the same truck (usually by a local courier); but in most cases the goods are moved from the pick up truck to a terminal where it is united with other goods going in the same direction. This process may take place at several terminals until the goods are finally received by the consignee.

- Authorized Carrier
- Auto Carrier
- Barge carriers
- Bent-tail Carrier
- Bicycle carrier
- Bulk carrier
- Carrier bearing
- Common Carrier
- Connecting Carrier
- Contract carrier
- Differential carrier
- Exempt Carrier
- For-Hire Carrier

- Front Wheel Carrier
- Hub carrier
- Jet carrier
- Livestock Carrier
- LNG carrier
- LTL Carrier
- Luggage carrier
- Minority Carrier
- Motor Carrier
- Ore-bulk-oil carrier
- Ore carrier
- Pinion carrier
- Planet carrier
- Private Carrier
- Product carrier
- Spare tire carrier
- TL Carrier
- <u>Top Carriers</u>

# Carrier bearing

The bearings upon which the <u>Differential case</u> is mounted.

Carrier bearings

See

• Carrier bearing.

### Carrier mobility

The mean drift velocity of the charge carriers in a material per unit electric field.

### Carrier noise

Noise which has been introduced into the carrier of a transmitter before modulation.

Carrier, pinion

See

• Pinion carrier.

# Carrier, planet

See

• Planet carrier.

# Carrier power

Power radiated by a transmitter in absence of modulation.

### Carriers

In a crystal of semiconductor material thermal agitation will cause a number of electrons to dissociate from their parent atoms; in moving about the crystal they act as carriers of negative charge. Other electrons will move from neighboring atoms to fill the space left

behind, thus causing the holes where no electrons exist in the lattice to be transferred from one atom to another. As these holes move around they can be considered as carriers of positive charge.

See

- Barge carriers
- <u>Top carriers</u>

#### Carrier Transmission

See

• Quiescent Carrier Transmission

#### Carrier wave

An unmodulated radio wave produced by a transmitter on which information is carried by amplitude or frequency modulation.

#### Carrosserie

French term for **Coachwork**.

#### Carrozzeria

Italian term for Coachwork.

#### Carrying capacity

The maximum load that a tire is allowed to carry with a particular wheel and rim. Also called *load capacity*.

### **CARS**

Abbreviation for Canadian Automotive Repair and Service Council

# Car society

See

• milestone car Society

# Carson top

A customizing procedure where an automobile roof that has been removed (usually when the car's cab is being lowered) and modified so that it becomes a one-piece removable unit to turn the car into a convertible. The top is often stored in the trunk and may be removed manually or by a series of electric or hydraulic motors.

#### Car sponge

A large sponge for washing the exterior of a vehicle

#### Car stands

Pedestal-type supports for holding up a car once the car has been raised.

### Car stereo

A listening device in an automobile which usually has an AM/FM radio and often a cassette player, CD player, and/or CD changer. It also includes at least a pair of speakers.

### Cart

A wagon with four wheels used in the vicinity of a warehouse to move freight between the warehouse and the truck. The advantage over a <u>dolly</u> is that more freight can be moved at one time. The cart may be pulled by a long tongue or be motorized.

See

• Tool cart

# Cartage

- 1. The charge for the pickup and delivery of goods
- 2. The act of moving goods (usually short distances)

# Cartage company

A company that provides local pick-up and delivery within a town, city, or municipality.

#### Car tax

A government imposed tax which is added to the price of a new car. Some governments charge a road-use tax and call it a car tax.

#### Car test

A test of a vehicle's roadworthiness, reliability, and performance.

#### Car theft

Unauthorized removal (i.e., stealing) of a car or the items in or on a car.

See

• Car jacking

#### Car thief

A person who steals a car. If someone steals just the objects from a car, he is a <u>Car</u> <u>burglar</u>.

See

• Car jacker

#### Car tire

An automotive tire which is used exclusively on a passenger car, not a light truck, etc. Cartography

The preparation and drawing of maps which show, generally, a considerable extent of the Earth's surface.

### Carton

A single packaged product, usually in a cardboard box

### Cartridge

See

- Burst Cartridge
- <u>Can</u>
- Filter cartridge
- Oil filter cartridge
- Quarter-inch Cartridge

# Cartridge bottom bracket

A <u>bottom bracket</u> with protective seals to keep water and grime from penetrating to the bearings. Also called *sealed bottom bracket* 

# Cartridge brass

Copper-zinc alloy containing approximately 30% zinc. Possesses high ductility; capable of being heavily cold-worked. Widely used for cold pressings, cartridges, tubes, etc. See

• Copper alloy.

# Cartridge starter

A device for starting aero-engines in which a slow-burning cartridge is used to operate a piston or turbine unit which is geared to the engine shaft.

# Cart spring

A leaf spring used in small trailers.

### Car types

Automobiles can be divided into several groups based on design, technology, rarity, and age. However a particular vehicle can bridge a number of these categories. See

- Antique Car
- Brass Car
- classic car
- Custom Car
- Dragster
- Grand Tourer
- Hot Hatch
- Hot Rod
- Low Rider
- Milestone car
- Muscle Car
- Pony Car
- Roadster
- Spyder
- Supercar
- Veteran Car
- Vintage Car

### Carvac

A small, hand-held vacuum cleaner which is either battery-operated or which is plugged into the accessory outlet or cigarette lighter socket.

#### Car wash

1. A place where you can get your car cleaned. Some are automatic (you drive through and large brushes clean the car) while others provide a bay with spray wands and brushes for you to do the labor.

- Automatic car wash
- 2. A product like soap which is added to water for the purpose of cleaning a vehicle.

#### Car wax

A polish which may be in a paste or a cream and used in protecting the finish of a car. Car wheel

See

• Passenger car wheel

#### CAS

- 1. Abbreviation for *cleaner air system*
- 2. Abbreviation for crank angle sensor

#### Cascade

The arrangement of stages in an enrichment or reprocessing plant in which the products of one stage are fed either forward to the next closely similar or identical stage or backward to a previous stage, eventually resulting in two more or less pure products at each end of the cascade. The classic examples are gaseous or centrifugal enrichment plants. An ideal cascade is the arrangement of stages in series and in parallel which gives the highestyield for a given number of units (e.g., centrifuges) and a given separation factor.

## Cascade generator

High-voltage generator using a series of voltage-multiplying stages, esp. when designed for X-ray tubes or low-energy accelerators.

## cascade particle

Particle formed by a cosmic ray in a Cascade shower

#### Cascades

Fixed airfoil blades which turn the airflow around a bend in a duct, e.g., in wind tunnels or engine intakes.

#### Cascade shower

Manifestations of cosmic rays in which high-energy mesons, protons, and electrons create high-energy photons, which produce further electrons and positrons, thus increasing the number of particles until the energy is dissipated. Also called *air shower*.

# Cascade systems

Arrangement in which two or more refrigerating systems are used in series; uses evaporator of one machine to cool condenser of other machine. Produces ultra-low temps Cascading of insulators

Flashover of a string of suspension insulators; initiated by the voltage across one unit exceeding its safe value and flashing over, thereby imposing additional stress across the other units, and resulting in a complete flashover of the string.

## Case

- 1. That part near the surface of a ferrous alloy which as been so altered as to allow case-hardening.
- 2. One of the two clam-shell-like halves in the bottom end of the engine surrounded by a metal shell

#### See

- Basket case
- Battery case
- Chaincase
- Converter case
- <u>Differential case</u>
- Open Display Case
- Splitting The Cases
- Top case
- Transfer case

## CASE

Abbreviation for *Cranking Angle Sensing Error* 

#### Case harden

The action of hardening the surface of iron or steel so that the outer portion or *case* is made substantially harder than the inner portion or *core*. Typical processes used for case hardening are carburizing, cyaniding, carbonitriding, nitriding, induction hardening, and flame hardening.

## Casehardened

A piece of steel that has had the outer surface hardened while the inner portion remains relatively soft.

# Casehardening

The action of adding carbon to the surface of a mild steel object and heat treating to produce a hard surface.

## Case Mark

Information usually in printed sticker attached to the outside of a shipping carton which includes destination and contents.

## Cases

The two clam-shell-like halves in the bottom end of the engine surrounded by a metal shell

## Cash and carry

<u>Kerosene</u>, fuel oil, or bottled gas (tank or <u>Propane</u>) purchased with cash, by check, or by credit card and taken home by the purchaser. The purchaser provides the container or pays extra for the container.

## Cash Before Delivery

(CBD) A shipping term where the seller has received payment before shipping. It contrasts with <u>cash on delivery</u> (COD)

# Cash On Delivery

(COD) A shipping term where the receiver must pay the price of the goods to the carrier at the time of delivery and may refuse reception. Contrasts with <u>Cash before delivery</u> (CBD)

# Cash register

Trucker slang for Toll booth as in 'I'm comin' up on a cash register at highway 88' Cash value

See

• Actual cash value

# Casing

- 1. The Tire casing.
- 2. The outside shell of something such as the shell of an alternator or starter motor.

## See

- Axle casing
- Differential casing
- Tire Casing
- Turbine casing
- Volute casing

# Casing Bulkheads

- 1. Walls enclosing portion of a vessel, such as the boiler room casing.
- 2. A covering for parts of machinery.

# Casing factor

That portion of the load supported by <u>Tire casing</u> stiffness instead of air pressure.

# Casing head gasoline

A term used to describe the lighter parts of petroleum products, which were obtained from natural gasoline by condensing natural gas from an oil well

# **Casing Service**

A drilling service; from drill casings.

## Cask

See

• Flask

# Casket

See

Flask

#### Cassette

- 1. A type of bicycle gear cluster that slides on a freehub rather than threads on it. The freehub body is attached to the rear hub.
- 2. A cartridge containing magnetic tape that can be inserted into a player for listening or viewing (e.g., an audio cassette or video cassette).

# Cassette cogs

The individual cogs that make up a bicycle cassette.

# Cassette compartment

A storage place for audio cassettes

#### Cassette Deck

See

Radio cassette Deck

#### Cassette hub

More recent type of rear hub designed to accept the cassette type of gear cluster. The cassette hub has the rotating, ratcheting freehub body attached to the hub for the cassette to slide onto and be secured by a lockring.

# Cassette player

A unit which plays (but does not record) audio cassettes and is often linked with a stereo unit in an automobile

## Cassette size

The size of a bicycle cassette is described by the number of teeth on the smallest cog and the number of teeth on the largest cog. An example of a common size for road racing would be 12 x 21.

## Cast

- 1. To shape molten metal by pouring it into a mold.
- 2. A model or result made by pouring metal into a mold.

## See

- Cast iron
- casting
- Die cast

# Cast alloy wheel

A one piece wheel made of cast alukminum or magnesium alloy. This design is more rigid than a wire spoked wheel.

# Cast Aluminum wheel



Cast Aluminum Wheel

See

• Alloy wheel

Castellate

Formed to resemble a castle battlement e.g., a <u>Castellated nut</u> Castellated See

• <u>Castellated nut</u>.

## Castellated nut







# Castellated Nut

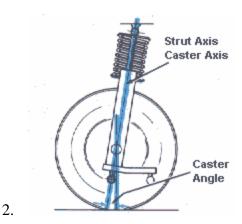
A nut with several lugs protruding from one end making it look like the turrets on the top of the wall of a castle. This nut is used on a shaft with a hole drilled in it. It is secured to the shaft by passing a <u>Cotter pin</u> through an opening in the nut and through the shaft hole.

## Caster

1. A small wheel at the front of a wheelchair or shopping cart that swivels and is tilted at an angle.

See

o <u>Swivel caster</u>



Caster

A wheel <u>Alignment</u> adjustment that positions the wheels like the casters on a chair or shopping cart, so the tires follow naturally in a forward straight line. In a truck or older car, the top of the <u>kingpin</u> is either forward (<u>Negative</u>) or toward the rear of the vehicle (<u>Positive</u>). On a turn, the wheels will tend to straighten out when the <u>steering wheel</u> is released. If the car has independent front suspension, the upper ball joint is set forward or rearward in relation to the lower ball joint. Caster is measured in degrees.

See

- Negative Caster
- Positive Caster
- Trail distance

#### Caster action

The self-centering action which causes a caster wheel to move into a straight-ahead position when the steering wheel is released. The opposite action takes place when in reverse. See <u>Caster angle</u>. Caster action is a basic ingredient of steering feel.

# Caster angle

The inclination or angle that a wheel makes when measuring the distance between the vertical post and the offset of the wheel placement. When the front wheels are moved right or left to steer the vehicle they each move about a steering axis. Consider the casters on the front of a wheelchair as the same phenomenon occurs in a vehicle. When the chair is pushed forward, the casters spin on their axis until the caster angle is toward the back of vertical. If the chair is pulled backward, the casters spin so that the wheels are forward of vertical. In a vehicle, the normal caster angle of the front wheels is also toward the back so that when you release the steering wheel, the front wheels tend to straighten out. However when in reverse, the wheels want to spin around on its axis, but cannot, so they spin toward full lock in one direction or the other. This tendency can best be seen when driving on sand or snow.

Caster offset

The distance on the ground between where the vertical post would touch the ground if it were extended and the point where the wheel touches the ground. Also called caster trail

#### Caster trail

The distance on the ground between where the vertical post would touch the ground if it were extended and the point where the wheel touches the ground. Also called caster offset

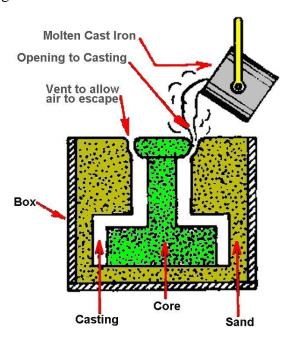
#### Caster wobble

A condition generally produced in the front wheels when they are attached to the ends of a <u>Beam axle</u>. It is particularly noticeable on rough roads and the <u>Shimmy</u> at the <u>steering</u> <u>wheel</u> makes it difficult to control the vehicle. You have probably seen this condition in a shopping cart that has caster wheels that wiggle or fluctuate back and forth and will not roll in a straight line.

#### Cast holes

Holes made in cast objects by the use of cores, in order to reduce the time necessary for machining, and to avoid metal wastage.

# Casting



Click image to supersize Casting

- 1. A process technology that delivers a liquid molten metal into a purpose-built mold. After cooling, the solid metal surface has the shape of the mold cavity.
- 2. Pouring metal into a Mold to form an object.
- 3. A metallic article cast in the shape required, as distinct from one shaped by working.

See

- Blown Casting
- Die casting
- Lost-foam casting process
- Malleable castings
- Monobloc casting
- Sand casting
- Steel Casting
- Thin-wall casting

# Casting copper

Metal of lower purity than <u>Best selected copper</u>. Generally contains about 99.4% of copper.

# Casting ladle

A steel ladle, lined with refractory material, in which molten metal is carried from the furnace to the mold in which the casting is to be made.

# Casting number

The number cast into a block, head, or other component when the part is cast. Casting numbers can be helpful when identifying an engine or its parts, but they are not completely accurate, because castings are sometimes machined differently

# Casting process

See

• <u>Lost-foam casting process</u>

#### Castings

Metallic forms which are produced by pouring molten metal into a shaped container or mold.

See

• Malleable castings

# Casting wheel

Large wheel on which ingot molds are arranged peripherally and filled from stream of molten metal issuing from furnace or pouring ladle.

# Cast-in-situ concrete piles

A type of pile formed by driving a steel pipe into the ground and filling it with concrete, using the pipe as a mold, or by a similar method.

#### Cast-in sleeve

An aluminum cylinder block cast around an iron cylinder sleeve.

#### Cast iron

- 1. An <u>Alloy</u> of iron and more than 2% <u>carbon</u>. It is used for engine <u>Blocks</u> and <u>transmission</u> and <u>Differential cases</u> because it is relatively cheap and easy to <u>Mold</u> into complex shapes.
- 2. Any iron-carbon alloy in which the carbon content exceeds the solubility of carbon in austenite at the eutectic temperature. Widely used in engineering on

account of their high fluidity and excellent casting characteristics. Carbon content usually in the range of 2-2.3%. Some kinds are brittle and others difficult to machine.

#### See

- Alloy Cast-iron
- Ductile cast-iron
- Grey iron
- Spherulitic graphite cast-iron

#### Cast-iron

See

Cast iron

## Cast iron cylinder

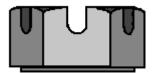
A one-piece cylinder assembly made of cast iron with a machined bore.

# Castle

See

• Castellated nut.

#### Castle nut



#### Castle nut

A <u>Castellated nut</u> -- a six-sided nut in the top of which six radial slots are cut. Two of these line up with a hole drilled in the bolt or screw, a split pin can be inserted to prevent turning. Also called *hex slotted nut* 

#### Castle section

A panel with humps or ribs which strengthen the panel. They are called *castle* because from the end they look like the turrets of a castle

## Castor

British spelling of <u>Caster</u>.

# Cast piston

A piston made by pouring molten aluminum alloy into a mold.

## Cast silicon

Crystalline silicon obtained by pouring pure molten silicon into a vertical mold and adjusting the temperature gradient along the mold volume during cooling to obtain slow, vertically advancing crystallization of the silicon. The polycrystalline ingot thus formed is composed of large, relatively parallel, interlocking crystals. The cast ingots are sawed

into wafers for further fabrication into photovoltaic cells. Cast silicon wafers and ribbon silicon sheets fabricated into cells are usually referred to as polycrystalline photovoltaic cells.

# Cast spoke assembly

That part of the vehicle consisting of the brake drum and wheel spider, having 3, 5 or 6 spokes.

## Cast spoke wheel

- 1. A type of dual mounting wheels where two demountable rims are mounted directly on the spoke wheel and drum assembly held apart by a spacer band and locked in place by clamps and nuts which attach to studs in the spoke face.
- 2. A wheel with five or six spokes originating from a center hub. The spoked portion, usually made of cast steel, is bolted to a multiple-piece steel rim

#### See

- Demountable Rim
- Disc Wheel

## Cast steel

Shapes that have been formed directly from liquid by casting into a mold. Formerly applied to wrought objects produced by working steel made by the crucible process to distinguish from that made by cementation of wrought-iron, but both of these methods are long obsolete.

## Cast welded rail joint

A joint between the ends of two adjacent rails made in position using the thermite process in which aluminum powder and sodium peroxide are ignited causing the rails to weld together.

## Cat

An abbreviation for <u>Catalytic converter</u>

## Catadioptric

An optical system using a combination of refracting and reflecting surfaces designed to reduce <u>aberrations</u> in a telescope.

# Catalan process

Reduction of haematite to wrought-iron by smelting with charcoal.

#### Catalog

See

• Parts catalog

## Catalog custom

A vehicle bodywork sold through an automaker's dealer catalog. See

• Series custom

## Catalyst

- A substance that changes the rate of a chemical reaction without itself being used up. Catalysts are used in many processes in the chemical and petroleum industries. Emission control catalysts are used to promote reactions that change exhaust pollutants from internal combustion engines into harmless substances. After the reaction it can potentially be recovered from the reaction mixture chemically unchanged.
- 2. A special agent which is added to a plastic body filler or resin or paint to speed up the hardening process.

## See

- Diesel Oxidation Catalyst
- Lean NOx Catalyst
- Metal catalyst
- Oxidizing catalyst
- Particulate catalyst
- Pellet-type catalytic converter
- Reducing catalyst
- Three-way catalyst

# Catalyst bed

A layer of catalyst-coated material such as pellets or ceramic in a catalytic converter through which the gases pass.

## Catalyst charge

A catalyst-coated material such as pellets or ceramic in a catalytic converter.

## Catalyst coated membrane

(CCM) Term used to describe a membrane (in a PEM fuel cell) whose surfaces are coated with a catalyst layer to form the reaction zone of the electrode. See

• Membrane Electrode Assembly

# Catalyst coating

A Catalytic layer

Catalyst container

A housing of a catalytic converter. Also called a *converter shell* 

Catalyst contamination

A reduction of efficiency because of impurity deposits

# Catalyst degradation

A reduction of efficiency because of impurities or overheating. Also called catalyst deterioration

## Catalyst deterioration

A reduction of efficiency because of impurities or overheating. Also called catalyst degradation

See

• Catalytic efficiency

# Catalyst indicator

A light on the instrument panel which glows when a prescribed distance has passed in order to remind the driver to have the catalytic converter replaced.

## Catalyst loading

The amount of catalyst incorporated in the fuel cell per unit area.

## Catalyst substrate

A base material which carries the <u>Catalytic layer</u> or coating. Also called catalyst support Catalyst support

A base material which carries the <u>Catalytic layer</u> or coating. Also called catalyst substrate Catalytic

See

- Catalytic converter
- Dual-bed catalytic converter
- Mini catalytic converter
- Open-loop catalytic converter
- Pellet-type catalytic converter
- Primary catalytic converter
- Three-way catalytic converter

## Catalytic activity

The rate a catalytic converter purifies the exhaust system Catalytic converter



# Catalytic converter

- 1. A pollution-control device found on the
- 2. exhaust system of all cars since its introduction in 1974 which acts like an
- 3. <u>afterburner</u> to reburn unburned gas in the <u>tail pipe</u>. It looks like a small <u>muffler</u> and is usually made of stainless steel. It contains
- 4. <u>platinum</u>, rhodium, or palladium which is a catalyst for the chemical reaction needed to burn off any unburned <u>hydrocarbons</u> and

- 5. <u>carbon monoxide</u> by turning them into water vapor, carbon dioxide, and other less toxic gases.
- 6. A device containing a <u>catalyst</u> for converting automobile exhaust into mostly harmless products.

#### See

- Dual-bed catalytic converter
- <u>Lean burn engine</u>
- Mini catalytic converter
- Open-loop catalytic converter
- Pellet-type catalytic converter
- Primary catalytic converter
- Single-bed 3-way catalytic converter
- Three-way catalytic converter

## Catalytic cracking

The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil. Catalytic cracking processes fresh feeds and recycled feeds.

## Catalytic efficiency

The effectiveness of a catalyst in purifying exhaust gases

## Catalytic Fines

Hard, <u>abrasive</u> crystalline particles of alumina, silica, and/or alumina silica that can be carried over from the fluidic catalytic cracking process of residual fuel stocks. Particle size can range from sub-micron to greater than sixty (60) microns in size. These particles become more common in the higher viscosity marine bunker fuels.

#### Catalytic hydrocracking

A refining process that uses hydrogen and <u>catalysts</u> with relatively low temperatures and high pressures for converting middle boiling or residual material to high octane gasoline, reformer charge stock, jet fuel, and /or high grade fuel oil. The process uses one or more <u>catalysts</u>, depending on product output, and can handle high sulfur feedstocks without prior desulfurization.

## Catalytic hydrotreating

A refining process for treating petroleum fractions from atmospheric or vacuum distillation units (e.g., naphthas, middle distillates, reformer feeds, residual fuel oil, and heavy gas oil) and other petroleum (e.g., cat cracked naphtha, coker naphtha, gas oil, etc.) in the presence of <u>catalysts</u> and substantial quantities of hydrogen. Hydrotreating includes desulfurization, removal of substances (e.g., nitrogen compounds) that deactivate <u>catalysts</u>, conversion of <u>Olefins</u> to paraffins to reduce gum formation in gasoline, and other processes to upgrade the quality of the fractions.

# Catalytic layer

A thin layer of catalyst such as platinum and supported by a ceramic or metal carrier material

## Catalytic Reduction

See

• Selective Catalytic Reduction

# Catalytic reforming

A refining process using controlled heat and pressure with <u>catalysts</u> to rearrange certain hydrocarbon molecules, thereby converting paraffinic and naphthenic type hydrocarbons (e.g., low octane gasoline boiling range fractions) into petrochemical feedstocks and higher octane stocks suitable for blending into finished gasoline. Catalytic reforming is reported in two categories. They are:

- Low Pressure. A processing unit operating at less than 225
- PSIG measured at the outlet separator.
- High pressure. A processing unit operating at either equal to or greater than 225 PSIG measured at the outlet separator.

#### Catamaran

A double hulled vessel

## Cataphoretic painting

A process of applying the first coat of paint to the body of a vehicle by positively charging the paint particles and then dunking the metal into the paint. A current is turned on so that the positively charged paint is attracted to the negative metal panel. Also called cathodic electropainting

#### Catapult

an accelerating device for launching an aircraft in a short distance. It may be fixed or rotatable to face the wind. It is usually used on ships which have no landing deck, having been superseded on aircraft carriers by the <u>accelerator</u>. During World War II, fighters were carried on (catapult armed merchant ships) for defense against long-range bombers. Land catapults have been tried but have been superseded by RATOG and STOL aircraft.

#### Catback

A performance exhaust system upgrade which consists of new pipes from the catalytic converter to the <u>Tail pipe</u> which increases horsepower. These new pipes are larger, thus, more exhaust can exit the system. The faster the exhaust can exit, the more horsepower you gain.

#### Catch

See

• Safety catch

#### Catch basin

An opening in the road surface with grated lid to allow water into a storm drainage system.

See

• Catch pit

#### Catcher

The element in a velocity-modulated ultrahigh frequency or microwave beam tube which abstracts, or catches, the energy in a bunched electron stream as it passes through it. See

# • Buncher

## Catcher foil

Aluminum sheet used for measuring power levels in nuclear reactor by absorption of fission fragments.

## Catching diode

Diode used to clamp a voltage or current at a predetermined value. When it becomes forward-biased it prevents the applied potential from increasing any further.

#### Catchment area

The area from which water runs off to any given river valley or collecting reservoir. Also called Catchment basin

## Catchment basin

The area from which water runs off to any given river valley or collecting reservoir. Also called Catchment area

#### Catch net

A mesh construction that is electrically grounded and placed below high-voltage transmission lines that cross over a road or railway. In the event that the lines break, they will fall into the net. Also called a *cradle* 

## Catch pit

A small pit constructed at the entrance to a length of sewer or drain pipe to catch and retain matter which would not easily pass through the pipes. Also called *catch basin*. See

#### • <u>sump</u>

## Catch plate

A disk on the spindle nose of a lathe, driving a carrier locked to the work.

## Catch points

A section of a railroad track which is activated when a train is supposed to be going uphill, but starts to slide back. The catch points prevent the train from rolling back any farther.

#### Catch-water drain

A drain to catch water on a hillside, with open joints or multiple perforations to take in water in as many places as possible.

# Cat Cracker

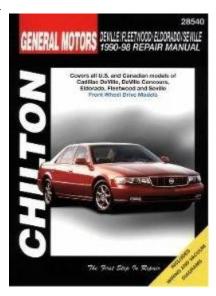
A large refinery vessel for processing reduced crudes or other feed-stocks in the presence of a <u>catalyst</u>, as opposed to the older method of thermal cracking, which employs heat and pressure only. Catalytic cracking is generally preferred since it produces less gas and other highly volatile byproducts. It produces a motor fuel of higher octane than the thermal process.

## Cat E

Category E damage to an aircraft; equivalent to a total loss or *write off*. Catenary construction

A method of construction used for overhead contact wires of traction systems. A wire is suspended, in the form of catenary, between two supports, and the contact wire is supported from this by droppers of different lengths, arranged so that the contact wire is horizontal.

#### Catera



Click image for books on Cadillac Catera

A model of automobile manufactured by the <u>Cadillac</u> division of <u>General Motors</u> from 1997-2001

Caterpillar bus

A colloquial term for an <u>articulated bus</u>

Caterpillar Drive Chain

A chain with pushers which is used to drive **Drop Forged** chain.

Cathead

- 1. The sheave assembly on the top of crane jib.
- 2. A lathe accessory consisting of a turned sleeve having four or more radial screws at each end; used for clamping on to rough work of small diameter and running in the <u>Steady</u> while centering. Also called *spider*

## Cathetometer

An optical instrument for measuring vertical distances not exceeding a few decimetres. A small telescope, held horizontally can move up and down a vertical pillar. The difference in position of the telescope when the images of the two points whose separation is being measured are lined up with the cross-wires of the telescope, is obtained from the difference in vernier readings on a scale marked on the pillar. Also called *reading microscope* and *reading telescope* 

#### Cathode

- 1. In an electric circuit, the
- 2. <u>negative terminal</u>. Electrons leave from this terminal.
- 3. In an electronic tube or valve, an electrode through which a primary stream of electrons enters the inter-electrode space. During conduction, the cathode is negative with respect to the anode. Such a cathode may be cold, electron emission being due to electric fields, photo-emission, or impact by other particles, or thermionic, where the cathode is heated by some means.
- 4. In a semiconductor diode, the electrode to which the forward current flows.
- 5. In a thyristor, the electrode by which current leaves the thyristor when it is in the ON state.
- 6. In a light-emitting diode, the electrode to which forward current flows within the device.
- 7. In electrolytic applications, the electrode at which positive ions are discharged, or negative ions formed.
- 8. The electrode at which reduction occurs. In an electrochemical cell, oxidation occurs at the anode and reduction at the cathode.

# Cathode coating

A low-work function surface layer applied to a thermionic or photocathode in order to enhance electron emission or to control spectral characteristics. The cathode coating impedance is between the base metal and this layer.

# Cathode copper

The product of electrolytic refining, after which the cathodes are melted, oxidized, poled, and cast into wire-bars, cakes, billets, etc.

# Cathode efficiency

Ratio of emission current to energy supplied to cathode. Also called *emission efficiency* Cathode follower

A valve circuit in which the input is connected between the grid and ground, and the output is taken from between the cathode and ground, the anode being grounded to signal frequencies. It has a high input impedance, low output impedance, and unity voltage gain.

# Cathode glow

Glow near the surface of a cathode, its color depends on the gas or vapor in the tube.

# Cathode luminous sensitivity

Ratio of cathode current of photoelectric cell to luminous intensity.

#### Cathode modulation

Modulation produced by signal applied to cathode of valve through which carrier wave passes.

# Cathode poisoning

Reduction of thermionic emission from a cathode as a result of minute traces of adsorbed impurities.

# Cathode ray

A stream of negatively charged particles (electrons) emitted normally from the surface of a cathode in a vacuum or low-pressure gas. The velocity of the electrons is proportional to the square root of the accelerating potential, being6x10<sup>5</sup>ms<sup>-1</sup> for one volt. They can be

deflected and formed into beams by the application of electric or magnetic fields, or a combination of both, and are widely used in oscilloscopes and TV (in cathode-ray tubes), electron microscopes and electron-beam welding, and electron-beam tubes for high frequency amplifiers and oscillators.

# Cathode-ray oscillograph

An oscillograph in which a permanent (photographic or other) record of a transient or time-varying phenomenon is produced by means of an electron beam in a cathode-ray tube. Deprecated term for <u>Cathode-ray oscilloscope</u>

# Cathode-ray oscilloscope

(CRT) Device for displaying electronic signals by modulating a beam of electrons before it impinges on a <u>Fluorescent screen</u>

# Cathode ray tube

A sealed tube on which graphs or pictures are displayed like a TV screen Cathodic electropainting

A process of applying the first coat of paint to the body of a car by positively charging the paint particles and then dunking the metal into the paint. A current is turned on so that the positively charged paint is attracted to the negative metal panel. Also called cataphoretic painting

# Cathode spot

Area on a cathode where electrons are emitted into an arc, the current density being much higher than with simple thermionic emission

# Cathodic chalk

A coating of magnesium and calcium compounds formed on a steel surface during Cathodic protection in sea water

# Cathodic etching

Erosion of a cathode by a glow discharge through positive-ion bombardment, in order to show microstructure

# Cathodic protection

- 1. The action of protecting metal from electrochemical corrosion by using it as the cathode of a cell with a
- 2. Sacrificial anode.
- 3. In ships and offshore structures, corrosion can be prevented by passing sufficient direct current through the sea water to make the metal hull a cathode.
- 4. The method of preventing corrosion in metal structures that involves using electric voltage to slow or prevent corrosion. It is used along natural gas pipelines, as well as in certain bridges or other large metal structures that need to resist corrosion over an extended period of time. It is also used in some devices for a vehicle to prevent rusting.

#### Cathodoluminescence

The emission of light, with a possible afterglow, from a material when irradiated by an electron beam, such as occurs in the phosphor of a cathode-ray tube

# Cathodophone

Microphone using the silent discharge between a heated oxide-coated filament in air and another electrode. The discharge is modulated directly by the motion of the air particles in a passing sound wave. Also called *ionophone* 

# Catholyte

See

## Catolyte

#### Cation

Ion in an electrolyte which carries a positive charge and which migrates toward the cathode under the influence of a potential gradient in electrolysis. It is the deposition of the cation in a primary cell which determines the positive terminal.

## Catolyte

That portion of the electrolyte of an electrolytic cell which is in the immediate neighborhood of the cathode. Also called *catholyte* 

# Catoptric element

A component of an optical system that uses reflection, not refraction, in the formation of an image

## Cat's paw

A light puff of wind.

## Cattle guard

A series of pipes or bars spaced a few inches apart and placed across the road to discourage animals from entering or leaving a particular area. Similar to a <u>Texas gate</u> except a Texas gate always uses round pipes not flat bars.

## Catwalk

1. A raised walkway running fore and aft from the midship.



# Catwalk

2.

An obsolete term for the section between the fender and the hood. On modern cars, this section does not exist at all. But on older cars (like the 1937 Cadillac), the fender was spaced a little way apart from the hood. The headlights were mounted toward the front of the catwalk or above it.

# Cauchy's dispersion formula

$$\mu = A + (B/\lambda^2) + (C/\lambda^{21}) + ...$$

An empirical expression for the relation between the refractive index  $\mu$  of a medium and the wavelength  $\lambda$  of light; A, B, and C are the constants for a given medium.

#### Caulk

To fill seams in a wood deck with oakum or hammer the adjoining edges of metal together to stop leaks. Also spelled *calk* 

#### Caulker

A person who applies caulking.

## Caulking

The process of closing the spaces between overlapping riveted plates or other joints by hammering the exposed edge of one plate into intimate contact with the other. A filler material is also used esp. for closing (e.g., deck planking). Also called *calking*See

## • Weather Caulking

## Caulking tool

A tool, similar in form to a cold chisel but having a blunt edge, for deforming the metal rather than cutting it.

#### Causal chain

A technique used to assess connections between measures and objectives using a series of measurable logical steps.

## Causality

The principle that an event cannot precede its cause.

# Caustic curve

A curve to which rays of light are tangential after reflection or refraction at another curve Caustic embrittlement

The intergranular corrosion of steel in hot alkaline solutions, e.g., in boilers Caustic etching

The removal of metal by dipping aluminum parts in caustic soda

#### Caution

A period in racing in which track conditions are too hazardous for racing due to an accident or debris on the racing surface. The cars remain in their racing positions behind the pace car until it is determined that it is safe to resume the race.

# Cavalier



Click image for books on Chevrolet Cavalier

A model of automobile manufactured by the <u>Chevrolet</u> division of <u>General Motors</u> from 1982-2005.

#### Caved

Dented inward as in When the car hit me, it caved in the door.

#### Cavitation

A condition in which a partial <u>vacuum</u> forms around the blades or <u>Impeller</u> wheels of a <u>pump</u>, reducing the pump's output because part of the pump blades lose contact with the liquid. It can be a problem in <u>fuel</u> and <u>water pumps</u>, <u>fluid couplings</u>, and <u>torque</u> <u>converters</u>. When severe, it can result in the erosion of the pump blades and other internal surfaces.

# Cavity

- 1. An empty space in a body structure, either in a box section or a double-skinned area.
- 2. A holder and contact for fuses

## Cavity sealant

A product made of oil, wax, and rust inhibitors which is painted or sprayed into a cavity to prevent rust and corrosion.

CB

- 1. An API classification for
- 2. <u>diesel engine oil</u> introduced in 1949. It operated in mild to moderate duty, but with lower quality fuels, which necessitate more protection from wear and deposits; occasionally has included gasoline engines in mild service. They provide necessary protection from bearing corrosion and from high temperature deposits in naturally aspirated diesel engines with higher sulfur fuels. It replaced <u>CA</u> oils and was replaced by <u>CC</u> oils in 1961.

- 3. An abbreviation for *Contact Breaker*.
- 4. An abbreviation for Citizens Band radio
- 5. Abbreviation for <u>Cab-Behind Engine</u>

See

CB radio

#### **CBD**

- 1. Abbreviation for Closed Bowl Distributor
- 2. Abbreviation for <u>Cash Before Delivery</u> -- a shipping term where the seller has received payment before shipping. It contrasts with
- 3. cash on delivery (COD)

CBE

Abbreviation for Cab-Behind Engine

**CBOB** 

Abbreviation for *conventional gasoline blend stock for oxygenate blending* (Motor Gasoline Blending Component)

CB radio

A two-way radio which is limited to specific frequencies. Initially used by truck drivers and later by both mobile vehicles and stationary sites; but more recently it has declined in use with the advent of cell phones.

## CBR process

Abbreviation for *Controlled Burn Rate process*. It is a method of improving fuel economy by increasing or decreasing the rate which the fuel burns

**CBU** 

Abbreviation for *Completely Built-Up*.

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## CC

- 1. Abbreviation for cruise control
- 2. Abbreviation for *catalytic converter*
- 3. Abbreviation for Climate Control
- 4. An API classification for
- 5. <u>diesel engine oil</u> of certain naturally aspirated, turbocharged or supercharged diesel engines operated in moderate to severe-duty service, and certain heavy-duty gasoline engines. Oils designed for this service provide protection from bearing corrosion, rust, corrosion and from high to low temperature deposits in gasoline engines. They were introduced in 1961 to replace
- 6. CB classification oil and was, in turn, replaced by CD classified oil in 1955.
- 7. (cc) Cubic centimetre
- 8. Abbreviation for *Cab and chassis*

#### **CCC**

- 1. Abbreviation for Computer command control
- 2. Abbreviation for Converter Clutch Control

## **CCCA**

Abbreviation for Classic Car Club of America.

CCCA classic

The Classic Car Club of America's definition of specific vehicles built from 1925 to 1948 which it defines as classic cars.

**CCD** 

- 1. Abbreviation for Chrysler Collision Detection
- 2. Abbreviation for Computer Controlled Dwell

**CCDIC** 

Abbreviation for Climate Control Driver Information Center

**CCEC** 

Abbreviation for constant current electronic circuit

**CCEGR** 

Abbreviation for Coolant controlled exhaust gas recirculation

**CCEI** 

Abbreviation for Coolant Controlled Idle Enrichment (Chrysler)

**CCEV** 

Abbreviation for Coolant Controlled Engine Vacuum Switch (Chrysler)

**CCFA** 

Abbreviation for Comité Des Constructeurs Français d'Automobiles

CCI

Abbreviation for *Committee for Citizen Involvement* a leadership group for the Citizen Participation Organizations.

C-clamp

## C-Clamp

A tool which is in the shape of the letter *C*. A screw at one end of the clamp forces the end of the screw against the object to be secured. See

• <u>Long-reach C-clamp</u>

**CCM** 

- 1. Abbreviation for Central Control Module
- 2. Abbreviation for Continuous Component Monitor
- 3. Abbreviation for Comprehensive components
- 4. Abbreviation for Catalyst coated membrane

**CCNT** 

Abbreviation for *Count Code* See

DTC CCNT

**CCO** 

Abbreviation for converter clutch override

**CCOT** 

- 1. Abbreviation for
- 2. Cycling clutch orifice tube system
- 3. Abbreviation for Cycling clutch orifice tube air conditioning system

**CCP** 

- 1. Abbreviation for
- 2. Controlled canister purge
- 3. Abbreviation for Climate Control Panel

**CCR** 

Abbreviation for Conradson carbon residue

**CCRM** 

Abbreviation for Constant Control Relay Module

**CCS** 

- 1. Abbreviation for
- 2. Controlled combustion system of reducing unburned
- 3. <u>Hydrocarbon</u> emission from the engine <u>exhaust</u>.
- 4. Abbreviation for Coast Clutch Solenoid

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**CCT** 

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**CCTV** 

Abbreviation for Close Circuit Television

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Cd

Abbreviation for *Drag Coefficient*, a measurement of air resistance (drag). The lower the number, the less drag that a vehicle or shape has.

CD

- 1. An API classification for
- 2. <u>diesel engine oil</u> for certain naturally aspirated, turbocharged or supercharged diesel engines where highly effective control of wear and deposits is vital, or when using fuels with a wide quality range (including high-sulfur fuels). Oils designed for this service were introduced in 1955 and provide protection from high temperature deposits and bearing corrosion in these diesel engines.
- 3. Abbreviation for Capacitive discharge.
- 4. (Cd) A measurement of <u>Drag coefficient</u>.

#### **CDBG**

Abbreviation for *Community Development Block Grant*.

**CDC** 

Abbreviation for *Community Development Code*.

CD changer

A device which is connected to a stereo system and allows several music CDs to be played.

**CDCV** 

Abbreviation for Canister Drain Cut Valve

CDI

Abbreviation for *Capacitor discharge ignition* See

• CDI box

#### CDI box

Abbreviation for *capacitive discharge Ignition* device sometimes controlled by a <u>computer</u>. It is designed to help the <u>spark plug</u> fire at a rate consistent with the rpms of the engine.

CD-II

An API classification for a severe-duty two-stroke cycle <u>diesel engine oil</u> where highly effective control of wear and deposits is required. Oils designed for this service also meet all performance requirements of API Service Category <u>CD</u>. It was replaced by <u>CF-2</u> category.

CDI voltage amplifier

A device used in battery powered capacity discharge ignition systems. It steps up battery voltage to provide high primary ignition voltage.

CDL

CDL Abbreviation for *Commercial Driver's License* -- A US license which authorizes an individual to operate commercial motor vehicles and buses over 26,000 pounds gross vehicle weight. For operators of freight-hauling trucks, the maximum size which may be driven without a CDL is Class 6 (maximum 26,000 pounds gross vehicle weight). In Canada it is called a *Class 1 license*.

C-Dolly

## C-Dolly

A <u>converter dolly</u> with two drawbars and attaches at two connection points to the trailer ahead of it. These dollies can have one or more axles and are considered more stable than the common <u>A-dolly</u>

## CD player

A device which plays music compact discs. Usually combined with a stereo radio receiver and sometimes with a CD changer.

**CDR** 

- 1. Abbreviation for
- 2. Crankcase depression regulator
- 3. Abbreviation for Chrysler Diagnostic Readout

**CDRV** 

Abbreviation for Crankcase Depression Regulator Valve

**CDV** 

Abbreviation for Car-Derived Van (e.g., Renault Kangoo).

Cd value

A number representing the <u>Coefficient of drag</u> which is the amount of resistance that a moving vehicle makes in a wind tunnel

**CDW** 

Abbreviation for *Collision Damage Waiver* offered on car rental. Also called <u>LDW</u> (*Loss Damage Waiver*)

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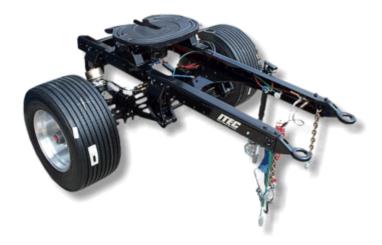
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CE

- 1. Abbreviation for Commutator End
- 2. Abbreviation for the distance from the back of a truck's cab to the end of its frame. Also CF or LP are used for the same distance.
- 3. An API classification for certain turbocharged or supercharged heavy-duty diesel engines, manufactured since 1983 and operated under both low speed, high load

and high speed, high load conditions. Replaced API Service Category CD and was replaced by CF-4 oil.

## **CEAB**

Abbreviation for Cold Engine Air Bleed

**CEC** 

- 1. Abbreviation for Crankcase Emission Control System (Honda)
- 2. Abbreviation for combination emission control

#### **CECOP**

Abbreviation for Civil and Environmental Engineering Cooperative Program.

**CECU** 

Abbreviation for *Central Electronic Control Unit* (Nissan)

Ceiling

See

- Hold ceiling
- Joiner work ceiling

**CEL** 

Abbreviation for *Check Engine Light* Celebrity

Click image for books on Chevrolet Celebrity

A model of small car produced by the <u>Chevrolet</u> division of <u>General Motors</u> from 1982-90.

Celica

Click image for books on Toyota Celica

A model of automobile manufactured by Toyota

Cell

- 1. A compartment or <u>chamber</u> in a <u>battery</u> which contain positive and negative plates suspended in <u>electrolyte</u>. A six-volt <u>battery</u> has three cells, a twelve-volt
- 2. <u>battery</u> six cells.
- 3. The combustion chamber in a rotary engine.

CF

1. Abbreviation for the distance from the back of a truck's cab to the end of its frame. Also CE or LP are used for the same distance.

2.

## API CF category

An API classification for indirect-injected diesel engine service and other diesel engines that use a broad range of fuel types, including those using fuel with high sulfur content; for example, over 0.5% wt. Effective control of piston deposits, wear and copper-containing bearing corrosion is essential for these engines, which may be naturally aspirated, turbocharged or supercharged. Oils designated for this service have been in existence since 1994 and replaces API Service Category CD.

CF-2

# API CF-2 category

An API classification for <u>diesel engine oil</u> for severe-duty two-stroke cycle diesel engines requiring highly effective control over cylinder and ring-face scuffing and deposits. Oils designed for this service have been in existence since 1994 and may be used when API Service Category CD-II is recommended. These oils do not necessarily meet the requirements of API CF or CF-4 unless they pass the test requirements for these categories.

CF-4

## API CF-4 category

An API classification for <u>diesel engine oil</u> for high speed, four-stroke cycle diesel engines. Introduced in 1990, API CF-4 oils exceed the requirements for the API CE category, providing improved control of oil consumption and piston deposits. These oils should be used in place of API CE oils. They are particularly suited for on-highway, heavy-duty truck applications. When combined with the appropriate S category, they can also be used in gasoline and diesel powered personal vehicles i.e., passenger cars, light trucks and vans when recommended by the vehicle or engine manufacturer. Replaced by CI-4.

**CFC** 

- 1. Abbreviation for Chlorofluorocarbon.
- 2. Abbreviation for *coasting fuel cut*

CFC gases

Chlorofluorocarbon gases.

**CFFP** 

Abbreviation for Clean Fuel Fleet Program

**CFI** 

- 1. Abbreviation for <u>Central fuel injection</u>. A Ford fuel injection system that uses an injector mounted throttle body assembly
- 2. Abbreviation for Continuous Fuel Injection

**CFM** 

Abbreviation for *Cubic Feet per Minute*. This is the rating of the <u>volume</u> of air moved.

**CFPP** 

Abbreviation for **Cold Filter Plugging Point** 

**CFR** 

- 1. Abbreviation for *Cooperative Fuel Research Engine* A single cylinder, overhead valve, variable compression ratio engine used for measuring octane or cetane quality.
- 2. Abbreviation for *Cost And Freight* where the seller must pay the costs and freight necessary to bring the goods to the destination.

# CFR Diesel fuel testing unit

A standard engine employed in making Cetane number tests of diesel engine fuels.

cfs

Abbreviation for *Cubic feet per second* -- a measurement of the flow of liquid, esp. gasoline.

**CFV** 

- 1. Abbreviation for clean-fuel vehicle
- 2. Abbreviation for Critical Flow Venturi

**CF** 

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- 2. Abbreviation for Critical Flow Venturi

CG

Abbreviation for <u>Center of gravity</u>. Weight center or balance point of an object, such as a truck body. It is calculated to help determine the optimum placement of the truck body on its chassis.

CG-4

API CG-4 category

An API classification for <u>diesel engine oil</u> for use in high speed four-stroke-cycle diesel engines used in both heavy-duty on-highway(0.05% wt sulfur fuel) and off-highway (less than 0.5% wt sulfur fuel) applications. Introduced in 1994, CG-4 oils provide effective control over high temperature piston deposits, wear, corrosion, foaming, oxidation stability, and soot accumulation. These oils are specially effective in engines designed to meet 1994 exhaust emission standards and may also be used in engines requiring API Service Categories CD, CE, and CF-4. Replaced by CI-4.

CG-90

A product composed of magnesium chloride with an anticorrosive additive that is used as an alternative to road salt

cgs

Abbreviation for *centimetre-gram-second* which is the metric system of measurement

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CH3CCl3

Symbol for Methyl chloroform

CH3OH

Symbol for methanol

CH4

### API CH-4 category

An API classification for <u>diesel engine oil</u> for high speed, four-stroke diesel engines designed to meet 1998 exhaust emission standards and are specifically compounded for use with diesel fuels ranging in sulfur content up to 0.5% weight. CH-4 oils are superior in performance to those meeting API <u>CF-4</u> and API <u>CG-4</u> and can effectively lubricate engines calling for those API Service Categories. Replaced by <u>CI-4</u>.

Chafer

Chafer

The area between the bead and sidewall of a tire.

Chafer strip

The area between the bead and sidewall of a tire.

Chafing plate

A bent plate positioned on a corner for minimizing the rubbing action of ropes Chain

#### Chain

Linked, flexible metal *rope* that connects two sprockets (e.g., the <u>Chainwheel</u> to the back wheel cogs, sized differently for different types of bikes.) The teeth of the sprockets fit inside the spaces between the links. Also called a <u>Roller chain</u>. See

- Band Chain
- Cam chain
- Camshaft Timing Chain
- Derailleur chain, narrow width
- derailleur chains
- Double roller chain
- Drive chain
- Duplex chain
- Inverted-Tooth Chain
- Narrow width chain
- O-ring chains
- Primary chain
- Roller Chain

- Safety chains
- Silent chain
- Simplex chain
- Snow chains
- Standard width chain
- <u>Timing chain</u>
- Triplex chain

### Chain Adjuster

A device for taking up the slack in the travel of a roller chain and maintaining its tension. It circles each end of the rear wheel axle and a screw at one end of the adjuster pushes against the frame, thus pulling the wheel to the rear of the unit causing the chain to be in tension.

See

• Snail-cam Chain Adjuster

Chain breaker

#### Chain Breaker

A tool for removing the pins in a roller chain so that the links can be removed.

### Chaincase

An enclosed metal covering which encircles the drive and driven sprockets as well as the

#### Chain case

See

Chaincase

### **Chain Casing**

An oil-retaining safety enclosure around a chain drive.

#### Chain drive

A system of transferring power from one shaft to another by means of <u>Sprockets</u> and an endless <u>chain</u>. This is the system used on a <u>bicycle</u>; but it is also used on an engine to control the <u>Timing of valve</u> opening (called <u>Timing chain</u> or <u>Cam chain</u>).

# Chain Elongation

Increase in measured length due to wear or excessive load. Normally expressed in percent of length. Also called *Chain Pitch Elongation* 

### Chain filter wrench

A chain wrench which encircles the oil filter to assist in its removal.

Chain guard

A metal or plastic covering for the top run of a chain or the whole chain. It is most often found on bicycle chains where the guard keeps your clothing from being caught in the chain or even from getting greasy.

### Chain hoist

A lifting device which uses a chain and block and tackle to lift large objects like engines. Chain Length

The actual chain length between the joint centers at each end of a taut chain strand. This distance is usually expressed in feet and/or inches or in pitches. When counting the number of links in a chain, it is the number or rollers, not the number of side plates.

Counting the number of side plates gives you half the total number of rollers.

#### Chain locker

A compartment usually located in the front of a ship for the stowage of anchor chain Chain pipe

A pipe for passage of chain from windlass on the deck to the chain locker Chain pipe wrench

# Chain Pipe Wrench

A chain wrench which circles around a pipe and grips it so that the pipe can be tightened or removed.

# Chain pitch

See Nominal Chain Pitch

# Chain Pitch Elongation

Increase in measured length due to wear or excessive load. Normally expressed in percent of length. Also called *Chain Elongation* 

Chain quick link

### Chain Quick Link

- 1. A fastener which holds two ends of large chain and by un-screwing the nut, the link can be removed or installed at will.
- 2. A special master link on a roller chain which is easy to connect or disconnect

### Chainring

#### Chainring

One of the <u>Sprockets</u> attached to the right <u>crankarm</u> of a <u>bicycle</u> to drive the <u>chain</u>. Also called <u>Chainwheel</u>.

### Chainring bolt

The 4 or 5 bolts that attach the chainings to the crankarm of a bicycle

### Chainring bolt circle diameter

The configuration of the bolt pattern on a chainring. Draw a circle through the center of all the bolt holes used to connect the chainring to the crankarm and measure the diameter of the circle (in millimetres). On a road crankset with two chainrings, they will both use the same bolt circle diameter. Typical bolt circle diameters are 130 or 135 mm on road bikes.

#### Chainring nut spanner

A special <u>bicycle</u> tool used to loosen the slotted nuts that fasten a <u>chainring</u> to a <u>crankarm</u>.

# Chainring teeth

The number and type of teeth (i.e., pointed projections which are forced between the rollers of a chain) in a chaining sprocket. A typical large road bike chaining has 53 teeth cut into its surface and it is referred to as a size 53.

# **Chain Riveting**

Two or more rows of rivets spaced so that the rivets in one row are opposite those in an adjacent row.

#### Chain run

The distance between the front and rear sprockets.

#### Chains

See

#### • chain

#### Chain scrubber

A device attached to a chain which rubs away the grime while the chain is moving. Chainstay

### Chainstay

One of the two tubes of a bicycle frame that run horizontally from the <u>Bottom bracket</u> shell back to the rear <u>Dropouts</u>.

### Chainstays

The two tubes of a <u>bicycle frame</u> that run from the <u>bottom bracket</u> back to the rear <u>Dropouts</u>.

# Chain stopper

A device used to secure the chain cable when riding at anchor, thereby relieving the strain on the windlass. A device which prevents anchor chain from running out. It is moved into position after the anchor has been dropped.

#### Chain stretch

Pin and bushing wear of a roller or hy-vo chain, causing the chain to lengthen.

# Chain switch

See

# • Snow chain switch

# Chain Take-up

A mechanical device which removes chain slack. This could be an idler sprocket or similar device mounted on an adjustable bracket to adjust the slack in a chain installation. Chain tensioner

Chain tensioner

A device which takes up the slack in a chain. Some use an idler wheel which can be adjusted (manually or automatically), others use a flat slide which pushes against the chain to keep it from bouncing around. Most modern units are spring loaded so that the tensioner automatically takes up the slack. Some require that you need to undo a locking nut to allow the spring to push against the chain. Afterward the lock nut needs to be secured again.

Chainwheel

#### Chainwheel

One of the <u>Sprockets</u> attached to the right <u>crankarm</u> of a <u>bicycle</u> to drive the chain. Also called <u>chainring</u>.

# Chain whip

A tool consisting of a metal bar and two sections of <u>chain</u>, used in changing <u>cogs</u> on a <u>freewheel</u>. Sometimes called *chain wrench*.

### Chain Width

Defined somewhat differently for various chains, but usually the inside width of the chain, between roller link plates.

Chain wrench

#### Chain Wrench

A locking pliers which employs a chain to wrap around an object such as a pipe to secure or remove it.

See

• Chain whip

Chair

Motorcycle sidecar

Chalk

See

Cathodic Chalk

# Chalking

The appearance of a white powder on a paint surface as it weathers and ages.

#### Chamber

- 1. A pressure chamber used to vulcanize pre-cured tread stock to the buffed <u>Casing</u>.
- 2. A compartment which is basically empty or hollow.

### See

- Annular Combustion Chamber
- Atmospheric-suspended Power Chamber
- Boron Chamber
- Brake Chamber
- Cannular Combustion Chamber
- Climatic chamber
- combustion chamber
- Exhaust chamber
- Fireball combustion chamber
- Float chamber
- Gas chamber
- Hemispherical combustion chamber
- Humidity chamber
- Main combustion chamber
- Mixing chamber
- Pent-roof combustion chamber
- Plenum chamber
- Power Chamber
- Pre-combustion chamber
- Precombustion Chamber
- Pre-compression chamber
- Salt spray chamber
- Spherical combustion chamber
- Spray Chamber
- Suction chamber
- Swirl chamber
- Swirl Combustion Chamber
- Twin swirl combustion chamber
- Vacuum chamber
- Vacuum-suspended Power Chamber
- Wedge combustion chamber

#### Chamber recess

See

Combustion chamber recess

#### Chamber volume

See

• Combustion chamber volume

### Chamfer

- 1. To bevel or taper the edge of an object especially the sides of a hole or a sharp corner
- 2. To bevel or shape the edge of an object or port openings in a two-stroke engine cylinder to prevent piston ring breakage.
- 3. To shape a 90° edge to an acute angle (i.e., less than 90°)
- 4. An edge that has been beveled
- 5. The meeting of two angled or beveled flat surfaces.

### Chamfered

A chamfered object is one that has a symmetrically beveled edge.

#### Chamois

Pronounced SHAM-mee. A soft piece of animal skin (from a deer, sheep, goat, etc.) used to absorb water after washing the surface of a vehicle. Also called a chamois leather or shammy leather.

# Chamois leather

See

Chamois

#### **CHAMP**

Abbreviation for <u>Certification of Higher-learning in Alternative Motorfuels Program</u> Champ car

When Championship Auto Racing Teams (CART) was co-sponsored by FedEx, the series became known as the FedEx Championship Series for the PPG Cup. The cars in this series, previously known as Indy Cars, are called Champ Cars.

# Change

To remove something and replace it with something else.

See

- Adiabatic Change
- Automatic Reel Change
- Climate change
- Downward change
- Floor change
- Oil change
- Upward change

# Change down

A British expression meaning to shift to a lower gear.

# Change gear

The action of selecting a different gear. This expression is used more in Britain than inNorth America where the expression is *shift gear* 

# Change into

A British term for the action of shifting into another gear, such as *change into second* (shift into second gear) or *change into top* (shift into high gear)

### Change of state

- 1. Rearrangement of the molecular structure of matter as it changes between any two of the three physical states solid, liquid, or gas
- 2. Condition in which a substance changes from a solid to a liquid or a liquid to a gas due to addition of heat. Or, the reverse, in which a substance changes from a gas to a liquid, or a liquid to a solid, due to removal of heat.

# Changeover

- 1. The refitting of equipment to either neutralize the effects of the just completed production or to prepare equipment for production of the next scheduled item, or both
- 2. The removing of new original equipment tires in exchange for a different make, size, or type.

### Changeover Switch

See

• Antenna Changeover Switch

#### Changer

See

• CD changer

### Change-speed gearbox

A transmission which houses a set of gears which move into various configurations of engagement in order to produce different output ratios.

### Change the oil

The act of draining out the old or dirty oil from an engine and replacing it with fresh oil. Change up

A British term meaning to shift up to another gear

# Change valve

A British term for a valve in an automatic transmission which raises the oil pressure as the vehicle speed increases. In North America it is called the shift valve.

# Changing

See

• Charge changing

Wheel changing

#### Channel

- 1. To lower the vehicle body around the <u>frame</u> by cutting out the floor and dropping the body shell below the frame rails.
- 2. A route or groove through which anything passes.
- 3. The hydraulic routing used by the anti-lock brake system to control the brake pressure at each wheel. A system may have one, three, or four channels

### See

- Chassis channel
- Distribution channel
- Glass channel
- Grip channel
- Run channel
- Window channel

### Channeled

Vehicle body lowered down around the <u>frame</u>.

#### Channel Iron

A three-sided length of steel which provides better strength than a flat bar of steel. Used in frame construction.

### Channel restriction

See

• Idle Channel Restriction

### Channel section

A long metal U-shaped member used in the chassis.

### Chap

See

• Tank chap

# Chapman

Anthony Colin Bruce Chapman (1928-1982), the founder of Lotus. One of the most innovative engineer in automotive racing history.

### Chapman strut

Click image to supersize Chapman Strut

A type of <u>Rear suspension</u> using a lower <u>Lateral link</u> and a long spring-shock <u>Strut</u> to determine wheel geometry. The basic principle is the same as that of the front <u>MacPherson strut</u> and it is so named because Colin Chapman first used it on the original Elite; it is also used on the Elan models, the new Elite, and the Datsun (Nissan) Z-car.

Characteristic map

A three-dimensional picture showing the relationship between various components of a vehicle. With the help of a computer, engineers can modify one component to see the effect it has on the whole operation of the vehicle.

Characteristics of materials

See

• Performance characteristics of materials

### Character line

- 1. The design line or bend in the side of the vehicle that separates the upper and lower sections of the fenders and doors
- 2. A designed crease on a flat panel which increases the panel's strength and may change the overall aesthetic appearance of the panel. Compare <u>bone line</u>.

#### Charcoal

The amorphous form of <u>carbon</u> obtained by the destructive <u>Distillation</u> of animal or vegetable matter in a limited supply of air. In automotive use, it is used to purify air or <u>exhaust gases</u>.

See

- Activated carbon
- Activated charcoal

#### Charcoal canister

Another name for Activated carbon canister

#### Charcoal filter

A filtration system using Activated carbon to remove impurities.

### Charcoal trap

See

• Activated carbon canister

# Charge

- 1. The action of passing an <u>electric current</u> through a <u>battery</u> to restore it to the active (charged) state. Normally the vehicle's <u>generator</u> or <u>alternator</u> takes care of this. If the vehicle is not used much, an external <u>charger</u> is needed to charge the <u>battery</u>.
- 2. The definite quantity of electricity usually found in a storage battery.
- 3. Refers to the mass of air and fuel that enters a cylinder during the intake stroke.
- 4. A refund amount of money.

See

- o Core charge
- 5. Amount of refrigerant placed in a refrigerating unit.
- 6. A specific amount of refrigerant by volume or weight

#### See

- Air charge temperature
- Battery charge
- Bound Charge
- Catalyst charge
- Cylinder charge
- Electric charge
- Fuel charge
- Intake charge
- Normal Charge
- On-the-road Charges
- Refrigerant Charge
- Stratified charge
- Trickle charge
- <u>undercharge</u>

# Charge air

The air/fuel mixture.

Charge air cooling

An Intercooler

Charge-air recycling

A device on a turbocharger which maintains the speed of the compressor when there is no boost so that the boost is more instantly available on demand.

Charge capacity

The input (feed) capacity of the refinery processing facilities.

### Charge changing

In a two-stroke engine, the removal of exhaust gases through the exhaust port in order to introduce a new load of fuel-air into the transfer port. Also called *charge exchange process* 

# Chargecooler

A radiator that cools and therefore recondenses the intake air that has been compressed and heated by the turbocharger thus allowing a greater amount of air into the engine. With more air in the combustion chamber, the ECM can deliver more fuel and make more power. This radiator can be either cooled by air or by water. Also called <u>Intercooler</u>

### Charged

See

- Cross Charged
- Dry charged battery

# Charged battery

See

• Dry charged battery

### Charge engine

See

• stratified charge engine

# Charge exchange process

Another name for Charge changing

# Charge indicator

See

• Battery charge indicator

# Charge losses

In a two-stroke engine, the exhaust gases are expelled out the exhaust port and the fresh charge is brought in through the transfer port. Sometimes some of the fresh charge is also forced out with the exhaust gases. There is therefore a loss of some of the fresh air-fuel charge.

See

• Scavenging losses

### Charger

Common name for a Battery charger.

See

- Battery Charger
- Fast charger
- Trickle charger
- <u>turbocharger</u>

# Charges

See

• On-the-road charges

# Charge temperature

See

• Air charge temperature

# Charge Temperature Sensor

See

- Air Charge Temperature Sensor
- Manifold Charge Temperature Sensor

# Charging

See

- Battery charging
- Bulk Charging
- Piston charging pump
- Slow charging

# Charging board

Specially designed panel or cabinet fitted with gauges, valves, and refrigerant cylinders used for charging refrigerant and oil into refrigerating mechanisms.

# Charging characteristic

When a battery is being charged, the charger will reveal how much voltage and/or amperage is being required to bring the battery up to full charge.

# Charging circuit

See

• Charging system

### Charging current

The amount of electric current being supplied to the battery from the alternator or from a battery charger.

Charging efficiency

- 1. In a vehicle's electrical charging system, its efficiency is the ratio of energy output to energy input, i.e., how well does the alternator work to supply voltage to the electrical components and still charge the battery.
- 2. In a two-stroke engine, it is the ratio of the amount of the fresh charge that remains in the cylinder after the two ports are closed and the actual volume.

### Charging hose

A small diameter hose constructed to withstand high pressures. It is connected between the air conditioning system and the manifold set

# Charging piston

In a two-stroke engine, this is a secondary piston which precompresses the fresh charge and sends it into the cylinders

### Charging point

A place where a battery can be charged -- especially for battery-powered electrical vehicles. Also called Battery charging station

# Charging pressure

See

Boost pressure

# Charging pump

See

• Piston charging pump

#### Charging rate

The amount of electrical current which is delivered by the charging system. It is usually measured in amperes.

### Charging station

A usually portable unit equipped with a manifold gauge set, charging cylinder, vacuum pump, refrigerant supply, auxiliary gauges, various valves and the plumbing necessary to hook everything together. Used for servicing air conditioning systems. See

• Battery charging station

# Charging stroke

See

• Induction stroke

### Charging system

A system that, using a <u>Fan belt</u> driven by the engine, enables the <u>Alternator</u> (or <u>Generator</u>) to generate electrical <u>current</u>, which is stored in the <u>battery</u> and delivered to the electrically operated pars of the vehicle <u>chassis</u>. The parts of the vehicle which are left when the body and <u>Fenders</u> are removed.

#### Charles's law

Volume of a given mass of gas at a constant pressure varies according to its temperature.

### Charpy test

An impact resistance test in which the specimen is supported as a horizontal beam and broken by a single swing of a pendulum with the impact line midway between the supports and directly opposite the notch for notched specimens.

#### Chart

CHART: Abbreviation for *Computerised Highways Assessment of Ratings and Treatment*. Program for presenting road condition information. See

- Color chart
- Psychrometric Chart

#### Charter

To 'rent' a vehicle (i.e., a bus or truck) and its operator.

See

- Trip Charter
- Voyage Charter

#### Charter Bus

A bus that is operated on a for-hire basis, usually providing round-trip service for a tour group or an outing, either on an ad hoc or scheduled basis.

### Chase

To repair damaged threads on a bolt or nut with a tap or die

# Chaser

See

- Die chaser
- Screw Thread Chasers

### Chasing threads

Cutting screw threads by moving a tool along the axis of the work to be threaded. Chassis

- 1. In a vehicle, the <u>frame</u>, engine, front and rear axles, springs, <u>steering system</u>, <u>fuel tank</u>. In short, everything but the body or cab and <u>fenders</u>. Because most modern automobiles (apart from trucks) do not have a separate chassis, the body is sometimes called the chassis.
- 2. A transport container frame with wheels that supports a lift-off container

See

- Backbone chassis
- Cab chassis

- Container Chassis
- Cowl chassis
- Mid-engine chassis configuration
- Separate chassis

# Chassis bracket set

When the sill panel does not have a jointing flange, a set of securing pieces are welded under the sill before straightening a bent or damaged sill.

#### Chassis cab

A truck with a cab but no bed. To this system various bodies (ambulance, moving van, flat beds, etc.) can be added by aftermarket suppliers.

#### Chassis channel

A channel section which makes up a member of the chassis.

# Chassis configuration

See

• Mid-engine chassis configuration

### Chassis dynamometer

A test stand for a vehicle to determine its power output or emission levels, etc. when the vehicle is placed under a variety of driving conditions. See

# • <u>Dynamometer</u>

#### Chassis frame

A frame (found on large trucks) which is made up of two long side members which are joined by several crossmembers. The suspension and axles are attached to this frame.

### Chassis leg

The short channel or box section which runs along the vehicle's main axle. It is an auxiliary member, not the main side member.

#### Chassis lubrication

See

# • Central chassis lubrication

### Chassis number

The serial number of an older vehicle which was originally stamped on a chassis member.Later it became known as a <u>Vehicle identification number</u> (VIN)

#### Chassis section

One of the chassis channels or boxes, whether bolted or welded to the whole.

### Chassis weight

The weight of an empty truck, without occupants or load. Also called <u>curb weight</u> or <u>tare</u> <u>weight</u>

Chatter

- 1. A noise which is caused by an irregular movement of rattling parts.
- 2. The jerky movement of two components which may have moved in a systematic way under low speed; but as the speed increases, the components make irregular contact.
- 3. Rough or unsatisfactory surfaces on work. It is usually caused by a slight jumping of the tool away from the work or of the work away from the tool.

### See

- Contact bounce
- Contact chatter

#### Cheat

To exaggerate a design feature in a sketch or model in order to improve the car's appearance or proportions, such as stretching the wheelbase and lowering the height of the body.

### Cheater Axle

Colloquial term for a <u>lift axle</u> or an air-powered axle which, when lowered, will both convert a vehicle into a multi-axle unit and provide greater load carrying capacity.

### Check

- 1. An inspection to determine if everything is functional.
- 2. A slight slash or marking which may appear in a tire or upholstery.

#### See

- Brake Check
- Checking
- Compression check
- Door check arm
- Door check strap
- Heat Checks
- Optical check

# Check arm

See

Door check arm

#### Check ball

A small ball (like a ball bearing) often made of metal or plastic, found in a <u>check valve</u> to halt the progress of fluid in a certain direction. See

- Discharge Check Ball
- Pump Inlet Check Ball

### Check engine light

A light on the instrument panel that lets the driver know of any detectable engine management system malfunctions. Also used as an emission maintenance reminder light on some vehicles. Often when this light is on, a trouble code is stored in the computer.

Also called Malfunction indicator light

# Check engine warning light

A light on the <u>instrument panel</u> which is illuminated when one of the engine sensors or components does not function properly.

### Checkered flag

A flag with alternating black and white squares to signal the end of the race.

See

• Black And White Checkered Flag

# Checking

- 1. Short, very fine <u>Crack</u> lines that appear in the paint film.
- 2. Small cracks in the surface of rubber (e.g., tires) caused by Aging and Oxidation.

### See

- Heat Checking
- Ozone checking

#### Check nut

A double chamfered hexagon machine screw nut

#### Check Piston

See

Flow Check Piston

### Check point

- 1. A designated spot on a component where it is possible to determine if there is a malfunction.
- 2. A place on the road where vehicles are stopped during a rally.

# Check routine

A series items in an inspection which traces a fault or problem or which determines if all the components of a new vehicle meets the required specifications.

#### Checkstand

A desk or counter used by freight handlers for performing paperwork duties.

# Check stop

An action taken by the police to stop vehicles in order to determine if the drivers have been drinking, wearing seat belts, and conforming to the other requirements of operating a vehicle.

### Check strap

See

# Door check strap

### Check the battery

Determine if the electrolyte is at the correct level and add distilled water to bring it up if necessary

#### Check the oil

Using a dipstick, determine if there is sufficient oil in the crankcase

### Checkup

The process of discovering the reliability of a vehicle or its <u>components</u>. 'Give my engine a checkup.' Sometimes it means <u>Tune-up</u>.

#### Check valve

A one-way, in-line spring-loaded ball or piston valve that permits flow of liquids or gases in one direction only and closes to prevent passage in the opposite direction. Used to control flow of vacuum, refrigerant, coolant, etc.

See

- Ball Check Valve
- Closed type check valve
- Exhaust Gas Check Valve
- Open type check valve
- Residual pressure valve
- Residual brake pressure type check valve
- Residual Pressure Check Valve
- Two-way type check valve
- Vacuum Check Valve

#### Cheese head

An obsolete term still used in the UK for a <u>fillister head screw</u>, i.e., a cylindrical headed screw with a straight slot and straight sides. So named because the head looks like a round block of cheese.

#### Chemical activation

Treatment of a substance by heat, radiation, or other activating reagent to produce a more complete or rapid chemical or physical change.

### Chemical bond

When two or more chemicals are joined or mixed, electrons of one chemical interchange with the electrons of the other chemical.

# Chemical brightening

The improvement of the smoothness of the surface of metal by immersing it into a solution designed to remove any roughness. Also called *chemical polishing* 

### Chemical cure

Vulcanization at room temperature or above, activated by chemical agents without the application of heat from an outside source.

# Chemical curing

The setting or curing of an adhesive, coating or sealer, brought about by the addition of heat, a catalyst, or an accelerator

# Chemical polishing

See

# • Chemical brightening

# Chemical refrigeration

System of cooling using a disposable refrigerant. Also called an expendable refrigerant system.

# Chemical regulator

A <u>voltage regulator</u> with solid state electronic devices to control the charging system output.

# Chemical separation

A process for extracting uranium and plutonium from dissolved spent nuclear fuel and irradiated targets. The fission products that are left behind are high-level waste. Chemical separation is also known as reprocessing.

# Chemical staining

Spotty discoloration of the paint caused by air pollution in industrial areas

#### Chemical toilet

A portable toilet which is used in campers and motorhomes. They contain chemicals to deal with the feces and its smell until the contents are dumped.

#### Chenard-Walcker

A vehicle brand of which models built between 1925-1948 are <u>classic cars</u> with required application.

# Cheney® Clamp

A screw-type hose clamp similar to a Jubilee® clamp

# Cherry

A colloquial term for a vehicle that has been kept in, or restored to, perfect condition. Also called *mint* or *like new* 

### Cherry condition

A colloquial term for a vehicle that has been kept in, or restored to, perfect condition. Also called Mint condition.

#### Chest

See

# • Sea chest

#### Chevelle

Click image for books on Chevelle

An intermediate-size model automobile produced by the <u>Chevrolet</u> division of <u>General Motors</u> from 1964 to 1973 (later called <u>Malibu</u> until 1983)

Click image for books on Chevrolet Chevette

A model of automobile manufactured by the <u>Chevrolet</u> division of <u>General Motors</u> from 1976-86.

Chevrolet

Click image for books on Chevrolet

A vehicle brand which began in 1912 of which the 1955-57 Bel Air V-8 Hardtop and Convertible are <u>milestone cars</u>. Models include the following:

- 1500 Pickup (19\_\_-99)
- 2500 Pickup (19\_\_-2000)
- 3500 Pickup (19\_\_-2000)

- APV (1990-93)
- <u>Astro</u> (1985-2005)
- Avalanche (2002-08)
- <u>Aveo</u> (2004-08)
- Aveo 5 (2007-08)
- Bel Air (1953-75)
- <u>Beretta</u> (1986-96)
- Biscayne (1958-72)
- Blazer (1969-2005)
- <u>Camaro</u> (1967-2002)
- Caprice (1967-92)
- <u>Cavalier</u> (1982-2005)
- <u>Celebrity</u> (1982-90)
- Chevelle (1964-73)
- <u>Chevene</u> (1904-73)
- <u>Chevette</u> (1976-86)
- <u>Chevy II</u> (1962-69)
- <u>Citation</u> (1981-85)
- Classic (2004-05)
- Cobalt (2005-08)
- Colorado (2004-08)
- Corsica (1987-96)
- Corvair (1960-69)
- Corvette (1953-current)
- Delray (1958)
- DeLuxe 210 (1953)
- El Camino
- Equinox (2005-08)
- Express Van (1996-2008)
- Fleetline (1946-52)
- Fleetmaster (1948-48)
- Greenbrier (1961-70)
- <u>G-Series Van</u> (1964-98)
- HHR (2006-08)
- Impala (1959-2008)
- <u>Laguna</u> (1973-76)
- Lumina (1990-2001)
- <u>Lumina APV</u> (1990-93)
- <u>Lumina Minivan</u> (1994-96)
- LUV
- Malibu (1964-2007)
- Malibu (Classic) (2008)
- Malibu Hybrid
- Master (1934-40)
- Master DeLuxe (1937-42)
- Master Eagle (1933)
- Mercury (1933)

- Metro (1998-2001)
- Model 150 (1955-57)
- Model 210 (1955-57)
- Monte Carlo (1970-2007)
- Nomad (1955-61)
- Nova (1964-88)
- Prizm (1998-2002)
- <u>S10 Blazer</u> (19\_\_-94)
- S10 Pickup (19\_\_-2004)
- Silverado 1500 Pickup (1999-2008)
- Silverado 2500 Pickup (1999-2008)
- Silverado 3500 Pickup (2001-08)
- Special 150 (1953-54)
- Special 210 (1954)
- Special DeLuxe (1942)
- Spectrum (1987-88)
- Sportvan (19\_\_-96)
- Sprint (1987-88)
- SSR Pickup (2003-06)
- Standard (1934-36)
- Styleline (1949-52)
- Stylemaster (1946-48)
- <u>Suburban</u> (1935-2008)
- Super Sport (1966)
- <u>Tahoe</u> (1995-2008)
- Tracker (1998-2004)
- TrailBlazer (2002-08)
- Uplander (2005-08)
- Vega (1971-77)
- Venture (1997-2005)

### Chevrolet type

A dual mounting wheel type consists of one cone locking nut on each stud that holds both wheels in place against the hub.

#### Chevron

Road marking used to separate traffic flows are highlight potential conflicts.

### Chevron board

Traffic warning signs with hatch-markings indicating a sudden change in direction Chevy II

Click image for books on Chevrolet Chevy II A model of compact car produced by the <u>Chevrolet</u> division of <u>General Motors</u> from 1962-69. It became the <u>Nova</u>.

### Chicane

- 1. A series of sharp curves on a road or racetrack that alternate from left turn to right turn but not as severe as hair-pin curves. Also called *S-curves*
- 2. A traffic-calming measure where police weave between traffic lanes in front of the traffic to make following vehicles slow down

# Chicken coop

Trucker slang for Truck weigh station as in 'Are the chicken coops open this morning?' Chicken lights

Trucker slang for Extra lights on a truck as in 'Look at all those chicken lights on that northbound bulldog.'

Child bike seat

#### Child Bike Seat

An accessory which mounts behind the saddle of a bicycle and is designed to hold a small child.

# Childproof lock

On the rear doors of a car, a specially designed locking device can be set to normal or to childproof. When set to childproof, the door cannot be opened from the inside.

# Child restraint system

A term for a number of items which are designed to protect children from injury during an accident (such as <a href="Child seats">Child seats</a>).

# Child safety

See

• <u>Integrated child safety seat</u>

### Child safety seat

See

• Integrated child safety seat

#### Child seat

A small safety seat which is mounted on a regular car seat and is held in place by the seat belt.

See

• <u>Integrated child seat</u>

### Child step running board

# Clild Step Running Board

An external step which allows a child to be able to enter or leave a vehicle with a high ground clearance (a van, SUV, truck, etc.)

Chill

See

• Wind Chill

### Chilled iron

<u>Cast iron</u> possessing a hardened outer skin.

### Chiller

Air conditioning system which circulates chilled water to various cooling coils in an installation.

#### Chill factor

Calculated number based on temperature and wind velocity.

# Chimney

Vertical shaft enclosing one or more flues for carrying flue gases to the outside atmosphere.

See

- Coil tower
- Coil chimney

### Chimney connector

Conduit (pipe) connecting the heating appliance (furnace) with the vertical flue.

### Chimney effect

Tendency of air or gas to rise when heated.

### Chimney flue

Flue gas passageway in a chimney.

### Chip

- 1. Small pits in the glass (windshield or headlight) or in the paint caused by small flying stones.
- 2. The metal removed by a tool
- 3. A collection of sample paint.
- 4. To cut with a chisel.

See

• Novachip

# Chip book

See

• Paint chip book

# Chip coat

A rough surface pavement See

• Chip seal

# Chip damage

See

• Stone chip damage

Chip hammer

Chip Hammer

A hammer used to remove slag, etc. from metal because it has a chisel-like end on one side

Chipped Wheel

See

• Potato Chipped Wheel

# Chipping

The action of tearing away small bits or flakes of paint or of rubber from the tread of a tire. When larger pieces of rubber tear away, it is called <a href="Chunking">Chunking</a>. Chipping hammer

Chipping Hammer

A hammer used to remove the slag from weld seams. See

• Welding hammer

Chips

See

• Pulp Chips

### Chip seal

A road surface where liquid asphalt is sprayed on the surface and is covered by a thin layer of gravel. It is done in warm, dry weather. It takes a few hours to set. It creates a hard driving surface. For the first few days after the chip seal, the road looks light gray with some loose rock. In time it becomes more firm and turns black. The surface is somewhat rough and provides good traction for cars, but is very rough for bicycles.

#### Chisel

There are two basic types of chisel. One is used for wood work (<u>Wood chisel</u>) while the other is for metal work (<u>Cold chisel</u>). See

- <u>Cape Chisel</u>
- Splitting chisel

#### Chisler

A vehicle buyer who constantly grinds the salesman to the obtain the best possible deal that he can get.

#### Chloride

See

- <u>Calcium chloride</u>
- Magnesium chloride
- Methylene Chloride
- Polyvinyl chloride

### Chloroform

See

Methyl Chloroform

#### Chlorofluorocarbon

(CFC)

- 1. A gas compound which was used as a propellant in aerosol cans and in refrigerants.
- 2. Any of various compounds consisting of carbon, hydrogen, chlorine, and flourine used as refrigerants. CFCs are now thought to be harmful to the earth's atmosphere.

#### **CHM**

Abbreviation for *cold mixture heater*—A device which helps to reduce cold engine emissions and improve driveability during engine warm-up. Also CMH.

#### **CHMSL**

(pronounced CHIM-sel) An short form for *center high mounted stop light* an additional brake light as required by law whose mounting position is determined by the manufacturer using required guidelines

#### Chobert rivet

A blind rivet fastener with a hollow center and dome head. It requires an insertion tool. Chock

- 1. A wedge used to prevent a vehicle or trailer wheel from rolling -- especially when replacing a tire/wheel. Also called a <a href="Wheel chock">Wheel chock</a>.
- 2. A heavy wedge used within a trailer to keep freight from shifting.
- 3. To apply a wood or metal wedge to block the wheels of a truck while it is being loaded or unloaded.
- 4. A heavy smooth-surfaced fitting usually located near the edge of the weather deck through which wire ropes or fiber hawsers may be led, usually to piers.

#### See

- Boat chock
- Boiler Chocks
- Panama Chock

#### Chock-Boat

A cradle or support for a lifeboat.

#### Choke

A <u>Butterfly valve</u> or plate located near the top of the <u>carburetor</u> that limits or restricts the amount of air allowed to enter the <u>carburetor</u>, thus enriching the <u>fuel-air mixture</u> and enabling the vehicle to start and run more easily when cold. <u>Automatic chokes</u> have a <u>Thermostatic coil</u> or <u>Thermostatic spring</u> that activates a <u>Butterfly valve</u> at the top of the <u>Carburetor barrel</u>. Older cars have <u>Manually</u> operated chokes. Some vehicles use an <u>Enrichner</u> instead of a choke.

- Audio-frequency Choke
- Automatic Choke
- Divorced Choke
- Manual choke
- Radio choke
- Remote Choke
- Thermostatic Coil Choke
- Thermostatic Spring Choke

#### Choke stove

A flapper near the top of the <u>carburetor</u> which regulates the amount of air entering the <u>carburetor</u>.

See

See

Choke

### Choke control

A device or system for operating a non-automatic choke. It is usually a cable attached at one end to the choke butterfly and a knob on the <u>instrument panel</u> at the other end.

#### Choke index

Automatic chokes have index marks. The factory setting closes the choke when the bimetal is about 21°C. If you want less or more choke at this temperature, move the choke index one mark in the direction indicated by the arrows designating a leaner or richer mixture. You will seldom need to move the choke more than one mark

#### Choke kick

A preset position for the choke valve set by manifold vacuum that is routed through a carburetor body passage to the choke diaphragm

#### Choke knob

A knob on the instrument panel fascia which is part of the choke control system.

#### Choke stove

A heating compartment in or on the <u>exhaust manifold</u> from which hot air is drawn to the Automatic choke device.

# Choke system

System in the carburetor that reduces the volume of air admitted to the engine.

# Choke thermal vacuum switch

(CTVS) a switch used on some GM vehicle to deny vacuum to either the front or the auxiliary choke vacuum breaks. Its purpose is to slow the opening of the choke and to provide better driveability when the engine is cold

### Choke tube

- 1. The part of the carburetor air horn where the choke butterfly is positioned. Also called a carburetor venturi.
- 2. Throttling device used to maintain correct pressure difference between high-side and low-side in refrigerating mechanism. Capillary tubes are sometimes called choke tubes.

### Choke valve

In a carburetor, it is the choke butterfly.

### Chop

To lower the height of some area of the vehicle roof, <u>hood</u>, <u>top</u>, etc. by removing the panel, shortening the height of one or more pairs of the supporting pillars, and welding the panel to the shortened pillars.

### See

- Cafe Chop
- <u>Top Chop</u>

### Chopped

A vehicle that has had its top lowered in order to customized its design. Also called **choptop** 

# Chopped wheel

Lightened Flywheel.

### Chopper

# Chopper

- 1. Once used to describe a custom motorcycle that had all superfluous parts *chopped* off in order to make the bike faster. A chopper today is a type of custom bike that usually has an extended fork, no rear suspension, high handlebars and a lowered seat. Often the original <u>fuel tank</u> is changed to a smaller size.
- 2. To travel by motorcycle.

# Chop shop

- 1. A garage which specializes in turning a two-door car into a convertible by removing the steel top.
- 2. An illegal garage which processes stolen cars by removing valued parts and selling them privately or by changing the serial numbers for illegal resale.

### Choptop

A vehicle that has had its top lowered in order to customized its design. Also called <u>chopped</u>.

#### Chordal Action

The effect produced by the chain joint centers being forced to follow arcs instead of chords of the sprocket pitch circle. Also called *Chordal effect* 

### Chordal Effect

The effect produced by the chain joint centers being forced to follow arcs instead of chords of the sprocket pitch circle. Also called *Chordal action* 

#### **CHP**

- 1. Abbreviation for *combined heat and power*
- 2. Abbreviation for California Highway Patrol

#### C/H Ratio

Abbreviation for Carbon/Hydrogen ratio

### Christmas tree

- 1. A device, using a series of lights, to start cars on the timed 1/4 mile drag run.
- 2. The valves and fittings installed at the top of a gas or oil well to control and direct the flow of well fluids.

#### Chromate

- 1. A salt or ester of chromic acid which is often used as a paint pigment.
- 2. The action of treating metal with a solution of chromium compound to produce a protective metal chromate coating. Also called *chromatize*

### Chromate coating

A conversion coating produced by chromating.

#### Chromate treatment

A solution of chromium compound is applied to metal to produce a protective coating of metal chromate.

#### Chromatic aberration

- 1. An enlargement of the focal spot caused in a cathode tube, by the differences in the electron velocity distribution through the beam.
- 2. An enlargement of the focal spot caused in an optical lens system using white light, by the refractive index of the glass varying with the wavelength of the light, resulting in colored fringes surrounding the image.

#### Chromatize

The action of treating metal with a solution of chromium compound to produce a protective metal chromate coating. Also called *chromate* 

#### Chrome

- 1. A short form for chromium.
- 2. The chromium plating of metal on a vehicle.
- 3. To plate with chromium.

#### Chrome-hardened

Steel that has been made harder by adding chromium.

#### Chrome-moly

A type of high-quality steel tubing; also called *chrome molybdenum* or *cro-mo* 

### Chrome molybdenum

A type of high-quality steel tubing. Also called *chrome-moly* or *cro-mo* 

### Chrome-plated

In order to prevent iron from rusting and showing bright and shiny, the iron is coated with a layer of chromium by process of electroplating (or electrodeposition).

### Chrome ring

A <u>piston ring</u> with a chrome face, i.e., a thin layer of chrome plate on the outer edge.

#### Chrome steel

In order to improve rust resistance and increase hardness, chrome is added to steel. Also called *chromium steel* 

#### Chrome work

All the metal on a vehicle which has been plated with chrome.

#### Chromic acid

Electrolyte which is used in anodizing processes for producing non-transparent, non-metallic oxide layers.

#### Chromium

A very hard grey metal used in electroplating and the production of very hard steel compounds (especially <u>stainless steel</u>) that are also resistant to rust. See

• Hard chromium plating

# Chromium-plated

A coating of metal with chromium to protect the metal from rust.

# Chromium plating

The process of coating metal with a layer of chromium to prevent rust.

See

- Black chromium plating
- Hard chromium plating

# Chromium steel

In order to improve rust resistance and increase hardness, chrome is added to steel. Also called *chrome steel* 

#### Chro-mo

A type of high-quality steel tubing; also called *chrome molybdenum* or *crome-moly* Chromodynamics

See

• Quantum Chromodynamics

### Chronometer

See

• Box Chronometer

Chrysler

Click image for books on Chrysler

A vehicle brand of which several models with required application are <u>classic cars</u> including:

• 1926-32 Imperial and Series 80

- 1931 Imperial 8 Series CG
- 1932 CG and CH
- 1933 CL
- 1932-39 Custom Imperial Series CL, CX, CW, C-3, C-11, C-15, C-20, C-24
- 1934-6 CW
- 1940-48 Crown Imperial Includes Series C-27, C-33, C-37, C-40
- Newports and Thunderbolts

# Some models are milestone car including:

- 1970 300 Hurst
- 1955-65 300 Letter Series
- 1946-50 Town and Country models

#### Other models include:

- 300 letter series (1955-1965)
- 300 (1962-1971; 1979)
- 300 (2005-present)
- 300C (2005-08)
- 300M (1999-2004)
- Airflow (1934-1937)
- Airstream (1935-1936)
- Aspen (2007-present)
- Cirrus (1995-2000)
- Concorde (1993-2004)
- Conquest (1987-1989)
- Conquest TSi (1988-89)
- Cordoba (1975-1983)
- Crossfire (2004-2008)
- Fifth Avenue (1983-1993)
- Grand Voyager (2000)
- Imperial (1926-1954; 1981-1983; 1990-1993)
- Laser (1984-1986)
- LeBaron (1977-1995)
- LHS (1994-1997; 1999-2001)
- Newport (1940-1941; 1949-1950; 1961-1981)
- New Yorker (1939-1996)
- Pacifica (2004-2008)
- Prowler (2001-2002)
- PT Cruiser (2001-2009)
- Royal (1937-1942; 1946-1950)
- Sebring (1995-present)
- Sebring Convertible (1996-present)
- TC by Maserati (1989-1991)
- Town & Country (1941-1988, 1990-present)

- Voyager (2000-03)
- Windsor (1940-1961)

# Chubby screwdriver

A British term for a screwdriver with a short handle and blade for reaching into confined spaces. In North America it is called a *stubby screwdriver* 

#### Chuck

Device for holding work in machine tools.

See

bell Chuck

# Chug

- 1. The short explosive sound of an engine going steadily and rather slowly.
- 2. To make the sound of chug.
- 3. To drive slowly and steadily.

# Chummy

# Austin 7 Chummy

A British term for a convertible during the 1920s (such as an Austin 7) with two seats up front (for driver and passenger) and two small seats in the back to be used when needed. Chunking

The action which occurs when large pieces of rubber from the tread of tire breaks away. When small pieces break away, it is called <u>Chipping</u>.

Chute

See

• Slop Chute

#### CH3CCl3

Symbol for Methyl chloroform

CH3OH

Symbol for methanol

CH4

Symbol for Methane

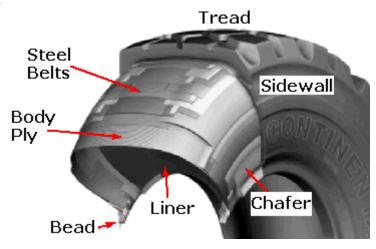
CH-4



# API CH-4 category

An API classification for <u>diesel engine oil</u> for high speed, four-stroke diesel engines designed to meet 1998 exhaust emission standards and are specifically compounded for use with diesel fuels ranging in sulfur content up to 0.5% weight. CH-4 oils are superior in performance to those meeting API <u>CF-4</u> and API <u>CG-4</u> and can effectively lubricate engines calling for those API Service Categories. Replaced by <u>CI-4</u>.

### Chafer



#### Chafer

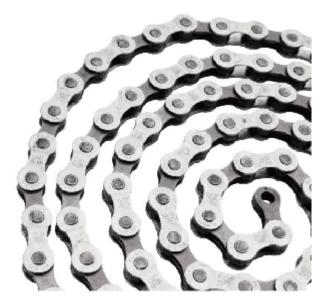
The area between the bead and sidewall of a tire.

# Chafer strip

The area between the bead and sidewall of a tire.

# Chafing plate

A bent plate positioned on a corner for minimizing the rubbing action of ropes Chain



### Chain

Linked, flexible metal rope that connects two sprockets (e.g., the Chainwheel to the back wheel cogs, sized differently for different types of bikes.) The teeth of the sprockets fit inside the spaces between the links. Also called a Roller chain. See

- **Band Chain**
- Cam chain
- **Camshaft Timing Chain**
- Derailleur chain, narrow width
- derailleur chains
- Double roller chain
- Drive chain
- Duplex chain
- **Inverted-Tooth Chain**
- Narrow width chain
- O-ring chains
- Primary chain
- Roller Chain
- Safety chains
- Silent chain
- Simplex chain
- Snow chains
- Standard width chain
- Timing chain
- Triplex chain

# Chain Adjuster

A device for taking up the slack in the travel of a roller chain and maintaining its tension. It circles each end of the rear wheel axle and a screw at one end of the adjuster pushes against the frame, thus pulling the wheel to the rear of the unit causing the chain to be in tension.

See

## • Snail-cam Chain Adjuster

#### Chain breaker



Chain Breaker

A tool for removing the pins in a roller chain so that the links can be removed.

#### Chaincase

An enclosed metal covering which encircles the drive and driven sprockets as well as the chain.

#### Chain case

See

#### Chaincase

#### **Chain Casing**

An oil-retaining safety enclosure around a chain drive.

### Chain drive

A system of transferring power from one shaft to another by means of <u>Sprockets</u> and an endless <u>chain</u>. This is the system used on a <u>bicycle</u>; but it is also used on an engine to control the <u>Timing of valve</u> opening (called <u>Timing chain</u> or <u>Cam chain</u>).

### Chain Elongation

Increase in measured length due to wear or excessive load. Normally expressed in percent of length. Also called *Chain Pitch Elongation* 

#### Chain filter wrench

A chain wrench which encircles the oil filter to assist in its removal.

### Chain guard

A metal or plastic covering for the top run of a chain or the whole chain. It is most often found on bicycle chains where the guard keeps your clothing from being caught in the chain or even from getting greasy.

#### Chain hoist

A lifting device which uses a chain and block and tackle to lift large objects like engines. Chain Length

The actual chain length between the joint centers at each end of a taut chain strand. This distance is usually expressed in feet and/or inches or in pitches. When counting the number of links in a chain, it is the number or rollers, not the number of side plates. Counting the number of side plates gives you half the total number of rollers.

Chain locker

A compartment usually located in the front of a ship for the stowage of anchor chain Chain pipe

A pipe for passage of chain from windlass on the deck to the chain locker Chain pipe wrench



Chain Pipe Wrench

A chain wrench which circles around a pipe and grips it so that the pipe can be tightened or removed.

Chain pitch

See Nominal Chain Pitch

Chain Pitch Elongation

Increase in measured length due to wear or excessive load. Normally expressed in percent of length. Also called *Chain Elongation* 

Chain quick link



# Chain Quick Link

- 1. A fastener which holds two ends of large chain and by un-screwing the nut, the link can be removed or installed at will.
- 2. A special master link on a roller chain which is easy to connect or disconnect

# Chainring



### Chainring

One of the <u>Sprockets</u> attached to the right <u>crankarm</u> of a <u>bicycle</u> to drive the <u>chain</u>. Also called <u>Chainwheel</u>.

# Chainring bolt

The 4 or 5 bolts that attach the chainrings to the crankarm of a bicycle

# Chainring bolt circle diameter

The configuration of the bolt pattern on a chainring. Draw a circle through the center of all the bolt holes used to connect the chainring to the crankarm and measure the diameter of the circle (in millimetres). On a road crankset with two chainrings, they will both use the same bolt circle diameter. Typical bolt circle diameters are 130 or 135 mm on road bikes.

Chainring nut spanner

A special <u>bicycle</u> tool used to loosen the slotted nuts that fasten a <u>chainring</u> to a <u>crankarm</u>.

# Chainring teeth

The number and type of teeth (i.e., pointed projections which are forced between the rollers of a chain) in a chaining sprocket. A typical large road bike chaining has 53 teeth cut into its surface and it is referred to as a size 53.

### Chain Riveting

Two or more rows of rivets spaced so that the rivets in one row are opposite those in an adjacent row.

#### Chain run

The distance between the front and rear sprockets.

#### Chains

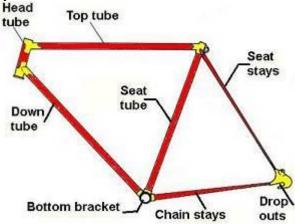
See

#### chain

#### Chain scrubber

A device attached to a chain which rubs away the grime while the chain is moving.

# Chainstay



# Chainstay

One of the two tubes of a bicycle frame that run horizontally from the <u>Bottom bracket shell</u> back to the rear <u>Dropouts</u>.

#### Chainstays

The two tubes of a <u>bicycle frame</u> that run from the <u>bottom bracket</u> back to the rear <u>Dropouts</u>.

### Chain stopper

A device used to secure the chain cable when riding at anchor, thereby relieving the strain on the windlass. A device which prevents anchor chain from running out. It is moved into position after the anchor has been dropped.

#### Chain stretch

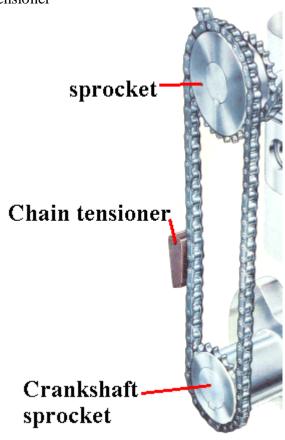
Pin and bushing wear of a <u>roller</u> or <u>hy-vo chain</u>, causing the chain to lengthen.

#### Chain switch

### • Snow chain switch

# Chain Take-up

A mechanical device which removes chain slack. This could be an idler sprocket or similar device mounted on an adjustable bracket to adjust the slack in a chain installation. Chain tensioner



# Chain tensioner

A device which takes up the slack in a chain. Some use an idler wheel which can be adjusted (manually or automatically), others use a flat slide which pushes against the chain to keep it from bouncing around. Most modern units are spring loaded so that the tensioner automatically takes up the slack. Some require that you need to undo a locking nut to allow the spring to push against the chain. Afterward the lock nut needs to be secured again.

Chainwheel



### Chainwheel

One of the <u>Sprockets</u> attached to the right <u>crankarm</u> of a <u>bicycle</u> to drive the chain. Also called <u>chainring</u>.

### Chain whip

A tool consisting of a metal bar and two sections of <u>chain</u>, used in changing <u>cogs</u> on a <u>freewheel</u>. Sometimes called *chain wrench*.

# Chain Width

Defined somewhat differently for various chains, but usually the inside width of the chain, between roller link plates.

#### Chain wrench



### Chain Wrench

A locking pliers which employs a chain to wrap around an object such as a pipe to secure or remove it.

See

Chain whip

Chair

Motorcycle sidecar

Chalk

See

Cathodic Chalk

### Chalking

The appearance of a white powder on a paint surface as it weathers and ages.

#### Chamber

- 1. A pressure chamber used to vulcanize pre-cured tread stock to the buffed Casing.
- 2. A compartment which is basically empty or hollow.

#### See

- Annular Combustion Chamber
- Atmospheric-suspended Power Chamber
- Boron Chamber
- Brake Chamber
- Cannular Combustion Chamber
- Climatic chamber
- combustion chamber
- Exhaust chamber
- Fireball combustion chamber
- Float chamber
- Gas chamber
- Hemispherical combustion chamber
- Humidity chamber
- Main combustion chamber
- Mixing chamber
- Pent-roof combustion chamber
- Plenum chamber
- Power Chamber
- Pre-combustion chamber
- Precombustion Chamber
- Pre-compression chamber
- Salt spray chamber
- Spherical combustion chamber
- Spray Chamber
- Suction chamber
- Swirl chamber
- Swirl Combustion Chamber
- Twin swirl combustion chamber

- Vacuum chamber
- Vacuum-suspended Power Chamber
- Wedge combustion chamber

#### Chamber recess

See

• Combustion chamber recess

#### Chamber volume

See

• Combustion chamber volume

#### Chamfer

- 1. To bevel or taper the edge of an object especially the sides of a hole or a sharp corner
- 2. To bevel or shape the edge of an object or port openings in a two-stroke engine cylinder to prevent piston ring breakage.
- 3. To shape a 90° edge to an acute angle (i.e., less than 90°)
- 4. An edge that has been beveled
- 5. The meeting of two angled or beveled flat surfaces.

#### Chamfered

A chamfered object is one that has a symmetrically beveled edge.

#### Chamois

Pronounced SHAM-mee. A soft piece of animal skin (from a deer, sheep, goat, etc.) used to absorb water after washing the surface of a vehicle. Also called a chamois leather or shammy leather.

### Chamois leather

See

Chamois

#### **CHAMP**

Abbreviation for <u>Certification of Higher-learning in Alternative Motorfuels Program</u> Champ car

When Championship Auto Racing Teams (CART) was co-sponsored by FedEx, the series became known as the FedEx Championship Series for the PPG Cup. The cars in this series, previously known as Indy Cars, are called Champ Cars.

#### Change

To remove something and replace it with something else.

See

Adiabatic Change

- Automatic Reel Change
- Climate change
- Downward change
- Floor change
- Oil change
- Upward change

### Change down

A British expression meaning to shift to a lower gear.

### Change gear

The action of selecting a different gear. This expression is used more in Britain than inNorth America where the expression is *shift gear* 

# Change into

A British term for the action of shifting into another gear, such as *change into second* (shift into second gear) or *change into top* (shift into high gear)

# Change of state

- 1. Rearrangement of the molecular structure of matter as it changes between any two of the three physical states solid, liquid, or gas
- 2. Condition in which a substance changes from a solid to a liquid or a liquid to a gas due to addition of heat. Or, the reverse, in which a substance changes from a gas to a liquid, or a liquid to a solid, due to removal of heat.

# Changeover

- 1. The refitting of equipment to either neutralize the effects of the just completed production or to prepare equipment for production of the next scheduled item, or both.
- 2. The removing of new original equipment tires in exchange for a different make, size, or type.

### Changeover Switch

See

• Antenna Changeover Switch

### Changer

See

• CD changer

#### Change-speed gearbox

A transmission which houses a set of gears which move into various configurations of engagement in order to produce different output ratios.

### Change the oil

The act of draining out the old or dirty oil from an engine and replacing it with fresh oil.

### Change up

A British term meaning to shift up to another gear

### Change valve

A British term for a valve in an automatic transmission which raises the oil pressure as the vehicle speed increases. In North America it is called the shift valve.

# Changing

See

- Charge changing
- Wheel changing

#### Channel

- 1. To lower the vehicle body around the <u>frame</u> by cutting out the floor and dropping the body shell below the frame rails.
- 2. A route or groove through which anything passes.
- 3. The hydraulic routing used by the anti-lock brake system to control the brake pressure at each wheel. A system may have one, three, or four channels

# See

- Chassis channel
- Distribution channel
- Glass channel
- Grip channel
- Run channel
- Window channel

#### Channeled

Vehicle body lowered down around the **frame**.

### Channel Iron

A three-sided length of steel which provides better strength than a flat bar of steel. Used in frame construction.

### Channel restriction

See

• Idle Channel Restriction

### Channel section

A long metal U-shaped member used in the chassis.

### Chap

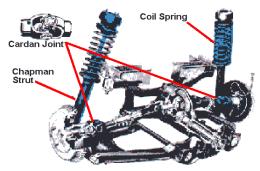
See

• Tank chap

### Chapman

Anthony Colin Bruce Chapman (1928-1982), the founder of Lotus. One of the most innovative engineer in automotive racing history.

# Chapman strut



Click image to supersize Chapman Strut

A type of <u>Rear suspension</u> using a lower <u>Lateral link</u> and a long spring-shock <u>Strut</u> to determine wheel geometry. The basic principle is the same as that of the front <u>MacPherson strut</u> and it is so named because Colin Chapman first used it on the original Elite; it is also used on the Elan models, the new Elite, and the Datsun (Nissan) Z-car.

# Characteristic map

A three-dimensional picture showing the relationship between various components of a vehicle. With the help of a computer, engineers can modify one component to see the effect it has on the whole operation of the vehicle.

### Characteristics of materials

See

• Performance characteristics of materials

#### Character line

- 1. The design line or bend in the side of the vehicle that separates the upper and lower sections of the fenders and doors
- 2. A designed crease on a flat panel which increases the panel's strength and may change the overall aesthetic appearance of the panel. Compare bone line.

### Charcoal

The amorphous form of <u>carbon</u> obtained by the destructive <u>Distillation</u> of animal or vegetable matter in a limited supply of air. In automotive use, it is used to purify air or <u>exhaust gases</u>.

See

- Activated carbon
- Activated charcoal

### Charcoal canister

Another name for Activated carbon canister

Charcoal filter

A filtration system using <u>Activated carbon</u> to remove impurities.

Charcoal trap

See

Activated carbon canister

# Charge

- 1. The action of passing an <u>electric current</u> through a <u>battery</u> to restore it to the active (charged) state. Normally the vehicle's <u>generator</u> or <u>alternator</u> takes care of this. If the vehicle is not used much, an external <u>charger</u> is needed to charge the <u>battery</u>.
- 2. The definite quantity of electricity usually found in a storage battery.
- 3. Refers to the mass of air and fuel that enters a cylinder during the intake stroke.
- 4. A refund amount of money.

See

- o <u>Core charge</u>
- 5. Amount of refrigerant placed in a refrigerating unit.
- 6. A specific amount of refrigerant by volume or weight

#### See

- Air charge temperature
- Battery charge
- Bound Charge
- Catalyst charge
- Cylinder charge
- Electric charge
- Fuel charge
- Intake charge
- Normal Charge
- On-the-road Charges
- Refrigerant Charge
- Stratified charge
- Trickle charge
- <u>undercharge</u>

Charge air

The air/fuel mixture.

Charge air cooling

An Intercooler

Charge-air recycling

A device on a turbocharger which maintains the speed of the compressor when there is no boost so that the boost is more instantly available on demand.

### Charge capacity

The input (feed) capacity of the refinery processing facilities.

# Charge changing

In a two-stroke engine, the removal of exhaust gases through the exhaust port in order to introduce a new load of fuel-air into the transfer port. Also called *charge exchange process* 

### Chargecooler

A radiator that cools and therefore recondenses the intake air that has been compressed and heated by the turbocharger thus allowing a greater amount of air into the engine. With more air in the combustion chamber, the ECM can deliver more fuel and make more power. This radiator can be either cooled by air or by water. Also called <u>Intercooler</u>

# Charged

See

- Cross Charged
- Dry charged battery

# Charged battery

See

• Dry charged battery

### Charge engine

See

• <u>stratified charge engine</u>

### Charge exchange process

Another name for **Charge changing** 

### Charge indicator

See

• Battery charge indicator

### Charge losses

In a two-stroke engine, the exhaust gases are expelled out the exhaust port and the fresh charge is brought in through the transfer port. Sometimes some of the fresh charge is also forced out with the exhaust gases. There is therefore a loss of some of the fresh air-fuel charge.

See

Scavenging losses

#### Charger

Common name for a <u>Battery charger</u>. See

- Battery Charger
- Fast charger
- Trickle charger
- <u>turbocharger</u>

# Charges

See

• On-the-road charges

### Charge temperature

See

• Air charge temperature

### Charge Temperature Sensor

See

- Air Charge Temperature Sensor
- Manifold Charge Temperature Sensor

# Charging

See

- Battery charging
- Bulk Charging
- Piston charging pump
- Slow charging

### Charging board

Specially designed panel or cabinet fitted with gauges, valves, and refrigerant cylinders used for charging refrigerant and oil into refrigerating mechanisms.

### Charging characteristic

When a battery is being charged, the charger will reveal how much voltage and/or amperage is being required to bring the battery up to full charge.

### Charging circuit

See

• Charging system

#### Charging current

The amount of electric current being supplied to the battery from the alternator or from a battery charger.

# Charging efficiency

- 1. In a vehicle's electrical charging system, its efficiency is the ratio of energy output to energy input, i.e., how well does the alternator work to supply voltage to the electrical components and still charge the battery.
- 2. In a two-stroke engine, it is the ratio of the amount of the fresh charge that remains in the cylinder after the two ports are closed and the actual volume.

### Charging hose

A small diameter hose constructed to withstand high pressures. It is connected between the air conditioning system and the manifold set

### Charging piston

In a two-stroke engine, this is a secondary piston which precompresses the fresh charge and sends it into the cylinders

### Charging point

A place where a battery can be charged -- especially for battery-powered electrical vehicles. Also called Battery charging station

### Charging pressure

See

• Boost pressure

### Charging pump

See

• Piston charging pump

#### Charging rate

The amount of electrical current which is delivered by the charging system. It is usually measured in amperes.

# Charging station

A usually portable unit equipped with a manifold gauge set, charging cylinder, vacuum pump, refrigerant supply, auxiliary gauges, various valves and the plumbing necessary to hook everything together. Used for servicing air conditioning systems. See

• Battery charging station

### Charging stroke

See

Induction stroke

### Charging system

A system that, using a <u>Fan belt</u> driven by the engine, enables the <u>Alternator</u> (or <u>Generator</u>) to generate electrical <u>current</u>, which is stored in the <u>battery</u> and delivered to

the electrically operated pars of the vehicle <u>chassis</u> The parts of the vehicle which are left when the body and <u>Fenders</u> are removed.

#### Charles's law

Volume of a given mass of gas at a constant pressure varies according to its temperature. Charpy test

An impact resistance test in which the specimen is supported as a horizontal beam and broken by a single swing of a pendulum with the impact line midway between the supports and directly opposite the notch for notched specimens.

#### Chart

CHART: Abbreviation for *Computerised Highways Assessment of Ratings and Treatment*. Program for presenting road condition information. See

- Color chart
- Psychrometric Chart

#### Charter

To 'rent' a vehicle (i.e., a bus or truck) and its operator. See

- Trip Charter
- Voyage Charter

#### Charter Bus

A bus that is operated on a for-hire basis, usually providing round-trip service for a tour group or an outing, either on an ad hoc or scheduled basis.

### Chase

To repair damaged threads on a bolt or nut with a tap or die

#### Chaser

See

- Die chaser
- Screw Thread Chasers

### Chasing threads

Cutting screw threads by moving a tool along the axis of the work to be threaded. Chassis

- 1. In a vehicle, the <u>frame</u>, engine, front and rear axles, springs, <u>steering system</u>, <u>fuel tank</u>. In short, everything but the body or cab and <u>fenders</u>. Because most modern automobiles (apart from trucks) do not have a separate chassis, the body is sometimes called the chassis.
- 2. A transport container frame with wheels that supports a lift-off container

See

- Backbone chassis
- Cab chassis
- Container Chassis
- Cowl chassis
- Mid-engine chassis configuration
- Separate chassis

#### Chassis bracket set

When the sill panel does not have a jointing flange, a set of securing pieces are welded under the sill before straightening a bent or damaged sill.

#### Chassis cab

A truck with a cab but no bed. To this system various bodies (ambulance, moving van, flat beds, etc.) can be added by aftermarket suppliers.

#### Chassis channel

A channel section which makes up a member of the chassis.

### Chassis configuration

See

• Mid-engine chassis configuration

### Chassis dynamometer

A test stand for a vehicle to determine its power output or emission levels, etc. when the vehicle is placed under a variety of driving conditions. See

#### Dynamometer

#### Chassis frame

A frame (found on large trucks) which is made up of two long side members which are joined by several crossmembers. The suspension and axles are attached to this frame.

### Chassis leg

The short channel or box section which runs along the vehicle's main axle. It is an auxiliary member, not the main side member.

### Chassis lubrication

See

### • Central chassis lubrication

#### Chassis number

The serial number of an older vehicle which was originally stamped on a chassis member.Later it became known as a <u>Vehicle identification number</u> (VIN)

### Chassis section

One of the chassis channels or boxes, whether bolted or welded to the whole.

#### Chassis weight

The weight of an empty truck, without occupants or load. Also called <u>curb weight</u> or <u>tare</u> weight

#### Chatter

- 1. A noise which is caused by an irregular movement of rattling parts.
- The jerky movement of two components which may have moved in a systematic way under low speed; but as the speed increases, the components make irregular contact.
- 3. Rough or unsatisfactory surfaces on work. It is usually caused by a slight jumping of the tool away from the work or of the work away from the tool.

#### See

- Contact bounce
- Contact chatter

#### Cheat

To exaggerate a design feature in a sketch or model in order to improve the car's appearance or proportions, such as stretching the wheelbase and lowering the height of the body.

# Cheater Axle

Colloquial term for a <u>lift axle</u> or an air-powered axle which, when lowered, will both convert a vehicle into a multi-axle unit and provide greater load carrying capacity.

#### Check

- 1. An inspection to determine if everything is functional.
- 2. A slight slash or marking which may appear in a tire or upholstery.

### See

- Brake Check
- Checking
- Compression check
- Door check arm
- Door check strap
- Heat Checks
- Optical check

### Check arm

See

Door check arm

#### Check ball

A small ball (like a ball bearing) often made of metal or plastic, found in a <u>check valve</u> to halt the progress of fluid in a certain direction. See

- Discharge Check Ball
- Pump Inlet Check Ball

### Check engine light

A light on the instrument panel that lets the driver know of any detectable engine management system malfunctions. Also used as an emission maintenance reminder light on some vehicles. Often when this light is on, a trouble code is stored in the computer.

Also called Malfunction indicator light

### Check engine warning light

A light on the <u>instrument panel</u> which is illuminated when one of the engine sensors or components does not function properly.

### Checkered flag

A flag with alternating black and white squares to signal the end of the race.

See

• Black And White Checkered Flag

### Checking

- 1. Short, very fine <u>Crack</u> lines that appear in the paint film.
- 2. Small cracks in the surface of rubber (e.g., tires) caused by Aging and Oxidation.

#### See

- Heat Checking
- Ozone checking

#### Check nut

A double chamfered hexagon machine screw nut

#### Check Piston

See

Flow Check Piston

### Check point

- 1. A designated spot on a component where it is possible to determine if there is a malfunction.
- 2. A place on the road where vehicles are stopped during a rally.

### Check routine

A series items in an inspection which traces a fault or problem or which determines if all the components of a new vehicle meets the required specifications.

#### Checkstand

A desk or counter used by freight handlers for performing paperwork duties.

Check stop

An action taken by the police to stop vehicles in order to determine if the drivers have been drinking, wearing seat belts, and conforming to the other requirements of operating a vehicle.

### Check strap

See

### • Door check strap

### Check the battery

Determine if the electrolyte is at the correct level and add distilled water to bring it up if necessary

#### Check the oil

Using a dipstick, determine if there is sufficient oil in the crankcase

### Checkup

The process of discovering the reliability of a vehicle or its <u>components</u>. 'Give my engine a checkup.' Sometimes it means <u>Tune-up</u>.

#### Check valve

A one-way, in-line spring-loaded ball or piston valve that permits flow of liquids or gases in one direction only and closes to prevent passage in the opposite direction. Used to control flow of vacuum, refrigerant, coolant, etc.

See

- Ball Check Valve
- Closed type check valve
- Exhaust Gas Check Valve
- Open type check valve
- Residual pressure valve
- Residual brake pressure type check valve
- Residual Pressure Check Valve
- Two-way type check valve
- Vacuum Check Valve

#### Cheese head

An obsolete term still used in the UK for a <u>fillister head screw</u>, i.e., a cylindrical headed screw with a straight slot and straight sides. So named because the head looks like a round block of cheese.

#### Chemical activation

Treatment of a substance by heat, radiation, or other activating reagent to produce a more complete or rapid chemical or physical change.

# Chemical bond

When two or more chemicals are joined or mixed, electrons of one chemical interchange with the electrons of the other chemical.

### Chemical brightening

The improvement of the smoothness of the surface of metal by immersing it into a solution designed to remove any roughness. Also called *chemical polishing* 

#### Chemical cure

Vulcanization at room temperature or above, activated by chemical agents without the application of heat from an outside source.

### Chemical curing

The setting or curing of an adhesive, coating or sealer, brought about by the addition of heat, a catalyst, or an accelerator

# Chemical polishing

See

# • <u>Chemical brightening</u>

# Chemical refrigeration

System of cooling using a disposable refrigerant. Also called an expendable refrigerant system.

# Chemical regulator

A <u>voltage regulator</u> with solid state electronic devices to control the charging system output.

### Chemical separation

A process for extracting uranium and plutonium from dissolved spent nuclear fuel and irradiated targets. The fission products that are left behind are high-level waste. Chemical separation is also known as reprocessing.

### Chemical staining

Spotty discoloration of the paint caused by air pollution in industrial areas

### Chemical toilet

A portable toilet which is used in campers and motorhomes. They contain chemicals to deal with the feces and its smell until the contents are dumped.

#### Chenard-Walcker

A vehicle brand of which models built between 1925-1948 are <u>classic cars</u> with required application.

# Cheney® Clamp

A screw-type hose clamp similar to a Jubilee® clamp

### Cherry

A colloquial term for a vehicle that has been kept in, or restored to, perfect condition. Also called *mint* or *like new* 

### Cherry condition

A colloquial term for a vehicle that has been kept in, or restored to, perfect condition. Also called Mint condition.

#### Chest

See

#### Sea chest

#### Chevelle



Click image for books on Chevelle

An intermediate-size model automobile produced by the <u>Chevrolet</u> division of <u>General Motors</u> from 1964 to 1973 (later called <u>Malibu</u> until 1983)



Click image for books on Chevrolet Chevette

A model of automobile manufactured by the <u>Chevrolet</u> division of <u>General Motors</u> from 1976-86.

Chevrolet



Click image for books on Chevrolet

A vehicle brand which began in 1912 of which the 1955-57 Bel Air V-8 Hardtop and Convertible are <u>milestone cars</u>. Models include the following:

- 1500 Pickup (19\_\_-99)
- 2500 Pickup (19\_\_-2000)
- 3500 Pickup (19\_\_-2000)
- <u>APV</u> (1990-93)
- <u>Astro</u> (1985-2005)
- Avalanche (2002-08)
- <u>Aveo</u> (2004-08)
- <u>Aveo 5</u> (2007-08)
- Bel Air (1953-75)
- <u>Beretta</u> (1986-96)
- Biscayne (1958-72)
- <u>Blazer</u> (1969-2005)
- Camaro (1967-2002)
- <u>Caprice</u> (1967-92)
- Cavalier (1982-2005)
- <u>Celebrity</u> (1982-90)
- <u>Chevelle</u> (1964-73)
- <u>Chevette</u> (1976-86)
- <u>Chevy II</u> (1962-69)
- Citation (1981-85)
- Classic (2004-05)
- <u>Cobalt</u> (2005-08)
- Colorado (2004-08)
- Corsica (1987-96)
- Corvair (1960-69)

- Corvette (1953-current)
- Delray (1958)
- DeLuxe 210 (1953)
- El Camino
- Equinox (2005-08)
- Express Van (1996-2008)
- Fleetline (1946-52)
- Fleetmaster (1948-48)
- Greenbrier (1961-70)
- G-Series Van (1964-98)
- HHR (2006-08)
- <u>Impala</u> (1959-2008)
- <u>Laguna</u> (1973-76)
- <u>Lumina</u> (1990-2001)
- <u>Lumina APV</u> (1990-93)
- Lumina Minivan (1994-96)
- LUV
- Malibu (1964-2007)
- Malibu (Classic) (2008)
- Malibu Hybrid
- Master (1934-40)
- Master DeLuxe (1937-42)
- Master Eagle (1933)
- Mercury (1933)
- Metro (1998-2001)
- Model 150 (1955-57)
- Model 210 (1955-57)
- Monte Carlo (1970-2007)
- Nomad (1955-61)
- Nova (1964-88)
- Prizm (1998-2002)
- <u>S10 Blazer</u> (19\_\_-94)
- S10 Pickup (19\_\_-2004)
- Silverado 1500 Pickup (1999-2008)
- Silverado 2500 Pickup (1999-2008)
- Silverado 3500 Pickup (2001-08)
- Special 150 (1953-54)
- Special 210 (1954)
- Special DeLuxe (1942)
- Spectrum (1987-88)
- Sportvan (19\_\_-96)
- Sprint (1987-88)
- SSR Pickup (2003-06)
- Standard (1934-36)
- Styleline (1949-52)
- Stylemaster (1946-48)

- Suburban (1935-2008)
- Super Sport (1966)
- <u>Tahoe</u> (1995-2008)
- Tracker (1998-2004)
- TrailBlazer (2002-08)
- Uplander (2005-08)
- Vega (1971-77)
- Venture (1997-2005)

### Chevrolet type

A dual mounting wheel type consists of one cone locking nut on each stud that holds both wheels in place against the hub.

#### Chevron

Road marking used to separate traffic flows are highlight potential conflicts.

#### Chevron board

Traffic warning signs with hatch-markings indicating a sudden change in direction Chevy II



Click image for books on Chevrolet Chevy II

A model of compact car produced by the <u>Chevrolet</u> division of <u>General Motors</u>from 1962-69. It became the <u>Nova</u>.

#### Chicane

- 1. A series of sharp curves on a road or racetrack that alternate from left turn to right turn but not as severe as hair-pin curves. Also called *S-curves*
- 2. A traffic-calming measure where police weave between traffic lanes in front of the traffic to make following vehicles slow down

### Chicken coop

Trucker slang for Truck weigh station as in 'Are the chicken coops open this morning?' Chicken lights

Trucker slang for Extra lights on a truck as in 'Look at all those chicken lights on that northbound bulldog.'

#### Child bike seat



Child Bike Seat

An accessory which mounts behind the saddle of a bicycle and is designed to hold a small child.

# Childproof lock

On the rear doors of a car, a specially designed locking device can be set to normal or to childproof. When set to childproof, the door cannot be opened from the inside.

# Child restraint system

A term for a number of items which are designed to protect children from injury during an accident (such as <a href="Child seats">Child seats</a>).

### Child safety

See

• Integrated child safety seat

### Child safety seat

See

• Integrated child safety seat

#### Child seat

A small safety seat which is mounted on a regular car seat and is held in place by the seat belt.

See

• Integrated child seat

Child step running board



### Clild Step Running Board

An external step which allows a child to be able to enter or leave a vehicle with a high ground clearance (a van, SUV, truck, etc.)

#### Chill

See

Wind Chill

#### Chilled iron

<u>Cast iron</u> possessing a hardened outer skin.

#### Chiller

Air conditioning system which circulates chilled water to various cooling coils in an installation.

#### Chill factor

Calculated number based on temperature and wind velocity.

## Chimney

Vertical shaft enclosing one or more flues for carrying flue gases to the outside atmosphere.

See

- <u>Coil tower</u>
- Coil chimney

#### Chimney connector

Conduit (pipe) connecting the heating appliance (furnace) with the vertical flue.

### Chimney effect

Tendency of air or gas to rise when heated.

### Chimney flue

Flue gas passageway in a chimney.

### Chip

- 1. Small pits in the glass (windshield or headlight) or in the paint caused by small flying stones.
- 2. The metal removed by a tool
- 3. A collection of sample paint.
- 4. To cut with a chisel.

### See

• Novachip

# Chip book

See

• Paint chip book

# Chip coat

A rough surface pavement See

• Chip seal

# Chip damage

See

• Stone chip damage

# Chip hammer



Chip Hammer

A hammer used to remove slag, etc. from metal because it has a chisel-like end on one side

# Chipped Wheel

See

• Potato Chipped Wheel

# Chipping

The action of tearing away small bits or flakes of paint or of rubber from the tread of a tire. When larger pieces of rubber tear away, it is called <a href="Chunking">Chunking</a>.

Chipping hammer



# Chipping Hammer

A hammer used to remove the slag from weld seams. See

• Welding hammer

# Chips

See

• Pulp Chips

# Chip seal

A road surface where liquid asphalt is sprayed on the surface and is covered by a thin layer of gravel. It is done in warm, dry weather. It takes a few hours to set. It creates a hard driving surface. For the first few days after the chip seal, the road looks light gray with some loose rock. In time it becomes more firm and turns black. The surface is somewhat rough and provides good traction for cars, but is very rough for bicycles.

#### Chisel

There are two basic types of chisel. One is used for wood work (<u>Wood chisel</u>) while the other is for metal work (<u>Cold chisel</u>). See

- <u>Cape Chisel</u>
- Splitting chisel

#### Chisler

A vehicle buyer who constantly grinds the salesman to the obtain the best possible deal that he can get.

#### Chloride

See

- Calcium chloride
- Magnesium chloride

- Methylene Chloride
- Polyvinyl chloride

#### Chloroform

See

• Methyl Chloroform

#### Chlorofluorocarbon

(CFC)

- 1. A gas compound which was used as a propellant in aerosol cans and in refrigerants.
- 2. Any of various compounds consisting of carbon, hydrogen, chlorine, and flourine used as refrigerants. CFCs are now thought to be harmful to the earth's atmosphere.

#### CHM

Abbreviation for *cold mixture heater*—A device which helps to reduce cold engine emissions and improve driveability during engine warm-up. Also CMH.

#### **CHMSL**

(pronounced CHIM-sel) An short form for *center high mounted stop light* an additional brake light as required by law whose mounting position is determined by the manufacturer using required guidelines

### Chobert rivet

A blind rivet fastener with a hollow center and dome head. It requires an insertion tool. Chock

- 1. A wedge used to prevent a vehicle or trailer wheel from rolling -- especially when replacing a tire/wheel. Also called a <a href="Wheel chock">Wheel chock</a>.
- 2. A heavy wedge used within a trailer to keep freight from shifting.
- 3. To apply a wood or metal wedge to block the wheels of a truck while it is being loaded or unloaded.
- 4. A heavy smooth-surfaced fitting usually located near the edge of the weather deck through which wire ropes or fiber hawsers may be led, usually to piers.

#### See

- Boat chock
- Boiler Chocks
- Panama Chock

#### Chock-Boat

A cradle or support for a lifeboat.

Choke

A <u>Butterfly valve</u> or plate located near the top of the <u>carburetor</u> that limits or restricts the amount of air allowed to enter the <u>carburetor</u>, thus enriching the <u>fuel-air mixture</u> and enabling the vehicle to start and run more easily when cold. <u>Automatic chokes</u> have a <u>Thermostatic coil</u> or <u>Thermostatic spring</u> that activates a <u>Butterfly valve</u> at the top of the <u>Carburetor barrel</u>. Older cars have <u>Manually</u> operated chokes. Some vehicles use an <u>Enrichner</u> instead of a choke.

See

- Audio-frequency Choke
- Automatic Choke
- Divorced Choke
- Manual choke
- Radio choke
- Remote Choke
- Thermostatic Coil Choke
- Thermostatic Spring Choke

#### Choke stove

A flapper near the top of the <u>carburetor</u> which regulates the amount of air entering the <u>carburetor</u>.

See

#### Choke

### Choke control

A device or system for operating a non-automatic choke. It is usually a cable attached at one end to the choke butterfly and a knob on the <u>instrument panel</u> at the other end.

#### Choke index

Automatic chokes have index marks. The factory setting closes the choke when the bimetal is about 21°C. If you want less or more choke at this temperature, move the choke index one mark in the direction indicated by the arrows designating a leaner or richer mixture. You will seldom need to move the choke more than one mark

#### Choke kick

A preset position for the choke valve set by manifold vacuum that is routed through a carburetor body passage to the choke diaphragm

#### Choke knob

A knob on the <u>instrument panel</u> fascia which is part of the choke control system.

#### Choke stove

A heating compartment in or on the <u>exhaust manifold</u> from which hot air is drawn to the <u>Automatic choke</u> device.

#### Choke system

System in the carburetor that reduces the volume of air admitted to the engine.

#### Choke thermal vacuum switch

(CTVS) a switch used on some GM vehicle to deny vacuum to either the front or the auxiliary choke vacuum breaks. Its purpose is to slow the opening of the choke and to provide better driveability when the engine is cold

#### Choke tube

- 1. The part of the carburetor air horn where the choke butterfly is positioned. Also called a carburetor venturi.
- 2. Throttling device used to maintain correct pressure difference between high-side and low-side in refrigerating mechanism. Capillary tubes are sometimes called choke tubes.

#### Choke valve

In a carburetor, it is the choke butterfly.

### Chop

To lower the height of some area of the vehicle roof, <u>hood</u>, <u>top</u>, etc. by removing the panel, shortening the height of one or more pairs of the supporting pillars, and welding the panel to the shortened pillars.

See

- Cafe Chop
- <u>Top Chop</u>

### Chopped

A vehicle that has had its top lowered in order to customized its design. Also called choptop

### Chopped wheel

Lightened Flywheel.

#### Chopper



### Chopper

- 1. Once used to describe a custom motorcycle that had all superfluous parts *chopped* off in order to make the bike faster. A chopper today is a type of custom bike that usually has an extended fork, no rear suspension, high handlebars and a lowered seat. Often the original <u>fuel tank</u> is changed to a smaller size.
- 2. To travel by motorcycle.

#### Chop shop

- 1. A garage which specializes in turning a two-door car into a convertible by removing the steel top.
- 2. An illegal garage which processes stolen cars by removing valued parts and selling them privately or by changing the serial numbers for illegal resale.

### Choptop

A vehicle that has had its top lowered in order to customized its design. Also called <u>chopped</u>.

### **Chordal Action**

The effect produced by the chain joint centers being forced to follow arcs instead of chords of the sprocket pitch circle. Also called *Chordal effect* 

#### Chordal Effect

The effect produced by the chain joint centers being forced to follow arcs instead of chords of the sprocket pitch circle. Also called *Chordal action* 

#### **CHP**

- 1. Abbreviation for combined heat and power
- 2. Abbreviation for California Highway Patrol

#### C/H Ratio

Abbreviation for Carbon/Hydrogen ratio

#### Christmas tree

- 1. A device, using a series of lights, to start cars on the timed 1/4 mile drag run.
- 2. The valves and fittings installed at the top of a gas or oil well to control and direct the flow of well fluids.

#### Chromate

- 1. A salt or ester of chromic acid which is often used as a paint pigment.
- 2. The action of treating metal with a solution of chromium compound to produce a protective metal chromate coating. Also called *chromatize*

#### Chromate coating

A conversion coating produced by chromating.

### Chromate treatment

A solution of chromium compound is applied to metal to produce a protective coating of metal chromate.

### Chromatic aberration

- 1. An enlargement of the focal spot caused in a cathode tube, by the differences in the electron velocity distribution through the beam.
- 2. An enlargement of the focal spot caused in an optical lens system using white light, by the refractive index of the glass varying with the wavelength of the light, resulting in colored fringes surrounding the image.

### Chromatize

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#### Chrome

- 1. A short form for chromium.
- 2. The chromium plating of metal on a vehicle.
- 3. To plate with chromium.

#### Chrome-hardened

Steel that has been made harder by adding chromium.

#### Chrome-moly

A type of high-quality steel tubing; also called *chrome molybdenum* or *cro-mo* 

# Chrome molybdenum

A type of high-quality steel tubing. Also called *chrome-moly* or *cro-mo* 

#### Chrome-plated

In order to prevent iron from rusting and showing bright and shiny, the iron is coated with a layer of chromium by process of electroplating (or electrodeposition).

### Chrome ring

A piston ring with a chrome face, i.e., a thin layer of chrome plate on the outer edge.

#### Chrome steel

In order to improve rust resistance and increase hardness, chrome is added to steel. Also called *chromium steel* 

#### Chrome work

All the metal on a vehicle which has been plated with chrome.

#### Chromic acid

Electrolyte which is used in anodizing processes for producing non-transparent, non-metallic oxide layers.

#### Chromium

A very hard grey metal used in electroplating and the production of very hard steel compounds (especially <u>stainless steel</u>) that are also resistant to rust. See

Hard chromium plating

### Chromium-plated

A coating of metal with chromium to protect the metal from rust.

### Chromium plating

The process of coating metal with a layer of chromium to prevent rust.

See

- Black chromium plating
- Hard chromium plating

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In order to improve rust resistance and increase hardness, chrome is added to steel. Also called *chrome steel* 

#### Chro-mo

A type of high-quality steel tubing; also called *chrome molybdenum* or *crome-moly* Chromodynamics

See

• Quantum Chromodynamics

# Chronometer See

• Box Chronometer

# Chrysler



Click image for books on Chrysler

A vehicle brand of which several models with required application are <u>classic cars</u> including:

- 1926-32 Imperial and Series 80
- 1931 Imperial 8 Series CG
- 1932 CG and CH
- 1933 CL
- 1932-39 Custom Imperial Series CL, CX, CW, C-3, C-11, C-15, C-20, C-24
- 1934-6 CW
- 1940-48 Crown Imperial Includes Series C-27, C-33, C-37, C-40
- Newports and Thunderbolts

Some models are <u>milestone car</u> including:

- 1970 300 Hurst
- 1955-65 300 Letter Series
- 1946-50 Town and Country models

Other models include:

- 300 letter series (1955-1965)
- 300 (1962-1971; 1979)
- 300 (2005-present)
- 300C (2005-08)
- 300M (1999-2004)
- Airflow (1934-1937)
- Airstream (1935-1936)
- Aspen (2007-present)
- Cirrus (1995-2000)
- Concorde (1993-2004)
- Conquest (1987-1989)
- Conquest TSi (1988-89)
- Cordoba (1975-1983)
- Crossfire (2004-2008)
- Fifth Avenue (1983-1993)
- Grand Voyager (2000)
- Imperial (1926-1954; 1981-1983; 1990-1993)
- Laser (1984-1986)
- LeBaron (1977-1995)
- LHS (1994-1997; 1999-2001)
- Newport (1940-1941; 1949-1950; 1961-1981)
- New Yorker (1939-1996)
- Pacifica (2004-2008)
- Prowler (2001-2002)
- PT Cruiser (2001-2009)
- Royal (1937-1942; 1946-1950)
- Sebring (1995-present)
- Sebring Convertible (1996-present)
- TC by Maserati (1989-1991)
- Town & Country (1941-1988, 1990-present)
- Voyager (2000-03)
- Windsor (1940-1961)

### Chubby screwdriver

A British term for a screwdriver with a short handle and blade for reaching into confined spaces. In North America it is called a *stubby screwdriver* 

#### Chuck

Device for holding work in machine tools.

See

• <u>bell Chuck</u>

## Chug

- 1. The short explosive sound of an engine going steadily and rather slowly.
- 2. To make the sound of chug.

3. To drive slowly and steadily.

Chummy



Austin 7 Chummy

A British term for a convertible during the 1920s (such as an Austin 7) with two seats up front (for driver and passenger) and two small seats in the back to be used when needed. Chunking

The action which occurs when large pieces of rubber from the tread of tire breaks away. When small pieces break away, it is called <a href="Chipping">Chipping</a>.

Chute

See

• Slop Chute

CI

- 1. Abbreviation for compression ignition
- 2. Abbreviation for *coil ignition*

CI-4

# API CI-4 Category

An API classification for <u>diesel engine oil</u> for use in high speed, four-stroke cycle diesel engines designed to meet 2004 exhaust emission standards, to be implemented October 2002. These oils are compounded for use in all applications with diesel fuels ranging in

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CI-4 Plus

API CI-4 Plus Category

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CID

Abbreviation for <u>cubic inch displacement</u>.

Ciera

Click image for books on Oldsmobile Ciera

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**CIF** 

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# Cigar lighter

A device which heats up an element when engaged. In turn, the lighter can ignitesomething flammable like a cigarette. The <u>Socket</u> can also be used to power other electrical <u>components</u> requiring 12 volts.

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- Abbreviation for Capital Improvement Project (or Program)

### Circle

See

- Base circle
- Black Flag With Orange Circle
- Cam heel
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- Pitch circle
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See

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A wiring diagram showing the path of the electrical connections and the various colors of the wires.

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A centrifugal pump, like an automotive water pump, which moves the liquid in a closed system.

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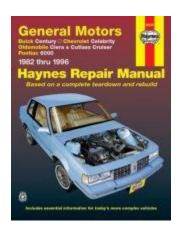
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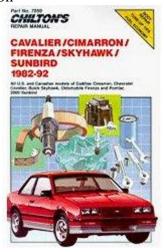
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- 1. Abbreviation for *Comfort Luxe* as a designation for a vehicle which is more luxurious than an *L* but not quite as luxurious as a *GL*
- 2. Abbreviation for Closed Loop

**CLA** 

Abbreviation for Longitudinal Articulation Coefficient

Cladding

- 1. A process of covering one material with another and gluing them together under high pressure and temperature.
- 2. The outer body panels which are attached to the vehicle's frame.
- 3. Excessive decorative elements applied to a vehicle.

### Claim

- 1. A demand for reimbursement made by the customer for freight that is lost and/or damaged.
- 2. A demand made by the customer for a refund on overcharge on transportation bill
- 3. A demand made by an individual or company to recover loss under insurance policy.

#### Claire

See

• Wills Sainte Claire

## Clamp

A fastening device which secures something within its jaws without constant human pressure.

See

- Anchor Clamp
- Bar clamp
- <u>Battery clamp</u>
- C-clamp
- Cable clamp
- Cheney Clamp
- Distributor hold-down clamp
- G-clamp
- Hose clamp
- Hose clamp installer
- Hose clamp pliers
- Jubilee Clamp
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- Locking clamp
- Long-reach C-clamp
- Piston ring clamp
- Screw Clamp
- Sheet metal clamp
- Triple clamp
- V-band clamp
- Welding clamp
- Wheel clamp

## Clamping load

In a clutch, the amount of pressure on the plates.

Clamp installer

• <u>Hose clamp installer</u>

# Clamp on

See

• Front Derailleur Clamp on

## Clamp pliers

See

• Hose clamp pliers

#### Clamshell

A shape which has a bottom and top but is hinged at one end so that it can be opened to expose its interior.

### Clapboard

A narrow board which is thicker at one edge than the other edge and used to protect from the weather.

#### Clarifier

A machine used for a liquid-sludge separation in which the particles with a higher specific gravity are separated from the lower specific gravity of the liquid. A clarifier bowl has one outlet for the light phase oil; the heavier phase particles are retained on the bowl wall.

#### Clark

Clark, Jim -- Winner of 3 Formula One Championships, 25 Grand Prix races and of the 1965 Indianapolis 500

Class 1 driver's license

#### Semi-trailer truck

In Canada, a driver's license which permits driving semi-trailer trucks and all other motor vehicles or combinations of vehicles except motorcycles

#### Class 1 motor carrier

A U.S. classification of a common or contract <u>motor carrier</u> with annual gross revenues of five million dollars or more.

## Class 1 road

Hard surface highways including interstates and U.S. numbered highways (including alternates), primary state routes and all controlled access highways.

Class 2 driver's license

Class 2

In Canada, a driver's license which permits driving the following

- 1. Buses, including school buses, special activity buses and special vehicles
- 2. Trailers or towed vehicles that do not exceed 4,600 kilograms except if the bus and trailers or towed vehicles do not have air brakes
- 3. Any motor vehicle or combination of vehicles in Class 4

#### Class 2 road

Hard surface highways including secondary state routes, primary county routes and other highways that connect principle cities and towns, and link these places with the primary highway system.

Class 3 driver's license

#### Class 3

In Canada, a driver's license which permits operating the following

- 1. Trucks with more than two axles, such as dump trucks and large tow trucks, but not including a bus that is being used to transport passengers
- 2. Trailers that do not exceed 4,600 kilograms except if the truck and trailers do not have air brakes
- 3. A tow car towing a vehicle of any weight
- 4. A mobile truck crane
- 5. Any motor vehicle or combination of vehicles in Class 5

#### Class 3 road

Hard surface roads not included in a higher class and improved, loose surface roads passable in all kinds of weather. These roads are adjunct to the primary and secondary highway systems. Also included are important private roads such as main logging or industrial roads that serve as connecting links to the regular road network.

Class 4 driver's license

#### Class 4

In Canada, there are two types of Class 4 driver's license unrestricted and restricted The unrestricted Class 4 allows driving the following

- 1. Buses with a maximum seating capacity of 25 persons (including the driver), including school buses, special activity buses and special vehicles used to transport people with disabilities
- 2. Taxis and limousines
- 3. Ambulances
- 4. Any motor vehicle or combination of vehicles in Class 5

#### Class 4

The restricted Class 4 allows driving the following

- 1. Taxis and limousines (up to 10 persons including the driver)
- 2. Ambulances
- 3. Special vehicles with a seating capacity of not more than 10 persons (including the driver) used to transport people with disabilities
- 4. Any motor vehicle or combination of vehicles in Class 5

#### Class 4 road

Unimproved roads that are generally passable only in fair weather and used mostly for local traffic. Also included are driveways, regardless of construction.

Class 5 driver's license

#### Class 5

In Canada, a driver's license which permits operating the following

- 1. Two axle vehicles including cars, vans, trucks and tow trucks
- 2. Trailers or towed vehicles may not exceed 4,600 kilograms
- 3. Motor homes (including those with more than two axles)
- 4. <u>Limited speed motorcycles</u> or moped (in some provinces, a Class 8 is required to operate these) and all-terrain vehicles (ATVs)
- 5. Passenger vehicles used as school buses with seating capacity of not more than 10 persons (including the driver)
- 6. Construction vehicles
- 7. Three-wheeled vehicles does not include three-wheeled motorcycles (trikes) or motorcycle/sidecar combinations
- 8. Does not include Class 4 vehicles or motorcycles

### Class 5 road

Unimproved roads passable only with 4-wheel drive vehicles.

Class 6 driver's license

#### Class 6

In Canada, a driver's license which permits operating the following

1. Motorcycles, all-terrain cycles, all-terrain vehicles (ATVs)

#### Class 7 driver's license

#### Class 7

In Canada, a learner's driver's license which permits operating the following

- 1. Two axle vehicles including cars, vans, trucks and tow trucks
- 2. Trailers or towed vehicles may not exceed 4,600 kilograms
- 3. Motor homes (including those with more than two axles)
- 4. Limited speed motorcycles and all-terrain vehicles (ATVs)
- 5. Passenger vehicles used as school buses with seating capacity of not more than 10 persons (including the driver)
- 6. Construction vehicles
- 7. Three-wheeled vehicles does not include three-wheeled motorcycles (trikes) or motorcycle/sidecar combinations
- 8. Does not include Class 4 vehicles or motorcycles

#### Class 8 driver's license

## Moped

In some provinces of Canada, a driver's license which permits operating a moped or <a href="limited speed motorcycles">limited speed motorcycles</a>

Class 9 driver's license

#### Class 9

In some provinces of Canada, a driver's license which permits operating a farm tractor Class A driver's license

### Class 1

- 1. In some provinces of Canada, a driver's license which permits operating
  - 1. Any tractor-trailer or combination of motor vehicle and towed vehicles where the towed vehicles exceed a total gross weight of 4,600 kilograms
  - 2. Any motor vehicle pulling double trailers
  - 3. Any motor vehicle pulling a trailer with air-brakes
  - 4. Any car, van or small truck or combination of vehicle and towed vehicle up to 11,000 kg provided the towed vehicle is not over 4,600 kg.

- 2. A class A with restrictions prevents operating
  - 1. a motor vehicle pulling double trailers
  - 2. a motor vehicle pulling a trailer with air-brakes

Class A RV

Class A RV

### Class A RV

The Class A is the largest and usually most luxurious motorhome. They are frequently constructed on custom undercarriages or on a 3-10 ton truck chassis. Many also feature an automatic slideout so that at the touch of a button, a portion of the RV exterior wall can extend outward to expand living space. Most models offer complete self-containment, with on-board generator, large water and holding tanks, big batteries and a generous propane supply. They usually provide cooking facilities, a refrigerator, heating, air conditioning, a self-contained toilet, water tanks (fresh water, grey water, black water), faucets, sinks, a LP (propane) gas supply, a separate 100-125 volt electrical system, and a full array of appliances and entertainment features. They are especially good for *dry* camping (without hookups), even for extended periods. They can sleep up to eight people, depending on the model and the floor plan. Prices range from \$80,000 to above \$700,000 for high end rear diesel models.

- Average weight 13,000 to 48,000 pounds
- Average Length 25 to 45 feet in overall length
- Average Height 10 feet high

## Class A thread

A British term for external thread.

Class B driver's license

# Class B

In some provinces of Canada, a driver's license which permits operating the following

- 1. Any school purposes bus with designed seating capacity for more than 24 passengers
- 2. Any regular bus with designed seating capacity for more than 24 passengers
- 3. Any truck or motor vehicle combination exceeding 11,000 kg provided the towed vehicle is not over 4,600 kg

- 4. School purposes bus maximum of 24 passenger capacity
- 5. Regular bus maximum of 24 passenger capacity and ambulances
- 6. Any car, van or small truck or combination of vehicle and towed vehicle up to 11,000 kg provided the towed vehicle is not over 4,600 kg.

#### Class B RV

### Class B RV

A small motorhome usually called a van conversion or camping van conversion. The basic Class B RV is built on an ordinary van chassis which retains the original dimensions of the van but features a raised roof (usually fiberglass) in order to allow full standing headroom. They also include a small galley (cooking facility, refrigerator, heater, fresh water tank, waste water tank, faucet, sink), a LP (propane) gas supply, 110 Volt AC and 12 Volt DC electrical outlets, and portable toilet. They can sleep from two to four people.

- Average Weight 6,000 to 8,000 lbs
- Average Length 17 to 19 feet
- Average Height 7 to 8 feet
- Average Price \$40,000 to above \$100,000

### Class B thread

A British term for internal thread.

Class C driver's license

## Class C

In some provinces of Canada, a driver's license which permits operating the following

- 1. Any regular bus with designed seating capacity for more than 24 passengers
- 2. Regular bus maximum of 24 passenger capacity and ambulances
- 3. Any car, van or small truck or combination of vehicle and towed vehicle up to 11,000 kg provided the towed vehicle is not over 4,600 kg.

## Class C RV

Class C RV

#### Class C RV

A recreational vehicle (also called a mini-motorhome) built on a van chassis that has been cut just behind the cab (the driver's section) so that a camping unit can be attached to the rear. Generally these units are easier to drive than a Class A motorhome. They are generally constructed on a larger van chassis. The driver compartment is similar to a van, with a large box in the back. Class C motorhomes usually come with a sleeping bunk above the cab, in addition to a bedroom in the rear of the unit. Like their Class A big brothers, many Class C units feature a slideout to quickly extend the motorhome's living space. Class C units usually provide cooking facilities, a refrigerator, heating, air conditioning, a self-contained toilet, water tanks (fresh water, grey water, black water), faucets, sinks, a LP (propane) gas supply, a separate 100-125 volt electrical system, and a full array of appliances and entertainment features. Class C motorhomes can sleep up to ten people depending on the model and the floor plan.

- Average Weight 10,000 to 12,000 pounds
- Average Length 20 to 31 feet in length
- Average Height about 10 feet high
- Average Price \$50,000 to around \$150,000

#### Class D driver's license

### Class D

In some provinces of Canada, a driver's license which permits operating the following

- 1. Any truck or motor vehicle combination exceeding 11,000 kg provided the towed vehicle is not over 4,600 kg
- 2. Any car, van or small truck or combination of vehicle and towed vehicle up to 11,000 kg provided the towed vehicle is not over 4,600 kg.

#### Class E driver's license

#### Class E

In some provinces of Canada, a driver's license which permits operating the following

- 1. School purposes bus maximum of 24 passenger capacity
- 2. Regular bus maximum of 24 passenger capacity and ambulances
- 3. Any car, van or small truck or combination of vehicle and towed vehicle up to 11,000 kg provided the towed vehicle is not over 4,600 kg.

### Class F driver's license

#### Class F

In some provinces of Canada, a driver's license which permits operating the following

- 1. Regular bus maximum of 24 passenger capacity and ambulances
- 2. Any car, van or small truck or combination of vehicle and towed vehicle up to 11,000 kg provided the towed vehicle is not over 4,600 kg.

#### Class G driver's license

### Class G

In some provinces of Canada, a driver's license which permits operating any car, van or small truck or combination of vehicle and towed vehicle up to 11,000 kg provided the towed vehicle is not over 4,600 kg.

### Classic car

- 1. An older vehicle that is generally considered to be one of the finest models ever built. As used by the average person, an older vehicle in original (like-new) shape or has been restored with some modern refinements (e.g., special wheels, improved seating, modified engine, 12-volt electricals, etc.)
- 2. A vehicle (including hardtop or convertible) built during 1950-1973 and in original form with no modern technology, equipment, or refinements except wheels.
- 3. A vehicle defined by the <u>Classic Car Club of America</u> built during the years 1925-1948. They include the following:
- A.C. (all 1925-40)
- Adler (1928-1934 Standard 8)\*
- Alfa-Romeo
- Alvis (Speed 20, 3.5 litre, 25, and 4.3 litre)
- Amilcar\*
- Armstrong-Siddeley (1924-1933 Model 30, 1933-1939 Special)
- Aston-Martin (1927 -1939 All)\*
- Auburn (All 8 and 12 cylinder)
- Austro-Daimler
- Ballot (2LS, 2LT, 2LTS, RH, RH2, and RH3)\*
- Bentley (All from 1919)
- Benz (1925 and 1926, 10/30,11/40, 16/50 and 16/50 Sport)\*
- Blackhawk
- <u>BMW</u> (327, 328, 327/328, 335)
- Brewster (All 1934-1936, All Heart Front)\*

- Brough Superior\*
- Bucciali (TAV 8, TAV 30, TAV 12 and Double Huit)\*
- <u>Bugatti</u> (All except types 52 and 68)
- <u>Buick</u> (1931-32 series 90 and Limited)\*
- <u>Cadillac</u> (1925-35, all 12-cyl and 16-cyl, 1938-47 60 Special, 1936-48 all series 63, 65, 67, 70, 72, 75, 80, 85, 90, all V-63 from 1923, 1940-47 all 62 Series)
- Chenard-Walcker\*
- <u>Chrysler</u> (1926-32 Imperial and Series 80. Includes Series CG, CH, CL; 1932 1939 Custom Imperial Series CL, CX, CW, C-3, C-11, C-15, C-20, C-24; 1940 1948 Crown Imperial Includes Series C-27, C-33, C-37, C-40; Newports and Thunderbolts)
- Cord
- Cunningham (All V Series from 1916)
- Dagmar (6-80)
- <u>Daimler</u> (All 8 and 12 cylinder, 1925-1934 6 cylinder, 3 1/2 litre and larger models: 25, 25/85, 20/25, 20/30 (1925-1934); 30 (1925); 30, 35/120 (1925-1932); 45 (1925-1926).)\*
- <u>Daniels</u> (1920-1926 8 cylinder Model D)
- Darracq (8-cyl. cars and 4-litre, 6-cyl. cars only)
- <u>Delage</u> (Model D-8, not 4-cyl.; 1924-1926 GL and GLS Models)\*
- <u>Delahaye</u> (Series 135, 145, 148, 165 not 4-cyl.)\*
- Delaunay Belleville (6-cyl. cars only)
- Doble
- Dorris
- <u>Duesenberg</u> (All from 1921)
- DuPont
- Elcar (1925 1933 Models: 8-80, 8-81, 8-90, 8-91, 8-92, 120, 130 and 140)
- Excelsior\*
- Farman (All 1920 1931)\*
- Fiat\*
- FN\*
- Franklin (All models except 1933-34 Olympic Six)
- Frazer Nash\*
- Georges Irat
- Graham (1929-1931 Series 127; 1930 -1931 Series 137)
- <u>Graham-Paige</u> (1929-1931 Series 827; 1928-1929 Series 835; 1929 -1930 Series 837)\*
- Hispano Suiza (H6 from 1919, All French models, Spanish models T56, T56BIS, T64)
- Horch
- Hotchkiss\*
- Hudson (1929 Series L)
- Humber\*
- <u>Invicta</u> (All through 1938)
- Isotta-Fraschini (All from 1919 except Tipo 8C Monterosa)
- Itala

- <u>Jaguar</u> (1946-48 2.5 Litre, 3.5 Litre Mark IV, not 4-cyl.)
- Jensen (1936-1939 All except 2 1/4 Litre 1645)\*
- Jordan (1929 1931 Models G, 90, Great Line 90, Speedway Series 'Z')
- Julian\*
- <u>Kissel</u> (6-55 from 1923, 1925-1926, 1927 8-75, 1928 8-90 and 8-90 White Eagle, 1929-1930 8-95 White Eagle, 1929-1931 8-126)
- <u>Lagonda</u> (All models through 1940 except 1934 1940 Rapier Two Post-War V-12)
- Lanchester (1919 1931 models 21, 23, 30 and 40)\*
- Lancia\*
- LaSalle (All 1927-1933)
- <u>Lincoln</u> (All 1920 through 1940 models L, KA, KB, and K; 1941 168 H; 1942 268 H)
- Lincoln Continental
- Locomobile (All left hand drive models 48 from 1914 and all model 90, 1927 -1929 Model 8-80, 1929 Model 8-88)
- Marmon (All 16-cyl.; 1925-26 74; 1927 75; 1928 E75; 1930 Big 8; 1931 88 and Big 8)
- Maserati\*
- Maybach
- McFarlan (TV6 and 8)
- Mercedes\*
- Mercedes-Benz (All 230 and up, and K, S, SS, SSK, SSKL, Grosser and Mannheim)\*
- Mercer
- M.G. (1935-39 SA, 1938-39 WA)\*
- Minerva (All except 4-cyl)
- Moon (Custom bodies only)\*
- <u>N.A.G.</u>\*
- Nash (1930 Series 490, 1931 Series 890, 1932 Series 990 and 1090, 1933 Series 1190, 1934 Series 1290, 1940 Sakhnoffsky Special Cabriolet)\*
- Packard (All 12 cylinder models 1932 through 1939; 1923-1924 Models 226 and 233; All 1st Series 8 cylinder; 1925 1934 All sixes and eights; 1935 Models 1200 1205, 1207 and 1208; 1936 Models 1400 1405, 1407 and 1408; 1937 Models 1500 1502 and 1506 1508; 1938 Models 1603 1605, 1607 and 1608; 1939 Models 1703, 1705, 1707, and 1708; 1940 Models 1803, 1804, 1805, 1806, 1807, and 1808; 1941 Models 1903, 1904, 1905, 1906, 1907, and 1908; 1942 Models 2023, 2003, 2004, 2005, 2055, 2006, 2007, and 2008; 1946 1947 Models 2103, 2106 and 2126; All Darrin-bodied)\*
- <u>Peerless</u> (1925 Series 67; 1926 1928 Series 69; 1930 1931 Custom 8; 1932 Deluxe Custom 8)
- Peugeot\*
- Pierce-Arrow (1921 Series 32, 1922 and up Series 33, All from 1925)
- Railton\*
- Raymond-Mays\*

- <u>Renault</u> [45 HP (40 CV) to 1928, 40 hp (41CV) Reinastella, Reinasport, 1929-1934; Nervahuit, Nervastella, Nervasport, Suprastella 8 cylinder models 1930-19391\*
- Reo (1931-33 Royale 8-31, Royale 8-35, Royale 8-52, and Royale Custom 8 and 1934 N1, N2, and 8-52)
- Revere
- Riley\*
- Roamer (All Rochester-Duesenberg 4-cylinder, 1925 6-54E, 1925-1929 8-88, 1929-1931 8-125)
- Rochet-Schneider\*
- Rohr
- Rolls-Royce (All from 1919)
- Ruxton
- Squire
- <u>SS</u> and <u>SS Jaguar</u> (1932 1940 S.S. 1, S.S. 90, SS Jaguar, and SS Jaguar 100)
- Stearns-Knight
- Stevens Duryea
- Steyr\*
- <u>Studebaker</u> (1928 8, FA and FB President, 1929 1933 President except Model 82)
- Stutz
- <u>Sunbeam Talbot</u> [8 cylinder and 3 litre twin cam (GB) 105 and 110(8-cyl. and 3-litre twin-cam only)]
- Talbot (all 105C and 110C)
- <u>Talbot Lago</u> (8-cylinder 1930-1935, 4 Litre 6-cylinder 1936-1939, 4 1/2 Litre 1946-1948)
- Tatra\*
- Triumph (Dolomite 8 and Gloria 6 models only)
- <u>Vauxhall</u> (25-70 and 30-98 only)
- Voisin
- Wills Sainte Claire (All from 1921)
- Willys-Knight (Series 66, 66A, 66B Custom bodied only)\*

The items marked with an asterisk (\*) indicate that these models require application to be considered a classic car.

- antique car
- collectible car
- late model car
- milestone car
- modified car
- muscle car
- street rod
- <u>vintage car</u>

## Classic Car Club of America

(CCCA) Organization which defines which cars are true classics. <u>1645 Des Plaines River</u> Road, Suite 7A, Des Plaines, IL, 60018-2206, ph 847.390.0443

### Classification

See

- Automobile Classification
- Bridge Classification
- Standard Industrial Classification
- Truck Classification

### Classification society

Independent and reputable organizations which verifies and inspects vessels for seaworthiness. As technical experts, they serve to provide the necessary basis for adjusting insurance rates for the vessel.

## Classification System

See

• North American Industrial Classification System

#### Class II

See

• Hitch Class II

### Class M driver's license

#### Class M

In some provinces of Canada, a driver's license which permits operating one or more of the following

- 1. Motorcycles
- 2. limited-speed motorcycle (motor scooter)
- 3. motor-assisted bicycle (moped)

### Class of Thread

Threads differ by the amount of tolerance or tolerance and allowance specified. Classes 1A, 2A, and 3A apply to external threads, and Classes 1B, 2B and 3B apply to internal threads.

#### Class rate

A shipping term for the fees charged for commodities grouped according to similar shipping characteristics.

## Claw hammer

#### Claw Hammer

A hammer with a forked end on the head which is used for removing nails.

#### Claxton horn

A <u>Horn</u> which makes a particular sound *Ah-oo-gah*.

See

## • Horn

# Clay model

When the design department is creating a new model, it will be built in clay to full size to determine its looks etc.

CLC

Abbreviation for *Converter Lockup Clutch*--replaced by TCC

**CLCC** 

Abbreviation for Closed Loop Carburetor Control

Clean

See

## • Steam clean

### Clean Air Act

(CAA) In the U.S., the fundamental legislation to control air pollution. The original Clean Air Act was signed in 1963. The law set emissions standards for stationary sources, such as factories and power plants. Criteria pollutants included lead, ozone, CO, SO2, NOx and PM, as well as air toxics. The CAA was amended several times, most recently in 1990 (P.L. 101-549). The Amendments of 1970 introduced motor vehicle emission standards for automobiles and trucks. In 1990, reformulated gasoline (RFG) and oxygenated gasoline provisions were added. The RFG provision requires use of RFG all year in certain areas. The oxygenated gasoline provision requires the use of oxygenated gasoline during certain months, when CO and ozone pollution are most serious. The regulations also require certain fleet operators to use clean-fuel vehicles in 22 cities.

## Clean Air Act Amendments of 1990

This legislation to improve the quality of the atmosphere and curb acid rain promotes the use of cleaner fuels in vehicles and stationary sources.

### Clean Development Mechanism

(CDM) A <u>Kyoto Protocol</u> program that enables industrialized countries to finance emissions-avoiding projects in developing countries and receive credit for reductions achieved against their own emissions limitation targets.

#### Clean diesel fuel

An evolving definition of diesel fuel with lower emission specifications, which strictly limit sulfur content.

Cleaner

A product to purify or remove unwanted substances. See

- <u>abrasive cleaner</u>
- Air cleaner
- Air cleaner horn
- Air filter
- Brake System Cleaner
- Carburetor Cleaner
- Low-profile air cleaner
- Oil bath air cleaner
- Paper air cleaner
- Piston ring groove cleaner
- Thermostatic air cleaner

## Cleaner Bi-metal Sensor

See

• Air Cleaner Bi-metal Sensor

# Cleaner Duct And Valve Vacuum Motor

See

• Air Cleaner Duct And Valve Vacuum Motor

### Cleaner element

See

• Air cleaner element

## Cleaner horn

See

• Air cleaner horn

### Cleaner intake

See

• Air Cleaner Intake

### Clean Fuel

The CAA (as amended in 1990) specification that identifies RFG and alternative fuels as clean fuel.

# Clean-Fuel Fleet Program

Federal program requiring fleet purchase of Clean-Fuel Vehicles beginning in 1988. Clean-Fuel Vehicle

(CFV)A vehicle that has been certified by the EPA to meet the clean-fuel standards of the Clean Air Act Amendments of 1990. The three categories of federal CFV standards from least to most stringent are LEV, ULEV, and ZEV. The ILEV standard is voluntary and does not need to be adopted by states as part of the Clean-Fuel Fleet Program. CFVs are eligible for two federal programs, the California Pilot Program and the Clean-Fuel Fleet Program. CFV exhaust emissions standards for light-duty vehicles and light-duty trucks are numerically similar to those of CARB's California Low-Emission Vehicle Program.

### Cleaning

See

- abrasive Blast Cleaning
- Blast cleaning
- <u>Self-cleaning</u>

# Cleaning unit

See

• Spray gun nozzle cleaning unit

### Clean oil

Fresh oil that has not been used in a vehicle before.

# Clean oil lubrication

A lubrication system where fresh oil is supplied to the engine as needed -- such as in a two-stroke engine.

#### Clean shot

Trucker slang for 'No highway patrol around' as in 'Large Car you got a clean shot all the way to the state line.'

#### Clearance

A given amount of space between two parts such as between <u>piston</u> and <u>cylinder</u>, bearing and <u>Journal</u>, etc.

- Bearing clearance
- Crest clearance
- Front wheel tire clearance
- Ground clearance
- Ground clearance control
- Lateral clearance
- Lateral tire clearance
- Longitudinal tire clearance
- Pedal clearance
- Piston clearance
- Piston ring side clearance
- Valve clearance
- Vertical tire clearance

#### Clearance control

See

• Ground clearance control

## Clearance depression

See

• <u>Valve clearance depression</u>

#### Clearance fit

Parts that are assembled so that there is clearance between them so that one part can slide in or on the other. Also called *sliding fit* 

## Clearance height

- 1. The distance between the ground and the lowest portion of the bottom of a vehicle (not counting the wheels). Also called ground clearance.
- 2. The distance between the top of a vehicle and the bottom of a bridge or tunnel which determines whether the vehicle can pass under it.

## Clearance lamp

A light which is mounted on the extreme edges of the roof of a truck to show the maximum height and width of a vehicle. Also called *marker lamp*.

# Clearance pocket compressor

Small space in a cylinder from which compressed gas is not completely expelled. This space is called the compressor clearance space or pocket. For effective operation, compressors are designed to have as small a clearance space as possible.

### Clearance sensor

See

• Ground clearance sensor

### Clearance volume

The space above a piston when it is at the top dead center.

### Clear coat

A clear paint covering used on modern vehicle bodies. It is the top coat.

## Clear flood mode

A situation in which a carburetor or fuel injection system increases the amount of air or reduces the amount of fuel when necessary to correct a problem of <u>Flooding</u>.

#### Clear lacquer

A paint finish or sealer that is 'crystal-clear' transparent, durable, dries rapidly, and usually does not require sanding.

# Clear system

See

• Base and clear system

#### Clearwater stern

A stern with a *shoeless* stern frame

#### Cleat

- 1. An attaching bracket
- 2. Clips at intervals on the horizontal stiffeners of hatch coamings to secure the hatch covers
- 3. A fitting with two prongs which is attached to the wall of a cargo ship or trailer so that one end of a rope or strap could be knotted and the other end secures the shipment or the shipping mats or battens in place. Also called a *kevel*.

#### See

Pedal Cleats

#### **CLEPA**

Abbreviation for *Comité de Liaison de la Construction d'Equipements et dePièces d'Automobiles* (i.e., European Association of Automotive Suppliers).

#### Clevis

A U-shaped metal piece with holes in each end through which a pin or bolt is run, used for attaching the brake pedal to the power brake booster pushrod, the clutch pedal to the clutch cable or master cylinder pushrod and for various other connections on an automobile. Clevises are sometimes used in other parts of the brake system, like attaching the parking brake cable to the parking brake lever at the rear brakes

## Clevis Connector

A connector which is used to connect a strand of leaf chain that has an inner link end to a clevis block that has an inner link configuration.

#### Clevis pin

## Clevis pin

- A cylinder with a head at one end and a hole at the other. When the clevis pin is inserted into a hole, the head prevents it from going all the way through. A <u>Cotter pin</u> or <u>Hitch pin clip</u> is inserted in the other end of the clevis pin to keep it secure.
- A pin which is used to connect a strand of leaf chain that has an inner link end to
  a clevis block that has an outer link configuration. The clevis manufacturer should
  supply this part so that one can be assured that it will be compatible with the
  clevis block.

## Click

- 1. The action of inserting a bicycle shoe's bracket into the receiving part of a click-in pedal (formerly known as a clipless pedal).
- 2. A colloquial term for a Kilometre

# Click-in pedals

#### Click-in Pedal

A term for road bike pedals that use a releasable mechanism like that of a ski binding to lock onto cleated shoes and do not use toe clips or straps. Replaces the term <u>Clipless</u> <u>pedals</u>. Some brands are SPD, Look, Time, and Speedplay.

# Click-type torque wrench

A torque wrench which gives out an audible click when the preset torque is reached. Climate change

- 1. The international concern that increasing concentrations of greenhouse gases (GHGs) in the atmosphere are changing the climate in ways detrimental to our social and economic well-being.
- 2. A term used to refer to all forms of climatic inconsistency, but especially to significant change from one prevailing climatic condition to another. In some cases, *climate change* has been used synonymously with the term *global warming*; scientists, however, tend to use the term in a wider sense inclusive of natural changes in climate, including climatic cooling.

#### Climate control

- 1. A lever or button which you can move to change the temperature in the passenger compartment of a vehicle. It controls the heater, vent, and/or air conditioner.
- 2. A space in which an ideal climate is maintained by some devices.

## See

• Electronic Climate Control

#### Climatic chamber

A test area into which an automobile can be placed to see if it will meet the extremes of temperature and humidity.

#### Climber

A vehicle salesman who can sell anything to anyone--even the tough customer.

#### Climbing ability

While some vehicles may have a high top end speed on a road with no incline, the real test of a vehicle in mountainous terrain is its ability to go up a hill at an adequate speed (i.e., its climbing ability).

#### Clincher

A tire whose edges hook under the curved-in hooked edge of a special rim, not commonly found anymore on <u>bicycles</u> and often confused with the common <u>Wired-on tire</u>.

## Clincher rims

Type of wheel rim used with early beaded-edge tires

#### Clincher tire

A tire whose edges hook under the curved-in hooked edge of a special rim, not commonly found anymore on <u>bicycles</u> and often confused with the common <u>Wired-on</u> tire.

#### Clinch nut

A nut having a pilot which, after insertion in a hole, is clinched or staked in place to prevent rotation.

#### Clinker

Powdered cement, produced by heating a properly proportioned mixture of finely ground raw materials (calcium carbonate, silica, alumina, and iron oxide) in a kiln to a temperature of about 1480°C.

#### Clinometer

An instrument which measures the steepness of a hill.

## Clip

- 1. To move at a fast pace
- 2. The removable front end of a vehicle, usually one designed for racing.
- 3. A securing fastener

## See

- Alligator clip
- Angle Clip
- Bonding Clip
- <u>Crocodile clip</u>
- Cushion Clip
- Hitch Pin Clip
- Horseshoe Clip
- Hose clip
- Hose clip installer
- Hose clip pliers
- <u>Jubilee clip</u>
- Pedal Toe Clip
- Rebound clip
- Seat Cover Clip
- Spring clip

# Clip installer

See

Hose clip installer

Clipless pedal

See

# Clipless pedals

# Clipless pedals

# Clipless pedal

An obsolete term for road bike pedals that use a releasable mechanism like that of a ski binding to lock onto cleated shoes and do not use toe clips or straps. Preferred term is <u>Click-in pedals</u>. Some brands are SPD, Look, Time, and Speedplay.

## Clip-on engine

An engine that is attached to a conventional bicycle frame Clip-ons

- 1. Low racing handlebars for a motorcycle that clamp directly onto the fork legs
- 2. Handlebars that attach directly to the fork tubes, rather than to the top yoke, that hold the fork tubes together

## Clip-on weight

A wheel weight that is clipped on the rim between the rim and the tire. It is used to balance a wheel.

# Clip Pedals

See

• Toe Clip Pedals

# Clip pliers

See

• Hose clip pliers

# Clip screw

A fastener that is secured in place by a screw.

Clip screw gate

Clip screw gate

A D-shape carabineer

**CLNT** 

Abbreviation for Coolant

Clock

1. An instrument showing the time.

- 2. An odometer as in the statement *I want to buy this car, but it has too many miles on the clock*.
- 3. To record the speed or time that vehicle makes.
- 4. To turn the odometer back (an illegal practice)

#### See

- Analog Clock
- Cesium Clock

# Clocking

- 1. The action of recording the speed of a vehicle.
- 2. In Britain, it is the action of turning the odometer back.

## C/locking

Abbreviation for *central locking*.

#### Clockwise

Rotation to the right like the direction of clock hands. In most cases it is the direction to secure a nut to a bolt. It is the opposite to <u>counterclockwise</u>.

# Clog

To obstruct a passageway or track so that the normal flow or operation of something is hindered.

#### Close call

In driving it is the near possibility of an accident.

#### Close coils

The coils or loops of a spring which are tightly together.

# Close coupled sedan

See

## • Close-coupled sedan

#### Close-coupled sedan

Similar to the <u>sedan</u>, this body style is shorter and thus usually accommodates only five passengers. The rear quarter windows were eliminated.

## Closed bevel

When two matching bevelled items are mated, they are closed. If the bevel in one does not match the other, they are open, i.e., <u>open bevel</u>.

#### Closed car

A vehicle with a hard top (i.e., not a convertible)

#### Closed circuit

Electrical circuit in which electrons are flowing.

#### Closed container

Container sealed by means of a lid or other device so that neither liquid nor vapor will escape from it at ordinary temperatures.

# Closed cooling system

## • <u>Coolant recovery system.</u>

#### Closed crankcase ventilation

A system in which <u>crankcase</u> vapors are discharged into the engine <u>Intake</u> system (usually through the <u>intake manifold</u>) and pass through the engine <u>cylinders</u> rather than being discharged into the atmosphere.

## **Closed Distribution System**

A shipping system confined to moving goods between specified plants and facilities.

#### Closed-end connector

Solderless connector shaped like a hat. Used to join two, three, or more wires together. Similar to wire connectors used in home wiring, but installed by crimping instead of twisting

#### Closed end lease

Most leases offered today are close-end leases, meaning that the residual value is fixed and stated in the lease contract. The lessee's financial obligations are unaffected by what the vehicle is actually worth when the lease ends. In other words, the lessee assumes no risk for the depreciation of the vehicle.

# Closed loop

- 1. An operating condition or mode which enables modification of programmed instructions based on a feedback system
- 2. A condition, after the appropriate sensors have indicated that predetermined conditions have been met, where the computer actively controls the fuel system and other functions based on exhaust gas conditions and other parameters.
- 3. The repeated times when the EFI computer uses the feedback on the mixture provided by the oxygen sensor to control the injected amounts of fuel.

#### **Closed-Loop Carburetion**

System in which the fuel/air ratio in the engine is carefully controlled to optimize emissions performance. A closed-loop system uses a fuel metering correction signal to optimize fuel metering.

## Closed loop fuel control

The normal operating mode for a feedback carburetor system. Once the engine is warmed up, the computer can interpret an analog voltage signal from an exhaust gas oxygen sensor and alter the air/fuel ratio accordingly with a duty-cycle solenoid or solenoid-controlled valve.

#### Closed loop mode

Once the engine has reached warm-up temperature, the engine management computer collects the precise data from all the sensors (coolant temperature sensor, throttle position sensor, oxygen sensor, etc.) to determine the most efficient air/fuel mixture for combustion.

## Closed loop system

- 1. A self-adjusting system which keeps conditions stable and is controlled by negative <u>Feedback</u> from a sensor.
- 2. A computer controlled system which monitors the exhaust gas with a sensor and adjusts the fuel delivery, and may or may not adjust spark timing, transmission, and other devices to meet emission and driveability criteria

## Closed system

An anti-lock brake system with some means, generally a pump, to restore hydraulic pressure that's bled off during an ABS stop

# Closed type check valve

A valve which allows fluid flow in only one direction. See

- Check valve
- Open type check valve
- Residual pressure valve
- Residual brake pressure type check valve
- Two-way type check valve

#### Closer

Usually a pushy salesman who is assigned to convince a hesitating customer to make the purchase of a vehicle when the original salesman can't make the sale.

# Close-ratio gearbox

A transmission in which there is very little difference between one gear ratio and the next. This kind of transmission makes it easy for fast shifting.

#### Close ratio transmission

A transmission with gear ratios spaced close together.

#### Closes

See

- Exhaust valve closes
- Intake valve closes

#### Closing

See

• Automatic closing system

# Closing cam

A cam or rocker which closes a valve in a mechanically operated valve system. Other types close the valve through the operation of the valve spring. Also called *closing rocker*.

# Closing force

The force needed for the spring to close a valve.

#### Closing panel

A panel which covers a hole in the body, interior panels, or frame.

# Closing rocker

A cam or rocker which closes a valve in a mechanically operated valve system. Other types close the valve through the operation of the valve spring. Also called *closing cam*.

# Closing system

See

Automatic closing system

#### Closure

See

Road closure

#### Cloth

See

- **Beaver Cloth**
- Emery cloth
- Tack cloth

## Cloth upholstery

The fabric of the seats made of cloth rather than leather or vinyl.

# Cloud point

(CP)

- 1. The temperature at which <u>diesel oil</u> tends to thicken and cloud up (i.e., become cloudy).
- 2. A measure of the ability of a diesel fuel to operate under cold weather conditions. Defined as the temperature at which wax first becomes visible when diesel fuel is cooled under standardized test conditions.

#### Cloverleaf

A highway overpass system which has four basic loops for getting on the highway or leaving it.

Club

#### Club

A security device which surrounds the steering wheel making it difficult for a thief to operate the steering wheel. See

Royal Automobile Club

#### Club Cab

A type of pickup truck (by Dodge) which has a second row of seating; but unlike a crew cab (which has four full size doors) it has a *half-door* that can be opened only after the main door is opened. The seating is usually a little more cramped than in a crew cab. Also called Extended Cab, King Cab, XtraCab, Access Cab, SuperCab, or Cab Plus. Club coupe

## Club Coupe

The club coupe designation seems to come from club car, describing the lounge (or parlor car) in a railroad train. The early postwar club coupe combined a shorter-than-sedan body structure with the convenience of a smaller, but full back seat, unlike the single-seat business coupe. That name has been used less frequently in the 1976-86 period, as most notchback two-door models (with trunk rather than hatch) have been referred to as just *coupes*. Moreover, the distinction between two-door coupes and two-door sedans has grown fuzzy.

## Club hammer

A hammer with a short handle but a large, heavy head. It is used to hit the back end of a chisel or drift.

## Club Parisien

See

• Audax Club Parisien

# Clunker

A vehicle which might run but is rusty and in need of a lot of repair work.

#### Cluster

See

- Analog cluster
- Electronic cluster
- Footpedal cluster
- Instrument cluster
- Lamp cluster
- Rear lamp cluster
- Seat cluster

## Cluster gear

The cluster of gears that are all cut on one long gear blank. The cluster gears ride in the bottom of the <u>transmission</u>. The cluster provides a connection between the transmission <u>Input shaft</u> and the <u>Output shaft</u>. Also called <u>Counter gear</u>.

#### Cluster head

A set of traffic lights mounted on a backplate.

## Cluster panel

The reverse side of the <u>instrument panel</u> or <u>dash</u> where all the wiring or circuit board is located.

#### Clutch

# Click image to supersize Coil spring clutch

- 1. An electrically operated coupling device that connects or disconnects the compressor pulley and compressor shaft
- 2. A device that disconnects the engine from the <u>transmission</u>, to allow the vehicle to change gears, and then allows the engine and transmission to resume contact and turn together at a new <u>speed</u>.

#### See

- Band Clutch
- Block Clutch
- Center the clutch
- Centrifugal clutch
- Clutch diaphragm spring
- clutch disc
- Clutch explosion
- Clutch housing
- Clutch lever
- Clutch pedal free travel
- Clutch pedal
- <u>Clutch</u> pilot bearing
- clutch pressure plate
- Clutch semi-centrifugal release fingers
- clutch shaft
- Clutch solenoid
- Clutch throwout fork
- Coil spring clutch
- Cone clutch
- Diaphragm spring clutch
- Diaphragm clutch
- Disengage the clutch
- Dog clutch

- Double clutching
- Dry clutch
- Electromagnetic clutch
- Fan clutch
- Fluid clutch
- Freewheeling
- Friction clutch
- Heavy clutch
- Hydraulically-activated clutch
- Hydraulically-assisted clutch
- Light clutch
- Lock-up clutch
- Magnetic clutch
- Multi-plate clutch
- Multiple-plate clutch
- Multiple disc clutch
- One way clutch
- Overrunning clutch starter drive
- Overrunning clutch
- Pull-type clutch
- Push-type clutch
- Reverse clutch
- Riding the clutch
- Roller clutch
- Single-plate clutch
- Slip the clutch
- Sprag clutch
- Stator roller clutch
- Torque converter lock-up clutch
- Twin-plate clutch
- Wet clutch

#### Clutch aligning set

A group of tools used to align the clutch plates with the flywheel. Usually there is a shaft, pilot bearing adapters, and tapered universal sleeves

# Clutch aligning tool

A tool which looks like a bar or a disc which can be used to line up the clutch plates with the flywheel.

Clutch antirattle spring clip

## Antirattle spring

A specially shaped wire that prevents the clutch plate and spring from making noise when no pressure is applied to the plate.

#### Clutch basket

Part of the clutch assembly containing drive plates. Primary drive gear engages teeth on the outside of the clutch basket.

#### Clutch brake

A device for slowing down the clutch discs (and thus the gears themselves) so that shifting is smoother and quieter.

#### Clutch cable

A cable (usually a cluster of thin strands within a plastic sheath) which operates the movement of the clutch plates. At the other end is a pedal (in automobiles) or a handlebar lever (left side).

## Clutch compressor signal

See

# • Air Conditioner Clutch Compressor Signal

## Clutch cover

A metal cover which encases the clutch plates.

# Clutch cycling switch

A device that turns the compressor on and off in response to changes in pressure or evaporator temp

# Clutch diaphragm spring

# Clutch diaphragm spring

A round dish-shaped piece of <u>Flat spring</u> steel. It is used to force the <u>Pressure plate</u> against the <u>clutch disc</u> in some <u>Clutches</u>.

## Clutch disc

#### Clutch disc

A spinning plate located at the end of the <u>driveshaft</u> facing the engine <u>Flywheel</u> and covered with a <u>friction</u> material such as <u>asbestos</u>. When the <u>clutch</u> is engaged, the disc is squeezed between the <u>Flywheel</u> and the <u>clutch pressure plate</u>, causing the engine and the <u>transmission</u> to turn at the same speed. British term is called *clutch plate*.

#### Clutch disk

See

#### clutch disc

#### Clutch drag

When the clutch discs do not disengage completely after the clutch pedal is depressed or the clutch lever is pulled in, there is excessive friction so that it is difficult to shift gears because both the driven discs and the input shaft are both rotating.

## Clutch explosion

<u>clutches</u> have literally flown apart (exploded) when subjected to high rpm, a <u>Scatter</u> <u>shield</u> is used on competition cars to protect the driver and spectators from flying parts in the event the <u>clutch</u> explodes.

## Clutch facing

The asbestos-type lining on a clutch plate.

#### Clutch field

A clutch part on an air condition compressor, consisting of hundreds of windings of wire, that creates a magnetic field when current is applied, pulling in the armature to engage the clutch

#### Clutch fork

When the clutch pedal (or lever) is depressed, it pulls on a cable which moves the clutch fork which in turn pushes on the release bearing and disengages the clutch discs. Also called Clutch release fork.

#### Clutch holder

Tool to secure the clutch basket and clutch hub while losening or tightening the clutch securing nut or primary drive gear nut.

## Clutch housing

A <u>Cast iron</u> or <u>Aluminum Housing</u> that surrounds the <u>Flywheel</u> and <u>clutch</u> mechanism. Also called <u>Bell housing</u>.

#### Clutch hub

Part of the clutch that engages with the plain driven clutch plates. The clutch hub is mounted on the transmission input shaft.

#### Clutching

The act of operating the clutch in order to shift gears See

#### • Double clutching

# Clutch interlock switch

A switch that prevents the vehicle from starting unless the clutch pedal/lever is pressed. Clutch judder

A British term for clutch shudder.

## Clutch lever

A hand-operated blade located on the left side of the <u>handlebar</u> of a <u>motorcycle</u>. When the clutch lever is pulled in, it disengages the clutch so the engine and the <u>crankshaft</u> can turn independently of the <u>transmission</u> and the rider can change gears. See

## • Clutch release finger

#### Clutch lining

The friction material on the face of the clutch discs.

## Clutch, magnetic

Clutch built into automobile compressor flywheel. operated magnetically. which allows pulley to revolve without driving compressor when refrigerating effect is not required.

## Clutch orifice tube system

See

# • Cycling Clutch Orifice Tube System

## Clutch pedal

A foot-operated pedal located on the floor of the vehicle to the left of the <u>brake pedal</u> on cars with <u>manual transmission</u>. When the clutch pedal is depressed, it disengages the clutch so the engine and the <u>crankshaft</u> can turn independently of the <u>transmission</u> and the driver can change gears.

## Clutch pedal free travel

The specified distance that the <u>Clutch pedal</u> may be depressed before the throwout bearing actually contacts the clutch release fingers.

# Clutch pilot bearing

Until the early 1970's, the clutch pilot bearing was a bronze bushing placed at the end of the crankshaft or in the center of the flywheel to support the outboard end of the transmission input shaft. More recent clutch pilot bearings are the ball bearing type.

## Clutch plate

The clutch discs.

Clutch pressure plate

#### Clutch Pressure Plate

That part of a <u>clutch</u> assembly that through spring pressure, squeezes the <u>clutch disc</u> against the <u>flywheel</u> thereby transmitting a driving force through the assembly. To disengage the clutch, the pressure plate is drawn away from the flywheel via <u>linkage</u>.

## Clutch pulley

The clutch part turned by the drivebelt. The pulley or rotor *free-wheels* until the clutch is engaged. On rotors which contain the field, the electrical connection is made through brushes similar to alternator and starter motor brushes

#### Clutch release bearing

See

## • Throwout bearing

#### Clutch release finger

A flat piece of metal shaped like a curved finger. Through the movement of the throwout fork, the throwout bearing pushes against the clutch release fingers or levers to release pressure against the Pressure plate. Also called *clutch release lever*.

Clutch release fork

#### Clutch Release Fork

A lever attached to the clutch throw-out bearing. When the fork presses the throw-out bearing against the center of the conical diaphragm spring, it pops inward, releasing the pressure plate from the flywheel and freeing the clutch disc so that the engine can turn without driving the transmission.

## Clutch release lever

See

# • Clutch release finger

#### Clutch release mechanism

Mechanism that moves the clutch pressure plate away from clutch pack, allowing clutch to slip.

#### Clutch rotor

The clutch part turned by the drivebelt. The pulley or rotor *free-wheels* until the clutch is engaged. On rotors which contain the field, the electrical connection is made through brushes similar to alternator and starter motor brushes

## Clutch semi-centrifugal release finger

See

## • Clutch semi-centrifugal release fingers

## Clutch semi-centrifugal release fingers

Clutch release fingers that have a weight attached to them so that at high rpm the release fingers place additional pressure on the <u>clutch pressure plate</u>.

## Clutch shaft

The shaft that takes power from the clutch into the <u>Gearbox</u>. Also called the <u>Drive pinion</u>. Clutch shudder

When the clutch tries to engage (when the pedal or lever is released), but the discs do not mate securely, the discs engage intermittently and slip past each other making a noise like a shudder. In Britain, it is called *clutch judder*.

#### Clutch slip

Clutch slip occurs when the clutch tries to engage (when the pedal or lever is released), but the discs do not mate securely.

#### Clutch solenoid

In some automotive <u>air conditioners</u>, a <u>Solenoid</u> that operates a clutch on the <u>compressor</u> drive <u>Pulley</u>. When the <u>clutch</u> is engaged, the <u>compressor</u> is driven and cooling takes place.

## Clutch spring

The clutch cover will have several posts over which the clutch spring (shaped like a cylinder) fits and pushes the pressure discs against the driven clutch discs to transmit power.

## Clutch starter

See

## • Overrunning clutch starter drive

#### Clutch starter drive

See

• Overrunning clutch starter drive

Clutch starter interlock

A device which disengages the starter once the engine has started.

Clutch stop

A clutch brake

Clutch throw-out bearing

# Throw-out bearing

A part of the <u>clutch</u> activated by the <u>Clutch pedal</u> that allows the <u>clutch</u> to disengage. If you allow the vehicle to <u>idle</u> in gear with the <u>Clutch pedal</u> depressed, instead of shifting to <u>neutral</u> gear, you can wear out the throwout bearing. The British term is <u>Clutch release bearing</u>.

See

- Free pedal play
- <u>Clutch throw-out bearing</u>

## Clutch throwout fork

The device or fork that straddles the throwout bearing and that is used to force the throwout bearing against the clutch release fingers.

#### Clutch thrust bearing

The clutch release bearing.

#### Cluttered engine compartment

An engine compartment or bay in which all the available space around the engine is occupied by other objects (alternator, pumps, air intake system, battery, wiper motor, heater motor, windshield washer motor, starter, radiator, air conditioner, hoses, pipes, wiring, electronic boxes, etc.)

CLV

Abbreviation for Calculated Load Value

CL

- 1. Abbreviation for *Comfort Luxe* as a designation for a vehicle which is more luxurious than an *L* but not quite as luxurious as a *GL*
- 2. Abbreviation for *Closed Loop*

CLA

Abbreviation for <u>Longitudinal Articulation Coefficient</u>

Cladding

- 1. A process of covering one material with another and gluing them together under high pressure and temperature.
- 2. The outer body panels which are attached to the vehicle's frame.
- 3. Excessive decorative elements applied to a vehicle.

#### Claim

- 1. A demand for reimbursement made by the customer for freight that is lost and/or damaged.
- 2. A demand made by the customer for a refund on overcharge on transportation bill
- 3. A demand made by an individual or company to recover loss under insurance policy.

#### Claire

See

• Wills Sainte Claire

## Clamp

A fastening device which secures something within its jaws without constant human pressure.

See

- Anchor Clamp
- Bar clamp
- Battery clamp
- C-clamp
- Cable clamp
- Cheney Clamp
- Distributor hold-down clamp
- G-clamp
- Hose clamp
- Hose clamp installer
- Hose clamp pliers
- <u>Jubilee Clamp</u>
- Locking bar clamp
- Locking clamp
- Long-reach C-clamp
- Piston ring clamp
- Screw Clamp
- Sheet metal clamp
- Triple clamp
- V-band clamp
- Welding clamp
- Wheel clamp

# Clamping load

In a clutch, the amount of pressure on the plates.

#### Clamp installer

See

• Hose clamp installer

#### Clamp on

See

• Front Derailleur Clamp on

## Clamp pliers

See

• Hose clamp pliers

#### Clamshell

A shape which has a bottom and top but is hinged at one end so that it can be opened to expose its interior.

## Clapboard

A narrow board which is thicker at one edge than the other edge and used to protect from the weather.

#### Clarifier

A machine used for a liquid-sludge separation in which the particles with a higher specific gravity are separated from the lower specific gravity of the liquid. A clarifier bowl has one outlet for the light phase oil; the heavier phase particles are retained on the bowl wall.

#### Clark

Clark, Jim -- Winner of 3 Formula One Championships, 25 Grand Prix races and of the 1965 Indianapolis 500

#### Class 1 driver's license



#### Semi-trailer truck

In Canada, a driver's license which permits driving semi-trailer trucks and all other motor vehicles or combinations of vehicles except motorcycles

## Class 1 motor carrier

A U.S. classification of a common or contract <u>motor carrier</u> with annual gross revenues of five million dollars or more.

#### Class 1 road

Hard surface highways including interstates and U.S. numbered highways (including alternates), primary state routes and all controlled access highways.

Class 2 driver's license



#### Class 2

In Canada, a driver's license which permits driving the following

- 1. Buses, including school buses, special activity buses and special vehicles
- 2. Trailers or towed vehicles that do not exceed 4,600 kilograms except if the bus and trailers or towed vehicles do not have air brakes
- 3. Any motor vehicle or combination of vehicles in Class 4

#### Class 2 road

Hard surface highways including secondary state routes, primary county routes and other highways that connect principle cities and towns, and link these places with the primary highway system.

#### Class 3 driver's license



Class 3

In Canada, a driver's license which permits operating the following

- 1. Trucks with more than two axles, such as dump trucks and large tow trucks, but not including a bus that is being used to transport passengers
- 2. Trailers that do not exceed 4,600 kilograms except if the truck and trailers do not have air brakes
- 3. A tow car towing a vehicle of any weight
- 4. A mobile truck crane
- 5. Any motor vehicle or combination of vehicles in Class 5

#### Class 3 road

Hard surface roads not included in a higher class and improved, loose surface roads passable in all kinds of weather. These roads are adjunct to the primary and secondary highway systems. Also included are important private roads such as main logging or industrial roads that serve as connecting links to the regular road network.

#### Class 4 driver's license



Class 4

In Canada, there are two types of Class 4 driver's license unrestricted and restricted The unrestricted Class 4 allows driving the following

- 1. Buses with a maximum seating capacity of 25 persons (including the driver), including school buses, special activity buses and special vehicles used to transport people with disabilities
- 2. Taxis and limousines
- 3. Ambulances
- 4. Any motor vehicle or combination of vehicles in Class 5



Class 4

The restricted Class 4 allows driving the following

- 1. Taxis and limousines (up to 10 persons including the driver)
- 2. Ambulances
- 3. Special vehicles with a seating capacity of not more than 10 persons (including the driver) used to transport people with disabilities
- 4. Any motor vehicle or combination of vehicles in Class 5

#### Class 4 road

Unimproved roads that are generally passable only in fair weather and used mostly for local traffic. Also included are driveways, regardless of construction.

## Class 5 driver's license



Class 5

In Canada, a driver's license which permits operating the following

- 1. Two axle vehicles including cars, vans, trucks and tow trucks
- 2. Trailers or towed vehicles may not exceed 4,600 kilograms
- 3. Motor homes (including those with more than two axles)
- 4. <u>Limited speed motorcycles</u> or moped (in some provinces, a Class 8 is required to operate these) and all-terrain vehicles (ATVs)
- 5. Passenger vehicles used as school buses with seating capacity of not more than 10 persons (including the driver)
- 6. Construction vehicles
- 7. Three-wheeled vehicles does not include three-wheeled motorcycles (trikes) or motorcycle/sidecar combinations
- 8. Does not include Class 4 vehicles or motorcycles

Class 5 road

Unimproved roads passable only with 4-wheel drive vehicles.

Class 6 driver's license



Class 6

In Canada, a driver's license which permits operating the following

1. Motorcycles, all-terrain cycles, all-terrain vehicles (ATVs)

#### Class 7 driver's license



Class 7

In Canada, a learner's driver's license which permits operating the following

- 1. Two axle vehicles including cars, vans, trucks and tow trucks
- 2. Trailers or towed vehicles may not exceed 4,600 kilograms
- 3. Motor homes (including those with more than two axles)
- 4. <u>Limited speed motorcycles</u> and all-terrain vehicles (ATVs)
- 5. Passenger vehicles used as school buses with seating capacity of not more than 10 persons (including the driver)
- 6. Construction vehicles
- 7. Three-wheeled vehicles does not include three-wheeled motorcycles (trikes) or motorcycle/sidecar combinations
- 8. Does not include Class 4 vehicles or motorcycles

## Class 8 driver's license



# Moped

In some provinces of Canada, a driver's license which permits operating a moped or <a href="limited speed motorcycles">limited speed motorcycles</a>

Class 9 driver's license



Class 9

In some provinces of Canada, a driver's license which permits operating a farm tractor Class A driver's license



## Class 1

- 1. In some provinces of Canada, a driver's license which permits operating
  - 1. Any tractor-trailer or combination of motor vehicle and towed vehicles where the towed vehicles exceed a total gross weight of 4,600 kilograms
  - 2. Any motor vehicle pulling double trailers
  - 3. Any motor vehicle pulling a trailer with air-brakes
  - 4. Any car, van or small truck or combination of vehicle and towed vehicle up to 11,000 kg provided the towed vehicle is not over 4,600 kg.
- 2. A class A with restrictions prevents operating
  - 1. a motor vehicle pulling double trailers
  - 2. a motor vehicle pulling a trailer with air-brakes

#### Class A RV



Class A RV



#### Class A RV

The Class A is the largest and usually most luxurious motorhome. They are frequently constructed on custom undercarriages or on a 3-10 ton truck chassis. Many also feature an automatic slideout so that at the touch of a button, a portion of the RV exterior wall can extend outward to expand living space. Most models offer complete self-containment, with on-board generator, large water and holding tanks, big batteries and a generous propane supply. They usually provide cooking facilities, a refrigerator, heating, air conditioning, a self-contained toilet, water tanks (fresh water, grey water, black water), faucets, sinks, a LP (propane) gas supply, a separate 100-125 volt electrical system, and a full array of appliances and entertainment features. They are especially good for *dry* camping (without hookups), even for extended periods. They can sleep up to eight people, depending on the model and the floor plan. Prices range from \$80,000 to above \$700,000 for high end rear diesel models.

- Average weight 13,000 to 48,000 pounds
- Average Length 25 to 45 feet in overall length
- Average Height 10 feet high

## Class A thread

A British term for external thread.

Class B driver's license



Class B

In some provinces of Canada, a driver's license which permits operating the following

- 1. Any school purposes bus with designed seating capacity for more than 24 passengers
- 2. Any regular bus with designed seating capacity for more than 24 passengers
- 3. Any truck or motor vehicle combination exceeding 11,000 kg provided the towed vehicle is not over 4,600 kg
- 4. School purposes bus maximum of 24 passenger capacity
- 5. Regular bus maximum of 24 passenger capacity and ambulances
- 6. Any car, van or small truck or combination of vehicle and towed vehicle up to 11,000 kg provided the towed vehicle is not over 4,600 kg.

#### Class B RV



Class B RV

A small motorhome usually called a van conversion or camping van conversion. The basic Class B RV is built on an ordinary van chassis which retains the original dimensions of the van but features a raised roof (usually fiberglass) in order to allow full standing headroom. They also include a small galley (cooking facility, refrigerator, heater, fresh water tank, waste water tank, faucet, sink), a LP (propane) gas supply, 110 Volt AC and 12 Volt DC electrical outlets, and portable toilet. They can sleep from two to four people.

- Average Weight 6,000 to 8,000 lbs
- Average Length 17 to 19 feet
- Average Height 7 to 8 feet
- Average Price \$40,000 to above \$100,000

## Class B thread

A British term for internal thread.

Class C driver's license



Class C

In some provinces of Canada, a driver's license which permits operating the following

- 1. Any regular bus with designed seating capacity for more than 24 passengers
- 2. Regular bus maximum of 24 passenger capacity and ambulances
- 3. Any car, van or small truck or combination of vehicle and towed vehicle up to 11,000 kg provided the towed vehicle is not over 4,600 kg.

Class C RV



#### Class C RV



Class C RV

A recreational vehicle (also called a mini-motorhome) built on a van chassis that has been cut just behind the cab (the driver's section) so that a camping unit can be attached to the rear. Generally these units are easier to drive than a Class A motorhome. They are generally constructed on a larger van chassis. The driver compartment is similar to a van, with a large box in the back. Class C motorhomes usually come with a sleeping bunk above the cab, in addition to a bedroom in the rear of the unit. Like their Class A big brothers, many Class C units feature a slideout to quickly extend the motorhome's living space. Class C units usually provide cooking facilities, a refrigerator, heating, air conditioning, a self-contained toilet, water tanks (fresh water, grey water, black water), faucets, sinks, a LP (propane) gas supply, a separate 100-125 volt electrical system, and a full array of appliances and entertainment features. Class C motorhomes can sleep up to ten people depending on the model and the floor plan.

- Average Weight 10,000 to 12,000 pounds
- Average Length 20 to 31 feet in length
- Average Height about 10 feet high
- Average Price \$50,000 to around \$150,000

#### Class D driver's license



Class D

In some provinces of Canada, a driver's license which permits operating the following

- 1. Any truck or motor vehicle combination exceeding 11,000 kg provided the towed vehicle is not over 4,600 kg
- 2. Any car, van or small truck or combination of vehicle and towed vehicle up to 11,000 kg provided the towed vehicle is not over 4,600 kg.

## Class E driver's license



#### Class E

In some provinces of Canada, a driver's license which permits operating the following

- 1. School purposes bus maximum of 24 passenger capacity
- 2. Regular bus maximum of 24 passenger capacity and ambulances
- 3. Any car, van or small truck or combination of vehicle and towed vehicle up to 11,000 kg provided the towed vehicle is not over 4,600 kg.

#### Class F driver's license



Class F

In some provinces of Canada, a driver's license which permits operating the following

- 1. Regular bus maximum of 24 passenger capacity and ambulances
- 2. Any car, van or small truck or combination of vehicle and towed vehicle up to 11,000 kg provided the towed vehicle is not over 4,600 kg.

## Class G driver's license



Class G

In some provinces of Canada, a driver's license which permits operating any car, van or small truck or combination of vehicle and towed vehicle up to 11,000 kg provided the towed vehicle is not over 4,600 kg.

- 1. An older vehicle that is generally considered to be one of the finest models ever built. As used by the average person, an older vehicle in original (like-new) shape or has been restored with some modern refinements (e.g., special wheels, improved seating, modified engine, 12-volt electricals, etc.)
- 2. A vehicle (including hardtop or convertible) built during 1950-1973 and in original form with no modern technology, equipment, or refinements except wheels.
- 3. A vehicle defined by the <u>Classic Car Club of America</u> built during the years 1925-1948. They include the following:
- A.C. (all 1925-40)
- Adler (1928-1934 Standard 8)\*
- Alfa-Romeo
- Alvis (Speed 20, 3.5 litre, 25, and 4.3 litre)
- Amilcar\*
- <u>Armstrong-Siddeley</u> (1924-1933 Model 30, 1933-1939 Special)
- Aston-Martin (1927 -1939 All)\*
- Auburn (All 8 and 12 cylinder)
- Austro-Daimler
- Ballot (2LS, 2LT, 2LTS, RH, RH2, and RH3)\*
- Bentley (All from 1919)
- Benz (1925 and 1926, 10/30,11/40, 16/50 and 16/50 Sport)\*
- Blackhawk
- BMW (327, 328, 327/328, 335)
- Brewster (All 1934-1936, All Heart Front)\*
- Brough Superior\*
- Bucciali (TAV 8, TAV 30, TAV 12 and Double Huit)\*
- Bugatti (All except types 52 and 68)
- <u>Buick</u> (1931-32 series 90 and Limited)\*
- <u>Cadillac</u> (1925-35, all 12-cyl and 16-cyl, 1938-47 60 Special, 1936-48 all series 63, 65, 67, 70, 72, 75, 80, 85, 90, all V-63 from 1923, 1940-47 all 62 Series)
- Chenard-Walcker\*
- Chrysler (1926-32 Imperial and Series 80. Includes Series CG, CH, CL; 1932 1939 Custom Imperial Series CL, CX, CW, C-3, C-11, C-15, C-20, C-24; 1940 1948 Crown Imperial Includes Series C-27, C-33, C-37, C-40; Newports and Thunderbolts)
- Cord
- <u>Cunningham</u> (All V Series from 1916)
- Dagmar (6-80)
- <u>Daimler</u> (All 8 and 12 cylinder, 1925-1934 6 cylinder, 3 1/2 litre and larger models: 25, 25/85, 20/25, 20/30 (1925-1934); 30 (1925); 30, 35/120 (1925-1932); 45 (1925-1926).)\*
- Daniels (1920-1926 8 cylinder Model D)
- <u>Darracq</u> (8-cyl. cars and 4-litre, 6-cyl. cars only)

- Delage (Model D-8, not 4-cyl.; 1924-1926 GL and GLS Models)\*
- <u>Delahaye</u> (Series 135, 145, 148, 165 not 4-cyl.)\*
- <u>Delaunay Belleville</u> (6-cyl. cars only)
- Doble
- Dorris
- <u>Duesenberg</u> (All from 1921)
- DuPont
- Elcar (1925 1933 Models: 8-80, 8-81, 8-90, 8-91, 8-92, 120, 130 and 140)
- Excelsior\*
- Farman (All 1920 1931)\*
- Fiat\*
- FN\*
- Franklin (All models except 1933-34 Olympic Six)
- Frazer Nash\*
- Georges Irat
- <u>Graham</u> (1929-1931 Series 127; 1930 -1931 Series 137)
- <u>Graham-Paige</u> (1929-1931 Series 827; 1928-1929 Series 835; 1929 -1930 Series 837)\*
- Hispano Suiza (H6 from 1919, All French models, Spanish models T56, T56BIS, T64)
- Horch
- Hotchkiss\*
- Hudson (1929 Series L)
- Humber\*
- <u>Invicta</u> (All through 1938)
- Isotta-Fraschini (All from 1919 except Tipo 8C Monterosa)
- Itala
- Jaguar (1946-48 2.5 Litre, 3.5 Litre Mark IV, not 4-cyl.)
- <u>Jensen</u> (1936-1939 All except 2 1/4 Litre 1645)\*
- Jordan (1929 1931 Models G, 90, Great Line 90, Speedway Series 'Z')
- Julian\*
- <u>Kissel</u> (6-55 from 1923, 1925-1926, 1927 8-75, 1928 8-90 and 8-90 White Eagle, 1929-1930 8-95 White Eagle, 1929-1931 8-126)
- <u>Lagonda</u> (All models through 1940 except 1934 1940 Rapier Two Post-War V-12)
- <u>Lanchester</u> (1919 1931 models 21, 23, 30 and 40)\*
- Lancia\*
- <u>LaSalle</u> (All 1927-1933)
- <u>Lincoln</u> (All 1920 through 1940 models L, KA, KB, and K; 1941 168 H; 1942 268 H)
- Lincoln Continental
- <u>Locomobile</u> (All left hand drive models 48 from 1914 and all model 90, 1927 1929 Model 8-80, 1929 Model 8-88)
- <u>Marmon</u> (All 16-cyl.; 1925-26 74; 1927 75; 1928 E75; 1930 Big 8; 1931 88 and Big 8)
- Maserati\*

- Maybach
- McFarlan (TV6 and 8)
- Mercedes\*
- Mercedes-Benz (All 230 and up, and K, S, SS, SSK, SSKL, Grosser and Mannheim)\*
- Mercer
- M.G. (1935-39 SA, 1938-39 WA)\*
- Minerva (All except 4-cyl)
- Moon (Custom bodies only)\*
- N.A.G.\*
- Nash (1930 Series 490, 1931 Series 890, 1932 Series 990 and 1090, 1933 Series 1190, 1934 Series 1290, 1940 Sakhnoffsky Special Cabriolet)\*
- Packard (All 12 cylinder models 1932 through 1939; 1923-1924 Models 226 and 233; All 1st Series 8 cylinder; 1925 1934 All sixes and eights; 1935 Models 1200 1205, 1207 and 1208; 1936 Models 1400 1405, 1407 and 1408; 1937 Models 1500 1502 and 1506 1508; 1938 Models 1603 1605, 1607 and 1608; 1939 Models 1703, 1705, 1707, and 1708; 1940 Models 1803, 1804, 1805, 1806, 1807, and 1808; 1941 Models 1903, 1904, 1905, 1906, 1907, and 1908; 1942 Models 2023, 2003, 2004, 2005, 2055, 2006, 2007, and 2008; 1946 1947 Models 2103, 2106 and 2126; All Darrin-bodied)\*
- <u>Peerless</u> (1925 Series 67; 1926 1928 Series 69; 1930 1931 Custom 8; 1932 Deluxe Custom 8)
- Peugeot\*
- <u>Pierce-Arrow</u> (1921 Series 32, 1922 and up Series 33, All from 1925)
- Railton\*
- Raymond-Mays\*
- Renault [45 HP (40 CV) to 1928, 40 hp (41CV) Reinastella, Reinasport, 1929-1934; Nervahuit, Nervastella, Nervasport, Suprastella 8 cylinder models 1930-1939]\*
- Reo (1931-33 Royale 8-31, Royale 8-35, Royale 8-52, and Royale Custom 8 and 1934 N1, N2, and 8-52)
- Revere
- Riley\*
- Roamer (All Rochester-Duesenberg 4-cylinder, 1925 6-54E, 1925-1929 8-88, 1929-1931 8-125)
- Rochet-Schneider\*
- Rohr
- Rolls-Royce (All from 1919)
- Ruxton
- Squire
- SS and SS Jaguar (1932 1940 S.S. 1, S.S. 90, SS Jaguar, and SS Jaguar 100)
- Stearns-Knight
- Stevens Duryea
- Steyr\*
- <u>Studebaker</u> (1928 8, FA and FB President, 1929 1933 President except Model 82)

- Stutz
- <u>Sunbeam Talbot</u> [8 cylinder and 3 litre twin cam (GB) 105 and 110(8-cyl. and 3-litre twin-cam only)]
- <u>Talbot</u> (all 105C and 110C)
- <u>Talbot Lago</u> (8-cylinder 1930-1935, 4 Litre 6-cylinder 1936-1939, 4 1/2 Litre 1946-1948)
- Tatra\*
- <u>Triumph</u> (Dolomite 8 and Gloria 6 models only)
- <u>Vauxhall</u> (25-70 and 30-98 only)
- Voisin
- Wills Sainte Claire (All from 1921)
- Willys-Knight (Series 66, 66A, 66B Custom bodied only)\*

The items marked with an asterisk (\*) indicate that these models require application to be considered a classic car.

See

- antique car
- collectible car
- late model car
- milestone car
- modified car
- muscle car
- street rod
- vintage car

## Classic Car Club of America

(CCCA) Organization which defines which cars are true classics. <u>1645 Des Plaines River</u> Road, Suite 7A, Des Plaines, IL, 60018-2206, ph 847.390.0443

## Classification

See

- Automobile Classification
- Bridge Classification
- Standard Industrial Classification
- Truck Classification

# Classification society

Independent and reputable organizations which verifies and inspects vessels for seaworthiness. As technical experts, they serve to provide the necessary basis for adjusting insurance rates for the vessel.

# Classification System

See

• North American Industrial Classification System

See

• Hitch Class II

## Class M driver's license



Class M

In some provinces of Canada, a driver's license which permits operating one or more of the following

- 1. Motorcycles
- 2. limited-speed motorcycle (motor scooter)
- 3. motor-assisted bicycle (moped)

#### Class of Thread

Threads differ by the amount of tolerance or tolerance and allowance specified. Classes 1A, 2A, and 3A apply to external threads, and Classes 1B, 2B and 3B apply to internal threads.

#### Class rate

A shipping term for the fees charged for commodities grouped according to similar shipping characteristics.

## Claw hammer



Claw Hammer

A hammer with a forked end on the head which is used for removing nails. Claxton horn

A Horn which makes a particular sound *Ah-oo-gah*.

#### • Horn

## Clay model

When the design department is creating a new model, it will be built in clay to full size to determine its looks etc.

CLC

Abbreviation for Converter Lockup Clutch--replaced by TCC

**CLCC** 

Abbreviation for Closed Loop Carburetor Control

Clean

See

#### • Steam clean

#### Clean Air Act

(CAA) In the U.S., the fundamental legislation to control air pollution. The original Clean Air Act was signed in 1963. The law set emissions standards for stationary sources, such as factories and power plants. Criteria pollutants included lead, ozone, CO, SO2, NOx and PM, as well as air toxics. The CAA was amended several times, most recently in 1990 (P.L. 101-549). The Amendments of 1970 introduced motor vehicle emission standards for automobiles and trucks. In 1990, reformulated gasoline (RFG) and oxygenated gasoline provisions were added. The RFG provision requires use of RFG all year in certain areas. The oxygenated gasoline provision requires the use of oxygenated gasoline during certain months, when CO and ozone pollution are most serious. The regulations also require certain fleet operators to use clean-fuel vehicles in 22 cities.

#### Clean Air Act Amendments of 1990

This legislation to improve the quality of the atmosphere and curb acid rain promotes the use of cleaner fuels in vehicles and stationary sources.

## Clean Development Mechanism

(CDM) A <u>Kyoto Protocol</u> program that enables industrialized countries to finance emissions-avoiding projects in developing countries and receive credit for reductions achieved against their own emissions limitation targets.

#### Clean diesel fuel

An evolving definition of diesel fuel with lower emission specifications, which strictly limit sulfur content.

#### Cleaner

A product to purify or remove unwanted substances. See

- abrasive cleaner
- Air cleaner
- Air cleaner horn
- Air filter
- Brake System Cleaner

- Carburetor Cleaner
- Low-profile air cleaner
- Oil bath air cleaner
- Paper air cleaner
- Piston ring groove cleaner
- Thermostatic air cleaner

# Cleaner Bi-metal Sensor

See

• Air Cleaner Bi-metal Sensor

# Cleaner Duct And Valve Vacuum Motor See

• Air Cleaner Duct And Valve Vacuum Motor

#### Cleaner element

See

• Air cleaner element

#### Cleaner horn

See

• Air cleaner horn

#### Cleaner intake

See

• Air Cleaner Intake

#### Clean Fuel

The CAA (as amended in 1990) specification that identifies RFG and alternative fuels as clean fuel.

# Clean-Fuel Fleet Program

Federal program requiring fleet purchase of Clean-Fuel Vehicles beginning in 1988. Clean-Fuel Vehicle

(CFV)A vehicle that has been certified by the EPA to meet the clean-fuel standards of the Clean Air Act Amendments of 1990. The three categories of federal CFV standards from least to most stringent are LEV, ULEV, and ZEV. The ILEV standard is voluntary and does not need to be adopted by states as part of the Clean-Fuel Fleet Program. CFVs are eligible for two federal programs, the California Pilot Program and the Clean-Fuel Fleet Program. CFV exhaust emissions standards for light-duty vehicles and light-duty trucks are numerically similar to those of CARB's California Low-Emission Vehicle Program.

Cleaning

#### See

- abrasive Blast Cleaning
- Blast cleaning
- <u>Self-cleaning</u>

## Cleaning unit

See

• Spray gun nozzle cleaning unit

## Clean oil

Fresh oil that has not been used in a vehicle before.

#### Clean oil lubrication

A lubrication system where fresh oil is supplied to the engine as needed -- such as in a two-stroke engine.

#### Clean shot

Trucker slang for 'No highway patrol around' as in 'Large Car you got a clean shot all the way to the state line.'

## Clearance

A given amount of space between two parts such as between <u>piston</u> and <u>cylinder</u>, bearing and <u>Journal</u>, etc.

See

- Bearing clearance
- Crest clearance
- Front wheel tire clearance
- Ground clearance
- Ground clearance control
- Lateral clearance
- <u>Lateral tire clearance</u>
- Longitudinal tire clearance
- Pedal clearance
- Piston clearance
- Piston ring side clearance
- Valve clearance
- Vertical tire clearance

#### Clearance control

See

• Ground clearance control

## Clearance depression

See

# • <u>Valve clearance depression</u>

#### Clearance fit

Parts that are assembled so that there is clearance between them so that one part can slide in or on the other. Also called *sliding fit* 

# Clearance height

- 1. The distance between the ground and the lowest portion of the bottom of a vehicle (not counting the wheels). Also called ground clearance.
- 2. The distance between the top of a vehicle and the bottom of a bridge or tunnel which determines whether the vehicle can pass under it.

## Clearance lamp

A light which is mounted on the extreme edges of the roof of a truck to show the maximum height and width of a vehicle. Also called *marker lamp*.

## Clearance pocket compressor

Small space in a cylinder from which compressed gas is not completely expelled. This space is called the compressor clearance space or pocket. For effective operation, compressors are designed to have as small a clearance space as possible.

#### Clearance sensor

See

• Ground clearance sensor

#### Clearance volume

The space above a piston when it is at the top dead center.

#### Clear coat

A clear paint covering used on modern vehicle bodies. It is the top coat.

## Clear flood mode

A situation in which a carburetor or fuel injection system increases the amount of air or reduces the amount of fuel when necessary to correct a problem of <u>Flooding</u>.

#### Clear lacquer

A paint finish or sealer that is 'crystal-clear' transparent, durable, dries rapidly, and usually does not require sanding.

## Clear system

See

• Base and clear system

#### Clearwater stern

A stern with a *shoeless* stern frame

## Cleat

- 1. An attaching bracket
- 2. Clips at intervals on the horizontal stiffeners of hatch coamings to secure the hatch covers

3. A fitting with two prongs which is attached to the wall of a cargo ship or trailer so that one end of a rope or strap could be knotted and the other end secures the shipment or the shipping mats or battens in place. Also called a *kevel*.

See

Pedal Cleats

#### **CLEPA**

Abbreviation for *Comité de Liaison de la Construction d'Equipements et dePièces d'Automobiles* (i.e., European Association of Automotive Suppliers).

#### Clevis

A U-shaped metal piece with holes in each end through which a pin or bolt is run, used for attaching the brake pedal to the power brake booster pushrod, the clutch pedal to the clutch cable or master cylinder pushrod and for various other connections on an automobile. Clevises are sometimes used in other parts of the brake system, like attaching the parking brake cable to the parking brake lever at the rear brakes

#### Clevis Connector

A connector which is used to connect a strand of leaf chain that has an inner link end to a clevis block that has an inner link configuration.

## Clevis pin



## Clevis pin

- A cylinder with a head at one end and a hole at the other. When the clevis pin is inserted into a hole, the head prevents it from going all the way through. A <u>Cotter pin</u> or <u>Hitch pin clip</u> is inserted in the other end of the clevis pin to keep it secure.
- A pin which is used to connect a strand of leaf chain that has an inner link end to
  a clevis block that has an outer link configuration. The clevis manufacturer should
  supply this part so that one can be assured that it will be compatible with the
  clevis block.

#### Click

- 1. The action of inserting a bicycle shoe's bracket into the receiving part of a click-in pedal (formerly known as a clipless pedal).
- 2. A colloquial term for a Kilometre

#### Click-in pedals



### Click-in Pedal

A term for road bike pedals that use a releasable mechanism like that of a ski binding to lock onto cleated shoes and do not use toe clips or straps. Replaces the term <u>Clipless</u> <u>pedals</u>. Some brands are SPD, Look, Time, and Speedplay.

# Click-type torque wrench

A torque wrench which gives out an audible click when the preset torque is reached. Climate change

- 1. The international concern that increasing concentrations of greenhouse gases (GHGs) in the atmosphere are changing the climate in ways detrimental to our social and economic well-being.
- 2. A term used to refer to all forms of climatic inconsistency, but especially to significant change from one prevailing climatic condition to another. In some cases, *climate change* has been used synonymously with the term *global warming*; scientists, however, tend to use the term in a wider sense inclusive of natural changes in climate, including climatic cooling.

### Climate control

- 1. A lever or button which you can move to change the temperature in the passenger compartment of a vehicle. It controls the heater, vent, and/or air conditioner.
- 2. A space in which an ideal climate is maintained by some devices.

### See

• Electronic Climate Control

# Climatic chamber

A test area into which an automobile can be placed to see if it will meet the extremes of temperature and humidity.

#### Climber

A vehicle salesman who can sell anything to anyone--even the tough customer. Climbing ability

While some vehicles may have a high top end speed on a road with no incline, the real test of a vehicle in mountainous terrain is its ability to go up a hill at an adequate speed (i.e., its climbing ability).

#### Clincher

A tire whose edges hook under the curved-in hooked edge of a special rim, not commonly found anymore on <u>bicycles</u> and often confused with the common <u>Wired-on tire</u>.

#### Clincher rims

Type of wheel rim used with early beaded-edge tires

#### Clincher tire

A tire whose edges hook under the curved-in hooked edge of a special rim, not commonly found anymore on <u>bicycles</u> and often confused with the common <u>Wired-on</u> tire.

# Clinch nut

A nut having a pilot which, after insertion in a hole, is clinched or staked in place to prevent rotation.

### Clinker

Powdered cement, produced by heating a properly proportioned mixture of finely ground raw materials (calcium carbonate, silica, alumina, and iron oxide) in a kiln to a temperature of about 1480°C.

#### Clinometer

An instrument which measures the steepness of a hill.

# Clip

- 1. To move at a fast pace
- 2. The removable front end of a vehicle, usually one designed for racing.
- 3. A securing fastener

# See

- Alligator clip
- Angle Clip
- Bonding Clip
- Crocodile clip
- Cushion Clip
- Hitch Pin Clip
- Horseshoe Clip
- Hose clip
- Hose clip installer
- Hose clip pliers
- Jubilee clip
- Pedal Toe Clip
- Rebound clip
- Seat Cover Clip
- Spring clip

# Clip installer

See

• Hose clip installer

# Clipless pedal

See

• Clipless pedals

# Clipless pedals



# Clipless pedal

An obsolete term for road bike pedals that use a releasable mechanism like that of a ski binding to lock onto cleated shoes and do not use toe clips or straps. Preferred term is <u>Click-in pedals</u>. Some brands are SPD, Look, Time, and Speedplay.

# Clip-on engine

An engine that is attached to a conventional bicycle frame Clip-ons

- 1. Low racing handlebars for a motorcycle that clamp directly onto the fork legs
- 2. Handlebars that attach directly to the fork tubes, rather than to the top yoke, that hold the fork tubes together

# Clip-on weight

A wheel weight that is clipped on the rim between the rim and the tire. It is used to balance a wheel.

# Clip Pedals

See

• <u>Toe Clip Pedals</u>

# Clip pliers

See

• Hose clip pliers

### Clip screw

A fastener that is secured in place by a screw.

Clip screw gate



Clip screw gate

A D-shape carabineer

# **CLNT**

Abbreviation for Coolant

### Clock

- 1. An instrument showing the time.
- 2. An odometer as in the statement *I want to buy this car, but it has too many miles on the clock*.
- 3. To record the speed or time that vehicle makes.
- 4. To turn the odometer back (an illegal practice)

### See

- Analog Clock
- Cesium Clock

# Clocking

- 1. The action of recording the speed of a vehicle.
- 2. In Britain, it is the action of turning the odometer back.

# C/locking

Abbreviation for central locking.

# Clockwise

Rotation to the right like the direction of clock hands. In most cases it is the direction to secure a nut to a bolt. It is the opposite to <u>counterclockwise</u>.

Clog

To obstruct a passageway or track so that the normal flow or operation of something is hindered.

#### Close call

In driving it is the near possibility of an accident.

#### Close coils

The coils or loops of a spring which are tightly together.

# Close coupled sedan

See

# • Close-coupled sedan

# Close-coupled sedan

Similar to the <u>sedan</u>, this body style is shorter and thus usually accommodates only five passengers. The rear quarter windows were eliminated.

#### Closed bevel

When two matching bevelled items are mated, they are closed. If the bevel in one does not match the other, they are open, i.e., <u>open bevel</u>.

#### Closed car

A vehicle with a hard top (i.e., not a convertible)

#### Closed circuit

Electrical circuit in which electrons are flowing.

# Closed container

Container sealed by means of a lid or other device so that neither liquid nor vapor will escape from it at ordinary temperatures.

### Closed cooling system

See

### • Coolant recovery system.

#### Closed crankcase ventilation

A system in which <u>crankcase</u> vapors are discharged into the engine <u>Intake</u> system (usually through the <u>intake manifold</u>) and pass through the engine <u>cylinders</u> rather than being discharged into the atmosphere.

# **Closed Distribution System**

A shipping system confined to moving goods between specified plants and facilities.

### Closed-end connector

Solderless connector shaped like a hat. Used to join two, three, or more wires together. Similar to wire connectors used in home wiring, but installed by crimping instead of twisting

### Closed end lease

Most leases offered today are close-end leases, meaning that the residual value is fixed and stated in the lease contract. The lessee's financial obligations are unaffected by what the vehicle is actually worth when the lease ends. In other words, the lessee assumes no risk for the depreciation of the vehicle.

# Closed loop

- 1. An operating condition or mode which enables modification of programmed instructions based on a feedback system
- 2. A condition, after the appropriate sensors have indicated that predetermined conditions have been met, where the computer actively controls the fuel system and other functions based on exhaust gas conditions and other parameters.
- 3. The repeated times when the EFI computer uses the feedback on the mixture provided by the oxygen sensor to control the injected amounts of fuel.

# **Closed-Loop Carburetion**

System in which the fuel/air ratio in the engine is carefully controlled to optimize emissions performance. A closed-loop system uses a fuel metering correction signal to optimize fuel metering.

# Closed loop fuel control

The normal operating mode for a feedback carburetor system. Once the engine is warmed up, the computer can interpret an analog voltage signal from an exhaust gas oxygen sensor and alter the air/fuel ratio accordingly with a duty-cycle solenoid or solenoid-controlled valve.

# Closed loop mode

Once the engine has reached warm-up temperature, the engine management computer collects the precise data from all the sensors (coolant temperature sensor, throttle position sensor, oxygen sensor, etc.) to determine the most efficient air/fuel mixture for combustion.

# Closed loop system

- 1. A self-adjusting system which keeps conditions stable and is controlled by negative Feedback from a sensor.
- 2. A computer controlled system which monitors the exhaust gas with a sensor and adjusts the fuel delivery, and may or may not adjust spark timing, transmission, and other devices to meet emission and driveability criteria

# Closed system

An anti-lock brake system with some means, generally a pump, to restore hydraulic pressure that's bled off during an ABS stop

### Closed type check valve

A valve which allows fluid flow in only one direction. See

- Check valve
- Open type check valve
- Residual pressure valve
- Residual brake pressure type check valve
- Two-way type check valve

#### Closer

Usually a pushy salesman who is assigned to convince a hesitating customer to make the purchase of a vehicle when the original salesman can't make the sale.

### Close-ratio gearbox

A transmission in which there is very little difference between one gear ratio and the next. This kind of transmission makes it easy for fast shifting.

### Close ratio transmission

A transmission with gear ratios spaced close together.

#### Closes

See

- Exhaust valve closes
- Intake valve closes

# Closing

See

• Automatic closing system

# Closing cam

A cam or rocker which closes a valve in a mechanically operated valve system. Other types close the valve through the operation of the valve spring. Also called *closing rocker*.

### Closing force

The force needed for the spring to close a valve.

# Closing panel

A panel which covers a hole in the body, interior panels, or frame.

# Closing rocker

A cam or rocker which closes a valve in a mechanically operated valve system. Other types close the valve through the operation of the valve spring. Also called *closing cam*.

### Closing system

See

• Automatic closing system

### Closure

See

Road closure

### Cloth

See

- Beaver Cloth
- Emery cloth
- Tack cloth

# Cloth upholstery

The fabric of the seats made of cloth rather than leather or vinyl.

# Cloud point

(CP)

- 1. The temperature at which <u>diesel oil</u> tends to thicken and cloud up (i.e., become cloudy).
- 2. A measure of the ability of a diesel fuel to operate under cold weather conditions. Defined as the temperature at which wax first becomes visible when diesel fuel is cooled under standardized test conditions.

### Cloverleaf

A highway overpass system which has four basic loops for getting on the highway or leaving it.

Club



### Club

A security device which surrounds the steering wheel making it difficult for a thief to operate the steering wheel. See

• Royal Automobile Club

# Club Cab



#### Club Cab

A type of pickup truck (by Dodge) which has a second row of seating; but unlike a crew cab (which has four full size doors) it has a *half-door* that can be opened only after the main door is opened. The seating is usually a little more cramped than in a crew cab. Also called Extended Cab, King Cab, XtraCab, Access Cab, SuperCab, or Cab Plus.

Club coupe



# Club Coupe

The club coupe designation seems to come from club car, describing the lounge (or parlor car) in a railroad train. The early postwar club coupe combined a shorter-than-sedan body structure with the convenience of a smaller, but full back seat, unlike the single-seat business coupe. That name has been used less frequently in the 1976-86 period, as most notchback two-door models (with trunk rather than hatch) have been referred to as just *coupes*. Moreover, the distinction between two-door coupes and two-door sedans has grown fuzzy.

#### Club hammer

A hammer with a short handle but a large, heavy head. It is used to hit the back end of a chisel or drift.

#### Club Parisien

See

• Audax Club Parisien

#### Clunker

A vehicle which might run but is rusty and in need of a lot of repair work.

### Cluster

See

- Analog cluster
- Electronic cluster
- Footpedal cluster
- Instrument cluster
- Lamp cluster
- Rear lamp cluster
- Seat cluster

### Cluster gear

The cluster of gears that are all cut on one long gear blank. The cluster gears ride in the bottom of the <u>transmission</u>. The cluster provides a connection between the transmission <u>Input shaft</u> and the <u>Output shaft</u>. Also called <u>Counter gear</u>.

# Cluster head

A set of traffic lights mounted on a backplate.

# Cluster panel

The reverse side of the <u>instrument panel</u> or <u>dash</u> where all the wiring or circuit board is located.

Clutch



# Click image to supersize Coil spring clutch

- 1. An electrically operated coupling device that connects or disconnects the compressor pulley and compressor shaft
- 2. A device that disconnects the engine from the <u>transmission</u>, to allow the vehicle to change gears, and then allows the engine and transmission to resume contact and turn together at a new <u>speed</u>.

### See

- Band Clutch
- Block Clutch
- Center the clutch
- Centrifugal clutch
- Clutch diaphragm spring
- <u>clutch disc</u>
- Clutch explosion
- Clutch housing
- Clutch lever
- Clutch pedal free travel
- Clutch pedal
- Clutch pilot bearing
- clutch pressure plate
- Clutch semi-centrifugal release fingers
- clutch shaft
- Clutch solenoid
- Clutch throwout fork
- Coil spring clutch
- Cone clutch
- Diaphragm spring clutch
- <u>Diaphragm clutch</u>
- Disengage the clutch
- Dog clutch
- Double clutching

- Dry clutch
- Electromagnetic clutch
- Fan clutch
- Fluid clutch
- Freewheeling
- Friction clutch
- Heavy clutch
- Hydraulically-activated clutch
- Hydraulically-assisted clutch
- Light clutch
- Lock-up clutch
- Magnetic clutch
- Multi-plate clutch
- Multiple-plate clutch
- Multiple disc clutch
- One way clutch
- Overrunning clutch starter drive
- Overrunning clutch
- Pull-type clutch
- Push-type clutch
- Reverse clutch
- Riding the clutch
- Roller clutch
- Single-plate clutch
- Slip the clutch
- Sprag clutch
- Stator roller clutch
- Torque converter lock-up clutch
- Twin-plate clutch
- Wet clutch

### Clutch aligning set

A group of tools used to align the clutch plates with the flywheel. Usually there is a shaft, pilot bearing adapters, and tapered universal sleeves

# Clutch aligning tool

A tool which looks like a bar or a disc which can be used to line up the clutch plates with the flywheel.

Clutch antirattle spring clip



Antirattle spring

A specially shaped wire that prevents the clutch plate and spring from making noise when no pressure is applied to the plate.

### Clutch basket

Part of the clutch assembly containing drive plates. Primary drive gear engages teeth on the outside of the clutch basket.

### Clutch brake

A device for slowing down the clutch discs (and thus the gears themselves) so that shifting is smoother and quieter.

### Clutch cable

A cable (usually a cluster of thin strands within a plastic sheath) which operates the movement of the clutch plates. At the other end is a pedal (in automobiles) or a handlebar lever (left side).

# Clutch compressor signal

See

• Air Conditioner Clutch Compressor Signal

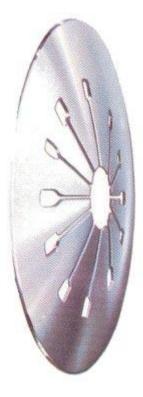
#### Clutch cover

A metal cover which encases the clutch plates.

# Clutch cycling switch

A device that turns the compressor on and off in response to changes in pressure or evaporator temp

# Clutch diaphragm spring



Clutch diaphragm spring

A round dish-shaped piece of <u>Flat spring</u> steel. It is used to force the <u>Pressure plate</u> against the clutch disc in some Clutches.

### Clutch disc



### Clutch disc

A spinning plate located at the end of the <u>driveshaft</u> facing the engine <u>Flywheel</u> and covered with a <u>friction</u> material such as <u>asbestos</u>. When the <u>clutch</u> is engaged, the disc is squeezed between the <u>Flywheel</u> and the <u>clutch pressure plate</u>, causing the engine and the <u>transmission</u> to turn at the same <u>speed</u>. British term is called *clutch plate*.

### Clutch disk

See

### clutch disc

### Clutch drag

When the clutch discs do not disengage completely after the clutch pedal is depressed or the clutch lever is pulled in, there is excessive friction so that it is difficult to shift gears because both the driven discs and the input shaft are both rotating.

# Clutch explosion

<u>clutches</u> have literally flown apart (exploded) when subjected to high rpm, a <u>Scatter shield</u> is used on competition cars to protect the driver and spectators from flying parts in the event the <u>clutch</u> explodes.

# Clutch facing

The asbestos-type lining on a clutch plate.

#### Clutch field

A clutch part on an air condition compressor, consisting of hundreds of windings of wire, that creates a magnetic field when current is applied, pulling in the armature to engage the clutch

#### Clutch fork

When the clutch pedal (or lever) is depressed, it pulls on a cable which moves the clutch fork which in turn pushes on the release bearing and disengages the clutch discs. Also called Clutch release fork.

#### Clutch holder

Tool to secure the clutch basket and clutch hub while losening or tightening the clutch securing nut or primary drive gear nut.

# Clutch housing

A <u>Cast iron</u> or <u>Aluminum Housing</u> that surrounds the <u>Flywheel</u> and <u>clutch</u> mechanism. Also called <u>Bell housing</u>.

#### Clutch hub

Part of the clutch that engages with the plain driven clutch plates. The clutch hub is mounted on the transmission input shaft.

### Clutching

The act of operating the clutch in order to shift gears See

# • Double clutching

# Clutch interlock switch

A switch that prevents the vehicle from starting unless the clutch pedal/lever is pressed. Clutch judder

A British term for clutch shudder.

# Clutch lever

A hand-operated blade located on the left side of the <u>handlebar</u> of a <u>motorcycle</u>. When the clutch lever is pulled in, it disengages the clutch so the engine and the <u>crankshaft</u> can turn independently of the <u>transmission</u> and the rider can change gears. See

### • Clutch release finger

#### Clutch lining

The friction material on the face of the clutch discs.

### Clutch, magnetic

Clutch built into automobile compressor flywheel. operated magnetically. which allows pulley to revolve without driving compressor when refrigerating effect is not required.

# Clutch orifice tube system

See

# • Cycling Clutch Orifice Tube System

### Clutch pedal

A foot-operated pedal located on the floor of the vehicle to the left of the <u>brake pedal</u> on cars with <u>manual transmission</u>. When the clutch pedal is depressed, it disengages the clutch so the engine and the <u>crankshaft</u> can turn independently of the <u>transmission</u> and the driver can change gears.

# Clutch pedal free travel

The specified distance that the <u>Clutch pedal</u> may be depressed before the throwout bearing actually contacts the clutch release fingers.

# Clutch pilot bearing

Until the early 1970's, the clutch pilot bearing was a bronze bushing placed at the end of the crankshaft or in the center of the flywheel to support the outboard end of the transmission input shaft. More recent clutch pilot bearings are the ball bearing type.

### Clutch plate

The clutch discs.

# Clutch pressure plate



### Clutch Pressure Plate

That part of a <u>clutch</u> assembly that through spring pressure, squeezes the <u>clutch disc</u> against the <u>flywheel</u> thereby transmitting a driving force through the assembly. To disengage the clutch, the pressure plate is drawn away from the flywheel via <u>linkage</u>. Clutch pulley

The clutch part turned by the drivebelt. The pulley or rotor *free-wheels* until the clutch is engaged. On rotors which contain the field, the electrical connection is made through brushes similar to alternator and starter motor brushes

# Clutch release bearing

See

• Throwout bearing

Clutch release finger

A flat piece of metal shaped like a curved finger. Through the movement of the throwout fork, the throwout bearing pushes against the clutch release fingers or levers to release pressure against the <u>Pressure plate</u>. Also called *clutch release lever*.

### Clutch release fork



### Clutch Release Fork

A lever attached to the clutch throw-out bearing. When the fork presses the throw-out bearing against the center of the conical diaphragm spring, it pops inward, releasing the pressure plate from the flywheel and freeing the clutch disc so that the engine can turn without driving the transmission.

Clutch release lever

See

• Clutch release finger

### Clutch release mechanism

Mechanism that moves the clutch pressure plate away from clutch pack, allowing clutch to slip.

### Clutch rotor

The clutch part turned by the drivebelt. The pulley or rotor *free-wheels* until the clutch is engaged. On rotors which contain the field, the electrical connection is made through brushes similar to alternator and starter motor brushes

Clutch semi-centrifugal release finger

See

• Clutch semi-centrifugal release fingers

Clutch semi-centrifugal release fingers

Clutch release fingers that have a weight attached to them so that at high rpm the release fingers place additional pressure on the <u>clutch pressure plate</u>.

#### Clutch shaft

The shaft that takes power from the clutch into the <u>Gearbox</u>. Also called the <u>Drive pinion</u>. Clutch shudder

When the clutch tries to engage (when the pedal or lever is released), but the discs do not mate securely, the discs engage intermittently and slip past each other making a noise like a shudder. In Britain, it is called *clutch judder*.

### Clutch slip

Clutch slip occurs when the clutch tries to engage (when the pedal or lever is released), but the discs do not mate securely.

### Clutch solenoid

In some automotive <u>air conditioners</u>, a <u>Solenoid</u> that operates a clutch on the <u>compressor</u> drive <u>Pulley</u>. When the <u>clutch</u> is engaged, the <u>compressor</u> is driven and cooling takes place.

# Clutch spring

The clutch cover will have several posts over which the clutch spring (shaped like a cylinder) fits and pushes the pressure discs against the driven clutch discs to transmit power.

### Clutch starter

See

• Overrunning clutch starter drive

### Clutch starter drive

See

• Overrunning clutch starter drive

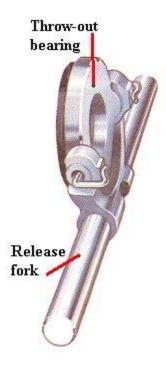
# Clutch starter interlock

A device which disengages the starter once the engine has started.

# Clutch stop

A clutch brake

Clutch throw-out bearing



# Throw-out bearing

A part of the <u>clutch</u> activated by the <u>Clutch pedal</u> that allows the <u>clutch</u> to disengage. If you allow the vehicle to <u>idle</u> in gear with the <u>Clutch pedal</u> depressed, instead of shifting to <u>neutral</u> gear, you can wear out the throwout bearing. The British term is <u>Clutch release bearing</u>.

See

- Free pedal play
- Clutch throw-out bearing

#### Clutch throwout fork

The device or fork that straddles the throwout bearing and that is used to force the throwout bearing against the clutch release fingers.

# Clutch thrust bearing

The clutch release bearing.

# Cluttered engine compartment

An engine compartment or bay in which all the available space around the engine is occupied by other objects (alternator, pumps, air intake system, battery, wiper motor, heater motor, windshield washer motor, starter, radiator, air conditioner, hoses, pipes, wiring, electronic boxes, etc.)

CLV

Abbreviation for Calculated Load Value

**CMAQ** 

Abbreviation for <u>Congestion Mitigation and Air Quality Improvement Program</u>. A funding category under the Transportation Equity Act for the 21st century (TEA-21) transportation bill. The funding is generally used for air quality projects.

C-matic transmission

Citroen's name for a semi-automatic transmission

**CMFI** 

Abbreviation for Central Multi-port Fuel Injection

**CMH** 

Abbreviation for *cold mixture heater*--A device which helps to reduce cold engine emissions and improve driveability during engine warm-up. Also CHM.

C motorhome

See

• Type C motorhome

**CMP** 

Abbreviation for <u>Camshaft position sensor</u> which detects the position of the #1 cylinder for fuel and ignition coil synchronization

**CMP REF** 

Abbreviation for Camshaft Position Reference

**CMSA** 

Abbreviation for Consolidated Metropolitan Statistical Area

**CMV** 

Abbreviation for <u>Commercial Motor Vehicle</u>. A motor vehicle or combination of motor vehicles used in commerce to transport passengers or property if the motor vehicle meets one of the following:

- has a gross combination weight rating greater than or equal to 26,000 lb. including a towed unit with a gross vehicle weight rating of at least 10,000 lb.
- has a gross vehicle weight rating of at least 26,001 lb.
- is designed to transport 16 or more passengers including the driver
- a motor vehicle of any size that transports hazardous materials of any kind.

### **CMVSS**

Abbreviation for *Canadian Motor Vehicle Safety Standards* which is similar to the U.S. <u>FMVSS</u>

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- ABCDEFGHIJKLMNOPQRSTUVWXYZ

# **DICTIONARY OF AUTOMOTIVE TERMS - 'Co'**

- <u>Ca</u> <u>Cb</u>

- Cc Cd Ce Cf Cg Ch Ci Ci Ck Cl Cn Co Cp Cr Cs Ct Cu Cv Cw Cy

- Ca Cb Cc Cd Ce Cf Cg Ch Ci Ck Cl Cm

- Cn Co Cp Cr Cs Ct Cu Cv Cw Cy

CO

Abbreviation for <u>Carbon monoxide</u>. A deadly, colorless, odorless, and tasteless gas found in the engine <u>exhaust</u>. Toxic even in relatively small concentrations. Formed by incomplete burning of <u>Hydrocarbons</u>. Thus at its greatest with a rich mixture.

 $CO_2$ 

Abbreviation for Carbon dioxide

### CO<sub>2</sub> indicator

Instrument used to indicate the percentage of carbon dioxide in stack gases.

### Coach

- 1. A vehicle with an enclosed two-door type body with permanent back <u>panels</u> and top, it is similar to the <u>coupe</u>, but the seating is different. A full width cross seat in the rear accommodates three passengers. Two separate seats in the front fold out of the way to admit rear passengers. There is no <u>trunk</u>, but trunk racks are frequently provided.
- 2. A luxurious bus, a tour bus.
- 3. A rail car that carries a large number of people.

#### Coach bolt

A bolt with a mushroom head, but just below the head there is a square neck and then the threads. The square neck fits into a matching square hole to keep the bolt from moving. Coachbuilder

A person or company which manufactures special bodies for automobiles.

### Coachbuilt body

A separate body which is not integral with the chassis.

### Coachbuilt construction

The process of building an automobile so that the body is separate from the chassis.

• Often the bodies are built to customer specifications and may differ from one another even though they are built upon the same chassis design.

# See

- Skeleton construction
- <u>unitary construction</u>

### Coach-line

An obsolete term for a painted pinstripe (a thin line of paint of a color that complements or contrasts the body color).

### Coachlining

Pinstriping along the side of a vehicle or along the side of the fuel tank of a motorcycle. Coach paint

A slow-drying, high-gloss paint used on cars in the early 1900s. It was painted on car bodies with a brush.

### Coachwork

Although it is strictly the body of an automobile, it is particularly the comfort and luxury appointments as distinguished from the operational <u>chassis</u> thus it would include the interior, seats, <u>Upholstery</u>, <u>instrument panels</u>, fenders, etc. -- everything but the mechanicals and the chassis. The French call it Carrosserie, the Germans call it Karosserie, and the Italians call it Carrozzeria. Also called *bodywork*.

#### Coal Bed Methane

Prior to the mid-1980's, methane from coal seams was classified as an uneconomic resource--one of vast potential, but low value due to poor recovery rates and high associated water production. By applying new production technologies to this resource, coalbed methane has become the single largest new source of gas supply in the past decade. Current estimates show approximately 100 Tcf of coalbed methane that appears to be economically recoverable in the lower 48 states alone. Methane is generated during coal formation and is contained in the coal microstructure. Typical recovery entails pumping water out of the coal to allow the gas to escape. Methane is the principal component of natural gas. Coal bed methane can be added to natural gas pipelines without any special treatment.

#### Coal bucket

Colloquial term for a dump trailer, coal trailer, or coal truck

# Coalescing action

The process of smaller water droplets merging together into larger droplets which takes place in a water separator

### Coal gas

A fuel gas substitute for natural gas obtained synthetically through the carbonization (distillation by heat in the absence of air) of coal. Typical coal gas mixtures include high concentrations of hydrogen and carbon monoxide.

# Coal gasification

The process of converting coal into gas. The basic process involves crushing coal to a powder, which is then heated in the presence of steam and oxygen to produce a gas. The gas is then refined to reduce sulfur and other impurities. The gas can be used as a fuel or processed further and concentrated into chemical or liquid fuel.

# Coal liquefaction

A chemical process that converts coal into clean-burning liquid hydrocarbons, such as synthetic crude oil and methanol.

# Coal Synfuel

Coal-based solid fuel that has been processed by a coal synfuel plant; and coal-based fuels such as briquettes, pellets, or extrusions, which are formed from fresh or recycled coal and binding materials.

### Coal Trailer

A dump trailer, or a coal hopper bottom trailer. Also called <u>coal bucket</u>

#### Coal Truck

usually refers to a dump truck used to haul coal. Also called coal bucket

# Coaming

The vertical boundary of a hatch or skylight.

See

### • Hatch coaming

### Coarse

See

National coarse thread

### Coarse-cut file

A file with deep grooves for removing a lot of metal quickly. It leaves rough edges which will need to be cleaned up with a smooth-cut file

#### Coarse file

A file with deep grooves for removing a lot of metal quickly. It leaves rough edges which will need to be cleaned up with a smooth-cut file

### Coarsening

See

• Grain coarsening

# Coarse pitch

Gears or screw threads which have wide gaps between each tooth or thread. See

Auto Coarse Pitch

# Coarse thread

The threads of a screw are wider apart. Opposite to fine thread.

See

- National coarse thread
- Unified National Coarse Thread

#### Coast

1. To proceed, usually downhill, on a <u>bicycle</u> without pedaling; or in a motor vehicle without the aid of the engine.

See

- o freewheel.
- 2. A designation on a cruise control switch which (when activated) will cause the vehicle to slow down to a lower cruise controlled speed.

### Coastal

Domestic shipping routes along the coast.

### Coast-down test

A test of a vehicle's aerodynamic by towing it to a speed of 100 km/h then releasing it to see its ultimate distance in light of various external factors, such the road surface, atmospheric pressure, and direction and speed of the wind.

#### Coaster

A vehicle, usually a <u>bicycle</u>, which has no means of propulsion (you can't pedal it and it is without any engine).

# Coaster brake

A braking system on a <u>bicycle</u> in which the rider stops pedaling forward (thus coasting) and pedals backward to engage the brake within the <u>hub</u> of the rear wheel.

#### Coat

- 1. A covering of paint or similar substance.
- 2. To apply a covering of paint, etc.
- 3. Single coat means to apply one layer of material on a surface. Double coat -- to apply two coats of adhesive, coating, or sealer to a surface. In spaying, it means to spray first a single coat with vertical strokes and then a second coat across with horizontal strokes, or vice versa

# See

- Anodize
- Base coat
- Clear coat
- Color coat
- Cross-hatch coat
- Cross coat
- Double Coat
- Finish coat
- Fog coat
- Gel coat
- Guide coat
- Intermediate coat
- Mist coat
- Prime coat
- Protective coat
- Single coat
- Tack coat
- Top coat
- Undercoat

## Coat drier

See

• Top coat drier

### Coated abrasive

Sandpaper or grinding wheel where an <u>abrasive</u> material such as sand or diamond grit is glued to a backing material and used to reduce or smooth a surface.

### Coated bore

Thin coating of chrome or iron applied to the inside of a cylinder by electroplating or wire explosion spray coating.

#### Coated electrode

See

• Covered electrode

### Coated Membrane

See

• Catalyst Coated Membrane

# Coating

A protective covering usually of paint.

See

- Anodic coating
- Anti-chip coating
- Catalyst Coating
- Catalytic layer
- <u>Cathode Coating</u>
- Chromate coating
- Conversion coating
- Electrostatic powder coating
- Galvanized coating
- Hard anodic coating
- Manganese phosphate coating
- Phosphate coating
- Polymer coating
- Protective coating
- PVC underseal coating
- Roll coating
- Spray coating
- Underbody coating
- <u>Undercoating</u>
- Zinc phosphate coating

### Coat oven

See

• Top coat oven

### Coaxial cable

A two-wire electric cable that has a solid inner conductor surrounded by insulation which in turn is surrounded by the second wire (usually braided) which is also surrounded by insulation.

### Cobalt

A model of small car produced by the <u>Chevrolet</u> division of <u>General Motors</u> from 2008-08.

#### Cobble

To put something together in a rough or clumsy manner. This is usually done as a temporary measure until more permanent repairs can be made.

#### Cobbled

The action of putting something together in a rough or clumsy manner. This is usually done as a temporary measure until more permanent repairs can be made.

#### Cobra

See

• AC Shelby Cobra

### COC

Abbreviation for Conventional oxidation catalyst

#### Cock

A tap or shut-off valve which controls the flow of liquid. See

- Fuel cock
- Radiator drain cock

# Cockpit

The area, usually in racing cars, in which the driver sits and the instruments in front of him.

### **COD**

Abbreviation for <u>Cash On Delivery</u> A shipping term where the receiver must pay the price of the goods to the carrier at the time of delivery and may refuse reception. Contrasts with <u>Cash before delivery</u> (CBD).

#### Code

A system of symbols (as letters, numbers, or words) used to represent meaning of information.

See

- Nordic Anti-Corrosion Code
- Barred Code
- Baudot Code
- Diagnostic Code
- Diagnostic Trouble Codes
- Edge Code
- Hard Code
- Highway Code
- Ignition-latched Soft Code
- National Electrical Code
- Nordic Anti-corrosion Code

- Self-diagnostic Code
- Service Codes
- Trouble Code

#### Codec

See

Audio Codec

#### Coded

See

• <u>Color-coded</u>

# Code hopping

A technology which prevents thieves with scanners from either picking up your encoded remote-control signal or from randomly firing numerous codes at your vehicle in order to stumble upon the one that will disarm your security system.

### Code installation

Refrigeration or air conditioning installation which conforms to the local code and/or the national code for safe and efficient installations.

### COE

Abbreviation for <u>Cab-Over-Engine</u>, a type of tractor, or power unit in which the driver sits in a cab mounted over the engine. The COE has a flat nose and is shorter in length compared with a conventional power unit.

#### Coefficient

See

- Absorption coefficient
- Attenuation Coefficient
- Beam-coupling Coefficient
- Block coefficient
- Drag coefficient
- Emission Coefficient
- Negative Temperature Coefficient
- Positive Temperature Coefficient
- <u>Temperature Coefficient</u>

# Coefficient of apparent expansion

The coefficient of expansion when the expansion of e.g., a dilatometer is neglected.

# Coefficient of conductivity

Measure of the relative rate at which different materials conduct heat. Copper is a good conductor of heat and, therefore, has a high coefficient of conductivity.

### Coefficient of drag

(Cd) A numerical value representing aerodynamic efficiency. The lower the value, the more efficient the shape.

• Drag coefficient

# Coefficient of expansion

- 1. Increase in unit length, area, or volume for one degree rise in temperature.
- 2. The fractional change in length, area or volume per unit change in tem of a solid, liquid, or gas at a given constant pressure. e.g., an aluminum bar stretches 12 millionths percent of its original length for each degree F rise in temperature. Also referred to as 'expansivity'

#### Coefficient of friction

- 1. A ratio of the force required to slide an object over a surface to the mass of the object, and is always less than 1.00
- 2. A measurement of the amount of <u>friction</u> developed between two objects or surfaces in physical contact when one of the objects is drawn across the other. If a book were placed on a table and a measuring scale used to pull the book, the amount of weight or pull registered on the scale would be the coefficient of friction. This coefficient of friction is dependent upon both surfaces in contact. It is large if the surfaces are rough and small if they are smooth.

# Coefficient of performance

(COP) Ratio of work performed or accomplished as compared to the energy used. Coefficient Thermistor

See

- Negative Temperature Coefficient Thermistor
- Positive Temperature Coefficient Thermistor

#### **COFC**

Abbreviation for *Container On Flat Car* -- a method for moving shipping containers which involves transporting them on railroad flat cars.

# Cofferdam

Narrow vacant space between two bulkheads or floors. A double watertight bulkhead. Cofiring

The process of burning natural gas in conjunction with another fuel to reduce air pollutants.

### Cog

Any toothed gear. A <u>Sprocket</u> attached directly to the rear wheel <u>hub</u> on a single-speed bike and mounted on a <u>freewheel</u> on a multi-speed bike. See

Cassette Cogs

# Cog Belt

A toothed belt normally of <u>fiberglass</u>-reinforced rubber for driving the <u>camshaft</u> from the <u>crankshaft</u>. In cars, cog belts are primarily used with overhead camshafts but are sometimes used to drive <u>pumps</u>.

# Cogeneration

Primary source of energy that is also used to produce a secondary source of energy. Example The use of waste heat from an electrical energy generation system to heat a building.

## Cogeneration appliance

A device that has a primary function of producing energy, but also can produce a secondary source. For example the primary function of a vehicle engine is to provide motive power, but the heat of the engine can also produce heat for the passengers.

# Cogged belt

See

Cog belt

# Cogging

Nonuniform angular velocity, i.e., rotation occurring in jerks or increments rather than smooth motion. When an armature coil enters the magnetic field produced by the field coils, it tends to speed up and slow down when leaving it. This effect becomes apparent at low speeds. The fewer the number of coils, the more noticeable it can be

Coil

1. Metal bands or strands of wire wrapped in a circular fashion.

2.

Coil

A pulse-type transformer for increasing the voltage to fire the spark plugs.

#### See

- Air Coil
- Air-spaced Coil
- Arc-suppression Coil
- Basket Coil
- Booster coil
- Bucket Coil
- Close coils
- Exciter coil

- Field coil
- Four-spark ignition coil
- Glow coil
- Heating Coil
- High energy coil
- Hold-in coil
- Holding coil
- <u>Ignition coil resistor</u>
- ignition coil
- Multi-spark coil
- Multi-spark ignition coil
- Pick-up coil
- Recuperative Coil
- Reheating Coils
- Single-spark ignition coil
- Temperature-Sensitive Bimetal Coil
- Thermostatic coil choke

# Coil binding

Compressing a valve spring to the point at which each coil touches the adjacent coil Coil buildup

Buildup of a magnetic field while current is flowing through primary windings of coil. Coil chimney

The top of the ignition coil where the high tension leads are attached.

### Coil choke

See

• Thermostatic coil choke

### Coil ignition

The standard ignition system which uses an ignition coil which stores the power from the battery and steps it up. Then the high voltage is sent to the spark plugs. See

- Battery Coil Ignition
- Transistorized coil ignition

# Coil ignition with Hall sensor

See

• Transistorized coil ignition with Hall sensor

### Coil lead

A British term for the high tension wire going from the coil to the distributor. In America, it is called the *coil wire*.

Coil resistor

See

• <u>Ignition coil resistor</u>

Coils

See

Close coils

Coil spring

# Spring

- 1. A section of <u>Spring steel</u> rod wound in a spiral pattern or shape. Widely used in both <u>Front</u> and <u>Rear suspension</u> systems. Like large metal bed springs, these coils cushion and absorb the shocks and bumps as the vehicle is driven. They are usually found near the front wheels, but some cars have them in the rear as well. Often the <u>shock absorbers</u> run up the center of the coil springs.
- 2. A coiled metal spring used in a suspension fork. Generally considered to be plusher, but heavier, than air springs.

Coil spring clutch

Click image to supersize Coil Spring Clutch

An assembly that connects the engine to a manual transmission and consists of an engine flywheel, clutch disc, and pressure plate. The pressure plate is bolted to the flywheel and turns with it. The clutch disc is a flat steel disc with a splined hub that slides on the transmission input shaft. A ring of strong springs squeeze the clutch disc between the flywheel and pressure plate. When the clutch disc is locked in place, engine power passes from flywheel to clutch disc to transmission input shaft, thereby driving the car.

Coil spring compressor

See

• Spring compressor

### Coil tester

See

• Spark gap coil tester

### Coil tower

The top of the ignition coil where the high tension leads are attached.

#### Coil wire

The high tension wire going from the coil to the distributor or spark plug.

#### Coin holder

A device which retains coins for easy access.

Coke

- 1. As a product of coal. A solid carbonaceous residue derived from low-ash, low-sulfur bituminous coal from which the volatile constituents are driven off by baking in an oven at temperatures as high as 1100°C so that the fixed carbon and residual ash are fused together. Coke is used as a fuel and as a reducing agent in smelting iron ore in a blast furnace. Coke from coal is grey, hard, and porous and has a heating value of 24.8 million Btu per ton.
- 2. As a product of petroleum. A residue high in carbon content and low in hydrogen that is the final product of thermal decomposition in the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion is 5 barrels (of 42 U.S. gallons each) per short ton. Coke from petroleum has a heating value of 6.024 million Btu per barrel.

### Coke breeze

The term refers to the fine sizes of coke, usually less than one-half inch, that are recovered from coke plants. It is commonly used for sintering iron ore.

### Coke button

A button-shaped piece of coke resulting from standard laboratory tests that indicates the coking or free-swelling characteristics of a coal; expressed in numbers and compared with a standard.

# Coked up

A British term for *carboned up* to indicate something covered in carbon.

# Coke oven gas

The mixture of permanent gases produced by the carbonization of coal in a coke oven at temperatures in excess of 1,000°C.

### Coke plants

Plants where coal is carbonized for the manufacture of coke in slot or beehive ovens.

# Coking

Thermal refining processes used to produce fuel gas, gasoline blendstocks, distillates, and petroleum coke from the heavier products of atomspheric and vacuum distillation. Includes: Delayed Coking, Flexicoking, and Fluid Coking

Cold

- 1. The relative absence of heat
- 2. A temperature considerably below normal.

#### Cold air

Air that is below the prevailing ambient temperature.

### Cold air induction

The induction system forces cold air into the <u>combustion chamber</u>. Because cold air is more dense than warm air, it contains more oxygen molecules. With more oxygen, fuel will burn more effectively and thus increase horsepower.

#### Cold air intake

The induction system forces cold air into the <u>combustion chamber</u>. Because cold air is more dense than warm air, it contains more oxygen molecules. With more oxygen, fuel will burn more effectively and thus increase horsepower.

# Cold cap

A process in retreading a tire where the tire is placed in a pressure <u>chamber</u> in a temperature range of 91°C to 100°C until bonding of the pre-cured tread rubber is achieved.

See

• Hot cap

# Cold Chisel

#### Cold Chisel

A thick pencil shaped tool with a sharp flat end like a blade screwdriver. When you hit the blunt end with a hammer, it forces the blade end into metal to mark it or even cut through it.

See

• Splitting chisel

#### Cold-condensate corrosion

The corrosion of the inside of an exhaust system by direct chemical attack resulting from an acidic, aqueous solution that condenses from the exhaust gas at relatively low temperatures and collects at the cooler rear portions of the exhaust system.

### Cold cranking ability

A measurement in amps of a battery's ability to start a vehicle under cold temperatures. A higher number is better than a lower one. Basic automobile batteries begin around 400 cold-cranking amps (which is only marginally acceptable in most vehicles). The best batteries are around 1000 cold-cranking amps.

# Cold cranking amps

Measurement of cranking amperes a battery can deliver over a period of 30 seconds at 0°F (-18°C).

# • Cold cranking ability

# Cold-cranking rating

The minimum number of amperes a fully charged 12-volt battery can deliver for 30 seconds at -18°C without falling below 7.2 battery volts

# Cold engine compensator

When an engine is cold a richer mixture of fuel is required. The cold engine injector supplies more fuel to compensate for the condensation of fuel against the cold combustion chamber walls and intake manifold

# Cold Filter Plugging Point

(CFPP) A measure of the ability of a diesel fuel to operate under cold weather conditions. Defined as the lowest temperature at which diesel fuel will pass through a fine wire mesh screen of the test apparatus.

# Cold forming

A process of shaping an object (esp. made of <u>stainless steel</u> without heating it or using only a little heat below recrystallization temperature. The object is pressed into shape by appropriate dies at high speed in order to give the object increased <u>tensile strength</u> and <u>hardness</u> as well as a decrease in <u>ductility</u>. Also called *cold heading* or *cold working* 

# Cold galvanizing

The application of zinc to prevent rusting. It can be applied by a paint with lots of zinc or by electroplating with zinc.

### Cold heading

- 1. A process of shaping an object (esp. made of <u>stainless steel</u> without heating it or using only a little heat below recrystallization temperature. The object is pressed into shape by appropriate dies at high speed in order to give the object increased <u>tensile strength</u> and <u>hardness</u> as well as a decrease in <u>ductility</u>. Also called *cold forming* or *cold working*
- 2. Forcing metal to flow cold into dies to form thicker sections and more or less intricate shapes. The operation is performed in specialized machines where the metal, in the form of a wire or bar stock, may be upset or headed in certain sections to a larger size and, if desired, may be extruded in other sections to a smaller diameter than the stock wire.

# Cold idle speed solenoid

# Cold Idle Speed Solenoid

A motor or solenoid operated by the computer can also be used to push a plunger against the throttle linkage in order to increase cold-idle speed.

# Cold in-place recycling

A system of re-using pavement that may have a lot of potholes, or is otherwise in poor shape. The top layer of old pavement (about 3 inches) is broken up with hand tools or by a paving machine. Asphalt binder is added to the ground up pavement, processed, and laid back down on the road. The paving machine will do this in one continuous operation. The new recycled mat will then be topped with a surface treatment or an asphalt overlay. This process is used on medium or low-volume roads.

# Cold junction

That part of a thermoelectric system which absorbs heat as the system operates.

#### Cold lash

The valve lash clearance, measured between the rocker arm and valve tip, when the engine is cold.

#### Cold manifold

An intake manifold not heated by exhaust gas

## Cold mixture Heater

(CMH) (CHM) A device which helps to reduce cold engine emissions and improve driveability during engine warm-up.

#### Cold plug

A spark plug which has a short insulator nose which absorbs less heat and dissipates heatquickly. A colder plug is used in a hot engine while a hot plug is used in a cold engine. Thus if the plugs are fouling too much, try a hotter plug. If the plugs are coming out white, try a colder plug. The ideal color of the center insulator nose should be a light chocolate brown.

#### Cold soak cleaner

A strong cleaning solvent used to dissolve and remove varnish on carburetor parts.

### Cold solder joint

A poor soldering technique where the solder has not quite melted enough to produce a good electrical contact.

## Cold spark plug

See

### Cold plug

### Cold spraying

A method of paint spraying where the paint is excessively diluted with solvent. This process makes spraying easy, but the coats are very light.

#### Cold start

Getting a vehicle started which has been sitting for some time and cooled down to ambient temperature. When temperatures reach -40°C, a vehicle may require three or four times as much battery power as it would during the summer. As well, the carburetor or fuel injection system needs to be much richer (more gasoline than air). Because condensation has a tendency to build up in the gas tank during the winter, the liquid going to the carburetor or fuel injectors may be diluted with water -- thus making starting more difficult. The application of isopropyl alcohol (marketed as *gasline antifreeze*) removes the water from the tank.

#### Cold starting

#### Cold start

#### Cold start injector valve

A device which supplies fuel under cold temperature depending on coolant temperature and the starter signal. Voltage is supplied by the <u>Fuel pump relay</u>

#### Cold start enrichment

A method of providing a higher ratio of fuel to air for starting a cold engine. In some cases, more fuel is fed into the engine with a <u>Cold start injector</u>; in other cases, the amount of air is restricted through the use of a <u>Choke</u>.

#### Cold start injector

A device in a fuel injection system which shoots an extra amount of fuel into the cylinder to increase the ratio of fuel to air.

#### Cold start valve

See

### • Cold start injector

## **Cold Swaging Process**

A method of working with steel or other material without application of heat to reduce or form it by drawing to a point or reducing the diameter, as required.

#### Cold wall

Refrigerator construction which has the inner lining of refrigerator serving as the cooling surface.

#### Cold weather modulator

(CWM) a vacuum modulator located in the air cleaner on some models. The modulator prevents the air cleaner duct door from opening to non-heated intake air when outside air is below 13°C. Similar to a temperature vacuum switch.

#### Cold Work

Metal stock that is deformed by hammering, forming, drawing, etc., while the metal is at room temperature and no heat is applied.

## Cold working

A process of shaping an object (esp. made of <u>stainless steel</u> without heating it or using only a little heat below recrystallization temperature. The object is pressed into shape by appropriate dies at high speed in order to give the object increased <u>tensile strength</u> and <u>hardness</u> as well as a decrease in <u>ductility</u>. Also called *cold forming* or *cold heading* 

#### Collagen

A gluey protein found in vertebrates. It forms the principal substance in connecting fibers and tissues and in bones, hydrolizing to gelatin when boiled with water to become the primary ingredient in <u>glue</u>

### Collapse

See

## • Piston collapse

## Collapsed piston

A <u>piston</u> whose <u>Skirt</u> diameter has been reduced due to heat and the forces imposed upon it during service in the engine.

See

Piston collapse

## Collapsible spare tire

A Space-saver spare.

# Collapsible steering column

When a vehicle is involved in an accident, the driver's chest is forced into the steering wheel. In older cars, the immovable steering column meant that the driver could sustain chest damage. The collapsible steering column telescopes or folds (articulate) so that chest damage is reduced.

#### Collar

- A sleeve that fits over a shaft.
- A collapsible wooden container or bin which transforms a pallet into a box.
- A flanged band or ring. A welded plate used to close a frame or beam penetration through plating.

#### See

- Angle Collar
- <u>Hexagonal collar</u>
- Underhead collar
- Valve spring collar

#### Collect

See Driver Collect.

#### Collectible car

An older vehicle which may or may not fit in a particular classification but is significant in its own right.

See

- antique car
- classic car
- late model car
- milestone car
- modified car
- muscle car
- street rod
- vintage car

#### Collector

1. A person who accumulates specialty vehicles

2. Semiconductor section of transistor, connected to the same polarity as the base.

#### See

- Air collector
- Current collector
- Liquid Collector
- Low Temperature Collectors
- Medium-Temperature Collector
- Solar collector
- Solar Thermal Collector
- Special Collector
- <u>Unglazed Solar Collector</u>

#### Collector car

An older car which may not fit into the category of a <u>classic car</u> or a <u>milestone car</u>, but it has nostalgic appeal.

#### Collectors

In rural areas, routes serving intra-county, rather than statewide travel. In urban areas, streets providing direct access to neighborhoods as well as direct access to arterials.

## Collect Shipment

Shipment where collection of freight charges/advances is made by delivering carrier from the consignee/receiver.

#### Collet

A removable ring or collar which fits into a groove to hold something in place.

#### Collier

Vessel used for transporting coal.

#### Collision

See

### • Head-on collision

### Collision avoidance system

Electronic system used to prevent collisions in inland navigable waterways.

## Collision bulkhead

The foremost main transverse watertight bulkhead designed to keep water out of the forward hold in case of bow collision damage. Also called <u>Forepeak bulkhead</u>

#### Collision insurance

Insurance coverage that pays to repair damages to your vehicle when it is involved in an accident.

#### Colloids

Miniature cells peculiar to meats, fish, and poultry which, If disrupted, cause food to become rancid. Low temperatures minimize this action.

#### Co-load

Two shipments from different terminals combined to ship as one load.

## Colonnade hardtop

## Colonnade Hardtop

In architecture, the term colonnade describes a series of columns, set at regular intervals, usually supporting an entablature, roof, or series of arches. To meet US federal rollover standards in 1974 (standards that never emerged), General Motors introduced two-door and four-door pillared body types with arch-like quarter windows and sandwich type roof construction. They looked like a cross between true hardtops and miniature limousines. Both styles proved popular (especially the coupe with louvered coach windows and canopy top) and the term colonnade was applied. As their *true* hardtops disappeared, other manufacturers produced similar bodies with a variety of quarter-window shapes and sizes. These were known by such terms as hardtop coupe, pillared hardtop, or operawindow coupe.

#### Color

See

- Four color
- Identification color
- Integral color anodizing
- Off color
- Paint color matching

## Color anodizing

See

• <u>Integral color anodizing</u>

#### Color chart

A listing of paint samples of available exterior paint for a vehicle.

#### Color coat

A coat of paint with the final color. Sometimes a clear coat is applied over it.

#### Color code

Use of different base colors and colored tracers on insulation of electrical wire for purpose of identification.

#### Color-coded

- 1. Something that is colored the same as the main part of the bodywork. Also called *color-keyed* or *color-matched*.
- 2. A series of similar things in which each one is a different color to distinguish one from the other, such as the wiring (e.g., the red wire goes from the battery to the fuse box, the blue wire goes from ... to the ...).

#### Colored

• Body-colored

### Colorimeter

See

• <u>Tag-Robinson Colorimeter</u>

## Color-keyed

See

Color-coded

#### Color-matched

See

Color-coded

## Color matching

See

• Paint color matching

#### Color scheme

The combination of exterior colors which harmonize, e.g., A maroon body and a white roof.

#### Columbium

A metal which may be added to chrome-nickel stainless steel to improve its welding and general heat-resistant qualities, by preventing carbide precipitation.

## Columbus

Italian manufacturer of high quality bicycle frame tubes.

#### Column

See

- Collapsible steering column
- Energy absorbing steering column
- Height adjustable steering column
- Mercury Column
- Steering column
- Telescopic steering column
- Tilt column
- Water Column

# Column changer

See

• Column shifter

#### Column controls

See

• Steering column controls

## Column gear changer

See

• Column shifter

#### Column shifter

A gear changer lever and mechanism which is located on the steering column below the steering wheel. In Britain it is called a *column changer* or *column gear changer*.

#### Combi

Vessel designed for a combination of passengers, and different types of cargo.

#### Combination

- A vehicle like a motorcycle with sidecar
- A truck or tractor coupled to one or more trailers or semi-trailers.

#### Combination brake system

A dual brake system that uses disc brakes at the front wheels and drum brakes at the rear wheels

## Combination lamp

A light or group of lights which serves two or more purposes. For example, the rear combination lamp illumines the running lights (i.e., the ones that are turned on when the headlight is turned on) and brake light and/or the signal light

## Combination pliers

A British term for a Lineman's pliers or slip-joint pliers

## Combination spanner

A British term for Combination wrench

Combination tooth lock washer

#### Combination tooth lock washer

A hardened circular washer with twisted prongs of teeth protruding from both the inside and the outer edge of the washer.

#### Combination valve

- 1. A brake system hydraulic control device includes a pressure differential valve, metering valve, and proportioning valve
- 2. A hydraulic valve usually incorporating a pressure differential warning switch, a metering valve and a proportioning valve. Not all combination valves contain all of these control valves

3. A single housing that combines two or more hydraulic valves used in a braking system

#### Combination Vehicle

A vehicle made up of two or more separate units hooked together, such as a tractorsemitrailer combination. Also called an articulated vehicle since units pivot at the coupling point.

See

- Long Combination Vehicle
- Longer Combination Vehicle

## Combination weight

See

• Gross combination weight

Combination wrench

Combination Wrench

A flat wrench with a hex ring at one end and an open end at the other.

Combined weight rating

See

Gross Combined Weight Rating

#### Combiner

See

• Holographic combiner

Combo

See

• Shifters brake Lever Combo

# Combustible dust

See

• Respirable Combustible Dust

## Combustible liquids

A liquid having a flash point at or above 37.8°C. They are subdivided as follows:

- 1. Class II Liquids--Those having flash points at or above 37.8°C and below 60°C.
- 2. Class IIIA Liquids--Those having flash points at or above 60°C and below 93.4°C.
- 3. Class IIIB Liquids--Those having flash points at or above 93.4°C.

#### Combustible materials

Items adjacent to or in contact with heat-producing devices (e.g., engine, manifold, exhaust pipe, muffler, heater, warm air ducts, etc.) which are made of or surfaced with wood, compressed paper, plant fibers, or other materials that are capable of being ignited and burned. Such materials shall be considered combustible even though flameproofed, fire-retardant treated, or plastered.

#### Combustion

- 1. The rapid oxidation of fuel accompanied by the production of heat, or heat and light.
- 2. The intense burning of the <u>fuel-air mixture</u> in the <u>combustion chamber</u> to create power. Some used to think that the fuel-air mixture exploded; but further investigation has shown that it rapidly burns.

#### See

- Combustion chamber volume
- combustion chamber
- Compression ignition
- Controlled combustion system
- External combustion engine
- Fireball combustion chamber
- Gross Heat Of Combustion
- Hemispherical combustion chamber
- internal combustion engine
- Main combustion chamber
- Net Heat Of Combustion
- Pent-roof combustion chamber
- Pre-combustion chamber
- Swirl Combustion
- Wedge combustion chamber

#### Combustion air

Air required for safe and proper combustion of fuel gas.

### **Combustion Chamber**

1.

Combustion Chamber

The <u>volume</u> of the space in the <u>cylinder</u> above the <u>piston</u> with the piston at <u>top</u> <u>dead center</u> (TDC) in the <u>compression stroke</u>. The <u>head of the piston</u>, the <u>cylinder walls</u>, and the <u>head</u> form the <u>chamber</u>. Combustion of the <u>fuel-air mixture</u> begins here when ignited by a <u>spark plug</u>. The design and shape of the combustion chamber can affect power, <u>fuel efficiency</u>, and emissions of an engine. Several combustion chamber shapes have been used including <u>Hemispherical combustion chamber</u>, <u>Bathtub combustion chamber</u>, <u>Wedge combustion chamber</u>, <u>Squish combustion chamber</u>, and <u>Piston-crown combustion chamber</u>.

- 2. An enclosed vessel in which chemical oxidation of fuel occurs.
- 3. The area at the top of the cylinder where the fuel charge burns and pushes the piston down

#### See

- Annular Combustion Chamber
- Cannular Combustion Chamber
- Fireball combustion chamber
- Hemispherical combustion chamber
- Main combustion chamber
- Pent-roof combustion chamber
- Spherical combustion chamber
- Twin swirl combustion chamber
- Wedge combustion chamber

#### Combustion chamber recess

The area where combustion occurs in a rotary piston engine

#### Combustion chamber volume

<u>volume</u> of combustion chamber (space above <u>piston</u> with piston on TDC) measured in cc (cubic centimetres).

#### Combustion controls

A device which automatically regulates the firing rate at predetermined air-fuel ratios in accordance with load demand.

See

• Modulating Combustion Controls

## Combustion engine

See

- External combustion engine
- internal combustion engine

#### Combustion pressure

The pressure created during the combustion of the air/fuel mixture in the cylinder, measured in pounds per square inch.

#### **Combustion Process**

See

### • Pulse Combustion Process

## Combustion products

Constituents resulting from the combustion of a fuel with oxygen. For combustion processes that obtain oxygen from air, this includes the inert gases contained in air but excludes excess air used in the combustion.

## Combustion residue

Carbon and other deposits resulting from combustion.

# Combustion space

See

• combustion chamber

## Combustion system

See

Controlled combustion system

#### Comeback

- 1. A repair job which has been returned to the dealer because of a repeat problem. Usually the dealer is responsible to repair it properly at no charge to the customer.
- 2. Trucker slang for a return call or repeat as in 'Can I get a come back on that smokey report?'

#### Comedian

Trucker slang for median strip as in 'Smokey's in the comedian taking pictures.'

#### Come on

A situation where a vehicle buyer is led to believe one thing but it turns out to be really something else.

#### CO meter

A device for checking exhaust gases for carbon monoxide, a high level indicates an overrich mixture as well as causing pollution.

## Comet head

A cylinder head with a swirl chamber for indirect injection diesel engines.

#### Comfort

A designation of some automobiles as a basic or standard line usually abbreviated as 'C' Comfort chart

Chart used in air conditioning to show the dry bulb temperature, humidity, and air movement for human comfort conditions.

#### Comfort cooler

System used to reduce the temperature in the living space in homes. These systems are not complete air conditioners as they do not provide complete control of heating, humidifying, dehumidification, and air circulation.

#### Comfort Luxe

An automobile designation (abbreviated as CL) which has more luxury appointments than a *Comfort* but less than a Grand Luxe (GL).

#### Comfort zone

Area on psychrometric chart which shows conditions of temperature, humidity, and sometimes air movement in which most people are comfortable.

#### Comic book

Trucker slang for Truck driver's log book as in 'The chicken coops checking comic books this morning.'

## Coming on the cam

The term used when a four stroke reaches its powerband

# Coming on the pipe

The term used when a two stroke reaches its powerband Comma dolly

# Comma dolly

A <u>Dolly</u> in the form of a comma to shape and straighten dented panels, usually by holding the dolly behind the metal to be shaped and hammering the metal.

## **Commerce Commission**

See

#### Interstate Commerce Commission

#### Commercial Driver's License

(CDL) A US license which authorizes an individual to operate commercial motor vehicles and buses over 26,000 pounds gross vehicle weight. For operators of freight-hauling trucks, the maximum size which may be driven without a CDL is Class 6 (maximum 26,000 pounds gross vehicle weight). In Canada it is called a *Class 1 license*.

#### Commercial Invoice

Itemized list issued by seller/exporter in foreign trade showing quantity, quality, description of goods, price, terms of sale, marks/numbers, weight, full name/address of purchaser, and date.

## Commercial Motor Vehicle

A motor vehicle or combination of motor vehicles used in commerce to transport passengers or property if the motor vehicle meets one of the following

- has a gross combination weight rating greater than or equal to 26,000 lb. including a towed unit with a gross vehicle weight rating of at least 10,000 lb.
- has a gross vehicle weight rating of at least 26,001 lb.
- is designed to transport 16 or more passengers including the driver

• a motor vehicle of any size that transports hazardous materials of any kind.

#### Commercial tire

A tire which is designed for truck and industrial use.

#### Commercial vehicle

A vehicle (like a truck or bus) used for carrying goods or large numbers of passengers for money.

## Commissioned agent

An agent who wholesales or retails a refined petroleum product under a commission arrangement. The agent does not take title to the product or establish the selling price, but receives a percentage of fixed fee for serving as an agent.

## Commodity

Anything bought and sold (e.g., goods, products, paper, articles of merchandise) that is offered for shipment.

## Commodity exempt

See Exempt commodity

## Commodity Rate

- A special (usually lower) rate for specific types of goods (usually exempt commodities).
- A rate lower than class rates, established to cover the movement of a specific customer's freight or for a specific group of customers.

#### Common Carrier

A freight transportation company which serves the general public. It may be a regular route service (over designated highways on a regular basis) or irregular route (between various points on an unscheduled basis).

## Common Rail Injection

A diesel fuel injection system employing a common pressure accumulator, called the rail, which is mounted along the engine block. The rail is fed by a high pressure fuel pump. The injectors, which are fed from the common rail, are activated by solenoid valves. The solenoid valves and the fuel pump are electronically controlled. In the common rail injection system the injection pressure is independent from engine speed and load. Therefore, the injection parameters can be freely controlled. Usually a pilot injection is introduced, which allows for reductions in engine noise and NOx emissions.

### Common sump lubrication

System in which the same oil is used to lubricate the engine, transmission, and primary drive.

#### Communication systems

Closed intercom system installed on some touring motorcycles. Can include a CB radio on some models.

### Community car

Vehicle operated for community or voluntary purposes.

## Community Safety Strategy

Policy document aimed at reducing crime, anti-social behaviour and the fear of crime (esp. car theft).

## Community transport

Voluntary transport provision for groups with special access needs.

#### Commutator

- 1. A series or ring of copper bars that are connected to the <u>Armature</u> windings. The bars are insulated from each other and from the armature. The <u>Brushes</u> (as in the <u>Generator</u> or <u>starter</u>) rub against the whirling commutator.
- 2. Part of rotor in electric motor which conveys electric current to rotor windings.

#### See

- Cylindrical Commutator
- Radial Commutator

#### Commutator motor

See

• AC Commutator Motor

#### Compact

See

- Compact car
- Compact SUV
- Sub-compact

## Compact car

A designation no longer used because even *full-size cars* are now about the size of what was the compact car. In 1970, for instance, a Chevrolet Impala was a full-size car, a Chevelle was an intermediate, a Nova was a compact. When cars smaller than the Nova came out (i.e., Chevette), they were called sub-compacts.

#### Compacted snow

Snow that has been compressed by the movement of traffic and has bonded to the road surface

#### Compaction

Compressing roadway materials to their optimum density, providing a strong, stable surface.

#### Compactor

A device used to compact things, particularly garbage. Found on the back of refuse trucks.

## Compact SUV

Compact sport utility vehicle usually based on a car chassis rather than a truck chassis. They include such models as Ford Escape, Honda CR-V, Hyundai Tucson, Jeep Compass, Jeep Liberty, Jeep Patriot, Kia Sportage, Mazda Tribute, Mercury Mariner, Nissan Rogue, Saturn Vue, Suzuki Grand Vitara, Toyota RAV4. See

# • Premium Compact SUV

### Companionway

An access way in a deck, with a ladder leading below, for the use of the crew Company automotive outlet

Any retail outlet selling motor fuel under the brand name of a company reporting in the EIA Financial Reporting System.

## Company car

A vehicle owned by an <u>organization</u> rather than an individual. It may be operated by only one person or by several employees. A company car is great for business trips to Vegas conventions or when you're trying to find hotels in Chicago.

## Company-lessee automotive outlet

One of three types of <u>Company automotive outlets</u>. This type of outlet is operated by an independent marketer who leases the station and land and has use of tanks, pumps, signs, etc. A lessee dealer typically has a supply agreement with a refiner or a distributor and purchases products at dealer tank wagon prices. The term includes outlets operated by commissioned agents and is limited to those dealers who are supplied directly by a refiner or any affiliate or subsidiary company of a refiner.

## Company logo

An emblem which represents all or part of a company's trademark.

## Company-open automotive outlet

One of three types of company automotive (retail) outlets. This type of outlet is operated by an independent marketer who owns or leases (from a third party that is not a refiner) the station or land of a retail outlet and has use of tanks, pumps, signs, etc. An open dealer typically has a supply agreement with a refiner or a distributor and purchases products based on either rack or dealer tank wagon prices.

# Company-operated automotive outlet

One of three types of company automotive (retail) outlets. This type of outlet is operated by salaried or commissioned personnel paid by the reporting company.

#### Company-operated retail outlet

Any retail outlet (i.e., service station) which sells motor vehicle fuels and is under the direct control of a firm that sets the retail product price and directly collects all or part of the retail margin. The category includes retail outlets operated by

- 1. salaried employees of the firm and/or its subsidiaries and affiliates,
- 2. licensed or commissioned agents, and/or personnel services contracted by the firm.

#### Comparison and identification

See

• Program comparison and identification

#### Compartment

A subdivision of space or room in a vehicle or ship. See

- Battery compartment
- Cassette compartment
- Cluttered engine compartment
- Crowded engine compartment
- Engine compartment
- Glove compartment
- Passenger compartment

#### Compartmentation

The subdividing of the hull by transverse watertight bulkheads so that the ship may remain afloat under certain flooding conditions

## Compass

An instrument with a magnetic needle which is mounted on the <u>instrument panel</u> to give the driver an idea of where magnetic north might be.

See

• Beam Compasses

### Compass display

A digital readout of the direction in which the vehicle is pointed. Usually displayed on the <u>instrument panel</u>, headliner, or the mirror

Compass mirror

**Compass Mirror** 

An inside rear view mirror which incorporates a compass in one corner Compatible

See

• <u>Look Compatible</u>

Compensated Intracorporate Hauling

A freight transportation service provided by one company for a sister company. Compensating bar

See

Compensator

Compensating jet

Click image to supersize Compensating Jet

A fuel tube or pipe in the <u>carburetor</u>, into which air is admitted through one or more holes to compensate for a tendency of the main <u>Nozzle</u> to deliver too rich a mixture as the air velocity through the <u>carburetor</u> increases. Also called <u>Air bleed</u>.

## Compensating port

A small hole in a <u>Brake master cylinder</u> to permit fluid to return to the reservoir. Compensating Resistor

See

Load Compensating Resistor

# Compensation

See

- Altitude Compensation System
- Attenuation Compensation
- Backlight Compensation
- Bass Compensation

## Compensator

A horizontal bar which is pulled forward when the parkbrake is applied at its central point, which is pivoted, while it is connected at each end to the parkbrake cable, enabling equal force to be exerted on each rear brake.

See

- Aneroid Altitude Compensator
- Hot Idle Compensator
- Temperature Compensator

#### Compensator valve

A valve in <u>automatic transmissions</u> designed to increase the pressure on the <u>brake band</u> during heavy <u>acceleration</u>.

## Competition

## • <u>Interchannel competition</u>

### Competition car

A vehicle which is designed to compete in races, hill climbs, and rallies.

### Complete respray

Painting the entire component or entire vehicle as opposed to a partial respray

#### Completion

In the oil or gas production, the installation of permanent equipment for the production of oil or gas. If a well is equipped to produce only oil or gas from one zone or reservoir, the definition of a Well (classified as an oil well or gas well) and the definition of a completion are identical. However, if a well is equipped to produce oil and/or gas separately from more than one reservoir, a well is not synonymous with a completion.

## Completion date

In oil and gas production, the date on which the installation of permanent equipment has been completed as reported to the appropriate regulatory agency.

- The date of completion of a dry hole is the date of <u>abandonment</u> as reported to the appropriate agency.
- The date of completion of a service well is the date on which the well is equipped to perform the service for which it was intended.

## Compliance

A slight resiliency, or *give*, designed into <u>suspensionbushings</u> to help absorb bumps. Good compliance allows the wheels to move toward the rear a little as they hit bumps but does not allow them to move laterally (sideways) during cornering.

#### Compliance Certification Label

See

• <u>Safety Compliance Certification Label</u>

## Compole

An auxiliary pole used on a commutator machine. The pole is placed between the main poles for the purposes of producing an auxiliary flux to assist commutation.

#### Component

- 1. One of the parts that make up the whole system or device, as in The <u>brake pad</u> is a component of the <u>brake system</u>.
- 2. A raw material, ingredient, part or subassembly that goes into a higher level assembly, compound, or other item.

- Body component
- Cell Components
- Motor Gasoline Blending Components
- Primary structure component

## • Shared component

### Component anti-lock brake system

A type of anti-lock brake system in which the hydraulic control unit is not a part of the master cylinder/power booster assembly.

## Component assembly

A combination of two or more parts or sub-components to form an assembly.

## Component design

The activity for the design of specific components including responsibility for material, cost, weight, reliability, durability, function, appearance, and serviceability.

## Components

The various parts that make up the whole system or device.

## Component sharing

The use of the same basic parts used in different models -- even in models from different manufacturers.

## Composite

Any material that consists of two or more substances where one or more of them are high strength fibers and another is an adhesive <u>binder</u>. The most common composite is <u>fiberglass</u>, which consists of thin glass fibers bonded together in a plastic matrix. The structural properties of composites can be altered by controlling the orientation and configuration of the high-strength <u>components</u>.

## Composite brake drum

A brake drum made from two different metals. All composite drums have cast-iron friction surfaces.

### Composite headlamps

Reflector and lens system designed for specific vehicle model

## Composite headlight

A non-sealed beam <u>headlight</u> used in the US since 1984, but available in other countries much earlier. Unlike the <u>Sealed beam headlight</u>, the lens and bulb are separate units. When the <u>Bulb</u> fails, you can replace just the bulb, not the whole unit. Lenses come in a variety of shapes and are designed for a specific vehicle. Even the left side differs from the right on the same vehicle. While sealed-beam headlights are mass produced for almost all early vehicles, composite headlight lenses are low production and can be very costly to replace.

## Composite material

Structural material made of two or more different materials

#### Composite MPG

See

### • EPA Composite MPG

### Composite propeller shaft

A single-piece propeller shaft made of fiber-reinforced epoxy in which the fibers are usually glass and/or carbon.

## Composition

- Antifouling Composition
- Boiler Compositions

## Compound

- 1. Two or more ingredients mixed together.
- 2. An <u>abrasive</u> paste or liquid that smooths and <u>polishes</u> the painted surface.

#### See

- Anti-drum compound
- Antiseize Compound
- Cutting compound
- <u>Dielectric Silicone Compound</u>
- Gauge Compound
- Intermetallic compound
- Nonmethane Volatile Organic Compounds
- Ozone compound
- Rubbing compound
- Sheet molding compound
- Valve grinding compound
- Volatile Organic Compounds

### Compound carburetor

A carburetor with more than one choke. Usually there are two one for the large throttle opening and one for the small throttle opening, but they fit to a single port

## Compound center electrode

Also called Compound electrode

## Compound electrode

A spark plug with a copper core and a jacket of a nickel-based alloy.

## Compound gauge

- 1. A gauge that can indicate both pressure and vacuum.
- 2. Another name for the <u>Low side gauge</u>, because it can indicate both pressure and vacuum

## Compound glass

See

• Laminated glass

## Compounding

See

• Pre-compounding

### Compound motor

A direct current electric motor with two separate field windings, one in parallel and the other in series with the armature circuit; used as a starter motor

## Compound refrigerating systems

System which has several compressors or compressor cylinders in series. The system is used to pump low-pressure vapors to condensing pressures.

## Compound winding

Two electric windings -- one in series, the other in shunt or parallel with other electric units or equipment. Applied to electric motors or generators -- one winding is shunted across the armature; other is in series with the armature.

### Comprehensive insurance

Insurance coverage that pays for damages to your car, its accessories, spare parts against loss or damage caused by an accidental collision, fire, theft, vandalism, typhoon, earthquake, and flooding. It will also pay expenses to have the disabled vehicle towed to the repair shop and expenses to return the vehicle back to you when the repairs are completed. It also covers for the death and bodily injury of the insured or driver; loss or damage to someone else's property as a result of the accident; legal liabilities to the death or bodily injury of the third party arising from the accident; legal liabilities to the damage to property of the third party arising from the accident; loss or damage to the property of the spouse(s) or the child(ren) of the insured or driver; and medical expenses of the insured or driver's injury caused by the accident.

## Compress

To place under pressure or to squeeze into a small space. See

#### Pre-compress

#### Compressed-air spray gun

A paint gun which makes a fine spray of paint for coating the surface.

#### Compressed natural gas

(CNG) Natural gas comprised primarily of methane that has been compressed under high pressures, typically between 2000 and 3600 psi, and held in a container. The gas expands when released for use as a fuel for natural gas powered vehicles. See

#### Natural gas

#### Compression

- 1. Applying pressure to a spring, or any springy substance, thus causing it to reduce its length in the direction of the compressing force.
- 2. Applying pressure to a gas, thus causing a reduction in <u>volume</u> but an increase in pressure and temperature.
- 3. Increased pressure caused as volume is reduced. Also movement of suspension components against spring pressure caused by a force against wheel.

- 4. One of the essential factors in an <u>internal combustion engine</u> (fuel, air, proper proportion of mixture, compression, <u>timing</u>, and <u>spark</u>). It is the squeezing of the <u>fuel-air mixture</u> in the <u>cylinder</u> of a spark-ignition engine or the squeezing of the air in a <u>diesel engine</u>. Compression makes the process of <u>combustion</u> more effective and increases engine <u>efficiency</u>.
- 5. Term used to denote increase of pressure on a fluid by using mechanical energy.
- 6. Reduction in volume and increase in pressure and temperature of a gas caused by squeezing it into a smaller space
- 7. A system of forces that reduces the volume occupied by a specific quantity of gaseous material.
- 8. Natural gas is compressed during transportation and storage. The standard pressure that gas volumes are measured at is 14.7 psi. When being transported through pipelines, and when being stored, gas is compressed to save space. Pipelines have compressing stations installed along the line (one about every 100 miles) to ensure that the gas pressure is held high while the gas is being transported. Current pipelines can compress natural gas to nearly 1500 psi, but most tend to operate at closer to 1000 psi.

#### See

- Adiabatic Compression
- Automatic Volume Compression
- Crankcase compression
- Grooved compression ring
- Heat Of Compression
- High compression head
- Primary compression
- Primary compression ratio
- Secondary compression

## Compression check

Testing the <u>compression</u> in all the <u>cylinders</u> at <u>Crankingspeed</u>. All plugs are removed, the <u>Compression gauge</u> placed in one plug hole, the <u>throttle Cracked</u> wide open and the engine cranked until the gauge no longer climbs. The compression check is a good way in which to determine the condition of the valves, rings, and <u>cylinders</u>.

### Compression damping

The control of the movement as the shock compresses as it hits a bump. Rebound damping refers to controlling the movement as the shock extends back to its relaxed position.

## Compression gage

See

Compression gauge

## Compression gauge

- 1. A gauge used to measure the <u>compression</u> in the <u>cylinders</u>. A poor compression reading can indicate that there is leakage through the valves or the <u>piston rings</u>. In <u>two stroke</u> engines, it could indicate that there is poor <u>primary compression</u> because of a leak in the <u>crankshaft</u> seals.
- 2. Instrument used to measure positive pressures (pressures above atmospheric pressures) only. Gauge dial usually runs from 0 to 300 lb. per sq. in. gauge, (psig) (101.3-2 170 kPa).

# Compression head

See

• High compression head

### Compression height

The distance from the wrist-pin-bore center to the top of the piston.

# Compression ignition

(CI)

- 1. <u>combustion</u> of a <u>fuel-air mixture</u> without <u>spark</u>. In the <u>diesel engine</u>, air is drawn into the <u>cylinder</u> and compressed to a temperature sufficiently high that fuel oil injected at the end of the <u>compression stroke</u> burns in the <u>cylinder</u> without a spark to initiate <u>combustion</u>. A prank played on new employees is to send them on a search for the <u>spark plugs</u> for a diesel engine -- they don't exist.
- 2. The form of ignition that initiates combustion in a diesel engine. The rapid compression of air within the cylinders generates the heat required to ignite the fuel as it is injected.

#### Compression leakage

In an engine, when some gases escape past the piston because the rings or cylinder walls are worn, the compression is reduced so that there is less efficiency.

### Compression molding

The shaping of molding material by softening it under pressure and the action of heat, and forcing it through a hole into a hollow space which it completely fills. See

Molding

#### Compression moulding

British term for Compression molding

Compression ratio

1. When the <u>piston</u> is at the bottom of its travel (BDC), the <u>volume</u> of <u>cylinder</u> is measured (suppose the volume is X). Then the piston is placed at the top of its travel (TDC) and the volume of the <u>cylinder</u> is measured (suppose this volume is Y). The compression ratio is a comparison of these two values expressed as XY. Then the values are mathematically changed so that the second number is always

- 1. Thus you hear of ratios like10.51 or 9.51 or 81. The higher the compression ratio, the more mechanical energy an engine can squeeze from its <u>air-fuel mixture</u>. Higher compression ratios, however, also make <u>Detonation</u> more likely.
- 2. Ratio of the volume of the clearance space to the total volume of the cylinder. In refrigeration it is also used as the ratio of the absolute low-side pressure to the absolute high-side pressure.

See

Primary compression ratio

## Compression ring

A ring which surrounds the <u>piston</u> and fits in a grove in the piston. It is designed to seal the burning fuel charge above the piston. Generally there are two compression rings per piston and they are located in the two top <u>ring grooves</u>. They also help to transfer heat from the piston into the <u>cylinder walls</u> and subsequently to the <u>water jacket</u> surrounding the <u>cylinder</u>.

See

- Grooved compression ring
- <u>Tapered compression ring</u>

Compression spring

Coil Compression Spring

An open-coil, <u>Helical</u> spring that offers <u>resistance</u> to a compressive form. Compression stroke

Compression Stroke

The second stroke of the <u>Four-stroke cycle</u>, in which the <u>piston</u> moves upward from <u>Bottom dead center</u> to <u>Top dead center</u>, compressing the <u>fuel-air mixture</u>.

#### Compression test

Diagnostic test used to determine how much power each cylinder can produce based on compression pressure.

## Compression tester

A device which is screwed or pushed into the spark plug hole so that when the engine is turned over, it measures the amount of compression in that cylinder.

#### Compressive Stresses

Stresses that act to compress a material and place the material in compression. Compressor

- 1. A device used for increasing the pressure and density of gas.
- 2. Pump of a refrigerating mechanism which draws a low pressure on cooling side of refrigerant cycle and squeezes or compresses the gas into the high-pressure or condensing side of the cycle.
- 3. A tool for compressing a coil spring, such as a valve spring.
- 4. An air conditioning component which pumps, circulates, and increases the pressure of refrigerant vapor
- 5. A mechanism in a refrigerator or <u>air conditioner</u> that <u>pumps Vaporized refrigerant</u> out of the <u>evaporator</u>, compresses it to a relatively high pressure and then delivers it to the <u>condenser</u>.

6.

## Compressor

A device which produces pressurized air for filling tires and running air-powered tools

- Air compressor
- Axial Compressor
- Axial-flow Compressor
- Centrifugal Compressor
- Clearance Pocket Compressor
- Fuel gas compressor
- Hermetic Compressor
- <u>Inline Compressor</u>
- Muffler Compressor
- Multiple Stage Compressor
- Open Compressor
- Open Type Compressor
- Piston compressor
- Piston-type compressor
- Positive displacement compressor
- Radial Compressor
- Reciprocating compressor
- Roots compressor
- Rotary Blade Compressor
- Rotary Compressor
- Semihermetic Compressor
- Single-stage Compressor
- Spring compressor
- Stationary Blade Compressor
- Valve spring compressor
- <u>Vanes Compressor</u>

- Variable Displacement Compressor
- V-type Compressor

## Compressor, centrifugal

Pump which compresses gaseous refrigerants by centrifugal force.

## Compressor control

See

#### • Motor control

## Compressor cut-off switch

A device used by some manufacturers to prevent compressor operation. Such as the wide open throttle (WOT) cut-off switch, low pressure switch, and high pressure switch

## Compressor discharge switch

A device that shuts off the compressor when refrigerant pressure is low. The switch is wired in series between the compressor clutch and the control panel switch

### Compressor displacement

Volume, in cubic inches, represented by the area of the compressor piston head or heads multiplied by the length of the stroke.

### Compressor, hermetic

Compressor in which the driving motor is sealed in the same dome or housing as the compressor.

## Compressor impeller

An impeller of a turbocharger driven by the turbine at speeds up to 160,000 rpm, which accelerates by centrifugal force the charge air which enter axially and leaves radially at a very high velocity.

# Compressor muffler

Sound absorber chamber in refrigeration system. Used to reduce sound of gas pulsations. Compressor, multiple stage

Compressor having two or more compressive steps. Discharge from each step is the intake pressure of the next in series.

#### Compressor, open type

Compressor in which the crankshaft extends through the crankcase and is driven by an outside motor. Commonly called external drive compressor.

# Compressor pressure ratio

In a turbocharger system, the ratio between the absolute pressure at the compressor outlet and the compressor inlet

### Compressor ratio

In a turbocharger system, the ratio between the volume in the cylinder when the piston is at the bottom of its stroke and the volume in the cylinder when the piston is at the top of its stroke

### Compressor, reciprocating

Compressor which uses a piston and cylinder mechanism to provide pumping action.

## Compressor, rotary

Compressor which uses vanes, eccentric mechanisms, or other rotating devices to provide pumping action.

### Compressor seal

Leakproof seal between crankshaft and compressor body in open type compressors.

## Compressor shaft seal

A seal in an air conditioner compressor, surrounding the compressor shaft, that permits the shaft to turn without the loss of refrigerant or oil

## Compressor Signal

See

• Air Conditioner Clutch Compressor Signal

## Compressor, single-stage

Compressor having only one compressive step between low-side pressure and high-side pressure.

## Compressor station

Any combination of facilities that supply the energy to move gas in transmission or distribution lines or into storage by increasing the pressure.

### Comprex supercharger

A supercharger using the pressure waves created by the expanding exhaust gases to compress the inlet charge. Also called *pressure wave supercharger*.

## Companion flanges

Shaft attached collars of stainless steel into which a threaded piece may be joined.

### Comparator

A device for inspecting screw threads and outlines by comparing them with a greatly enlarged standard chart.

#### Computer

- 1. A device which calculates information and sends the results to a specific destination. In automobiles, computers are used to regulate fuel flow, control the air conditioner, display speed, time, ETA, etc.
- 2. Series of electrical components which accept inputs from an operator and controls outputs.
- 3. A device which controls the engine's fuel and ignition systems

#### See

- Diagnostic computer
- ECU
- Fuel computer
- On-board computer
- PCM
- Spark control computer
- Trip computer

#### Computer-aided

Something which has been helped or designed by a computer.

Computer brake control

#### Anti-skid

### Computer command control

(CCC) an electronically-controlled fuel metering system used on GM vehicle. Uses an oxygen sensor, a throttle position sensor and other information sensors to provide a computer with the data it needs to alter the air/fuel ratio via mixture control solenoid in the carburetor

## Computer command control system

(C-3) an earlier engine management system used on GM vehicles. (C-4) A later engine management system used on GM vehicles

# Computer-controlled

A function or component which is monitored or activated by a computer

# Computer Controlled Catalytic Converter

(C-4) A later engine management system used on General Motors vehicles.

## Computer controlled coil ignition

(C3I) GM's computerized ignition coil system, used on many different engine applications

## Computer controlled timing

(CCT) a system that feeds input from various engine sensors into a computer. The computer then matches spark timing exactly to engine requirements throughout its full range of operations

## Computerized Controller

See

• Centralized Computer Controller

#### Computer languages

Specific wording or codes, such as BASIC, FORTRAN, and COBOL, which direct a computer to accept and store information and control outputs.

## Computer Module

See

• Body Computer Module

#### Con

See

- Forked con rod
- Master con rod

#### Concave drum

A deformed brake drum in which the diameter at the center of the friction surface is greater than that at the ends. Contrast Convex drum

Concave weld face

A weld having the center of its face below the weld edges

### Concealed Damage

Damage to product that is not obvious until the product is examined or the condition becomes apparent during storage or transfer. Responsibility and compensation for the damage may rest in whole or in part with the shipper, receiver, or transport.

## Concealed headlamps

Headlamp doors close to create a flush fitting surface to reduce air resistance in headlamp area

## Concealed headlights

# Concealed Headlights

Headlight which (when not lit) is hidden behind a panel. When the headlight switch is turned on, vacuum or an electric current is applied to a controller which opens the panel exposing the light. Also called *hide-away headlights* or *pop-up headlights*.

#### Concentration

See

#### • Stress concentration

#### Concentration ratio

The amount light is magnified by a focusing system. For example, if a lens or reflector system increases the power density of sunlight from the normal 1.0 kilowatt/square metre to 3.0 kilowatt/square metre, a magnification of three times, the concentration ratio is 3 to 1.

#### Concentrator

A reflective or refractive device that focuses incident insolation onto an area smaller than the reflective or refractive surface, resulting in increased insolation at the point of focus.

### Concentrator cell

A solar cell designed for power densities much greater than the normal power density of sunlight at the surface of the earth. Concentrator cells can be used with focusing arrangements that increase the power density of sunlight hundreds of times.

#### Concentric

Two or more circles (or circular parts) so placed as to share a common center but different diameters.

#### Concept car

A vehicle that is not currently in production, but is still in the design stage. Some are merely paper drawings, but others are clay <u>Mock-ups</u>. The ideas in the concept cars sometimes appears in production models. See

#### • <u>Prototype</u>

## Concept vehicle

A current production vehicle modified for installation of new design concepts for evaluation of environmental functional feasibility.

#### Concho

A chrome <u>Trim</u> disk for <u>Saddlebags</u> and leathers.

#### Concours

Also called *concours d'elegance*. This is the term used to describe a show where cars in superb condition are judged against a standard of excellence established by the sponsors, with awards given to winners. Show cars compete in a concours.

## Concours d'elegance

See

Concours

#### Concrete

A mixture of cement, rocks, sand, and water which, when hardened, becomes a rock-like substance which can be used for barriers and even road surfaces.

See

• Asphaltic concrete

#### Concrete Piles

See

• Cast-in-situ Concrete Piles

#### Concurrence

Document signed by carrier and filed with the <u>ICC</u>. Verifies carrier participates in rates published in a tariff by a given agent.

## Cond

Advertising abbreviation for *condition*, as in *excellent cond*.

#### Condensate

- 1. A fluid formed when a gas is cooled to its liquid state.
- 2. The liquid that separates from a gas (including flue gases) due to a reduction in temperature.

### See

- Cold-condensate corrosion
- Plant Condensate

#### Condensate corrosion

See

• Cold-condensate corrosion

## Condensate pump

Device to remove water condensate that collects beneath an evaporator.

#### Condensation

- 1. Moisture, from the air, deposited on a cool surface. The reverse of **Evaporation**.
- 2. Liquid or droplets which form when a gas or vapor is cooled below its dew point.
- 3. The act or process of reducing a gas or vapor to a liquid or solid form

#### See:

- Condensate
- Heat Of Condensation
- Latent Heat Of Condensation

#### Condense

Turning a vapor back into a liquid.

#### Condenser

- 1. The unit in an air conditioning system that cools the hot compressed <u>refrigerant</u> and turns it from a vapor into a liquid. It is the opposite of an <u>evaporator</u>.
- 2.

#### Condenser

The part of refrigeration mechanism which receives hot, high-pressure refrigerant gas from compressor and cools gaseous refrigerant until it returns to its liquid state.

3.

Click image to supersize Condenser

A small metal <u>cylinder</u> which is usually located in the <u>distributor</u>. It is installed between the <u>breaker points</u> and <u>coil</u> to prevent <u>Arcing</u> at the <u>breaker points</u> by absorbing or storing the excess <u>current</u>. A condenser (also called a <u>capacitor</u>) has the ability to absorb and retain surges of electricity. It is constructed of two metal plates separated by an <u>insulator</u>.

#### See

- Air-cooled Condenser
- Dry Capacitor Condenser
- Evaporative Condenser
- Precooler Condenser
- Shell Type Condenser
- Skin Condenser
- Steam engine
- Water-cooled Condenser

#### Condenser, air-cooled

Heat exchanger which transfers heat to surrounding air.

### Condenser-capacitor

See

• Electrolytic Condenser-capacitor

#### Condenser comb

Comb-like device, metal or plastic, used to straighten the metal fins on condensers or evaporators.

#### Condenser fan

Forced air device used to move air through air-cooled condenser.

#### Condenser, water-cooled

Heat exchanger designed to transfer heat from hot gaseous refrigerant to water.

# Condensing furnace

High efficiency, gas forced-air furnace that extracts the latent heat lost in conventional gas forced-air furnaces.

## Condensing pressure

Pressure inside a condenser at which refrigerant vapor gives up its latent heat of vaporization and becomes a liquid. This varies with the temperature.

#### Condensing temperature

Temperature inside a condenser at which refrigerant vapor gives up its latent heat of vaporization and becomes a liquid. This varies with the pressure.

## Condensing unit

Part of a refrigerating mechanism which pumps vaporized refrigerant from the evaporator, compresses it, liquefies it in the condenser, and returns it to the refrigerant control.

Condensing unit service valves

Shutoff valves mounted on condensing unit to enable service technicians to install and/or service unit.

#### Condition

See

- <u>air conditioner</u>
- Battery charge
- Cherry condition
- Driving Conditions
- Mint condition
- Original condition
- Spark plug condition
- Standard Conditions

#### Conditioned

See

• Air-conditioned

## Conditioner

See

- air Conditioner
- Metal Conditioner

# Conditioner Clutch Compressor Signal

See

• Air Conditioner Clutch Compressor Signal

## Conditioning

See

- Air-conditioning
- Power Conditioning

# **Conditioning Compressor**

See

• Air Conditioning Compressor

## **Conditioning Sensor**

See

• Air Conditioning Sensor

#### Condition-latched soft code

A type of trouble code that disengages the ABS and turns on the amber light only as long as the condition, or problem, exists

#### **Condition Numbers**

Any set of digits used to rate the overall quality of a car. The one most commonly employed is probably the *Six Value Condition Number Scale*. The number '1' would represent a vehicle in excellent condition, whereas the number '6' would define a vehicle suitable only as a parts donor.

#### Conditions

See

## • <u>Driving conditions</u>

#### Conductance

A measure of the ease with which a conductor allows electron flow. In DC circuits, conductance is the reciprocal of resistance

#### Conduction

- 1. The transfer of heat from one object to another by having the objects in physical contact.
- 2. The flow of heat between substances by molecular vibration.
- 3. The transfer of heat between the closely packed molecules of a substance or between two substances that are touching, caused by a temperature differential between the 2 molecules or substances

#### See

• Thermal conduction

#### Conductive

The ability of something to conduct electricity.

#### Conductivity

The ability of something to conduct electricity. Opposite of <u>Resistivity</u>. See

- Electrical conductivity
- Heat conductivity

#### Conductor

- 1. A material forming a path for the flow of electric <u>current</u>, such as silver, copper, and <u>carbon</u>.
- 2. Substance or body capable of transmitting electricity or heat.
- 3. Metal wires, cables, and bus-bar used for carrying electric current. Conductors may be solid or stranded, that is, built up by a assembly of smaller solid conductors.

4. The person in charge of the train.

#### See

- Aerial Bunched Conductors
- Bare Conductor
- Bundle Conductor
- Semiconductor

#### Cone

- 1. A bearing <u>Race</u> that curves to the inside of a circle of <u>Ball bearings</u> and works in conjunction with a <u>Cup</u>.
- 2. In welding, it is the inner visible flame shape of a neutral or near neutral flame.

#### See

- Bearing cone
- Centering Cones
- Inner Cone

#### Cone clutch

A <u>clutch</u> using a cone-shaped member that is forced into a cone-shaped depression in the <u>Flywheel</u>, or other driving unit, thus locking the two together, although no longer used on cars, the cone clutch finds some applications in small riding tractors, heavy power mowers, etc.

#### Cone Point

A point in the form of a cone, commonly having an included angle of 90 degrees or 118 degrees when applied to set screws.

#### Cone point socket set screw

A headless <u>socket set screw</u> threaded the entire length. It has a hexagonal drive at one end and a sharp conical-shaped point at the other end.

### Conference of the Parties

(COP) The collection of nations that have ratified the <u>Framework Convention on Climate Change</u> (FCCC). The primary role of the COP is to keep implementation of the FCCC under review and make the decisions necessary for its effective implementation.

# Configuration

The particular arrangement of the parts in relation to each other. See

- Delta configuration
- Mid-engine chassis configuration
- Variable Volume Induction System Intake Configuration
- Y-configuration

### Conformation

The ability of a precision insert bearing to match the shape and contour of a shaft surface even after it has been in use for some time.

## **Congestion Charging**

Road user charge made in areas approved by the U.S. Secretary of State.

## Congestion Mitigation and Air Quality Improvement Program

(CMAQ) A federal grant program established by the Intermodal Surface Transportation Act of 1991 that allocates funds to states to help them simultaneously expand or initiate transportation services while improving air quality. CMAQ funds may be used to support alternative-fuel and alternative-fuel vehicle programs.

#### Conical

Something in the shape of a cone. It is usually tapered.

#### Conical hub

A wheel hub (wire wheel) that has the spoke holes on the brake side of the wheel set at a greater distance from the center of the hub than the opposite side.

#### Conical seat

A circular, tapered place that something rests. For instance, a spark plug may fit into a tapered hole.

# Connecting carrier

Some transporting companies have jurisdiction or authorization to take goods or people up to a certain location, but no farther. The goods or people are then transferred to a second transport (i.e., connecting carrier) to the next or final destination. In some cases there are a series of several connecting carriers.

Connecting link

## Connecting Link

For a <u>roller chain</u>, a pin link made with one link plate easily detachable to facilitate connecting or disconnecting the chain. Also called *joining link* or <u>Master link</u>.

Connecting rod

Click image to supersize Connecting rod

The connecting link or arm between the <u>piston</u> and the <u>crankshaft</u>. It converts the up-and-down (<u>Reciprocating</u>) motion of the piston into the circular (rotary) motion of the spinning <u>crankshaft</u>. Often called *con rod*.

#### See

- Big-end bearing
- Boxed rod
- Forked con rod
- Master con rod
- Slave con rod
- Throwing a rod

# Connecting rod bearing

A precision insert bearing. Also called big end bearing

# Connecting rod bolt

One of several special headed fasteners which secures the <u>connecting rod cap</u> to the <u>connecting rod</u> itself.

# Connecting rod cap

The part of the connecting rod assembly that attaches the rod to the crankpin

# Connecting rod kit

A parts kit consisting of connecting rod, crank pin, thrust washers, and roller bearing, used in reconditioning of assembled crankshafts.

# Connecting rod shank

A longitudinal part of the connecting rod

# Connecting rod tip

Amount of radial (side) play at the top of the connecting rod.

### Connection

The joining of two or more parts which generally conduct electricity.

See

- Earth connection
- Ground connection
- Negative connections
- Parallel Connection
- Positive connections
- Rigid axle connection
- Series Connection

## Connections

See

- Negative connections
- Positive connections

## Connector

- 1. A device which joins two items.
- 2. Electrical plugs used to connect different components or wiring harnesses.

# See

- Adapter
- Battery connector
- Blade connector
- Bulkhead Connector
- Butt Connector
- Cell connector
- Chimney Connector
- Closed-end Connector
- Data Link Connector
- Engine diagnostic connector
- Eyelet connector
- Helmet connector
- Intercell Connector
- Multicon connector system
- Snap-splice Connector
- T-connector
- Vent Connector
- Wiring Harness Connector
- <u>Y-connector</u>

# Connector system

See

• Multicon connector system

### CO nonattainment area

Areas with carbon monoxide design values of 9.5 parts per million or more, generally based on data for 1988 and 1989.

#### Con rod

See

- Connecting rod
- Forked Con Rod
- Master Con Rod
- Slave Con Rod

# Con rod bearing

See

• Connecting rod bearing

### Conscious

• Environment-conscious

# Conservation

See

• Energy Conservation

# Conservation And Recovery Act

See

• Resource Conservation And Recovery Act

## Consign

Send goods to a purchaser or an agent to sell.

#### Consignee

The person or firm designated to receive freight that has been shipped.

## Consignment inventory

Inventory that is in the possession of the customer, but is still owned by the supplier. Consignment inventory is used as a marketing tool to make it easier for a customer to stock a specific supplier's inventory.

## Consignor

The person or firm responsible for shipping a particular freight. Also called *shipper*. Consistency

The stiffness, or fluid quality of an adhesive coating or sealer compound Console

- 1. A small storage space or fascia between the two front seats in a car with bucket seats. Often it houses the shifter, some instruments, coffee holders, coin holders, etc.
- 2. A total unit or system of controls located in one area and enclosed. A window air conditioner is a console air conditioner.

## See

- Center console
- Parking brake console
- Seat rail console

## Consolidate

To combine two or more shipments going in the same direction or to the same destination on a single trailer.

# Consolidation

Combining less-than-carload or less-than-truckload shipments to make carload/truckload movements.

### Constant

- Attenuation Constant
- Fine-Structure Constant
- Plancks Constant
- Solar Constant

#### Constantan

An alloy made of nickel and copper which is used in resistance wire and in thermocouplers.

# Constant depression

See

• Air-valve carburetor

# Constant-depression

See

• Air-valve carburetor

# Constant idle system

An electronically-controlled air bypass around the throttle. Also called <u>Idle speed actuator</u> or <u>Idle speed stabilizer</u>

# Constant mesh gearbox

A type of <u>transmission</u> in which all or most of the gears are always in mesh with one another, as opposed to a sliding-gear transmission, in which engagement is obtained by sliding some of the gears along a shaft into mesh. In a constant-mesh manual gearbox, <u>Gear ratios</u> are selected by small <u>clutches</u> that connect the various gearsets to their shafts so that power is transmitted through them.

See

• Sliding mesh gearbox

### Constant mesh gear

One of the gears that is always in mesh with another -- whether it is driving or not (i.e., just idling).

# Constant mesh gears

Gears that are always in mesh with each other -- whether it is driving or not (i.e., just idling).

#### Constant mesh transmission

An arrangement of gearing where gears remain in mesh instead of sliding in and out of engagement

# Constant pressure combustion

An ideal combustion process in a diesel engine which holds cylinder pressures approximately the same from top-dead-center through a portion of the expansion stroke. Constant-radius turn

A turn with a steady, non-changing arc. In a decreasing-radius corner, the arc gets sharper as you progress through the curve, while in an increasing radius corner, the arc becomes less sharp

Constant vacuum

See

• Air-valve carburetor

Constant-vacuum

See

• Air-valve carburetor

Constant-velocity

A type of carburetor.

Constant velocity joint

Click image to supersize CV Joint

(CV joint) A type of <u>Universal joint</u> so designed as to create a smooth transfer of <u>torque</u> from the driven shaft to the driving shaft without any fluctuations in the <u>speed</u> of the driven shaft.

Constant velocity universal joint

See

• Constant velocity joint

# Constant voltage regulator

(CVR) a device used to maintain a constant voltage level in a circuit, despite fluctuations in system voltage. CVRs are wired into some gauge circuits so voltage fluctuations won't affect accuracy of the gauge readings

# Constant volume combustion

An ideal combustion process in carbureted automotive engines. The burning extends from  $10^\circ$  to  $20^\circ$  before TDC and ends  $18^\circ$  to  $28^\circ$  past TDC and promotes burning at nearly constant volume.

## Constant volume sampling

See

• Constant-volume sampling

# Constant-volume sampling

An <u>Exhaust-emissions</u> measuring technique in which the <u>exhaust gases</u> produced by a vehicle's engine are collected as it is driven through a test sequence of <u>accelerations</u>, <u>decelerations</u>, and cruise modes on a <u>Chassis dynamometer</u>. A quantity of air is added to the exhaust gases until a specific <u>volume</u> (the same for all cars) is obtained. Concentrations of pollutants in the total sample are then analyzed for determination of their actual mass.

#### Constricted

See

• Tube Constricted

#### Constricted tube

Tubing reduced in diameter.

### Constrictor

Tube or orifice used to restrict flow of a gas or a liquid.

#### Construction

See

- Body construction
- Box Section Construction
- Coachbuilt construction
- Frame Construction
- Frameless construction
- Inner Construction
- Monobloc construction
- Outer Construction
- Palletized construction
- Road construction
- Sandwich construction
- <u>Skeleton construction</u>
- <u>Unibody construction</u>
- <u>unitary construction</u>
- <u>Unit Construction</u>
- unitized construction

### Construction Signage

See

• Road Construction Signage

### Consumer factors

Demographic characteristics of consumers including age, gender, income and geographic location, affordability. For example, what consumers stay at <a href="https://hotels.in.doi.org/10.10/10.10/">hotels in Miami</a> versus finding one in the suburbs of Miami due to cost?

# Consumer grade propane

A normally gaseous paraffinic compound (C3H8), which includes all products covered by Natural Gas Policy Act Specifications for commercial and HD-5 <u>Propane</u> and ASTM Specification D 1835. Excludes: feedstock propanes, which are propanes not classified as consumer grade propanes, including the propane portion of any natural gas liquid mixes, i.e., butane-propane mix.

# **Consumer Products Safety Commission**

(CPSC) the certification agency for bicycle helmets.

## Consumption

The act of using up an amount of fuel. Actually the fuel is joined with air and merely changed into other substances (Carbon Dioxide, Carbon Monoxide, etc. and energy). See

- Average Fuel Consumption
- Brake Specific Fuel Consumption
- Fuel consumption indicator
- Fuel consumption
- Oil consumption
- Specific fuel consumption
- Vehicle Fuel Consumption

### Consumption indicator

See

• Fuel consumption indicator

#### **CONT**

Abbreviation for Continuous Duty Cycle

#### Contact

- 1. The touching of two or more parts.
- 2. The parts that actually touch each other when making electrical connection whether permanently or intermittently.
- 3. In an electric switch, the terminals that are bridged or brought together to close the switch

- Angle Of Contact
- Arc Of Contact
- Carbon Contact
- Car-floor Contact

- Fixed contact
- Ground contact area
- Moving contact
- Sliding contacts

#### Contact area

The part of the tire that actually touches the ground at any particular moment.

See

• Ground contact area

### Contact arm

The movable segment of the points which is moved by the lobe of the distributor.

# Contact bounce

The rapid movement of the breaker arm as it opens and closes

Contact breaker

See

• breaker points

## Contact breaker gap

The distance between the contact points at their furthest opening.

# Contact breaker plate

The plate on which the breaker points are mounted. When adjusting the points, the plate and the points are moved apart in relation to each other.

# Contact breaker point

The individual contact of the breaker points.

#### Contact cement

See

Cement

# Contact chatter

The rapid movement of the breaker arm as it opens and closes

Contact controlled electronic ignition

See

• Electronic ignition system

### Contact file

See

• Ignition file

# Contact gap

## • Point gap

### Contacting surfaces

Any two surfaces to be brought together and bonded Contactless electronic ignition

See

• Breakerless transistorized ignition

## Contact patch

The area of a tire's <u>tread</u> that touches the ground which provides all acceleration, braking, and turning friction.

See

• Tire Contact Patch

## Contact pattern

The visible wear pattern created by two parts which touch each other Contact point

See

• Contact points

# Contact points

- 1. Two movable points or areas that when pressed together, complete a circuit. These points are usually made of tungsten, <u>Platinum</u>, or silver.
- 2. Switching devices used to start and stop current flow.

See

• breaker points

#### Contact set

Replacement parts consisting of breaker points and possibly breaker plate and condenser. Contact spring

A spring which pushes on a contact which holds something in place and maintains contact.

# Container

A strong steel box of standard dimensions of 8 feet square and length of 20 feet or 40 feet, in which cargo is preloaded. Used to transport freight by ship, rail, and highway. International containers are designed to fit in ships' holds. Containers are transported on public roads on top a container chassis towed by a tractor. Domestic containers, up to 53 feet long and of lighter construction, are designed for rail and highway use only. See

- Air freight container
- Catalyst container
- Closed Container
- Intermodal Container
- Lift Off Container
- Ocean Container
- Railway Container
- Reefer container
- Roll-Off Container

### **Container Chassis**

- 1. A single-purpose semitrailer designed to carry a shipping container.
- 2. A truck or trailer chassis consisting of a frame (no floor, sides or roof) with locking devices for securing and transporting a container.

#### Containerization

A shipping system where cargo is loaded into a large container box at the factory and shipped from truck to train to ship, etc. without rehandling of contents within the container.

# Container ship

A ship designed to carry containers as cargo.

#### **Contaminant**

- 1. Some impurity in gasoline or oil or anything else.
- 2. Substance such as dirt, moisture, or other matter foreign to refrigerant or refrigerant oil in system.

## Contamination

See

• Catalyst contamination

#### Content

See

- Blood alcohol content
- Bullion Content
- Moisture Content
- Organic Content

#### Continental

Click image for books on Lincoln Continental

A vehicle brand of Ford cars of which the 1956-57 Mark II models are <u>milestone cars</u>. See

### • Lincoln Continental

#### Continental kit

A spare tire mounted on the rear bumper of a car, usually requiring a bumper extension. Continental tire

The bulge in the rear portion of the <u>trunk</u> which resembles a tire or a rear mounted tire Continental-type fuse

A ceramic fuse with conical end caps. They are color coded for different values. Continuity

- 1. Continuous or complete circuit.
- 2. The type of circuit that can be checked with an ohmmeter.
- 3. A continuous path for the flow of an electrical current.

## Continuous AC Ignition System

(CACIS) An ignition system where a high-energy alternating current arc burns for the entire power stroke. In this system, the spark plugs don't erode as quickly and the air/fuel mixture is more completely burned. Thus there is no need for a catalytic converter.

# Continuous cycle absorption system

System which has a continuous flow of energy input.

# Continuous duty cycle

(CONT) An electrical motor which can continue to operate within the temperature limits of its insulation system after it has reached normal operating (equilibrium) temperature is considered to have a continuous duty rating. Compare <u>Intermittent Duty Cycle</u>

## Continuous furnace

A furnace in which the charge enters at one end, moves through continuously, and is discharged at the other.

# Continuous ignition source

An ignition source which, once placed in operation, is intended to remain ignited or energized continuously until manually interrupted.

# Continuous injection system

(CIS) A mechanical fuel injection system designed and manufactured by Bosch, used on many German vehicles. In a CIS system, the fuel injectors are always open (i.e., they emit a continuous spray of fuel into the intake ports). The amount of fuel sprayed is determined by the fuel pressure in the system, which in turn is determined by the position of the throttle.

See

# • K-jetronic

# Continuous rolling contact

A wheel in steady rolling contact with the ground without slip, wheel-spin, or slide (as with locked brakes). Should be the aim at all times both on and off road.

## Continuously variable transmission

Abbreviated CVT.

See

• Infinitely variable transmission

### Continuous weld

Completing a weld in one operation

# Conti tire system

Abbreviated CTS. A run flat tire and wheel combination which allows the tire to be run for up to 400 km (250 miles) at a speed of up to 80 kph (50 mph)

#### Contour

See

- Buff contour
- Panel contour

#### Contracta

See

• Vena Contracta

#### Contract carrier

- 1. A shipping company which is transporting goods because of a contract with another shipping company.
- 2. A company that engages in for-hire transportation of property under individual contract or agreement with one or a limited number of shippers.

# Contracting-band brake

A brake in which a band is tightened around a rotating drum

# Contraction

A thermal action where the size (mass or dimension) of an object is reduced when cooled; the opposite of <u>Expansion</u>.

See

• Isothermal Expansion And Contraction

#### Contract rates

Rates which are part of a total contract negotiated between shipper and a carrier.

#### Contract Warehouse

A warehouse operation managed by a third party logistics (3PL) provider for a specified period of time. The 3PL manages a client's inventory and order fulfillment processes.

Pricing scenarios may vary, and storage, labor and equipment resources are typically dedicated to the client for the duration of the contract. The client may or may not share in the building and equipment expense.

#### Contrast Control

See

• Automatic Contrast Control

#### Contre

See

• Outboard contre pente

# Contre pente

Abbreviated CP. A French designed wheel where the raised portion of one of the rim bead seat is designed to hold the tire bead of a nearly flat tire without breaking the bead (i.e., becoming unseated).

See

• Outboard contre pente

### Contre pente on both bead seats

Abbreviated CP2. A safety rim contour with a contre pente on both rim bead seats Control

- 1. A device or mechanism for adjusting a component.
- 2. The ability of the driver to make a vehicle perform as required.
- 3. To regulate.
- 4. Automatic or manual device used to stop, start, and/or regulate flow of gas, liquid, and/or electricity.

- Adaptive Control
- Automatic Beam Control
- Automatic Brightness Control
- Automatic Contrast Control
- Automatic Control
- Automatic frequency control
- Automatic Frost Control
- Automatic Gain Control
- Automatic level control
- Automatic Mixture Control
- Automatic Phase Control
- Automatic Quiet Gain Control
- Automatic Ride Control

- Automatic temperature control
- Automatic volume control
- Balance control
- Boost Control
- Boundary Layer Control
- Brightness Control
- Choke control
- Climate control
- Corrosion control
- cruise control
- Daylighting Controls
- <u>Defrosting Control</u>
- Deice Control
- Digital frequency control
- Dimmer control
- Direct Digital Control
- Distribution Controls
- Dual Controls
- Dwell-angle control
- EGR Function Control
- Electric air control valve
- Electronic Climate Control
- Electronic control module
- Electronic control unit
- Electronic engine control
- Electronic ride control
- Electronic spark control
- Electronic traction control
- Electronic transmission control
- emission control
- Evaporation control system
- Evaporative emission control system
- Fail-safe Control
- Feedback control
- Finance and control
- Flow control
- Ground clearance control
- Hand Controls
- Headlight leveling control
- Head Pressure Control
- Heat control valve
- Heating Control
- Hill Descent Control
- Hydraulic control block
- Idle Speed Control
- Ignition control unit

- ignition timing
- Illumination control
- Inflation control seam
- Infrared remote control
- Instruments And Controls
- Intermittent wiper control
- Intuitive Control
- Knock control
- Lambda Control
- Limit Control
- Limit Cycle Control
- Load Proportional Brake Control
- Low-pressure Control
- Low-side Pressure Control
- Low-speed traction control
- Manifold heat control valve
- Manual Frost Control
- Mixture control unit
- Modulating Combustion Controls
- Motor Control
- Multi-function control stalk
- Oil control ring
- Open-loop Fuel Control
- Orifice Spark Advance Control
- Overrun control valve
- Pressure Motor Control
- Primary Control
- Primary Safety Control
- Quality Control
- Quiet Automatic Volume Control
- Refrigerant Control
- Remote control
- Remote Power Element Control
- Safety Control
- Safety Motor Control
- Semi-automatic Frost Control
- Sequence Controls
- Speed control
- Steering Column Controls
- Temperature control
- Thermal Ignition Control
- Thermostatic Control
- Thermodisk Defrost Control
- Thermostatic Motor Control
- Traction Control
- Vacuum control

- Voltage Control
- Zone Controls

### Control arm

A metal <u>Strut</u> on the <u>suspension</u> which is located at the top and bottom of the wheel <u>spindle</u>. The upper and lower control arms allow the front wheels to change direction. Also called a <u>wishbone</u> or <u>A-arm</u>.

See

• Suspension system

# Control arms

See

control arm

# Control Assembly

See

• <u>Electronic Control Assembly</u>

### Control Automatic

See

• Automatic Frost Control

### Control block

See

• Hydraulic control block

#### Control box

A container which houses electrical components which regulate the action of something. Control cable

A wire cable which runs from a knob or lever to a device which operates or regulates. Also called a *control wire*.

See

• Starter switch control cable

# Control, compressor

See

• Motor control

# Control computer

See

• Spark control computer

## Control, defrosting

Device to automatically defrost evaporator. It may operate by means of a clock, door cycling mechanism, or during *off* portion of refrigerating cycle.

# **Control Diagnostics**

See

• Electronic Control Diagnostics

#### Contrôle

A checkpoint where randonneur bicycle riders must stop to have their route cards signed and stamped to prove they have kept to the course within the time limits.

# Control element

See

• <u>Temperature control element</u>

#### Control head

The <u>instrument panel</u> mounted assembly which houses the mode selector, the blower switch and the temperature control lever of the heating, air conditioner, and ventilation system

## Control Information

See

• Vehicle Emission Control Information

#### Controlled

See

- Air Flow Controlled
- Electronically Controlled
- Manifold Pressure Controlled

# Controlled burn rate

(CBR) A method of improving fuel economy by increasing or decreasing the rate which the fuel burns

See

• <u>CBR process</u>

# Controlled canister purge

(CCP) ECM-controlled solenoid valve that permits manifold vacuum to purge the evaporative emissions from the charcoal canister

# Controlled combustion system

(CCS)

- 1. An emission control term used by General Motors to include the following
  - o modified combustion chamber design
  - o high-temperature coolant systems
  - o thermostatically controlled air cleaners
  - o very lean air/fuel mixtures
  - o high idle speeds
  - o severely retarded ignition timing
  - o TCS (transmission controlled spark) and TVS (thermal vacuum switch)
- 2. A system of reducing unburned <u>Hydrocarbon</u> emission from the engine <u>exhaust</u>

### Controlled electronic

See

• Magnetically controlled electronic ignition

#### Controlled intersection

A road junction which is controlled by traffic lights (signal lights)

### Controlled spark

See

• <u>Transmission controlled spark</u>

#### Controlled Transmission

See

• Electronically Controlled Transmission

## Controlled vehicle

A vehicle with a reduced emission system consisting of a catalytic converter, EGR, air injection, fuel evaporative emission control, etc. Also called a *detoxed vehicle*.

#### Controller

- 1. A group of controls and circuits used to accurately and automatically operate a device.
- 2. A device which uses a variable resistor to regulate current flow to an electric brake friction assembly based on hand, foot, hydraulic, or air pressure.
- 3. Electronic device that controls the timing and sequencing of traffic signals.
- 4. An element which restricts the flow of electric power to an electric motor for the purpose of controlling torque and/or power output.

See

Anti-lock Brake Controller

- Battery discharge controller
- Centralized Computer Controller
- Localized Controllers
- Logic Controller
- Programmable Controller
- Remote Controller
- Solid state controller
- Three phase controller
- Variable Air Volume Controller

### Controller, anti-lock brake

CAB Chrysler Corporation's term for the electronic control unit

## Control link

See

• Toe control link

#### Control loom

The electrical wiring of a component.

# Control, low-pressure

Cycling device connected to low-pressure side of system.

# Control module

One of several names for a solid-state micro-computer which monitors engine conditions and controls certain engine functions, i.e., air/fuel ratio, injection and ignition timing, etc. See

- Digital Ratio Adapter Controller Module
- Electronic Brake Control Module
- Electronic control module
- Manual Frost Control
- Powertrain Control Module
- Transmission control module
- Transmission Powertrain Control Module

## Control, motor

Temperature or pressure-operated device used to control running of motor. See

• <u>Idle Speed Control Motor</u>

### Control orifice valve

See

• Oil control orifice valve

## Control Override

• Boost Control Override

# Control plunger

- 1. A device in a fuel injection system which moves up and down to provide the correct amount of fuel to each cylinder.
- 2. One of several names for a solid state device which monitors engine conditions and controls certain engine functions, i.e., fuel injection, ignition timing, glow plug system in a diesels engine, etc.

# Control pressure

- 1. The pressure in a fuel injection system.
- 2. The pressure coming from line pressure or throttle pressure in the automatic transmission which pushes on the command valves.
- 3. In a Bosch CIS, the pressurized fuel used as a hydraulic control fluid to apply a counterforce to the control plunger in Bosch CIS. Control pressure alters the airfuel ratio through the operation of the control-pressure regulator
- 4. The lower chamber pressure, which is controlled by the <u>EHA</u>, to control mixture, warm up and decelerate air/fuel ratio

# Control, pressure motor

High- or low-pressure control connected into the electrical circuit and used to start and stop motor. It is activated by demand for refrigeration or for safety.

### Control pressure regulator

In Bosch CIS, the control-pressure regulator is a thermal-hydraulic device that alters the control pressure by returning the excess fuel from the control pressure circuit to the fuel tank. The control-pressure regulator controls the counterforce pressure on top of the control plunger. Also referred to as the warm-up regulator

# Control, refrigerant

Device used to regulate flow of liquid refrigerant into evaporator. Can be a capillary tube, expansion valves, or high-side and low-side float valves.

# Control ring

See

• Oil control ring

# Controls

- Dual controls
- Exhaust emission controls
- Instruments and controls
- Secondary controls

• Steering column controls

# Control screw

See

• Volume control screw

# Control seam

See

• Inflation control seam

### Control Semiautomatic

See

• Semi-automatic Frost Control

# **Control Signals**

See

• Powertrain Control Signals

# Control Solenoid

See

• Mixture Control Solenoid

# Control Solenoid Vacuum Valve Assembly

See

• Thermactor Air Control Solenoid Vacuum Valve Assembly

### Control stalk

A shaft which projects from the steering column just below the steering wheel. It may control lights, cruise control, wipers, windshield washer, signal lights, horn, etc. See

• Multi-function control stalk

### Control switch

See

Vacuum control switch

### Control system

All of the components required for the automatic control of a process variable.

#### See

- Anti-spin regulation traction control system
- Automatic Flight Control System
- Energy Management Control System
- Evaporation control system
- Evaporative emission control system
- Exhaust emission control system
- Feedback Control System
- Skid Control System
- Thermactor Exhaust Control System
- Transmission control system
- Vacuum Control System
- Wheel Slip Brake Control System

### Control, temperature

Temperature-operated thermostatic device which automatically opens or closes a circuit.

#### Control unit

See

- Electronic control unit
- Hydraulic Control Unit
- Ignition control unit
- Microprocessor Control Unit
- Mixture control unit
- Vacuum control unit
- Warm-up control unit

### Control vacuum advance

See

• Speed control vacuum advance

# Control valve

- 1. A valve which regulates or operates a system, especially a hydraulic or vacuum control system.
- 2. Valve which regulates the flow or pressure of a medium which affects a controlled process. Control valves are operated by remote signals from independent devices using any of a number of control media such as pneumatic, electric, or electrohydraulic.

- Air control valve
- Auxiliary Air Control Valve

- Auxiliary Control Valve
- Electric air control valve
- Electronic Air Control Valve
- Exhaust Heat Control Valve
- Idle Air Control Valve
- Manifold Control Valve
- Manifold heat control valve
- Oil control orifice valve
- Overrun control valve
- Purge Control Valve
- Suction Pressure Control Valve
- Thermactor Air Control Valve
- Vacuum Control Valve
- Vacuum Operated Exhaust Heat Control Valve

# Control valve assembly

A casting located in the sump of the automatic transmission. It contains most of the valves for the hydraulic control system.

#### Control wire

A wire cable which runs from a knob or lever to a device which operates or regulates. Also called a *control cable*.

### Conv

Abbreviation for convertible.

#### Convection

- 1. The transfer of heat from one object to another when the hotter object heats the surrounding air and the air in turn heats the other object.
- 2. The transfer of heat by the circulation or movement of the heated, or cooled, parts of a vapor or liquid
- 3. The circulatory motion that occurs in a fluid at a nonuniform temperature owing to the variation of its density and the action of gravity. Generally fluid flow occurs because of natural convection (convection caused by density gradients), and forced convection (convection enhanced by mechanical means), and may be characterized by stagnant regions, laminar flow and turbulent flow.

### See

- Forced Convection
- Natural Convection
- Thermal convection

#### Convection-cooled motor

See

• Totally enclosed non-ventilated enclosure

### Convection, forced

Transfer of heat resulting from forced movement of liquid or gas by means of a fan or pump.

### Convection, natural

Circulation of a gas or liquid due to difference in density resulting from temperature differences.

#### Convenience

See

# • Flags of convenience

### Conventional

A vehicle with the engine forward of cab. Snub nosed, short hooded cabs are conventional. Step vans are conventional.

### Conventional battery

A battery that has one or more caps for adding distilled water or electrolyte.

# Conventional oxidation catalyst

(COC) a catalyst which acts on the two major pollutants HC and CO

# Conventional cross ply

A tire having two or more carcass plies arranged in a criss-cross manner and diagonally to the beads and travels approximately 1/3 the distance around the circumference before attaching to the other bead. Each cord in the next ply is arranged in the same manner, but in the opposite direction.

# Conventional gasoline

Finished motor gasoline not included in the oxygenated or reformulated gasoline categories. Note: This category excludes reformulated gasoline blendstock for oxygenate blending (RBOB) as well as other blendstock.

# Conventional ignition

The transfer of heat from one object to another when the hotter object heats the surrounding air and the air in turn heats the other object.

# Conventional ignition system

An ignition system consisting of the battery, ignition switch, ballast resistor, ignition coil, distributor, contact breaker points, condenser, centrifugal or vacuum advance unit, spark plugs, and high tension wires.

# Conventionally fueled vehicle

A vehicle that runs on petroleum-based fuels such as motor gasoline or diesel fuel.

# Conventional oil and natural gas production

Crude oil and natural gas that is produced by a well drilled into a geologic formation in which the reservoir and fluid characteristics permit the oil and natural gas to readily flow to the wellbore.

# Conventional spare tire

A spare tire and rim which is the same size as the other four wheels. Most cars do not have them because they take up too much space in the trunk.

# Conventional theory

The direction of current flow was arbitrarily chosen to be from the positive terminal of the voltage source, through the external circuit, then back to the negative terminal of the source

#### Conventional tire

A Bias ply tire.

### Conventional truck

Engine forward of cab in power unit. Snub nosed, short hooded cabs are conventional. Step vans are conventional.

#### Conversion

- 1. The change from one state to another, e.g., harmful gases into harmless gases.
- 2. Altered state of a particular system, or set of parts needed to achieve it.

### See

- Biochemical Conversion
- Energy conversion
- Shift Conversion
- Van Conversions

## Conversion coating

A coating of some metal which uses the same kind of metal in the coating compound and improves paint adhesion and corrosion resistance

# Conversion company

An organization that performs vehicle conversions on a commercial basis.

### Conversion factors

Force and power may be expressed in more than one way. A horsepower is equivalent to 33,000 ft. lb. of work per minute, 746 watts, or 2546 Btu per hour. These values can be used for changing horsepower into foot pounds, British thermal units, or watts.

#### Conversion rate

The rate at which a given catalytic converter purifies the exhaust gas stream, governed by various parameters such as operating conditions and converter design

## Conversion Vehicle

A vehicle originally designed to operate on gasoline or diesel that has been modified or altered to run on an alternative fuel.

#### Converted Vehicle

A vehicle originally designed to operate on gasoline or diesel that has been modified or altered to operate on an alternative fuel.

See

• Aftermarket Converted Vehicle

#### Converter

1. When used with LPG (<u>Propane</u>), it is a device which turns LPG (propane) from liquid to vapor for use in the engine.

2. Referring to a <u>transmission</u> it is the device that transfers engine <u>torque</u> to the transmission.

### See

- AD Converter
- Aftermarket Vehicle Converter
- Alternative Fuel Vehicle Converter
- Bessemer Converter
- Catalytic converter
- Dual-bed catalytic converter
- <u>Lock-up torque converter</u>
- Lockup torque converter
- Mini catalytic converter
- Monolithic converter
- Open-loop catalytic converter
- Oxidizing converter
- Pellet-type catalytic converter
- Primary catalytic converter
- Rust converter
- Single-bed 3-way catalytic converter
- Single-bed oxidizing converter
- Three-way catalytic converter
- Torque converter

#### Converter case

An assembly in the automatic transmission encasing the impeller with the converter cover welded to it. It contains the converter fluid and vane wheels and connected to the crankshaft by means of the drive plate and revolving at engine speed.

#### Converter, catalytic

See

- Catalytic converter
- Three-way catalytic converter

#### Converter cover

A part in the automatic transmission that is welded to the pump and makes up the converter case

### Converter Dolly

Sometimes called just *Dolly*.

- 1. An auxiliary axle assembly equipped with a fifth wheel (coupling device), towed by a semitrailer and supporting the front of, and towing, another semitrailer.
- 2. An undercarriage assembly with one or more axles, a fifth wheel, and a tongue, used to convert a semitrailer to a full trailer.

## Converter drive plate

See

• Torque converter drive plate

#### Converter Gear

Colloquial term for <u>converter dolly</u> Converter housing

- 1. A stationary outer part of the automatic transmission which encloses the converter case.
- 2. The housing of a catalytic converter. Also called *converter shell*.

See

• Torque converter housing

# Converter lock-up clutch

See

• Torque converter lock-up clutch

## Converter preheating

An <u>emission control</u> device which increases catalytic action in cold starts when HC and CO are their highest. Although not in use in <u>current</u> cars, it may become necessary in the future. Thus it may mean the following Take longer to start a vehicle in the morning, require a larger <u>battery</u>, necessitate plugging a vehicle into household circuit, need for frequent replacement of the <u>Catalytic converter</u>.

See

• Preheating

### Converter shell

The housing of a catalytic converter. Also called <u>Converter housing</u> Convertible

#### Convertible

Generally this is a two-door automobile without a fixed roof. Instead, the roof folds up or is removed in some way so that the passenger compartment can be exposed to the open air. Some roofs are made of flexible fabric or plastic which folds up behind the passenger compartment. Other roofs are not flexible and retract into the <a href="trunk">trunk</a>. Some retract automatically while others must be manually removed and placed in the trunk. Convertible coupés had two doors, while cars with four doors were called convertible

sedans. The term *convertible* was introduced in the 1930s. In the 1950s, a <u>hardtop</u> <u>convertible</u> was introduced to look like a convertible with its top up; but its fixed roof did not fold or retract. A convertible was also called a *drophead coupé* or *open car*.

# Convertible adjustable gas pressure regulator

A regulator for conversion between gases having different heating values whose adjustment means can be positioned from one predetermined outlet pressure setting for one gas to another predetermined outlet pressure setting for the other gas with no intermediate pressure settings and without addition, deletion or substitution of parts.

#### Convertible roadster

Technically a convertible is an open car with windows; a <u>roadster</u> is an open car without windows. Some manufacturers in the 1930s used the term *convertible roadster* to indicate a sport car.

### Convertible sedan

This is similar to the <u>sedan</u> body type, but with provisions of lowering both the all-weather side windows and the fabric top to create a four-door convertible.

# Convertible top

The soft foldable canvas or vinyl top of a convertible. It usually has a clear plastic rear window.

#### Convertible Victoria

A four passenger two door two-window convertible.

#### Convex drum

A deformed brake drum in which the diameter at the center of the friction surface is smaller than that at the ends

#### Convex weld

A weld with the face above the old edges

### Conveyor

See

- Band Conveyor
- Bucket Conveyor
- Gravity Conveyor
- Roller Conveyor
- <u>Skate Wheel Conveyor</u>

#### Coolant

Liquid in the <u>cooling system</u>. Usually a 50:50 mixture of water and <u>antifreeze</u> (ethylene glycol). This mixture lowers the freezing point of the water in the <u>cooling system</u>, prevents rust and corrosion, lubricates the <u>water pump</u>, and picks up heat from the engine and transfers it to the air passing through the <u>radiator</u>. As well the warm coolant provides heat for the interior heater.

- Cell Coolant
- Engine coolant
- Nontoxic Coolant
- Summer Coolant

- Toxic Coolant
- Winter Coolant

# Coolant controlled exhaust gas recirculation

(CCEGR) a system that prevents exhaust gas recirculation until engine coolant temperature reaches a specific value

## Coolant level warning light

A small light on the <u>instrument panel</u> which is illuminated when the radiator is low on coolant

# Coolant pump

See

• Water pump

## Coolant recovery system

#### Radiator overflow tank

A small bottle that acts as a reservoir for liquid expelled from the <u>cooling system</u> through the <u>overflow pipe</u> and returns the liquid to the system when it cools down. A special <u>radiator pressure cap</u> is also part of the kit. It is also called a *Closed Cooling System* when it is part of the <u>original equipment</u>.

# Coolant temperature gauge

Instrument cluster gauge used to indicate engine coolant temperature.

# Coolant temperature override switch

CTO A switch that prevents vacuum from reaching a component until coolant temperature reaches a certain value

### Coolant temperature sensor

(CTS) A <u>thermistor</u> located at the bottom of the radiator which is connected to the temperature gauge. Usually the CTS is an  $\underline{\text{NTC}}$  thermistor, or a resistor whose resistance varies with temperature

See

• Engine Coolant Temperature Sensor

# Coolant tester

## Coolant Tester

A bulb and syringe device which sucks up the antifreeze in a radiator to determine its level of protection.

## Cooled

- Air-cooled
- Liquid-cooled
- Water-cooled

# Cooled engine

See

• Air cooled engine

# Cooled valve

See

• Sodium cooled valve

### Cooler

- 1. A device for cooling hot liquid or air by passing air through the <u>Vanes</u> of a heat sink
- 2. Heat exchanger which removes heat from a substance.

## See

- <u>aftercooler</u>
- Air Cooler
- Baudelot Cooler
- Oil cooler
- Swamp Cooler
- Walk-in Cooler

# Cooler bypass

See

• Oil cooler bypass valve

# Cooler bypass valve

See

• Oil cooler bypass valve

### Cooling

Conditioning of a vehicle's air for human comfort by a refrigeration unit (such as an air conditioner). Use of fans or blowers by themselves, without chilled air, or by opening the windows is not included in this definition of cooling. See

Air Cooling

- Charge air cooling
- District Heating And Cooling
- Fan cooling
- Flushing the cooling system
- Intercooling
- Solar Cooling
- Spray Cooling
- Thermosyphon cooling

# Cooling And Refrigeration

See

• Process Cooling And Refrigeration

# Cooling fan

- 1. A large fan designed to suck relatively cool air and force it onto a warm object like an engine.
- 2. A large fan designed to pull away the radiant warm air surrounding a hot object.
- 3. Electric fan used to pull air through a radiator on liquid-cooled vehicles.

# Cooling fins

The greater the surface area that needs to be cooled, the better you will be able to cool off a hot object, like an engine. By putting a number of fins on a surface, you increase the overall area. On air cooled engines, for instance, you will see a series of closely formed ridges or fins in parallel. As the air passes by them, the engine heat is dissipated. These projections or fins can be found on cylinder heads, cylinders, crankcases, and some electrical components like rectifiers.

See

- Axial Cooling Fins
- Radial Cooling Fins

### Cooling jacket

See

• Water jacket

# Cooling system

The system that removes heat from the engine. In a water-cooled engine it includes radiator, Pressure cap, fan, Water pump, Thermostat, Water jackets; in an air-cooled engine it consists of a fan, cooling fins, and <u>Ducting</u>. See

- Flushing the cooling system
- Jet Cooling System

# • Water cooling system

# Cooling tower

Device which cools by water evaporation in air. Water is cooled to wet bulb temperature of air.

#### Coolmax

A garment constructed of four channel polyester, naturally hydrophobic fabric. Coolmax is designed to regulate body temperature during physical exertion by increasing air flow and transporting moisture through the fibers to the outside of the fabric where moisture evaporates.

# Co-operation And Development

See

• Organization For Economic Co-operation And Development

# Cooperative Research and Development Agreement

(CRADA) A federal and private joint research and development program that is used to further technology commercialization.

### Co-ordinated tow

When recovering a stuck vehicle, the process by which the engine power of both the tug and the stuck vehicle are co-ordinated - usually by a signal from an external marshaller - and the clutches of both vehicles are engaged at the same time to enhance the chance of a first-time recovery.

## Coordinate measuring machine

An electronic machine that can take and record precise measurements of three-dimensional surfaces. Typically, a *scanner* has an articulated arm with a probe at the end that either physically touches the surface or 'scans' it with a laser probe. The scanner, by assigning digitized numbers based on an X-Y-Z coordinate system and a zero point, forms a point-by-point mathematical model of the surface. (Also called *point taker*).

# COP

- 1. Abbreviation for *Coil On Plug* Electronic Ignition
- 2. Abbreviation for Conference of the Parties

# Copolymer

A polymer produced from two different monomers. See

# • Graft copolymer

### Copper

A reddish metal that is an excellent conductor of heat and electricity. It is malleable, ductile, and non-magnetic with low to average strength and good corrosion resistance. Brass and silicon bronze, composed mainly of copper, gain their strength from the addition of other metals.

- Black Copper
- Blister Copper
- Cadmium Copper
- <u>Casting Copper</u>
- <u>Cathode Copper</u>

## Copper alloy

A combination of copper and another metal (e.g., zinc, tin, aluminum, lead, etc.)

### Copper core

The center electrode of a spark plug or the center wires of a high tension wire which is made of copper.

# Copper corrosion

A greenish residue called verdigris

# Copper-faced hammer

A hammer with a round head made of copper or brass. It is used to hit objects without damaging them where hitting them with a steel hammer might.

## Copper plating

- 1. The application of a thin layer of copper by a process of electrolysis. Primarily it is done to electrical contacts and terminals to give excellent conduction of electricity.
- 2. Abnormal condition developing in some units in which copper is electrolytically deposited on some compressor surfaces.

# Copper Steel

When steel has a minimum of copper content it is classed as copper steel. The copper is added to enhance erosion resistance of the steel.

#### Copy

Trucker slang for *understand* as in 'Do you copy?'

# Copy bill

A computer-generated printout that can be requested when the original freight bill <u>PRO</u> <u>number</u> is known. The copy bill will show all the necessary information about the shipment.

## Cord

- 1. A vehicle brand of which the 1925-1948 model cars are classic cars.
- 2. A strand of fabric or steel cable used in the ply of a tire.
- 3. A rope.

#### See

Bungee cord

#### Cordierite

A ceramic material of the formula 2MgO-2Al2O3-5SiO2 which is used for automotive flow-through <u>catalyst</u> substrates and ceramic wall-flow diesel filters.

#### Cordura

The brand name for a heavy-duty, synthetic material made by DuPont that feels like canvas. It is often used in the manufacture of lightweight clothing, backpacks, and camping gear.

### Core

- 1. When referring to <u>casting</u> -- a sand unit placed inside of a <u>Mold</u> so that when the metal is poured, the core will leave a hollow shape.
- 2. The magnetic center of a coil usually made of iron.
- 3. The primary part (engine <u>Block</u>, <u>Alternator</u>, <u>starter</u>, <u>radiator</u>, etc.) which has malfunctioned, but is still suitable for <u>Rebuilding</u> or <u>Remanufacturing</u>. You can exchange it for a new or rebuilt part. Thus, instead of paying full price for a new alternator, you can submit your old alternator as a core and pay a lower amount for the new alternator. *CORE* is an abbreviation for *cash on return*.

### See

- Air Core
- Baked Core
- Bead core
- Copper core
- Heater Core
- Laminated iron core
- Magnetic Core
- Timer core
- Valve core

### Core, air

Coil of wire not having a metal core.

#### Core charge

The word *core* is short for *cash on return*. When you purchase a part which is <u>Rebuildable</u>, you can return your old part and receive a core charge. Generally a core charge is collected for engines, <u>crankshafts</u>, <u>Alternators</u>, <u>radiators</u>, <u>brake shoes</u>. If the part is beyond repair, there may be no core charge.

# Core hole plug

See

- Core plug
- Freeze plug

# Core hole plugs

See

• Core plug

## Core/insulator

See

• Projected core/insulator nose

#### Core/insulator nose

See

• Projected core/insulator nose

#### Core leads

See

Carbon-core leads

#### Core, magnetic

Magnetic center of a magnetic field.

### Core plug

A metal plug located in the sides of the engine <u>Block</u> which can pop out because of excessive pressure or freezing and prevent the engine <u>Block</u> from <u>Cracking</u>. These plugs are located in the water jacket and can sometimes leak and should then be replaced. <u>Block heaters</u> are installed by removing a core plug and inserting a heating element. Core plugs are also called *freeze plugs* or *expansion plugs*.

# Core plugs

See

• Core plug

#### Core sand

Sand that has been combined with some liquid to get it to stick together for molding Core Solenoid

See

• Air Core Solenoid

### Core support

The framework that supports the radiator and air conditioner condenser assembly and also serves as the attaching point for the front fenders, grille assembly, hood latch, etc.

#### Corncob

A <u>bicycle</u> term used to describe a cluster of <u>Cogs</u> on a racing <u>freewheel</u> because of the small variation in number of teeth on adjacent <u>Cogs</u>.

# Corner

- Across Corners
- <u>Decreasing-radius Corner</u>
- Increasing-radius Corner

- Inside corner weld
- Outside corner weld
- Rear corner valance
- Rear corner panel

# Cornering

The negotiation of a curve, bend, or corner of a road. Good cornering ability allows the vehicle to go around a curve at a reasonable speed without body roll and breakaway.

## Cornering force

The forces exerted on a tire by the slip angle when moving around a curve.

See

• <u>Ultimate cornering force</u>

## Cornering limit

The maximum speed that a vehicle can travel around a particular curve.

## Cornering speed

The speed that a vehicle makes when turning. It is relative to the sharpness of the curve and the ability of the vehicle to stay on the road under control.

## Corner joint

A junction formed by edges of two pieces of metal touching each other at an angle of about 90°

# Corner panel

A panel used to fill a gap between larger panels or frame members meeting at an angle and to serve as a stiffener, such as those at the intersection of sidemembers and crossmembers and the rear corner panels of rear fenders.

See

- Rear corner panel
  - Windshield corner panel

### Corner point speed

The transition between constant torque and constant power operation in an electric motor or an engine.

#### Corners

See

Across corners

### Corner steady

A British term for a jack stand used to support and level the corner of a parked travel trailer.

# Corner valance

See

• Rear corner valance

## Corner weld

See

- Inside corner weld
- Outside corner weld

#### Corn flakes

Trucker slang for A Consolidated Freightway truck as in 'Can I get a smokey report there corn flakes.'

Corolla

Click image for books on Toyota Corolla

A model of automobile manufactured by Toyota Corona

Click image for books on Toyota Corona

A model of automobile manufactured by Toyota

## Corporate Average Fuel Economy

(CAFE) Regulation enacted in 1975 which requires a motor vehicle manufacturer to classify its U.S. vehicle fleet sales as either domestic or import for the purpose of fuel economy averaging. It set federal fuel economy standards. The CAFE values are an average of city and highway fuel economy test results weighted by a manufacturer for either its car or truck fleet.

#### Corporation

Business association endowed by law with the rights and liabilities of an individual Correction Capsule

See

• Altitude Correction Capsule

## Correction jet

See

• Air correction jet

#### Corrector

See

Height corrector

#### Corridor

A broad geographical band that follows a general directional flow connecting major sources of trips that may contain a number of streets, highways, and transit route alignments.

## Corridor analysis

A detailed analysis of a roadway performed for the purpose of obtaining the most accurate projected traffic volumes. The analysis takes into account existing traffic volumes, projected growth, and major traffic generating locations. A corridor analysis will yield projected traffic volumes for every movement allowed on a facility including main lane, ramp, frontage road, and turning volumes.

#### Corrode

To eat away, gradually, the surface material from an object by chemical action, such as rust.

#### Corrosion

- 1. The chemical process in which metal is eaten away (i.e., rusting).
- 2. Deterioration of materials from chemical action.
- 3. The eating or wearing away of a substance, such as metal, usually caused by chemical decomposition brought about by an acid.
- 4. The residue left by the process of gradual wearing away of a metal surface by chemical reaction.
- 5. Detrimental change in the size or characteristics of material under conditions of exposure or use. It usually results from chemical action either regularly and slowly, as in rusting (oxidation), or rapidly, as in metal pickling.

#### See

- Anti-corrosion
- Atmospheric corrosion
- Bimetallic corrosion
- Cold-condensate corrosion
- Electrochemical corrosion
- Electrolytic corrosion
- Fatigue corrosion
- Fretting corrosion
- Galvanic corrosion
- General corrosion
- Graphitic corrosion
- Intercrystalline corrosion
- Intergranular corrosion
- Localized corrosion
- Microbial corrosion
- Oxygen corrosion
- Pitting corrosion
- Scab corrosion
- Selective corrosion

- Stress corrosion cracking
- Uniform corrosion

#### Corrosion control

The minimizing of corrosion by coating with a protective metal, an oxide, or similar substance, or with protective paint, or by making the metal passive.

# Corrosion cracking

See

• Stress corrosion cracking

#### Corrosion inhibitor

- 1. A substance which reduces or prevents corrosion in oils, anti-freeze, paints, etc.
- 2. Additives used to inhibit corrosion in the fuel system

## Corrosion prevention

The minimizing of corrosion by coating with a protective metal, an oxide, or similar substance, or with protective paint, or by making the metal passive.

## Corrosion product

A substance formed as a result of corrosion (i.e., the rust itself)

## Corrosion protection

The minimizing of corrosion by coating with a protective metal, an oxide, or similar substance, or with protective paint, or by making the metal passive.

# Corrosion resistance

The ability of metal not to corrode. For example, nickel has a high corrosion resistance while iron does not.

#### Corrosion warranty

See

• Anti-corrosion warranty

## Corrosive

Causing corrosion, e.g., acid is corrosive because it eats away the substance on which it is applied. That's why acid rain is so harmful to the surface of automobiles. See

Anti-corrosive

# Corrugated

Having a series of wrinkles or grooves arranged so as to produce stiffness.

# Corrugated bulkhead

A <u>bulkhead</u> that is not a flat panel, but has vertical or horizontal <u>corrugations</u>, thus eliminating the need for many welded stiffeners.

## Corrugations

Deformation of an unsurfaced track taking the form of transverse, close-pitch undulations - i.e., at right angles to the direction of the track. Sometimes referred to as <u>washboard</u>.

Corsica

Click image for books on Chevrolet Corsica

A model of small car produced by the <u>Chevrolet</u> division of <u>General Motors</u> from 1987-96.

Cortina

Click image for books on Ford Cortina

A model of automobile manufactured by Ford of England Corvair

Click image for books on Corvair

A model of small car produced by the <u>Chevrolet</u> division of <u>General Motors</u> from 1960-69 of which the 1960-64 Monza models are <u>milestone cars</u>. The 1962-64 Monza Spyder models are <u>milestone cars</u>. The 1965-69 Monza/Corsa models are <u>milestone cars</u>.

Corvette

Click image for books on Chevrolet Corvette A model of sports car produced by the <u>Chevrolet</u> division of <u>General Motors</u> from 1953 to the current year. The 1953-70 models are <u>milestone cars</u>. See also a history of the <u>Corvette</u>

#### **COSO**

Abbreviation for *Copy of shipping order*. It is actually a photocopy of the shipping order. The COSO is the primary document used to move shipments from the origin terminal to the destination terminal.

#### Co-solvents

Heavier molecular weight alcohols used with methanol to improve water tolerance and reduce other negative characteristics of gasoline/alcohol blends. Tertiary butyl alcohol (TBA) was used commercially as a co-solvent for methanol/gasoline blends during the 1980s.

#### Cost

The price that a shop charges for a vehicle or one of its <u>components</u>. To the shop, it is the price they pay for the <u>component</u> (i.e., the net price plus shipping) to which they add an amount or percentage to arrive at the selling price.

See

- Capitalized cost
- Delivered Cost
- Net cap cost
- Net capitalized cost
- Operating costs
- Opportunity cost
- Total Out-Of-Pocket Cost

#### Cost-effective

Worthwhile. Usually a determination of whether repairing a vehicle is worth the expense in comparison with junking or selling it in favor of purchasing a newer vehicle. If you spend a \$1000 to repair a vehicle worth\$20,000, that is cost effective. If you spend a \$1000 to repair a vehicle worth \$200, it probably is not. The exception would be a vehicle which has nostalgic or historic value.

## cost, insurance, and freight

(CIF) The basis for quotation by seller that indicates seller will pay insurance and freight charges to destination only.

# Cost of production

Actual cost to the manufacturer of producing a vehicle (does not include mark-up).

#### Cost option

An optional item for a new vehicle for which extra money must be paid to obtain it.

## Cost Pass Through

A cost sharing system where partial costs of a pallet are passed through from the purchaser to the buyer of the pallet.

## Cost per kilometre

A ratio which is obtained by dividing the total cost of the tire by the distance the tire has gone. The total cost involves adding up the initial price of the tire, price of retreading, repairs, rotation of tires, balancing tires, and other services. From this total any credits

such as warranty, rebates, and trade-in value is subtracted. It must be remembered that when calculating the cost per kilometre of summer tires if winter tires were installed for a few months that only the number of kilometres that the summer tires were actually in use should be determined for this ratio. When purchasing tires, it may be helpful to divide the retail cost by the number of expected kilometres in order to compare one brand or one series against another.

## Cost per mile

A ratio which is obtained by dividing the total cost of the tire by the distance the tire has gone. The total cost involves adding up the initial price of the tire, price of retreading, repairs, rotation of tires, balancing tires, and other services. From this total any credits such as warranty, rebates, and trade-in value is subtracted. It must be remembered that when calculating the cost per mile of summer tires if winter tires were installed for a few months that only the number of miles that the summer tires were actually in use should be determined for this ratio. When purchasing tires, it may be helpful to divide the retail cost by the number of expected miles in order to compare one brand or one series against another.

Cost-Per-Trip

The average cost of pallet use for a single one-way trip.

Cost reduction

See

• <u>Capitalized Cost Reduction</u>

Cost reduction effort

See

• Supplier cost reduction effort

## Cotal gearbox

A semi-automatic electrically controlled transmission made in France just afterWWII Cotter

#### Cotter

A tapered pin or wedge which is inserted into holes in two parts to secure them. Older bicycles used a cotter to secure the crank arm to the crank spindle. Also called *crank cotter* 

See

- Cottered crank
- Hair Pin Cotter

#### Cotter Key

The retaining pin for a connecting link.

# Cotter pin

## Cotter pin

A fastener shaped like a pin, but split up the center. After it is inserted, the legs are bent around the item containing the hole. A length of wire which is folded almost in half and the bend forms an eye. Also called a *split pin*.

#### Cottered crank

A <u>bicycle crankset</u> in which the <u>crankarms</u> are fastened to the axle by means of threaded Cotter pins and nuts.

# Cotterless crank

A <u>bicycle crankset</u> in which the <u>crankarms</u> are fastened to the axle by means of nuts or bolts instead of <u>Cotter pins</u>.

#### Cotterless crankset

A <u>bicycle crankset</u> in which the <u>crankarms</u> are fastened to the axle by means of nuts or bolts instead of Cotter pins.

#### Coulomb

Abbreviated C. A unit of electric charge. It is the amount of electricity conveyed in one second by a current of one ampere. It is the quantity of electricity which must pass through a circuit to deposit 0.0011180 grams of silver from a solution of silver-nitrate. One electron has a charge of  $-1.602 \times 10^{-19}$  coulomb.

#### Council

See

- Battery Council International
- Canadian Automotive Repair and Service Council
- National Petroleum Council

## Council for Automotive Research

See

• United States Council for Automotive Research

## Counter

The overhang of the stern of a ship.

See

- Binary Counter
- Cerenkov Counter
- Rev counter
- Revolution counter
- Trip mileage counter

## Counter balance

A weight attached to some moving part so that the part will be in balance. See

- Crankshaft counter-balance
- Crankshaft Counterbalance

#### Counterbalancer

A weight inside an engine that cancels out some of the engine's vibration

#### Counterbalancing

The action of reducing crankshaft vibration by adding a weight at the vibration damper and/or flywheel

#### Counterbore

- 1. Enlarging a hole to a certain depth.
- 2. The cylindrical enlargement of the end of a drilled or bored hole.
- 3. A cutting tool for counterboring, having a piloted end of the size of the drilled hole.

#### Counterclockwise

Rotation to the left as if the hands of a clock were going backwards. In most cases it is the direction to remove a nut from a bolt. It is the opposite to <u>clockwise</u>.

#### Counter electromotive force

(CEMF) The induced voltage in an electrical motor armature caused by conductors moving through or *cutting* field magnetic flux. This induced voltage opposes the armature current and tends to reduce it

#### Counter emf

(CEMF) Tendency for reverse electrical flow as magnetic field changes in an induction coil.

#### Counterflow

Flow in opposite direction.

## Counter flow

A flow in opposite directions in adjacent parts of an apparatus, as in a heat exchanger.

#### Counterforce

In Bosch CIS, the force of the fuel-pressure applied to the top of the control plunger to balance the force of the airflow pushing against the sensor plate

#### Counter gear

See

## • Cluster gear

## Counter-rotating balancer

An internal or external gear- or chain-driven device, timed to a specific crankshaft revolution and used to balance the vibration of the throw, rod, and piston.

#### Countershaft

The shaft in a manual <u>gearbox</u> that carries power by means of gears from the <u>clutch shaft</u> to the <u>driveshaft</u>, turning opposite to them. The British term is *layshaft* 

## Countershaft sprocket

Output sprocket from transmission. Mounted on the output shaft in an <u>indirect drive</u> <u>transmission</u> and on the high gear pinion in a <u>direct drive transmission</u>.

#### Countersink

countersink To make a tapered hole so that the head of a screw, bolt, or rivet may set <u>flush</u>, or below the surface.

## Countersteering

The way you use the handlebar to lean the bike into a turn. If you want to turn right, you push the handlebar to the left, and vice versa

#### Countersunk bolt

A bolt with a special head. The underside of the head is tapered to fit into a hole that has tapered sides (countersunk hole) so that when the bolt is screwed in all the way, the top of the bolt is flush with the surface

#### Countersunk head

Countersunk head On the underside of the head of a screw or bolt is beveled to fit a flaring hole. In contrast, the bearing surface of other types of heads is generally perpendicular to the body axis.

#### Countersunk hole

A hole with sloping sides where the top of the hole is larger than the bottom of the hole as in the shape of the letter V

#### Countersunk screw

A screw with a special head. The underside of the head is tapered to fit into a hole that has tapered sides (countersunk hole) so that when the screw is screwed in all the way, the top of the screw is flush with the surface

## Counterweight

## Counterweight

1. A Balance weight

2. Weight added to a rotating shaft or wheel to balance normal loads on the part and offset vibration. Counterweights are used on the <u>crankshaft</u> and are often found on the <u>Flywheel</u> and <u>driveshaft</u>.

Counting

See Cycle Counting.

Counts

See Blind Counts.

County mounty

Trucker slang for Highway Patrol as in 'You got a county mounty advertising at the 34.'

Coupe

An enclosed single-compartment body with two doors and varying <u>passenger capacity</u> depending on seat arrangements. The SAE standard J1100 defines it as having less than 33 cubic feet (934 litres) of interior volume. Larger coupes have rear quarter windows. Coupes have fixed permanent back panels and top, as well as a luggage compartment in the rear deck. Originally it meant a vehicle which was *cut* (thus the French *coupé*) by a glass partition behind the front seats so that the driver was exposed to the air while those in the back were enclosed. A coupe with a small backseat is generally referred to as a <u>Club Coupe</u>.

See

- Club coupe
- Drophead coupé
- Hatchback coupe
- Sport coupe
- Three-door hatchback coupe
- Two-door coupe
- Two-door hatchback coupe

Coupé

See

• <u>Coupe</u>

## Coupe Chauffeur

A chauffeur driven car with passengers fully enclosed and the chauffeur exposed. The body has rear quarter windows. Also known as a <u>Brougham</u> and a <u>Coupe Limousine</u>.

## Coupe DeVille

Usually a four passenger two-door car with a permanently closed roof over the rear seats and a removable top covering the front seats. Also known as a *Town Coupe*. See also Sedanca.

## Coupe Limousine

A chauffeur driven car with the passengers fully enclosed and the chauffeur exposed. The body has rear quarter windows. Also known as a <u>Brougham</u> and a <u>Coupe Chauffeur</u>.

Coupe Milord

A four door touring car with a convertible top over the rear seats only. Also known as a Victoria.

# Coupelet

A term used especially by Ford to describe a Model T two-seater <u>cabriolet</u>.

## Coupled brakes

Brake system installed with certain large trailers whereby the trailer brakes are applied at the same time as are the brakes of the towing vehicle. Vehicles must be specifically modified to operate this system - with appropriate trailers.

# Couple distance

The distance between the front- and rear-seat <u>H-points</u> a critical interior packaging dimension.

# Coupled sedan

See

• <u>Close coupled sedan</u>

## Coupler

- 1. A device which links two other components.
- 2. A device located at both ends of rail cars and locomotives that connects the cars to each other.

#### See

- Brake Hose Coupler
- Bus-line Couplers
- Bus-wire Coupler
- Upper Coupler

#### Coupling

A connecting device used between two objects so motion of one will be imparted to the other; it may be mechanical, <u>hydraulic</u>, or electrical. See

- Auto-inductive Coupling
- Autocapacitance Coupling
- Back Coupling
- Capacitance Coupling
- Doughnut coupling
- Electrical Coupling
- Flexible coupling
- Fluid coupling
- Foettinger coupling
- Guibo coupling
- Layrub coupling
- Quick-connect Coupling

- Rotoflex coupling
- Rubber coupling
- Rubber doughnut coupling
- Shaft-to-cage coupling
- Shaft-to-shaft coupling
- Viscous coupling

# Coupling differential

See

• Viscous coupling differential

# Coupling point

This refers to the point at which both the <u>pump</u> and the <u>Turbine</u> in a <u>Torque converter</u> are traveling at the same <u>speed</u>, the drive is almost direct at this point.

### Couplings

Mechanical device joining refrigerant lines.

## Coupling sleeve

A collar or sleeve which is moved along the main shaft of a transmission by a selector fork engaging in a groove on its center and having <u>Dog clutches</u> at either end.

## Coupling unit

See

• <u>Viscous coupling unit</u>

#### Courier bag

A flat rectangular-shaped bag with a long strap. They are slung over the head and one shoulder. Called a courier bag because they were originally made for motorcycle and bicycle couriers.

#### Course

See

Road course

## Courtesy light

A light in the cab of a vehicle which is illuminated when the door is opened.

#### Coved

Recessed.

Cover

- 1. The tire itself as opposed to the inner tube
- 2. A panel designed to protect or hide components.

See

Battery cover

- Car cover
- Clutch cover
- Converter cover
- Dust cover
- End cover
- End cover plate
- engine cover
- Headlight cover
- Nut cover
- rocker arm cover
- Rocker cover gasket
- Rocker cover
- Seat Covers
- Sill cover
- Tonneau cover
- Transfer port cover
- Transmission cover
- <u>valve cover</u>
- Wheel cover

# Coverage

- 1. The surface area that a given quantity of paint will cover adequately
- 2. The area over which a quantity of adhesive, coating, or sealer can be applied at a specific thickness, usually expressed in terms of square feet per gallon

#### Coveralls

## Coveralls

A one-piece protective outer garment worn by mechanics.

## Cover Clip

See

• Seat Cover Clip

#### Covered electrode

A metal rod used in arc welding which has a covering of materials to aid in the arc welding process

## Covered wagon

Trucker slang for Gravel trailer covered with a tarp as in 'There's a line of sand truck in this destruction up ahead.'

## Cover gasket

See

- Rocker cover gasket
- <u>Valve cover gasket</u>

# Cover plate

See

• End cover plate

#### Cover S-hook

See

• Seat Cover S-hook

## Cover Strip

See

- Spark Plug Cable Cover Strip
- Spark Plug Wire Cover Strip

#### Cowboy

Trucker slang for Truck driver who constantly changes lanes at high speeds as in 'We got a bunch of real cowboys out on the road tonight.'

#### Cowl

- 1. The part of the vehicle body between the engine <u>firewall</u> and the front of the <u>instrument panel</u>. It usually houses the instruments and the <u>plenum chamber</u> for the <u>heater-ventilation system</u>. The British term is *scuttle*.
- 2. The part of the bodywork which protects and/or provides streamlining for a usually projecting component.
- 3. The hood-shaped top of a ventilator pipe.

#### Cowl chassis

A truck <u>chassis</u> with front fenders and hood as well as the instrument panel. It is used for companies want their own custom body and cab.

## Cowling

- 1. The part of the bodywork which protects and/or provides streamlining for a usually projecting component.
- 2. A piece of bodywork that covers the engine area

## Cowl panel

A British term for Cowl

#### Cowl section

A subassembly of the body shell that includes the bulkhead, cowl, and windscreen pillars; it is preassembled in the factory and spot-welded with the other subassemblies to form the body shell

#### Cowl shake

This is a vibration or shake of a vehicle, usually a <u>convertible</u> type, in the <u>Cowl</u> area due to lack of <u>Torsional rigidity</u> of the <u>frame</u> and body. A certain amount is almost unavoidable in <u>convertibles</u> unless frame-strengthening weight penalties are of no concern.

## Cowl side panel

A vertical panel at either end of the cowl

## Cowl top panel

A vehicle panel that extends from one side to the other and is located below the windshield and behind the hood.

CO

Abbreviation for <u>Carbon monoxide</u>. A deadly, colorless, odorless, and tasteless gas found in the engine <u>exhaust</u>. Toxic even in relatively small concentrations. Formed by incomplete burning of <u>Hydrocarbons</u>. Thus at its greatest with a rich mixture.

 $CO_2$ 

Abbreviation for Carbon dioxide

## CO<sub>2</sub> indicator

Instrument used to indicate the percentage of carbon dioxide in stack gases.

#### Coach

- 1. A vehicle with an enclosed two-door type body with permanent back <u>panels</u> and top, it is similar to the <u>coupe</u>, but the seating is different. A full width cross seat in the rear accommodates three passengers. Two separate seats in the front fold out of the way to admit rear passengers. There is no <u>trunk</u>, but trunk racks are frequently provided.
- 2. A luxurious bus, a tour bus.
- 3. A rail car that carries a large number of people.

#### Coach bolt

A bolt with a mushroom head, but just below the head there is a square neck and then the threads. The square neck fits into a matching square hole to keep the bolt from moving. Coachbuilder

A person or company which manufactures special bodies for automobiles.

# Coachbuilt body

A separate body which is not integral with the chassis.

# Coachbuilt construction

The process of building an automobile so that the body is separate from the chassis.

• Often the bodies are built to customer specifications and may differ from one another even though they are built upon the same chassis design.

#### See

- Skeleton construction
- unitary construction

#### Coach-line

An obsolete term for a painted pinstripe (a thin line of paint of a color that complements or contrasts the body color).

#### Coachlining

Pinstriping along the side of a vehicle or along the side of the fuel tank of a motorcycle.

## Coach paint

A slow-drying, high-gloss paint used on cars in the early 1900s. It was painted on car bodies with a brush.

#### Coachwork

Although it is strictly the body of an automobile, it is particularly the comfort and luxury appointments as distinguished from the operational <u>chassis</u> thus it would include the interior, seats, <u>Upholstery</u>, <u>instrument panels</u>, fenders, etc. -- everything but the mechanicals and the chassis. The French call it Carrosserie, the Germans call it Karosserie, and the Italians call it Carrozzeria. Also called *bodywork*.

#### Coal Bed Methane

Prior to the mid-1980's, methane from coal seams was classified as an uneconomic resource--one of vast potential, but low value due to poor recovery rates and high associated water production. By applying new production technologies to this resource, coalbed methane has become the single largest new source of gas supply in the past decade. Current estimates show approximately 100 Tcf of coalbed methane that appears to be economically recoverable in the lower 48 states alone. Methane is generated during coal formation and is contained in the coal microstructure. Typical recovery entails pumping water out of the coal to allow the gas to escape. Methane is the principal component of natural gas. Coal bed methane can be added to natural gas pipelines without any special treatment.

#### Coal bucket

Colloquial term for a dump trailer, coal trailer, or coal truck

# Coalescing action

The process of smaller water droplets merging together into larger droplets which takes place in a water separator

#### Coal gas

A fuel gas substitute for natural gas obtained synthetically through the carbonization (distillation by heat in the absence of air) of coal. Typical coal gas mixtures include high concentrations of hydrogen and carbon monoxide.

## Coal gasification

The process of converting coal into gas. The basic process involves crushing coal to a powder, which is then heated in the presence of steam and oxygen to produce a gas. The gas is then refined to reduce sulfur and other impurities. The gas can be used as a fuel or processed further and concentrated into chemical or liquid fuel.

## Coal liquefaction

A chemical process that converts coal into clean-burning liquid hydrocarbons, such as synthetic crude oil and methanol.

## Coal Synfuel

Coal-based solid fuel that has been processed by a coal synfuel plant; and coal-based fuels such as briquettes, pellets, or extrusions, which are formed from fresh or recycled coal and binding materials.

## Coal Trailer

A dump trailer, or a coal hopper bottom trailer. Also called <u>coal bucket</u>

#### Coal Truck

usually refers to a dump truck used to haul coal. Also called coal bucket

#### Coaming

The vertical boundary of a hatch or skylight.

See

• Hatch coaming

#### Coarse

See

• National coarse thread

## Coarse-cut file

A file with deep grooves for removing a lot of metal quickly. It leaves rough edges which will need to be cleaned up with a smooth-cut file

#### Coarse file

A file with deep grooves for removing a lot of metal quickly. It leaves rough edges which will need to be cleaned up with a smooth-cut file

## Coarsening

See

• Grain coarsening

#### Coarse pitch

Gears or screw threads which have wide gaps between each tooth or thread.

See

• Auto Coarse Pitch

## Coarse thread

The threads of a screw are wider apart. Opposite to fine thread.

See

- National coarse thread
- Unified National Coarse Thread

#### Coast

1. To proceed, usually downhill, on a <u>bicycle</u> without pedaling; or in a motor vehicle without the aid of the engine.

See

#### o freewheel.

2. A designation on a cruise control switch which (when activated) will cause the vehicle to slow down to a lower cruise controlled speed.

#### Coastal

Domestic shipping routes along the coast.

#### Coast-down test

A test of a vehicle's aerodynamic by towing it to a speed of 100 km/h then releasing it to see its ultimate distance in light of various external factors, such the road surface, atmospheric pressure, and direction and speed of the wind.

#### Coaster

A vehicle, usually a <u>bicycle</u>, which has no means of propulsion (you can't pedal it and it is without any engine).

#### Coaster brake

A braking system on a <u>bicycle</u> in which the rider stops pedaling forward (thus coasting) and pedals backward to engage the brake within the <u>hub</u> of the rear wheel.

#### Coat

- 1. A covering of paint or similar substance.
- 2. To apply a covering of paint, etc.
- 3. Single coat means to apply one layer of material on a surface. Double coat -- to apply two coats of adhesive, coating, or sealer to a surface. In spaying, it means to spray first a single coat with vertical strokes and then a second coat across with horizontal strokes, or vice versa

#### See

- Anodize
- Base coat
- Clear coat
- Color coat
- Cross-hatch coat
- Cross coat
- Double Coat
- Finish coat
- Fog coat
- Gel coat
- Guide coat
- Intermediate coat
- Mist coat
- Prime coat
- Protective coat
- Single coat
- Tack coat
- Top coat
- <u>Undercoat</u>

## Coat drier

See

# • Top coat drier

#### Coated abrasive

Sandpaper or grinding wheel where an <u>abrasive</u> material such as sand or diamond grit is glued to a backing material and used to reduce or smooth a surface.

#### Coated bore

Thin coating of chrome or iron applied to the inside of a cylinder by electroplating or wire explosion spray coating.

## Coated electrode

See

Covered electrode

#### Coated Membrane

See

• Catalyst Coated Membrane

## Coating

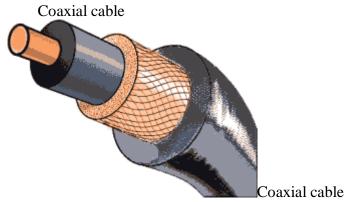
A protective covering usually of paint. See

- Anodic coating
- Anti-chip coating
- Catalyst Coating
- Catalytic layer
- Cathode Coating
- Chromate coating
- Conversion coating
- Electrostatic powder coating
- Galvanized coating
- Hard anodic coating
- Manganese phosphate coating
- Phosphate coating
- Polymer coating
- Protective coating
- PVC underseal coating
- Roll coating
- Spray coating
- Underbody coating
- Undercoating
- Zinc phosphate coating

See

• Top coat oven

## Coaxial cable



A two-wire electric cable that has a solid inner conductor surrounded by insulation which in turn is surrounded by the second wire (usually braided) which is also surrounded by insulation.

#### Cobalt

Click image for books on Chevrolet Cobalt



Click image for books on

Chevrolet Cobalt

A model of small car produced by the <u>Chevrolet</u> division of <u>General Motors</u> from 2008-08.

## Cobble

To put something together in a rough or clumsy manner. This is usually done as a temporary measure until more permanent repairs can be made.

## Cobbled

The action of putting something together in a rough or clumsy manner. This is usually done as a temporary measure until more permanent repairs can be made.

Cobra

See

AC Shelby Cobra

COC

Abbreviation for Conventional oxidation catalyst

Cock

A tap or shut-off valve which controls the flow of liquid. See

- Fuel cock
- Radiator drain cock

## Cockpit

The area, usually in racing cars, in which the driver sits and the instruments in front of him.

**COD** 

Abbreviation for <u>Cash On Delivery</u> A shipping term where the receiver must pay the price of the goods to the carrier at the time of delivery and may refuse reception. Contrasts with <u>Cash before delivery</u> (CBD).

Code

A system of symbols (as letters, numbers, or words) used to represent meaning of information.

See

- Nordic Anti-Corrosion Code
- Barred Code
- Baudot Code
- Diagnostic Code
- Diagnostic Trouble Codes
- Edge Code
- Hard Code
- Highway Code
- Ignition-latched Soft Code
- National Electrical Code
- Nordic Anti-corrosion Code
- Self-diagnostic Code
- Service Codes
- Trouble Code

Codec

See

• Audio Codec

Coded

#### Color-coded

## Code hopping

A technology which prevents thieves with scanners from either picking up your encoded remote-control signal or from randomly firing numerous codes at your vehicle in order to stumble upon the one that will disarm your security system.

# Code installation

Refrigeration or air conditioning installation which conforms to the local code and/or the national code for safe and efficient installations.

#### COE

Abbreviation for <u>Cab-Over-Engine</u>, a type of tractor, or power unit in which the driver sits in a cab mounted over the engine. The COE has a flat nose and is shorter in length compared with a conventional power unit.

#### Coefficient

See

- Absorption coefficient
- Attenuation Coefficient
- Beam-coupling Coefficient
- Block coefficient
- Drag coefficient
- Emission Coefficient
- Negative Temperature Coefficient
- Positive Temperature Coefficient
- Temperature Coefficient

## Coefficient of apparent expansion

The coefficient of expansion when the expansion of e.g., a dilatometer is neglected.

## Coefficient of conductivity

Measure of the relative rate at which different materials conduct heat. Copper is a good conductor of heat and, therefore, has a high coefficient of conductivity.

## Coefficient of drag

(Cd) A numerical value representing aerodynamic efficiency. The lower the value, the more efficient the shape.

See

• Drag coefficient

## Coefficient of expansion

- 1. Increase in unit length, area, or volume for one degree rise in temperature.
- 2. The fractional change in length, area or volume per unit change in tem of a solid, liquid, or gas at a given constant pressure. e.g., an aluminum bar stretches 12

millionths percent of its original length for each degree F rise in temperature. Also referred to as 'expansivity'

#### Coefficient of friction

- 1. A ratio of the force required to slide an object over a surface to the mass of the object, and is always less than 1.00
- 2. A measurement of the amount of <u>friction</u> developed between two objects or surfaces in physical contact when one of the objects is drawn across the other. If a book were placed on a table and a measuring scale used to pull the book, the amount of weight or pull registered on the scale would be the coefficient of friction. This coefficient of friction is dependent upon both surfaces in contact. It is large if the surfaces are rough and small if they are smooth.

## Coefficient of performance

(COP) Ratio of work performed or accomplished as compared to the energy used. Coefficient Thermistor

See

- Negative Temperature Coefficient Thermistor
- Positive Temperature Coefficient Thermistor

#### **COFC**

Abbreviation for *Container On Flat Car* -- a method for moving shipping containers which involves transporting them on railroad flat cars.

#### Cofferdam

Narrow vacant space between two bulkheads or floors. A double watertight bulkhead. Cofiring

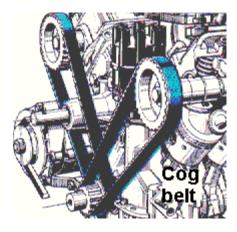
The process of burning natural gas in conjunction with another fuel to reduce air pollutants.

## Cog

Any toothed gear. A <u>Sprocket</u> attached directly to the rear wheel <u>hub</u> on a single-speed bike and mounted on a <u>freewheel</u> on a multi-speed bike. See

• Cassette Cogs

#### Cog belt



# Cog Belt

A toothed belt normally of <u>fiberglass</u>-reinforced rubber for driving the <u>camshaft</u> from the <u>crankshaft</u>. In cars, cog belts are primarily used with overhead camshafts but are sometimes used to drive <u>pumps</u>.

## Cogeneration

Primary source of energy that is also used to produce a secondary source of energy. Example The use of waste heat from an electrical energy generation system to heat a building.

## Cogeneration appliance

A device that has a primary function of producing energy, but also can produce a secondary source. For example the primary function of a vehicle engine is to provide motive power, but the heat of the engine can also produce heat for the passengers.

# Cogged belt

See

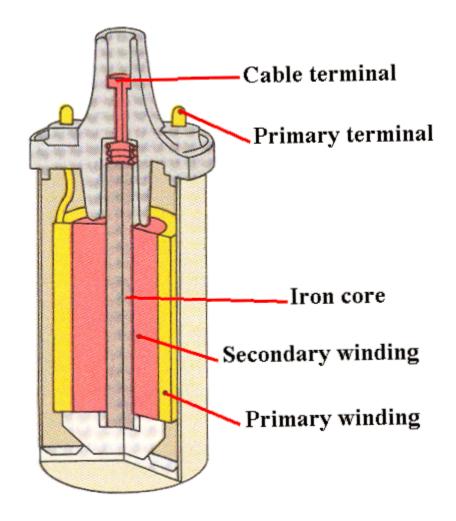
• Cog belt

## Cogging

Nonuniform angular velocity, i.e., rotation occurring in jerks or increments rather than smooth motion. When an armature coil enters the magnetic field produced by the field coils, it tends to speed up and slow down when leaving it. This effect becomes apparent at low speeds. The fewer the number of coils, the more noticeable it can be

Coil

1. Metal bands or strands of wire wrapped in a circular fashion.



2.

Coil

A pulse-type transformer for increasing the <u>voltage</u> to fire the <u>spark plugs</u>.

## See

- Air Coil
- Air-spaced Coil
- Arc-suppression Coil
- Basket Coil
- Booster coil
- Bucket Coil
- Close coils
- Exciter coil
- Field coil
- Four-spark ignition coil
- Glow coil
- Heating Coil
- High energy coil

- Hold-in coil
- Holding coil
- Ignition coil resistor
- ignition coil
- Multi-spark coil
- Multi-spark ignition coil
- Pick-up coil
- Recuperative Coil
- Reheating Coils
- Single-spark ignition coil
- Temperature-Sensitive Bimetal Coil
- Thermostatic coil choke

## Coil binding

Compressing a valve spring to the point at which each coil touches the adjacent coil Coil buildup

Buildup of a magnetic field while current is flowing through primary windings of coil. Coil chimney

The top of the ignition coil where the high tension leads are attached.

## Coil choke

See

• Thermostatic coil choke

## Coil ignition

The standard ignition system which uses an ignition coil which stores the power from the battery and steps it up. Then the high voltage is sent to the spark plugs. See

- Battery Coil Ignition
- Transistorized coil ignition

## Coil ignition with Hall sensor

See

• Transistorized coil ignition with Hall sensor

#### Coil lead

A British term for the high tension wire going from the coil to the distributor. In America, it is called the *coil wire*.

## Coil resistor

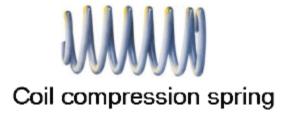
See

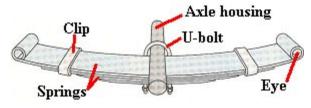
• Ignition coil resistor

Coils

• Close coils

# Coil spring





Leaf flat spring

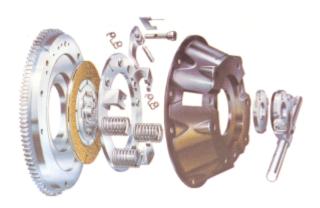


# Coil extension spring

# Spring

- 1. A section of <u>Spring steel</u> rod wound in a spiral pattern or shape. Widely used in both <u>Front</u> and <u>Rear suspension</u> systems. Like large metal bed springs, these coils cushion and absorb the shocks and bumps as the vehicle is driven. They are usually found near the front wheels, but some cars have them in the rear as well. Often the <u>shock absorbers</u> run up the center of the coil springs.
- 2. A coiled metal spring used in a suspension fork. Generally considered to be plusher, but heavier, than air springs.

Coil spring clutch



Click image to supersize Coil Spring Clutch

An assembly that connects the engine to a manual transmission and consists of an engine flywheel, clutch disc, and pressure plate. The pressure plate is bolted to the flywheel and turns with it. The clutch disc is a flat steel disc with a splined hub that slides on the transmission input shaft. A ring of strong springs squeeze the clutch disc between the flywheel and pressure plate. When the clutch disc is locked in place, engine power passes from flywheel to clutch disc to transmission input shaft, thereby driving the car.

Coil spring compressor

See

• Spring compressor

Coil tester

See

• Spark gap coil tester

Coil tower

The top of the ignition coil where the high tension leads are attached.

Coil wire

The high tension wire going from the coil to the distributor or spark plug. Coin holder

A device which retains coins for easy access.

Coke

- 1. As a product of coal. A solid carbonaceous residue derived from low-ash, low-sulfur bituminous coal from which the volatile constituents are driven off by baking in an oven at temperatures as high as 1100°C so that the fixed carbon and residual ash are fused together. Coke is used as a fuel and as a reducing agent in smelting iron ore in a blast furnace. Coke from coal is grey, hard, and porous and has a heating value of 24.8 million Btu per ton.
- 2. As a product of petroleum. A residue high in carbon content and low in hydrogen that is the final product of thermal decomposition in the condensation process in

cracking. This product is reported as marketable coke or catalyst coke. The conversion is 5 barrels (of 42 U.S. gallons each) per short ton. Coke from petroleum has a heating value of 6.024 million Btu per barrel.

#### Coke breeze

The term refers to the fine sizes of coke, usually less than one-half inch, that are recovered from coke plants. It is commonly used for sintering iron ore.

#### Coke button

A button-shaped piece of coke resulting from standard laboratory tests that indicates the coking or free-swelling characteristics of a coal; expressed in numbers and compared with a standard.

#### Coked up

A British term for *carboned up* to indicate something covered in carbon.

## Coke oven gas

The mixture of permanent gases produced by the carbonization of coal in a coke oven at temperatures in excess of 1,000°C.

## Coke plants

Plants where coal is carbonized for the manufacture of coke in slot or beehive ovens.

## Coking

Thermal refining processes used to produce fuel gas, gasoline blendstocks, distillates, and petroleum coke from the heavier products of atomspheric and vacuum distillation. Includes: Delayed Coking, Flexicoking, and Fluid Coking

## Cold

- 1. The relative absence of heat
- 2. A temperature considerably below normal.

#### Cold air

Air that is below the prevailing ambient temperature.

#### Cold air induction

The induction system forces cold air into the <u>combustion chamber</u>. Because cold air is more dense than warm air, it contains more oxygen molecules. With more oxygen, fuel will burn more effectively and thus increase horsepower.

## Cold air intake

The induction system forces cold air into the <u>combustion chamber</u>. Because cold air is more dense than warm air, it contains more oxygen molecules. With more oxygen, fuel will burn more effectively and thus increase horsepower.

## Cold cap

A process in retreading a tire where the tire is placed in a pressure <u>chamber</u> in a temperature range of 91°C to 100°C until bonding of the pre-cured tread rubber is achieved.

See

• Hot cap

#### Cold Chisel



#### Cold Chisel

A thick pencil shaped tool with a sharp flat end like a blade screwdriver. When you hit the blunt end with a hammer, it forces the blade end into metal to mark it or even cut through it.

See

# • Splitting chisel

#### Cold-condensate corrosion

The corrosion of the inside of an exhaust system by direct chemical attack resulting from an acidic, aqueous solution that condenses from the exhaust gas at relatively low temperatures and collects at the cooler rear portions of the exhaust system.

## Cold cranking ability

A measurement in amps of a battery's ability to start a vehicle under cold temperatures. A higher number is better than a lower one. Basic automobile batteries begin around 400 cold-cranking amps (which is only marginally acceptable in most vehicles). The best batteries are around 1000 cold-cranking amps.

# Cold cranking amps

Measurement of cranking amperes a battery can deliver over a period of 30 seconds at 0°F (-18°C).

See

## • Cold cranking ability

#### Cold-cranking rating

The minimum number of amperes a fully charged 12-volt battery can deliver for 30 seconds at -18°C without falling below 7.2 battery volts

# Cold engine compensator

When an engine is cold a richer mixture of fuel is required. The cold engine injector supplies more fuel to compensate for the condensation of fuel against the cold combustion chamber walls and intake manifold

## Cold Filter Plugging Point

(CFPP) A measure of the ability of a diesel fuel to operate under cold weather conditions. Defined as the lowest temperature at which diesel fuel will pass through a fine wire mesh screen of the test apparatus.

#### Cold forming

A process of shaping an object (esp. made of <u>stainless steel</u> without heating it or using only a little heat below recrystallization temperature. The object is pressed into shape by appropriate dies at high speed in order to give the object increased <u>tensile strength</u> and <u>hardness</u> as well as a decrease in <u>ductility</u>. Also called *cold heading* or *cold working* 

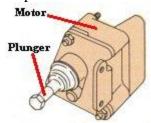
## Cold galvanizing

The application of zinc to prevent rusting. It can be applied by a paint with lots of zinc or by electroplating with zinc.

## Cold heading

- 1. A process of shaping an object (esp. made of <u>stainless steel</u> without heating it or using only a little heat below recrystallization temperature. The object is pressed into shape by appropriate dies at high speed in order to give the object increased <u>tensile strength</u> and <u>hardness</u> as well as a decrease in <u>ductility</u>. Also called *cold forming* or *cold working*
- 2. Forcing metal to flow cold into dies to form thicker sections and more or less intricate shapes. The operation is performed in specialized machines where the metal, in the form of a wire or bar stock, may be upset or headed in certain sections to a larger size and, if desired, may be extruded in other sections to a smaller diameter than the stock wire.

## Cold idle speed solenoid



# Cold Idle Speed Solenoid

A motor or solenoid operated by the computer can also be used to push a plunger against the throttle linkage in order to increase cold-idle speed.

## Cold in-place recycling

A system of re-using pavement that may have a lot of potholes, or is otherwise in poor shape. The top layer of old pavement (about 3 inches) is broken up with hand tools or by a paving machine. Asphalt binder is added to the ground up pavement, processed, and laid back down on the road. The paving machine will do this in one continuous operation.

The new recycled mat will then be topped with a surface treatment or an asphalt overlay. This process is used on medium or low-volume roads.

## Cold junction

That part of a thermoelectric system which absorbs heat as the system operates.

#### Cold lash

The valve lash clearance, measured between the rocker arm and valve tip, when the engine is cold.

#### Cold manifold

An intake manifold not heated by exhaust gas

#### Cold mixture Heater

(CMH) (CHM) A device which helps to reduce cold engine emissions and improve driveability during engine warm-up.

#### Cold plug

A spark plug which has a short insulator nose which absorbs less heat and dissipates heatquickly. A colder plug is used in a hot engine while a hot plug is used in a cold engine. Thus if the plugs are fouling too much, try a hotter plug. If the plugs are coming out white, try a colder plug. The ideal color of the center insulator nose should be a light chocolate brown.

#### Cold soak cleaner

A strong cleaning solvent used to dissolve and remove varnish on carburetor parts. Cold solder joint

A poor soldering technique where the solder has not quite melted enough to produce a good electrical contact.

## Cold spark plug

See

# • Cold plug

## Cold spraying

A method of paint spraying where the paint is excessively diluted with solvent. This process makes spraying easy, but the coats are very light.

#### Cold start

Getting a vehicle started which has been sitting for some time and cooled down to ambient temperature. When temperatures reach -40°C, a vehicle may require three or four times as much battery power as it would during the summer. As well, the carburetor or fuel injection system needs to be much richer (more gasoline than air). Because condensation has a tendency to build up in the gas tank during the winter, the liquid going to the carburetor or fuel injectors may be diluted with water -- thus making starting more difficult. The application of isopropyl alcohol (marketed as *gasline antifreeze*) removes the water from the tank.

#### Cold starting

See

## • Cold start

## Cold start injector valve

A device which supplies fuel under cold temperature depending on coolant temperature and the starter signal. Voltage is supplied by the <u>Fuel pump relay</u>

## Cold start enrichment

A method of providing a higher ratio of fuel to air for starting a cold engine. In some cases, more fuel is fed into the engine with a <u>Cold start injector</u>; in other cases, the amount of air is restricted through the use of a <u>Choke</u>.

# Cold start injector

A device in a fuel injection system which shoots an extra amount of fuel into the cylinder to increase the ratio of fuel to air.

#### Cold start valve

See

## • Cold start injector

## **Cold Swaging Process**

A method of working with steel or other material without application of heat to reduce or form it by drawing to a point or reducing the diameter, as required.

#### Cold wall

Refrigerator construction which has the inner lining of refrigerator serving as the cooling surface.

#### Cold weather modulator

(CWM) a vacuum modulator located in the air cleaner on some models. The modulator prevents the air cleaner duct door from opening to non-heated intake air when outside air is below 13°C. Similar to a temperature vacuum switch.

#### Cold Work

Metal stock that is deformed by hammering, forming, drawing, etc., while the metal is at room temperature and no heat is applied.

# Cold working

A process of shaping an object (esp. made of <u>stainless steel</u> without heating it or using only a little heat below recrystallization temperature. The object is pressed into shape by appropriate dies at high speed in order to give the object increased <u>tensile strength</u> and <u>hardness</u> as well as a decrease in <u>ductility</u>. Also called *cold forming* or *cold heading* 

# Collagen

A gluey protein found in vertebrates. It forms the principal substance in connecting fibers and tissues and in bones, hydrolizing to gelatin when boiled with water to become the primary ingredient in <u>glue</u>

## Collapse

See

## • Piston collapse

#### Collapsed piston

A <u>piston</u> whose <u>Skirt</u> diameter has been reduced due to heat and the forces imposed upon it during service in the engine.

See

# • Piston collapse

# Collapsible spare tire

A Space-saver spare.

#### Collapsible steering column

When a vehicle is involved in an accident, the driver's chest is forced into the steering wheel. In older cars, the immovable steering column meant that the driver could sustain chest damage. The collapsible steering column telescopes or folds (articulate) so that chest damage is reduced.

#### Collar

- A sleeve that fits over a shaft.
- A collapsible wooden container or bin which transforms a pallet into a box.

• A flanged band or ring. A welded plate used to close a frame or beam penetration through plating.

#### See

- Angle Collar
- Hexagonal collar
- Underhead collar
- Valve spring collar

#### Collect

See Driver Collect.

#### Collectible car

An older vehicle which may or may not fit in a particular classification but is significant in its own right.

#### See

- antique car
- classic car
- late model car
- <u>milestone car</u>
- modified car
- muscle car
- street rod
- vintage car

#### Collector

- 1. A person who accumulates specialty vehicles
- 2. Semiconductor section of transistor, connected to the same polarity as the base.

#### See

- Air collector
- Current collector
- Liquid Collector
- Low Temperature Collectors
- Medium-Temperature Collector
- Solar collector
- Solar Thermal Collector
- Special Collector
- Unglazed Solar Collector

#### Collector car

An older car which may not fit into the category of a <u>classic car</u> or a <u>milestone car</u>, but it has nostalgic appeal.

#### Collectors

In rural areas, routes serving intra-county, rather than statewide travel. In urban areas, streets providing direct access to neighborhoods as well as direct access to arterials.

## Collect Shipment

Shipment where collection of freight charges/advances is made by delivering carrier from the consignee/receiver.

#### Collet

A removable ring or collar which fits into a groove to hold something in place.

#### Collier

Vessel used for transporting coal.

#### Collision

See

### Head-on collision

## Collision avoidance system

Electronic system used to prevent collisions in inland navigable waterways.

#### Collision bulkhead

The foremost main transverse watertight bulkhead designed to keep water out of the forward hold in case of bow collision damage. Also called <u>Forepeak bulkhead</u>

#### Collision insurance

Insurance coverage that pays to repair damages to your vehicle when it is involved in an accident.

#### Colloids

Miniature cells peculiar to meats, fish, and poultry which, If disrupted, cause food to become rancid. Low temperatures minimize this action.

#### Co-load

Two shipments from different terminals combined to ship as one load.

## Colonnade hardtop



## Colonnade Hardtop

In architecture, the term colonnade describes a series of columns, set at regular intervals, usually supporting an entablature, roof, or series of arches. To meet US federal rollover standards in 1974 (standards that never emerged), General Motors introduced two-door and four-door pillared body types with arch-like quarter windows and sandwich type roof construction. They looked like a cross between true hardtops and miniature limousines. Both styles proved popular (especially the coupe with louvered coach windows and canopy top) and the term colonnade was applied. As their *true* hardtops disappeared, other manufacturers produced similar bodies with a variety of quarter-window shapes and sizes. These were known by such terms as hardtop coupe, pillared hardtop, or operawindow coupe.

## Color

#### See

- Four color
- <u>Identification color</u>
- Integral color anodizing
- Off color
- Paint color matching

## Color anodizing

See

• Integral color anodizing

## Color chart

A listing of paint samples of available exterior paint for a vehicle.

#### Color coat

A coat of paint with the final color. Sometimes a clear coat is applied over it.

#### Color code

Use of different base colors and colored tracers on insulation of electrical wire for purpose of identification.

#### Color-coded

- 1. Something that is colored the same as the main part of the bodywork. Also called *color-keyed* or *color-matched*.
- 2. A series of similar things in which each one is a different color to distinguish one from the other, such as the wiring (e.g., the red wire goes from the battery to the fuse box, the blue wire goes from ... to the ...).

## Colored

See

• Body-colored

#### Colorimeter

See

• Tag-Robinson Colorimeter

## Color-keyed

See

Color-coded

#### Color-matched

See

### Color-coded

# Color matching

See

• Paint color matching

# Color scheme

The combination of exterior colors which harmonize, e.g., A maroon body and a white roof.

#### Columbium

A metal which may be added to chrome-nickel stainless steel to improve its welding and general heat-resistant qualities, by preventing carbide precipitation.

# Columbus

Italian manufacturer of high quality bicycle frame tubes.

### Column

See

- Collapsible steering column
- Energy absorbing steering column
- Height adjustable steering column
- Mercury Column
- Steering column
- Telescopic steering column
- Tilt column
- Water Column

### Column changer

See

• Column shifter

## Column controls

See

• Steering column controls

# Column gear changer

See

• Column shifter

### Column shifter

A gear changer lever and mechanism which is located on the steering column below the steering wheel. In Britain it is called a *column changer* or *column gear changer*.

Combi

Vessel designed for a combination of passengers, and different types of cargo. Combination

- A vehicle like a motorcycle with sidecar
- A truck or tractor coupled to one or more trailers or semi-trailers.

## Combination brake system

A dual brake system that uses disc brakes at the front wheels and drum brakes at the rear wheels

# Combination lamp

A light or group of lights which serves two or more purposes. For example, the rear combination lamp illumines the running lights (i.e., the ones that are turned on when the headlight is turned on) and brake light and/or the signal light

# Combination pliers

A British term for a Lineman's pliers or slip-joint pliers

### Combination spanner

A British term for Combination wrench

# Combination tooth lock washer



#### Combination tooth lock washer

A hardened circular washer with twisted prongs of teeth protruding from both the inside and the outer edge of the washer.

## Combination valve

- 1. A brake system hydraulic control device includes a pressure differential valve, metering valve, and proportioning valve
- 2. A hydraulic valve usually incorporating a pressure differential warning switch, a metering valve and a proportioning valve. Not all combination valves contain all of these control valves
- 3. A single housing that combines two or more hydraulic valves used in a braking system

### Combination Vehicle

A vehicle made up of two or more separate units hooked together, such as a tractor-semitrailer combination. Also called an articulated vehicle since units pivot at the coupling point.

- Long Combination Vehicle
- Longer Combination Vehicle

# Combination weight

See

• Gross combination weight

# Combination wrench



**Combination Wrench** 

A flat wrench with a hex ring at one end and an open end at the other. Combined weight rating

See

• Gross Combined Weight Rating

# Combiner

See

• Holographic combiner

# Combo

See

• Shifters brake Lever Combo

# Combustible dust

See

• Respirable Combustible Dust

### Combustible liquids

A liquid having a flash point at or above 37.8°C. They are subdivided as follows:

- 1. Class II Liquids--Those having flash points at or above 37.8°C and below 60°C.
- 2. Class IIIA Liquids--Those having flash points at or above 60°C and below 93.4°C.
- 3. Class IIIB Liquids--Those having flash points at or above 93.4°C.

#### Combustible materials

Items adjacent to or in contact with heat-producing devices (e.g., engine, manifold, exhaust pipe, muffler, heater, warm air ducts, etc.) which are made of or surfaced with wood, compressed paper, plant fibers, or other materials that are capable of being ignited and burned. Such materials shall be considered combustible even though flameproofed, fire-retardant treated, or plastered.

#### Combustion

- 1. The rapid oxidation of fuel accompanied by the production of heat, or heat and light.
- 2. The intense burning of the <u>fuel-air mixture</u> in the <u>combustion chamber</u> to create power. Some used to think that the fuel-air mixture exploded; but further investigation has shown that it rapidly burns.

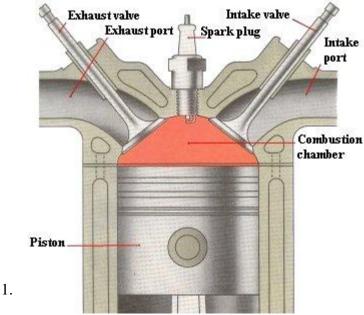
#### See

- Combustion chamber volume
- combustion chamber
- Compression ignition
- Controlled combustion system
- External combustion engine
- Fireball combustion chamber
- Gross Heat Of Combustion
- Hemispherical combustion chamber
- internal combustion engine
- Main combustion chamber
- Net Heat Of Combustion
- Pent-roof combustion chamber
- Pre-combustion chamber
- Swirl Combustion
- Wedge combustion chamber

#### Combustion air

Air required for safe and proper combustion of fuel gas.

### Combustion Chamber



**Combustion Chamber** 

The <u>volume</u> of the space in the <u>cylinder</u> above the <u>piston</u> with the piston at <u>top</u> <u>dead center</u> (TDC) in the <u>compression stroke</u>. The <u>head of the piston</u>, the <u>cylinder walls</u>, and the <u>head</u> form the <u>chamber</u>. Combustion of the <u>fuel-air mixture</u> begins here when ignited by a <u>spark plug</u>. The design and shape of the combustion chamber can affect power, <u>fuel efficiency</u>, and emissions of an engine. Several combustion chamber shapes have been used including <u>Hemispherical combustion chamber</u>, <u>Bathtub combustion chamber</u>, <u>Wedge combustion chamber</u>, <u>Squish combustion chamber</u>, and <u>Piston-crown combustion chamber</u>.

- 2. An enclosed vessel in which chemical oxidation of fuel occurs.
- 3. The area at the top of the cylinder where the fuel charge burns and pushes the piston down

#### See

- Annular Combustion Chamber
- Cannular Combustion Chamber
- Fireball combustion chamber
- Hemispherical combustion chamber
- Main combustion chamber
- Pent-roof combustion chamber
- Spherical combustion chamber
- Twin swirl combustion chamber
- Wedge combustion chamber

Combustion chamber recess

The area where combustion occurs in a rotary piston engine

#### Combustion chamber volume

<u>volume</u> of combustion chamber (space above <u>piston</u> with piston on TDC) measured in cc (cubic centimetres).

#### Combustion controls

A device which automatically regulates the firing rate at predetermined air-fuel ratios in accordance with load demand.

See

• Modulating Combustion Controls

### Combustion engine

See

- External combustion engine
- internal combustion engine

# Combustion pressure

The pressure created during the combustion of the air/fuel mixture in the cylinder, measured in pounds per square inch.

### **Combustion Process**

See

• Pulse Combustion Process

# Combustion products

Constituents resulting from the combustion of a fuel with oxygen. For combustion processes that obtain oxygen from air, this includes the inert gases contained in air but excludes excess air used in the combustion.

### Combustion residue

Carbon and other deposits resulting from combustion.

# Combustion space

See

• combustion chamber

# Combustion system

See

• Controlled combustion system

#### Comeback

1. A repair job which has been returned to the dealer because of a repeat problem. Usually the dealer is responsible to repair it properly at no charge to the customer.

2. Trucker slang for a return call or repeat as in 'Can I get a come back on that smokey report?'

#### Comedian

Trucker slang for median strip as in 'Smokey's in the comedian taking pictures.'

#### Come on

A situation where a vehicle buyer is led to believe one thing but it turns out to be really something else.

#### CO meter

A device for checking exhaust gases for carbon monoxide, a high level indicates an overrich mixture as well as causing pollution.

#### Comet head

A cylinder head with a swirl chamber for indirect injection diesel engines.

#### Comfort

A designation of some automobiles as a basic or standard line usually abbreviated as 'C' Comfort chart

Chart used in air conditioning to show the dry bulb temperature, humidity, and air movement for human comfort conditions.

#### Comfort cooler

System used to reduce the temperature in the living space in homes. These systems are not complete air conditioners as they do not provide complete control of heating, humidifying, dehumidification, and air circulation.

#### Comfort Luxe

An automobile designation (abbreviated as CL) which has more luxury appointments than a *Comfort* but less than a Grand Luxe (GL).

### Comfort zone

Area on psychrometric chart which shows conditions of temperature, humidity, and sometimes air movement in which most people are comfortable.

#### Comic book

Trucker slang for Truck driver's log book as in 'The chicken coops checking comic books this morning.'

# Coming on the cam

The term used when a four stroke reaches its powerband

# Coming on the pipe

The term used when a two stroke reaches its powerband

# Comma dolly



Comma dolly

A <u>Dolly</u> in the form of a comma to shape and straighten dented panels, usually by holding the dolly behind the metal to be shaped and hammering the metal.

#### Commerce Commission

See

• Interstate Commerce Commission

### Commercial Driver's License

(CDL) A US license which authorizes an individual to operate commercial motor vehicles and buses over 26,000 pounds gross vehicle weight. For operators of freight-hauling trucks, the maximum size which may be driven without a CDL is Class 6 (maximum 26,000 pounds gross vehicle weight). In Canada it is called a *Class 1 license*.

# Commercial Invoice

Itemized list issued by seller/exporter in foreign trade showing quantity, quality, description of goods, price, terms of sale, marks/numbers, weight, full name/address of purchaser, and date.

### Commercial Motor Vehicle

A motor vehicle or combination of motor vehicles used in commerce to transport passengers or property if the motor vehicle meets one of the following

- has a gross combination weight rating greater than or equal to 26,000 lb. including a towed unit with a gross vehicle weight rating of at least 10,000 lb.
- has a gross vehicle weight rating of at least 26,001 lb.
- is designed to transport 16 or more passengers including the driver
- a motor vehicle of any size that transports hazardous materials of any kind.

### Commercial tire

A tire which is designed for truck and industrial use.

### Commercial vehicle

A vehicle (like a truck or bus) used for carrying goods or large numbers of passengers for money.

### Commissioned agent

An agent who wholesales or retails a refined petroleum product under a commission arrangement. The agent does not take title to the product or establish the selling price, but receives a percentage of fixed fee for serving as an agent.

### Commodity

Anything bought and sold (e.g., goods, products, paper, articles of merchandise) that is offered for shipment.

# Commodity exempt

See Exempt commodity

# Commodity Rate

- A special (usually lower) rate for specific types of goods (usually exempt commodities).
- A rate lower than class rates, established to cover the movement of a specific customer's freight or for a specific group of customers.

### Common Carrier

A freight transportation company which serves the general public. It may be a regular route service (over designated highways on a regular basis) or irregular route (between various points on an unscheduled basis).

# Common Rail Injection

A diesel fuel injection system employing a common pressure accumulator, called the rail, which is mounted along the engine block. The rail is fed by a high pressure fuel pump. The injectors, which are fed from the common rail, are activated by solenoid valves. The solenoid valves and the fuel pump are electronically controlled. In the common rail injection system the injection pressure is independent from engine speed and load. Therefore, the injection parameters can be freely controlled. Usually a pilot injection is introduced, which allows for reductions in engine noise and NOx emissions.

# Common sump lubrication

System in which the same oil is used to lubricate the engine, transmission, and primary drive.

# Communication systems

Closed intercom system installed on some touring motorcycles. Can include a CB radio on some models.

### Community car

Vehicle operated for community or voluntary purposes.

# Community Safety Strategy

Policy document aimed at reducing crime, anti-social behaviour and the fear of crime (esp. car theft).

# Community transport

Voluntary transport provision for groups with special access needs.

### Commutator

- 1. A series or ring of copper bars that are connected to the <u>Armature</u> windings. The bars are insulated from each other and from the armature. The <u>Brushes</u> (as in the <u>Generator</u> or <u>starter</u>) rub against the whirling commutator.
- 2. Part of rotor in electric motor which conveys electric current to rotor windings.

#### See

- Cylindrical Commutator
- Radial Commutator

#### Commutator motor

See

• AC Commutator Motor

# Compact

See

• Compact car

- Compact SUV
- <u>Sub-compact</u>

# Compact car

A designation no longer used because even *full-size cars* are now about the size of what was the compact car. In 1970, for instance, a Chevrolet Impala was a full-size car, a Chevelle was an intermediate, a Nova was a compact. When cars smaller than the Nova came out (i.e., Chevette), they were called sub-compacts.

### Compacted snow

Snow that has been compressed by the movement of traffic and has bonded to the road surface

# Compaction

Compressing roadway materials to their optimum density, providing a strong, stable surface.

#### Compactor

A device used to compact things, particularly garbage. Found on the back of refuse trucks.

# Compact SUV

Compact sport utility vehicle usually based on a car chassis rather than a truck chassis. They include such models as Ford Escape, Honda CR-V, Hyundai Tucson, Jeep Compass, Jeep Liberty, Jeep Patriot, Kia Sportage, Mazda Tribute, Mercury Mariner, Nissan Rogue, Saturn Vue, Suzuki Grand Vitara, Toyota RAV4. See

# • Premium Compact SUV

### Companionway

An access way in a deck, with a ladder leading below, for the use of the crew Company automotive outlet

Any retail outlet selling motor fuel under the brand name of a company reporting in the EIA Financial Reporting System.

### Company car

A vehicle owned by an <u>organization</u> rather than an individual. It may be operated by only one person or by several employees. A company car is great for business trips to Vegas conventions or when you're trying to <u>find hotels in Chicago</u>.

### Company-lessee automotive outlet

One of three types of <u>Company automotive outlets</u>. This type of outlet is operated by an independent marketer who leases the station and land and has use of tanks, pumps, signs, etc. A lessee dealer typically has a supply agreement with a refiner or a distributor and purchases products at dealer tank wagon prices. The term includes outlets operated by commissioned agents and is limited to those dealers who are supplied directly by a refiner or any affiliate or subsidiary company of a refiner.

# Company logo

An emblem which represents all or part of a company's trademark.

# Company-open automotive outlet

One of three types of company automotive (retail) outlets. This type of outlet is operated by an independent marketer who owns or leases (from a third party that is not a refiner) the station or land of a retail outlet and has use of tanks, pumps, signs, etc. An open dealer typically has a supply agreement with a refiner or a distributor and purchases products based on either rack or dealer tank wagon prices.

# Company-operated automotive outlet

One of three types of company automotive (retail) outlets. This type of outlet is operated by salaried or commissioned personnel paid by the reporting company.

# Company-operated retail outlet

Any retail outlet (i.e., service station) which sells motor vehicle fuels and is under the direct control of a firm that sets the retail product price and directly collects all or part of the retail margin. The category includes retail outlets operated by

- 1. salaried employees of the firm and/or its subsidiaries and affiliates,
- 2. licensed or commissioned agents, and/or personnel services contracted by the firm.

# Comparison and identification

See

• Program comparison and identification

## Compartment

A subdivision of space or room in a vehicle or ship. See

- Battery compartment
- Cassette compartment
- Cluttered engine compartment
- Crowded engine compartment
- Engine compartment
- Glove compartment
- Passenger compartment

# Compartmentation

The subdividing of the hull by transverse watertight bulkheads so that the ship may remain afloat under certain flooding conditions

#### **Compass**

An instrument with a magnetic needle which is mounted on the <u>instrument panel</u> to give the driver an idea of where magnetic north might be. See

• Beam Compasses

### Compass display

A digital readout of the direction in which the vehicle is pointed. Usually displayed on the <u>instrument panel</u>, headliner, or the mirror

Compass mirror



**Compass Mirror** 

An inside rear view mirror which incorporates a compass in one corner Compatible

See

• Look Compatible

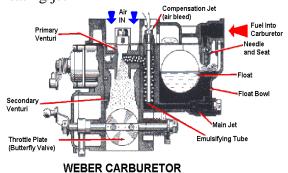
Compensated Intracorporate Hauling

A freight transportation service provided by one company for a sister company. Compensating bar

See

• Compensator

# Compensating jet



Click image to supersize Compensating Jet

A fuel tube or pipe in the <u>carburetor</u>, into which air is admitted through one or more holes to compensate for a tendency of the main <u>Nozzle</u> to deliver too rich a mixture as the air velocity through the <u>carburetor</u> increases. Also called <u>Air bleed</u>.

Compensating port

A small hole in a <u>Brake master cylinder</u> to permit fluid to return to the reservoir. Compensating Resistor

• <u>Load Compensating Resistor</u>

## Compensation

See

- Altitude Compensation System
- <u>Attenuation Compensation</u>
- Backlight Compensation
- Bass Compensation

## Compensator

A horizontal bar which is pulled forward when the parkbrake is applied at its central point, which is pivoted, while it is connected at each end to the parkbrake cable, enabling equal force to be exerted on each rear brake.

See

- Aneroid Altitude Compensator
- Hot Idle Compensator
- <u>Temperature Compensator</u>

## Compensator valve

A valve in <u>automatic transmissions</u> designed to increase the pressure on the <u>brake band</u> during heavy <u>acceleration</u>.

# Competition

See

• Interchannel competition

# Competition car

A vehicle which is designed to compete in races, hill climbs, and rallies.

# Complete respray

Painting the entire component or entire vehicle as opposed to a <u>partial respray</u> Completion

In the oil or gas production, the installation of permanent equipment for the production of oil or gas. If a well is equipped to produce only oil or gas from one zone or reservoir, the definition of a Well (classified as an oil well or gas well) and the definition of a completion are identical. However, if a well is equipped to produce oil and/or gas separately from more than one reservoir, a well is not synonymous with a completion.

# Completion date

In oil and gas production, the date on which the installation of permanent equipment has been completed as reported to the appropriate regulatory agency.

• The date of completion of a dry hole is the date of <u>abandonment</u> as reported to the appropriate agency.

• The date of completion of a service well is the date on which the well is equipped to perform the service for which it was intended.

# Compliance

A slight resiliency, or *give*, designed into <u>suspensionbushings</u> to help absorb bumps. Good compliance allows the wheels to move toward the rear a little as they hit bumps but does not allow them to move laterally (sideways) during cornering.

# Compliance Certification Label

See

• Safety Compliance Certification Label

#### Compole

An auxiliary pole used on a commutator machine. The pole is placed between the main poles for the purposes of producing an auxiliary flux to assist commutation.

## Component

- 1. One of the parts that make up the whole system or device, as in The <u>brake pad</u> is a component of the <u>brake system</u>.
- 2. A raw material, ingredient, part or subassembly that goes into a higher level assembly, compound, or other item.

#### See

- Body component
- Cell Components
- Motor Gasoline Blending Components
- Primary structure component
- Shared component

# Component anti-lock brake system

A type of anti-lock brake system in which the hydraulic control unit is not a part of the master cylinder/power booster assembly.

# Component assembly

A combination of two or more parts or sub-components to form an assembly.

### Component design

The activity for the design of specific components including responsibility for material, cost, weight, reliability, durability, function, appearance, and serviceability.

# Components

The various parts that make up the whole system or device.

# Component sharing

The use of the same basic parts used in different models -- even in models from different manufacturers.

### Composite

Any material that consists of two or more substances where one or more of them are high strength fibers and another is an adhesive binder. The most common composite is

<u>fiberglass</u>, which consists of thin glass fibers bonded together in a plastic matrix. The structural properties of composites can be altered by controlling the orientation and configuration of the high-strength <u>components</u>.

# Composite brake drum

A brake drum made from two different metals. All composite drums have cast-iron friction surfaces.

## Composite headlamps

Reflector and lens system designed for specific vehicle model

# Composite headlight

A non-sealed beam <u>headlight</u> used in the US since 1984, but available in other countries much earlier. Unlike the <u>Sealed beam headlight</u>, the lens and bulb are separate units. When the <u>Bulb</u> fails, you can replace just the bulb, not the whole unit. Lenses come in a variety of shapes and are designed for a specific vehicle. Even the left side differs from the right on the same vehicle. While sealed-beam headlights are mass produced for almost all early vehicles, composite headlight lenses are low production and can be very costly to replace.

# Composite material

Structural material made of two or more different materials

#### Composite MPG

See

• EPA Composite MPG

# Composite propeller shaft

A single-piece propeller shaft made of fiber-reinforced epoxy in which the fibers are usually glass and/or carbon.

# Composition

See

- Antifouling Composition
- Boiler Compositions

# Compound

- 1. Two or more ingredients mixed together.
- 2. An abrasive paste or liquid that smooths and polishes the painted surface.

- Anti-drum compound
- Antiseize Compound
- Cutting compound
- Dielectric Silicone Compound
- Gauge Compound
- Intermetallic compound
- Nonmethane Volatile Organic Compounds

- Ozone compound
- Rubbing compound
- Sheet molding compound
- Valve grinding compound
- Volatile Organic Compounds

### Compound carburetor

A carburetor with more than one choke. Usually there are two one for the large throttle opening and one for the small throttle opening, but they fit to a single port

# Compound center electrode

Also called Compound electrode

# Compound electrode

A spark plug with a copper core and a jacket of a nickel-based alloy.

# Compound gauge

- 1. A gauge that can indicate both pressure and vacuum.
- 2. Another name for the <u>Low side gauge</u>, because it can indicate both pressure and vacuum

# Compound glass

See

• Laminated glass

### Compounding

See

• Pre-compounding

#### Compound motor

A direct current electric motor with two separate field windings, one in parallel and the other in series with the armature circuit; used as a starter motor

# Compound refrigerating systems

System which has several compressors or compressor cylinders in series. The system is used to pump low-pressure vapors to condensing pressures.

### Compound winding

Two electric windings -- one in series, the other in shunt or parallel with other electric units or equipment. Applied to electric motors or generators -- one winding is shunted across the armature; other is in series with the armature.

### Comprehensive insurance

Insurance coverage that pays for damages to your car, its accessories, spare parts against loss or damage caused by an accidental collision, fire, theft, vandalism, typhoon, earthquake, and flooding. It will also pay expenses to have the disabled vehicle towed to the repair shop and expenses to return the vehicle back to you when the repairs are completed. It also covers for the death and bodily injury of the insured or driver; loss or damage to someone else's property as a result of the accident; legal liabilities to the death

or bodily injury of the third party arising from the accident; legal liabilities to the damage to property of the third party arising from the accident; loss or damage to the property of the spouse(s) or the child(ren) of the insured or driver; and medical expenses of the insured or driver's injury caused by the accident.

## Compress

To place under pressure or to squeeze into a small space. See

# Pre-compress

# Compressed-air spray gun

A paint gun which makes a fine spray of paint for coating the surface.

# Compressed natural gas

(CNG) Natural gas comprised primarily of methane that has been compressed under high pressures, typically between 2000 and 3600 psi, and held in a container. The gas expands when released for use as a fuel for natural gas powered vehicles. See

# • Natural gas

# Compression

- 1. Applying pressure to a spring, or any springy substance, thus causing it to reduce its length in the direction of the compressing force.
- 2. Applying pressure to a gas, thus causing a reduction in <u>volume</u> but an increase in pressure and temperature.
- 3. Increased pressure caused as volume is reduced. Also movement of suspension components against spring pressure caused by a force against wheel.
- 4. One of the essential factors in an <u>internal combustion engine</u> (fuel, air, proper proportion of mixture, compression, <u>timing</u>, and <u>spark</u>). It is the squeezing of the <u>fuel-air mixture</u> in the <u>cylinder</u> of a spark-ignition engine or the squeezing of the air in a <u>diesel engine</u>. Compression makes the process of <u>combustion</u> more effective and increases engine <u>efficiency</u>.
- 5. Term used to denote increase of pressure on a fluid by using mechanical energy.
- 6. Reduction in volume and increase in pressure and temperature of a gas caused by squeezing it into a smaller space
- 7. A system of forces that reduces the volume occupied by a specific quantity of gaseous material.
- 8. Natural gas is compressed during transportation and storage. The standard pressure that gas volumes are measured at is 14.7 psi. When being transported through pipelines, and when being stored, gas is compressed to save space. Pipelines have compressing stations installed along the line (one about every 100 miles) to ensure that the gas pressure is held high while the gas is being transported. Current pipelines can compress natural gas to nearly 1500 psi, but most tend to operate at closer to 1000 psi.

#### See

- Adiabatic Compression
- Automatic Volume Compression
- Crankcase compression
- Grooved compression ring
- Heat Of Compression
- High compression head
- Primary compression
- Primary compression ratio
- Secondary compression

### Compression check

Testing the <u>compression</u> in all the <u>cylinders</u> at <u>Crankingspeed</u>. All plugs are removed, the <u>Compression gauge</u> placed in one plug hole, the <u>throttle Cracked</u> wide open and the engine cranked until the gauge no longer climbs. The compression check is a good way in which to determine the condition of the valves, rings, and <u>cylinders</u>.

# Compression damping

The control of the movement as the shock compresses as it hits a bump. Rebound damping refers to controlling the movement as the shock extends back to its relaxed position.

# Compression gage

See

• Compression gauge

### Compression gauge

- 1. A gauge used to measure the <u>compression</u> in the <u>cylinders</u>. A poor compression reading can indicate that there is leakage through the valves or the <u>piston rings</u>. In <u>two stroke</u> engines, it could indicate that there is poor <u>primary compression</u> because of a leak in the <u>crankshaft</u> seals.
- 2. Instrument used to measure positive pressures (pressures above atmospheric pressures) only. Gauge dial usually runs from 0 to 300 lb. per sq. in. gauge, (psig) (101.3-2 170 kPa).

# Compression head

See

• High compression head

#### Compression height

The distance from the wrist-pin-bore center to the top of the piston.

# Compression ignition

(CI)

- 1. <u>combustion</u> of a <u>fuel-air mixture</u> without <u>spark</u>. In the <u>diesel engine</u>, air is drawn into the <u>cylinder</u> and compressed to a temperature sufficiently high that fuel oil injected at the end of the <u>compression stroke</u> burns in the <u>cylinder</u> without a spark to initiate <u>combustion</u>. A prank played on new employees is to send them on a search for the <u>spark plugs</u> for a diesel engine -- they don't exist.
- 2. The form of ignition that initiates combustion in a diesel engine. The rapid compression of air within the cylinders generates the heat required to ignite the fuel as it is injected.

# Compression leakage

In an engine, when some gases escape past the piston because the rings or cylinder walls are worn, the compression is reduced so that there is less efficiency.

# Compression molding

The shaping of molding material by softening it under pressure and the action of heat, and forcing it through a hole into a hollow space which it completely fills. See

Molding

# Compression moulding

British term for Compression molding

Compression ratio

- 1. When the <u>piston</u> is at the bottom of its travel (BDC), the <u>volume</u> of <u>cylinder</u> is measured (suppose the volume is X). Then the piston is placed at the top of its travel (TDC) and the volume of the <u>cylinder</u> is measured (suppose this volume is Y). The compression ratio is a comparison of these two values expressed as XY. Then the values are mathematically changed so that the second number is always 1. Thus you hear of ratios like10.51 or 9.51 or 81. The higher the compression ratio, the more mechanical energy an engine can squeeze from its <u>air-fuel mixture</u>. Higher compression ratios, however, also make <u>Detonation</u> more likely.
- 2. Ratio of the volume of the clearance space to the total volume of the cylinder. In refrigeration it is also used as the ratio of the absolute low-side pressure to the absolute high-side pressure.

See

• Primary compression ratio

### Compression ring

A ring which surrounds the <u>piston</u> and fits in a grove in the piston. It is designed to seal the burning fuel charge above the piston. Generally there are two compression rings per piston and they are located in the two top <u>ring grooves</u>. They also help to transfer heat from the piston into the <u>cylinder walls</u> and subsequently to the <u>water jacket</u> surrounding the <u>cylinder</u>.

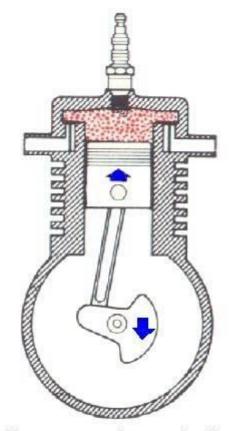
- Grooved compression ring
- Tapered compression ring

# Compression spring



**Coil Compression Spring** 

An open-coil,  $\underline{\text{Helical}}$  spring that offers  $\underline{\text{resistance}}$  to a compressive form. Compression stroke



**Compression stroke** 

Compression Stroke

The second stroke of the <u>Four-stroke cycle</u>, in which the <u>piston</u> moves upward from <u>Bottom dead center</u> to <u>Top dead center</u>, compressing the <u>fuel-air mixture</u>.

# Compression test

Diagnostic test used to determine how much power each cylinder can produce based on compression pressure.

# Compression tester

A device which is screwed or pushed into the spark plug hole so that when the engine is turned over, it measures the amount of compression in that cylinder.

# Compressive Stresses

Stresses that act to compress a material and place the material in compression.

### Compressor

- 1. A device used for increasing the pressure and density of gas.
- 2. Pump of a refrigerating mechanism which draws a low pressure on cooling side of refrigerant cycle and squeezes or compresses the gas into the high-pressure or condensing side of the cycle.
- 3. A tool for compressing a coil spring, such as a valve spring.
- 4. An air conditioning component which pumps, circulates, and increases the pressure of refrigerant vapor
- 5. A mechanism in a refrigerator or <u>air conditioner</u> that <u>pumps Vaporized refrigerant</u> out of the <u>evaporator</u>, compresses it to a relatively high pressure and then delivers it to the <u>condenser</u>.



6.

# Compressor

A device which produces pressurized air for filling tires and running air-powered tools

- Air compressor
- Axial Compressor
- Axial-flow Compressor
- <u>Centrifugal Compressor</u>
- Clearance Pocket Compressor
- Fuel gas compressor
- Hermetic Compressor
- <u>Inline Compressor</u>

- <u>Muffler Compressor</u>
- Multiple Stage Compressor
- Open Compressor
- Open Type Compressor
- Piston compressor
- Piston-type compressor
- Positive displacement compressor
- Radial Compressor
- Reciprocating compressor
- Roots compressor
- Rotary Blade Compressor
- Rotary Compressor
- Semihermetic Compressor
- Single-stage Compressor
- Spring compressor
- Stationary Blade Compressor
- Valve spring compressor
- <u>Vanes Compressor</u>
- Variable Displacement Compressor
- <u>V-type Compressor</u>

### Compressor, centrifugal

Pump which compresses gaseous refrigerants by centrifugal force.

### Compressor control

See

#### Motor control

### Compressor cut-off switch

A device used by some manufacturers to prevent compressor operation. Such as the wide open throttle (WOT) cut-off switch, low pressure switch, and high pressure switch

### Compressor discharge switch

A device that shuts off the compressor when refrigerant pressure is low. The switch is wired in series between the compressor clutch and the control panel switch

# Compressor displacement

Volume, in cubic inches, represented by the area of the compressor piston head or heads multiplied by the length of the stroke.

### Compressor, hermetic

Compressor in which the driving motor is sealed in the same dome or housing as the compressor.

### Compressor impeller

An impeller of a turbocharger driven by the turbine at speeds up to 160,000 rpm, which <u>accelerates</u> by centrifugal force the charge air which enter axially and leaves radially at a very high velocity.

# Compressor muffler

Sound absorber chamber in refrigeration system. Used to reduce sound of gas pulsations.

### Compressor, multiple stage

Compressor having two or more compressive steps. Discharge from each step is the intake pressure of the next in series.

# Compressor, open type

Compressor in which the crankshaft extends through the crankcase and is driven by an outside motor. Commonly called external drive compressor.

### Compressor pressure ratio

In a turbocharger system, the ratio between the absolute pressure at the compressor outlet and the compressor inlet

# Compressor ratio

In a turbocharger system, the ratio between the volume in the cylinder when the piston is at the bottom of its stroke and the volume in the cylinder when the piston is at the top of its stroke

# Compressor, reciprocating

Compressor which uses a piston and cylinder mechanism to provide pumping action.

# Compressor, rotary

Compressor which uses vanes, eccentric mechanisms, or other rotating devices to provide pumping action.

# Compressor seal

Leakproof seal between crankshaft and compressor body in open type compressors.

### Compressor shaft seal

A seal in an air conditioner compressor, surrounding the compressor shaft, that permits the shaft to turn without the loss of refrigerant or oil

# Compressor Signal

See

# • Air Conditioner Clutch Compressor Signal

### Compressor, single-stage

Compressor having only one compressive step between low-side pressure and high-side pressure.

### Compressor station

Any combination of facilities that supply the energy to move gas in transmission or distribution lines or into storage by increasing the pressure.

# Comprex supercharger

A supercharger using the pressure waves created by the expanding exhaust gases to compress the inlet charge. Also called *pressure wave supercharger*.

### Companion flanges

Shaft attached collars of stainless steel into which a threaded piece may be joined.

## Comparator

A device for inspecting screw threads and outlines by comparing them with a greatly enlarged standard chart.

# Computer

- 1. A device which calculates information and sends the results to a specific destination. In automobiles, computers are used to regulate fuel flow, control the <u>air conditioner</u>, display <u>speed</u>, time, ETA, etc.
- 2. Series of electrical components which accept inputs from an operator and controls outputs.
- 3. A device which controls the engine's fuel and ignition systems

### See

- Diagnostic computer
- ECU
- Fuel computer
- On-board computer
- PCM
- Spark control computer
- Trip computer

# Computer-aided

Something which has been helped or designed by a computer.

# Computer brake control

See

Anti-skid

### Computer command control

(CCC) an electronically-controlled fuel metering system used on GM vehicle. Uses an oxygen sensor, a throttle position sensor and other information sensors to provide a computer with the data it needs to alter the air/fuel ratio via mixture control solenoid in the carburetor

### Computer command control system

(C-3) an earlier engine management system used on GM vehicles. (C-4) A later engine management system used on GM vehicles

## Computer-controlled

A function or component which is monitored or activated by a computer

Computer Controlled Catalytic Converter

(C-4) A later engine management system used on General Motors vehicles.

Computer controlled coil ignition

(C3I) GM's computerized ignition coil system, used on many different engine applications

# Computer controlled timing

(CCT) a system that feeds input from various engine sensors into a computer. The computer then matches spark timing exactly to engine requirements throughout its full range of operations

# Computerized Controller

• <u>Centralized Computer Controller</u>

# Computer languages

Specific wording or codes, such as BASIC, FORTRAN, and COBOL, which direct a computer to accept and store information and control outputs.

# Computer Module

See

• Body Computer Module

Con

See

- Forked con rod
- Master con rod

#### Concave drum

A deformed brake drum in which the diameter at the center of the friction surface is greater than that at the ends. Contrast Convex drum

### Concave weld face

A weld having the center of its face below the weld edges

## Concealed Damage

Damage to product that is not obvious until the product is examined or the condition becomes apparent during storage or transfer. Responsibility and compensation for the damage may rest in whole or in part with the shipper, receiver, or transport.

# Concealed headlamps

Headlamp doors close to create a flush fitting surface to reduce air resistance in headlamp area

# Concealed headlights



# Concealed Headlights

Headlight which (when not lit) is hidden behind a panel. When the headlight switch is turned on, vacuum or an electric current is applied to a controller which opens the panel exposing the light. Also called *hide-away headlights* or *pop-up headlights*.

### Concentration

#### • Stress concentration

#### Concentration ratio

The amount light is magnified by a focusing system. For example, if a lens or reflector system increases the power density of sunlight from the normal 1.0 kilowatt/square metre to 3.0 kilowatt/square metre, a magnification of three times, the concentration ratio is 3 to 1.

### Concentrator

A reflective or refractive device that focuses incident insolation onto an area smaller than the reflective or refractive surface, resulting in increased insolation at the point of focus.

#### Concentrator cell

A solar cell designed for power densities much greater than the normal power density of sunlight at the surface of the earth. Concentrator cells can be used with focusing arrangements that increase the power density of sunlight hundreds of times.

#### Concentric

Two or more circles (or circular parts) so placed as to share a common center but different diameters.

### Concept car

A vehicle that is not currently in production, but is still in the design stage. Some are merely paper drawings, but others are clay <u>Mock-ups</u>. The ideas in the concept cars sometimes appears in production models. See

# Prototype

#### Concept vehicle

A current production vehicle modified for installation of new design concepts for evaluation of environmental functional feasibility.

### Concho

A chrome Trim disk for Saddlebags and leathers.

#### Concours

Also called *concours d'elegance*. This is the term used to describe a show where cars in superb condition are judged against a standard of excellence established by the sponsors, with awards given to winners. Show cars compete in a concours.

# Concours d'elegance

See

#### Concours

#### Concrete

A mixture of cement, rocks, sand, and water which, when hardened, becomes a rock-like substance which can be used for barriers and even road surfaces. See

# • Asphaltic concrete

### Concrete Piles

See

• Cast-in-situ Concrete Piles

### Concurrence

Document signed by carrier and filed with the <u>ICC</u>. Verifies carrier participates in rates published in a tariff by a given agent.

#### Cond

Advertising abbreviation for *condition*, as in *excellent cond*.

#### Condensate

- 1. A fluid formed when a gas is cooled to its liquid state.
- 2. The liquid that separates from a gas (including flue gases) due to a reduction in temperature.

#### See

- Cold-condensate corrosion
- Plant Condensate

#### Condensate corrosion

See

• Cold-condensate corrosion

# Condensate pump

Device to remove water condensate that collects beneath an evaporator.

#### Condensation

- 1. Moisture, from the air, deposited on a cool surface. The reverse of <u>Evaporation</u>.
- 2. Liquid or droplets which form when a gas or vapor is cooled below its dew point.
- 3. The act or process of reducing a gas or vapor to a liquid or solid form

# See:

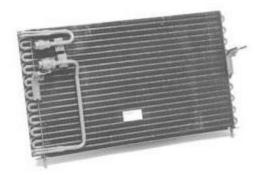
- Condensate
- Heat Of Condensation
- Latent Heat Of Condensation

### Condense

Turning a vapor back into a liquid.

### Condenser

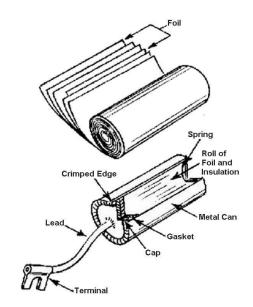
1. The unit in an air conditioning system that cools the hot compressed <u>refrigerant</u> and turns it from a vapor into a liquid. It is the opposite of an <u>evaporator</u>.



2.

#### Condenser

The part of refrigeration mechanism which receives hot, high-pressure refrigerant gas from compressor and cools gaseous refrigerant until it returns to its liquid state.



Click image to supersize Condenser

A small metal <u>cylinder</u> which is usually located in the <u>distributor</u>. It is installed between the <u>breaker points</u> and <u>coil</u> to prevent <u>Arcing</u> at the <u>breaker points</u> by absorbing or storing the excess <u>current</u>. A condenser (also called a <u>capacitor</u>) has the ability to absorb and retain surges of electricity. It is constructed of two metal plates separated by an <u>insulator</u>.

See

3.

- Air-cooled Condenser
- <u>Dry Capacitor Condenser</u>

- Evaporative Condenser
- Precooler Condenser
- Shell Type Condenser
- Skin Condenser
- Steam engine
- Water-cooled Condenser

#### Condenser, air-cooled

Heat exchanger which transfers heat to surrounding air.

# Condenser-capacitor

See

• <u>Electrolytic Condenser-capacitor</u>

#### Condenser comb

Comb-like device, metal or plastic, used to straighten the metal fins on condensers or evaporators.

#### Condenser fan

Forced air device used to move air through air-cooled condenser.

### Condenser, water-cooled

Heat exchanger designed to transfer heat from hot gaseous refrigerant to water.

# Condensing furnace

High efficiency, gas forced-air furnace that extracts the latent heat lost in conventional gas forced-air furnaces.

### Condensing pressure

Pressure inside a condenser at which refrigerant vapor gives up its latent heat of vaporization and becomes a liquid. This varies with the temperature.

### Condensing temperature

Temperature inside a condenser at which refrigerant vapor gives up its latent heat of vaporization and becomes a liquid. This varies with the pressure.

# Condensing unit

Part of a refrigerating mechanism which pumps vaporized refrigerant from the evaporator, compresses it, liquefies it in the condenser, and returns it to the refrigerant control.

# Condensing unit service valves

Shutoff valves mounted on condensing unit to enable service technicians to install and/or service unit.

### Condition

- air conditioner
- Battery charge
- Cherry condition
- <u>Driving Conditions</u>
- Mint condition
- Original condition

- Spark plug condition
- Standard Conditions

### Conditioned

See

Air-conditioned

### Conditioner

See

- air Conditioner
- Metal Conditioner

# Conditioner Clutch Compressor Signal

See

• Air Conditioner Clutch Compressor Signal

# Conditioning

See

- Air-conditioning
- Power Conditioning

# **Conditioning Compressor**

See

• Air Conditioning Compressor

# Conditioning Sensor

See

• Air Conditioning Sensor

### Condition-latched soft code

A type of trouble code that disengages the ABS and turns on the amber light only as long as the condition, or problem, exists

# **Condition Numbers**

Any set of digits used to rate the overall quality of a car. The one most commonly employed is probably the *Six Value Condition Number Scale*. The number '1' would represent a vehicle in excellent condition, whereas the number '6' would define a vehicle suitable only as a parts donor.

# Conditions

# • Driving conditions

# Conductance

A measure of the ease with which a conductor allows electron flow. In DC circuits, conductance is the reciprocal of resistance

### Conduction

- 1. The transfer of heat from one object to another by having the objects in physical contact.
- 2. The flow of heat between substances by molecular vibration.
- 3. The transfer of heat between the closely packed molecules of a substance or between two substances that are touching, caused by a temperature differential between the 2 molecules or substances

#### See

• Thermal conduction

### Conductive

The ability of something to conduct electricity.

### Conductivity

The ability of something to conduct electricity. Opposite of <u>Resistivity</u>. See

- Electrical conductivity
- Heat conductivity

### Conductor

- 1. A material forming a path for the flow of electric <u>current</u>, such as silver, copper, and <u>carbon</u>.
- 2. Substance or body capable of transmitting electricity or heat.
- 3. Metal wires, cables, and bus-bar used for carrying electric current. Conductors may be solid or stranded, that is, built up by a assembly of smaller solid conductors.
- 4. The person in charge of the train.

#### See

- Aerial Bunched Conductors
- Bare Conductor
- Bundle Conductor
- Semiconductor

#### Cone

- 1. A bearing <u>Race</u> that curves to the inside of a circle of <u>Ball bearings</u> and works in conjunction with a <u>Cup</u>.
- 2. In welding, it is the inner visible flame shape of a neutral or near neutral flame.

#### See

- Bearing cone
- Centering Cones
- Inner Cone

#### Cone clutch

A <u>clutch</u> using a cone-shaped member that is forced into a cone-shaped depression in the <u>Flywheel</u>, or other driving unit, thus locking the two together, although no longer used on cars, the cone clutch finds some applications in small riding tractors, heavy power mowers, etc.

### Cone Point

A point in the form of a cone, commonly having an included angle of 90 degrees or 118 degrees when applied to set screws.

# Cone point socket set screw

A headless <u>socket set screw</u> threaded the entire length. It has a hexagonal drive at one end and a sharp conical-shaped point at the other end.

# Conference of the Parties

(COP) The collection of nations that have ratified the <u>Framework Convention on Climate Change</u> (FCCC). The primary role of the COP is to keep implementation of the FCCC under review and make the decisions necessary for its effective implementation.

# Configuration

The particular arrangement of the parts in relation to each other.

See

- Delta configuration
- Mid-engine chassis configuration
- Variable Volume Induction System Intake Configuration
- Y-configuration

# Conformation

The ability of a precision insert bearing to match the shape and contour of a shaft surface even after it has been in use for some time.

# **Congestion Charging**

Road user charge made in areas approved by the U.S. Secretary of State.

# Congestion Mitigation and Air Quality Improvement Program

(CMAQ) A federal grant program established by the Intermodal Surface Transportation Act of 1991 that allocates funds to states to help them simultaneously expand or initiate transportation services while improving air quality. CMAQ funds may be used to support alternative-fuel and alternative-fuel vehicle programs.

### Conical

Something in the shape of a cone. It is usually tapered.

### Conical hub

A wheel hub (wire wheel) that has the spoke holes on the brake side of the wheel set at a greater distance from the center of the hub than the opposite side.

# Conical seat

A circular, tapered place that something rests. For instance, a spark plug may fit into a tapered hole.

### Connecting carrier

Some transporting companies have jurisdiction or authorization to take goods or people up to a certain location, but no farther. The goods or people are then transferred to a second transport (i.e., connecting carrier) to the next or final destination. In some cases there are a series of several connecting carriers.

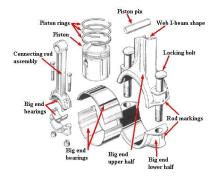


Connecting link

# Connecting Link

For a <u>roller chain</u>, a pin link made with one link plate easily detachable to facilitate connecting or disconnecting the chain. Also called *joining link* or <u>Master link</u>.

# Connecting rod



Click image to supersize Connecting rod

The connecting link or arm between the <u>piston</u> and the <u>crankshaft</u>. It converts the up-and-down (<u>Reciprocating</u>) motion of the piston into the circular (rotary) motion of the spinning <u>crankshaft</u>. Often called *con rod*.

- Big-end bearing
- Boxed rod
- Forked con rod
- Master con rod
- Slave con rod
- Throwing a rod

### Connecting rod bearing

A precision insert bearing. Also called big end bearing

# Connecting rod bolt

One of several special headed fasteners which secures the <u>connecting rod cap</u> to the <u>connecting rod</u> itself.

# Connecting rod cap

The part of the connecting rod assembly that attaches the rod to the crankpin

### Connecting rod kit

A parts kit consisting of connecting rod, crank pin, thrust washers, and roller bearing, used in reconditioning of assembled crankshafts.

# Connecting rod shank

A longitudinal part of the connecting rod

# Connecting rod tip

Amount of radial (side) play at the top of the connecting rod.

### Connection

The joining of two or more parts which generally conduct electricity. See

- Earth connection
- Ground connection
- Negative connections
- Parallel Connection
- Positive connections
- Rigid axle connection
- Series Connection

### Connections

See

- Negative connections
- Positive connections

## Connector

- 1. A device which joins two items.
- 2. Electrical plugs used to connect different components or wiring harnesses.

- Adapter
- Battery connector
- Blade connector
- Bulkhead Connector
- Butt Connector
- Cell connector
- Chimney Connector
- Closed-end Connector
- Data Link Connector
- Engine diagnostic connector
- Eyelet connector
- Helmet connector
- Intercell Connector
- Multicon connector system
- Snap-splice Connector
- T-connector
- Vent Connector
- Wiring Harness Connector
- <u>Y-connector</u>

# Connector system

See

• Multicon connector system

### CO nonattainment area

Areas with carbon monoxide design values of 9.5 parts per million or more, generally based on data for 1988 and 1989.

# Con rod

See

- Connecting rod
- Forked Con Rod
- Master Con Rod
- Slave Con Rod

# Con rod bearing

See

• Connecting rod bearing

#### Conscious

See

• Environment-conscious

### Conservation

See

• Energy Conservation

# Conservation And Recovery Act

See

• Resource Conservation And Recovery Act

# Consign

Send goods to a purchaser or an agent to sell.

## Consignee

The person or firm designated to receive freight that has been shipped.

# Consignment inventory

Inventory that is in the possession of the customer, but is still owned by the supplier. Consignment inventory is used as a marketing tool to make it easier for a customer to stock a specific supplier's inventory.

### Consignor

The person or firm responsible for shipping a particular freight. Also called *shipper*. Consistency

The stiffness, or fluid quality of an adhesive coating or sealer compound Console

- 1. A small storage space or fascia between the two front seats in a car with bucket seats. Often it houses the shifter, some instruments, coffee holders, coin holders, etc.
- 2. A total unit or system of controls located in one area and enclosed. A window air conditioner is a console air conditioner.

#### See

- Center console
- Parking brake console
- Seat rail console

# Consolidate

To combine two or more shipments going in the same direction or to the same destination on a single trailer.

### Consolidation

Combining less-than-carload or less-than-truckload shipments to make carload/truckload movements.

#### Constant

See

• Attenuation Constant

- Fine-Structure Constant
- Plancks Constant
- Solar Constant

#### Constantan

An alloy made of nickel and copper which is used in resistance wire and in thermocouplers.

## Constant depression

See

• Air-valve carburetor

# Constant-depression

See

• Air-valve carburetor

### Constant idle system

An electronically-controlled air bypass around the throttle. Also called <u>Idle speed</u> actuator or <u>Idle speed stabilizer</u>

## Constant mesh gearbox

A type of <u>transmission</u> in which all or most of the gears are always in mesh with one another, as opposed to a sliding-gear transmission, in which engagement is obtained by sliding some of the gears along a shaft into mesh. In a constant-mesh manual gearbox, <u>Gear ratios</u> are selected by small <u>clutches</u> that connect the various gearsets to their shafts so that power is transmitted through them.

See

• Sliding mesh gearbox

### Constant mesh gear

One of the gears that is always in mesh with another -- whether it is driving or not (i.e., just idling).

## Constant mesh gears

Gears that are always in mesh with each other -- whether it is driving or not (i.e., just idling).

# Constant mesh transmission

An arrangement of gearing where gears remain in mesh instead of sliding in and out of engagement

### Constant pressure combustion

An ideal combustion process in a diesel engine which holds cylinder pressures approximately the same from top-dead-center through a portion of the expansion stroke.

# Constant-radius turn

A turn with a steady, non-changing arc. In a decreasing-radius corner, the arc gets sharper as you progress through the curve, while in an increasing radius corner, the arc becomes less sharp

#### Constant vacuum

See

• Air-valve carburetor

### Constant-vacuum

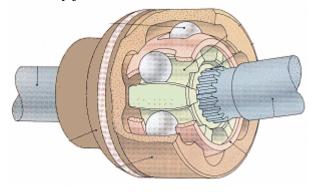
See

• Air-valve carburetor

## Constant-velocity

A type of carburetor.

Constant velocity joint



Click image to supersize CV Joint

(CV joint) A type of <u>Universal joint</u> so designed as to create a smooth transfer of <u>torque</u> from the driven shaft to the driving shaft without any fluctuations in the <u>speed</u> of the driven shaft.

Constant velocity universal joint

See

• Constant velocity joint

## Constant voltage regulator

(CVR) a device used to maintain a constant voltage level in a circuit, despite fluctuations in system voltage. CVRs are wired into some gauge circuits so voltage fluctuations won't affect accuracy of the gauge readings

## Constant volume combustion

An ideal combustion process in carbureted automotive engines. The burning extends from 10° to 20° before TDC and ends 18° to 28° past TDC and promotes burning at nearly constant volume.

Constant volume sampling

## • Constant-volume sampling

## Constant-volume sampling

their actual mass.

An <u>Exhaust-emissions</u> measuring technique in which the <u>exhaust gases</u> produced by a vehicle's engine are collected as it is driven through a test sequence of <u>accelerations</u>, <u>decelerations</u>, and cruise modes on a <u>Chassis dynamometer</u>. A quantity of air is added to the exhaust gases until a specific <u>volume</u> (the same for all cars) is obtained. Concentrations of pollutants in the total sample are then analyzed for determination of

#### Constricted

See

• Tube Constricted

#### Constricted tube

Tubing reduced in diameter.

#### Constrictor

Tube or orifice used to restrict flow of a gas or a liquid.

#### Construction

See

- Body construction
- Box Section Construction
- Coachbuilt construction
- Frame Construction
- Frameless construction
- Inner Construction
- Monobloc construction
- Outer Construction
- Palletized construction
- Road construction
- Sandwich construction
- Skeleton construction
- Unibody construction
- unitary construction
- Unit Construction
- <u>unitized construction</u>

## Construction Signage

See

• Road Construction Signage

Consumer factors

Demographic characteristics of consumers including age, gender, income and geographic location, affordability. For example, what consumers stay at <a href="https://hotels.in.doi.org/10.10/10.10/">hotels in Miami</a> versus finding one in the suburbs of Miami due to cost?

## Consumer grade propane

A normally gaseous paraffinic compound (C3H8), which includes all products covered by Natural Gas Policy Act Specifications for commercial and HD-5 <u>Propane</u> and ASTM Specification D 1835. Excludes: feedstock propanes, which are propanes not classified as consumer grade propanes, including the propane portion of any natural gas liquid mixes, i.e., butane-propane mix.

## **Consumer Products Safety Commission**

(CPSC) the certification agency for bicycle helmets.

## Consumption

The act of using up an amount of fuel. Actually the fuel is joined with air and merely changed into other substances (Carbon Dioxide, Carbon Monoxide, etc. and energy). See

- Average Fuel Consumption
- Brake Specific Fuel Consumption
- Fuel consumption indicator
- Fuel consumption
- Oil consumption
- Specific fuel consumption
- Vehicle Fuel Consumption

### Consumption indicator

See

• Fuel consumption indicator

#### **CONT**

Abbreviation for Continuous Duty Cycle

#### Contact

- 1. The touching of two or more parts.
- 2. The parts that actually touch each other when making electrical connection whether permanently or intermittently.
- 3. In an electric switch, the terminals that are bridged or brought together to close the switch

- Angle Of Contact
- Arc Of Contact
- Carbon Contact
- Car-floor Contact
- Fixed contact

- Ground contact area
- Moving contact
- Sliding contacts

#### Contact area

The part of the tire that actually touches the ground at any particular moment. See

• Ground contact area

### Contact arm

The movable segment of the points which is moved by the lobe of the distributor.

# Contact bounce

The rapid movement of the breaker arm as it opens and closes

### Contact breaker

See

• breaker points

### Contact breaker gap

The distance between the contact points at their furthest opening.

# Contact breaker plate

The plate on which the breaker points are mounted. When adjusting the points, the plate and the points are moved apart in relation to each other.

# Contact breaker point

The individual contact of the breaker points.

#### Contact cement

See

Cement

#### Contact chatter

The rapid movement of the breaker arm as it opens and closes Contact controlled electronic ignition

See

• <u>Electronic ignition system</u>

### Contact file

See

• <u>Ignition file</u>

# Contact gap

### • Point gap

### Contacting surfaces

Any two surfaces to be brought together and bonded Contactless electronic ignition

See

• Breakerless transistorized ignition

## Contact patch

The area of a tire's <u>tread</u> that touches the ground which provides all acceleration, braking, and turning friction.

See

• Tire Contact Patch

### Contact pattern

The visible wear pattern created by two parts which touch each other Contact point

See

Contact points

# Contact points

- 1. Two movable points or areas that when pressed together, complete a circuit. These points are usually made of tungsten, <u>Platinum</u>, or silver.
- 2. Switching devices used to start and stop current flow.

See

• breaker points

#### Contact set

Replacement parts consisting of breaker points and possibly breaker plate and condenser. Contact spring

A spring which pushes on a contact which holds something in place and maintains contact.

## Container

A strong steel box of standard dimensions of 8 feet square and length of 20 feet or 40 feet, in which cargo is preloaded. Used to transport freight by ship, rail, and highway. International containers are designed to fit in ships' holds. Containers are transported on public roads on top a container chassis towed by a tractor. Domestic containers, up to 53 feet long and of lighter construction, are designed for rail and highway use only. See

- Air freight container
- Catalyst container
- Closed Container
- Intermodal Container
- Lift Off Container
- Ocean Container
- Railway Container
- Reefer container
- Roll-Off Container

### **Container Chassis**

- 1. A single-purpose semitrailer designed to carry a shipping container.
- 2. A truck or trailer chassis consisting of a frame (no floor, sides or roof) with locking devices for securing and transporting a container.

#### Containerization

A shipping system where cargo is loaded into a large container box at the factory and shipped from truck to train to ship, etc. without rehandling of contents within the container.

## Container ship

A ship designed to carry containers as cargo.

#### **Contaminant**

- 1. Some impurity in gasoline or oil or anything else.
- 2. Substance such as dirt, moisture, or other matter foreign to refrigerant or refrigerant oil in system.

### Contamination

See

• Catalyst contamination

#### Content

See

- Blood alcohol content
- Bullion Content
- Moisture Content
- Organic Content

### Continental



Click image for books on Lincoln Continental

A vehicle brand of Ford cars of which the 1956-57 Mark II models are <u>milestone cars</u>. See

### • Lincoln Continental

#### Continental kit

A spare tire mounted on the rear bumper of a car, usually requiring a bumper extension. Continental tire

The bulge in the rear portion of the <u>trunk</u> which resembles a tire or a rear mounted tire Continental-type fuse

A ceramic fuse with conical end caps. They are color coded for different values. Continuity

- 1. Continuous or complete circuit.
- 2. The type of circuit that can be checked with an ohmmeter.
- 3. A continuous path for the flow of an electrical current.

### Continuous AC Ignition System

(CACIS) An ignition system where a high-energy alternating current arc burns for the entire power stroke. In this system, the spark plugs don't erode as quickly and the air/fuel mixture is more completely burned. Thus there is no need for a catalytic converter.

## Continuous cycle absorption system

System which has a continuous flow of energy input.

### Continuous duty cycle

(CONT) An electrical motor which can continue to operate within the temperature limits of its insulation system after it has reached normal operating (equilibrium) temperature is considered to have a continuous duty rating. Compare <u>Intermittent Duty Cycle</u>

### Continuous furnace

A furnace in which the charge enters at one end, moves through continuously, and is discharged at the other.

## Continuous ignition source

An ignition source which, once placed in operation, is intended to remain ignited or energized continuously until manually interrupted.

# Continuous injection system

(CIS) A mechanical fuel injection system designed and manufactured by Bosch, used on many German vehicles. In a CIS system, the fuel injectors are always open (i.e., they emit a continuous spray of fuel into the intake ports). The amount of fuel sprayed is determined by the fuel pressure in the system, which in turn is determined by the position of the throttle.

See

## • K-jetronic

## Continuous rolling contact

A wheel in steady rolling contact with the ground without slip, wheel-spin, or slide (as with locked brakes). Should be the aim at all times both on and off road.

### Continuously variable transmission

Abbreviated CVT.

See

• Infinitely variable transmission

### Continuous weld

Completing a weld in one operation

## Conti tire system

Abbreviated CTS. A run flat tire and wheel combination which allows the tire to be run for up to 400 km (250 miles) at a speed of up to 80 kph (50 mph)

#### Contour

See

- Buff contour
- Panel contour

#### Contracta

See

• Vena Contracta

#### Contract carrier

- 1. A shipping company which is transporting goods because of a contract with another shipping company.
- 2. A company that engages in for-hire transportation of property under individual contract or agreement with one or a limited number of shippers.

## Contracting-band brake

A brake in which a band is tightened around a rotating drum

## Contraction

A thermal action where the size (mass or dimension) of an object is reduced when cooled; the opposite of <u>Expansion</u>.

See

• Isothermal Expansion And Contraction

#### Contract rates

Rates which are part of a total contract negotiated between shipper and a carrier.

#### Contract Warehouse

A warehouse operation managed by a third party logistics (3PL) provider for a specified period of time. The 3PL manages a client's inventory and order fulfillment processes.

Pricing scenarios may vary, and storage, labor and equipment resources are typically dedicated to the client for the duration of the contract. The client may or may not share in the building and equipment expense.

#### Contrast Control

See

• Automatic Contrast Control

#### Contre

See

• Outboard contre pente

## Contre pente

Abbreviated CP. A French designed wheel where the raised portion of one of the rim bead seat is designed to hold the tire bead of a nearly flat tire without breaking the bead (i.e., becoming unseated).

See

• Outboard contre pente

### Contre pente on both bead seats

Abbreviated CP2. A safety rim contour with a contre pente on both rim bead seats Control

- 1. A device or mechanism for adjusting a component.
- 2. The ability of the driver to make a vehicle perform as required.
- 3. To regulate.
- 4. Automatic or manual device used to stop, start, and/or regulate flow of gas, liquid, and/or electricity.

- Adaptive Control
- Automatic Beam Control
- Automatic Brightness Control
- Automatic Contrast Control
- Automatic Control
- Automatic frequency control
- Automatic Frost Control
- Automatic Gain Control
- Automatic level control
- Automatic Mixture Control
- Automatic Phase Control
- Automatic Quiet Gain Control
- Automatic Ride Control

- Automatic temperature control
- Automatic volume control
- Balance control
- Boost Control
- Boundary Layer Control
- Brightness Control
- Choke control
- Climate control
- Corrosion control
- cruise control
- Daylighting Controls
- <u>Defrosting Control</u>
- Deice Control
- Digital frequency control
- Dimmer control
- Direct Digital Control
- Distribution Controls
- Dual Controls
- Dwell-angle control
- EGR Function Control
- Electric air control valve
- Electronic Climate Control
- Electronic control module
- Electronic control unit
- Electronic engine control
- Electronic ride control
- Electronic spark control
- Electronic traction control
- Electronic transmission control
- emission control
- Evaporation control system
- Evaporative emission control system
- Fail-safe Control
- Feedback control
- Finance and control
- Flow control
- Ground clearance control
- Hand Controls
- Headlight leveling control
- Head Pressure Control
- Heat control valve
- Heating Control
- Hill Descent Control
- Hydraulic control block
- Idle Speed Control
- Ignition control unit

- ignition timing
- Illumination control
- Inflation control seam
- Infrared remote control
- Instruments And Controls
- <u>Intermittent wiper control</u>
- Intuitive Control
- Knock control
- Lambda Control
- Limit Control
- Limit Cycle Control
- Load Proportional Brake Control
- Low-pressure Control
- Low-side Pressure Control
- Low-speed traction control
- Manifold heat control valve
- Manual Frost Control
- Mixture control unit
- Modulating Combustion Controls
- Motor Control
- Multi-function control stalk
- Oil control ring
- Open-loop Fuel Control
- Orifice Spark Advance Control
- Overrun control valve
- Pressure Motor Control
- Primary Control
- Primary Safety Control
- Quality Control
- Quiet Automatic Volume Control
- Refrigerant Control
- Remote control
- Remote Power Element Control
- Safety Control
- Safety Motor Control
- Semi-automatic Frost Control
- Sequence Controls
- Speed control
- Steering Column Controls
- Temperature control
- Thermal Ignition Control
- Thermostatic Control
- Thermodisk Defrost Control
- Thermostatic Motor Control
- Traction Control
- Vacuum control

- Voltage Control
- Zone Controls

### Control arm

A metal <u>Strut</u> on the <u>suspension</u> which is located at the top and bottom of the wheel <u>spindle</u>. The upper and lower control arms allow the front wheels to change direction. Also called a <u>wishbone</u> or <u>A-arm</u>.

See

• Suspension system

## Control arms

See

control arm

## Control Assembly

See

• <u>Electronic Control Assembly</u>

### Control Automatic

See

• Automatic Frost Control

### Control block

See

• Hydraulic control block

#### Control box

A container which houses electrical components which regulate the action of something. Control cable

A wire cable which runs from a knob or lever to a device which operates or regulates. Also called a *control wire*.

See

• Starter switch control cable

## Control, compressor

See

• Motor control

## Control computer

See

• Spark control computer

### Control, defrosting

Device to automatically defrost evaporator. It may operate by means of a clock, door cycling mechanism, or during *off* portion of refrigerating cycle.

# **Control Diagnostics**

See

• Electronic Control Diagnostics

#### Contrôle

A checkpoint where randonneur bicycle riders must stop to have their route cards signed and stamped to prove they have kept to the course within the time limits.

## Control element

See

• <u>Temperature control element</u>

#### Control head

The <u>instrument panel</u> mounted assembly which houses the mode selector, the blower switch and the temperature control lever of the heating, air conditioner, and ventilation system

### Control Information

See

• Vehicle Emission Control Information

#### Controlled

See

- Air Flow Controlled
- Electronically Controlled
- Manifold Pressure Controlled

# Controlled burn rate

(CBR) A method of improving fuel economy by increasing or decreasing the rate which the fuel burns

See

• <u>CBR process</u>

# Controlled canister purge

(CCP) ECM-controlled solenoid valve that permits manifold vacuum to purge the evaporative emissions from the charcoal canister

## Controlled combustion system

(CCS)

- 1. An emission control term used by General Motors to include the following
  - o modified combustion chamber design
  - o high-temperature coolant systems
  - thermostatically controlled air cleaners
  - o very lean air/fuel mixtures
  - o high idle speeds
  - o severely retarded ignition timing
  - o TCS (transmission controlled spark) and TVS (thermal vacuum switch)
- 2. A system of reducing unburned <u>Hydrocarbon</u> emission from the engine <u>exhaust</u>

### Controlled electronic

See

• Magnetically controlled electronic ignition

#### Controlled intersection

A road junction which is controlled by traffic lights (signal lights)

### Controlled spark

See

• <u>Transmission controlled spark</u>

### Controlled Transmission

See

• Electronically Controlled Transmission

### Controlled vehicle

A vehicle with a reduced emission system consisting of a catalytic converter, EGR, air injection, fuel evaporative emission control, etc. Also called a *detoxed vehicle*.

#### Controller

- 1. A group of controls and circuits used to accurately and automatically operate a device.
- 2. A device which uses a variable resistor to regulate current flow to an electric brake friction assembly based on hand, foot, hydraulic, or air pressure.
- 3. Electronic device that controls the timing and sequencing of traffic signals.
- 4. An element which restricts the flow of electric power to an electric motor for the purpose of controlling torque and/or power output.

See

Anti-lock Brake Controller

- Battery discharge controller
- Centralized Computer Controller
- <u>Localized Controllers</u>
- Logic Controller
- Programmable Controller
- Remote Controller
- Solid state controller
- Three phase controller
- Variable Air Volume Controller

### Controller, anti-lock brake

CAB Chrysler Corporation's term for the electronic control unit

#### Control link

See

• Toe control link

### Control loom

The electrical wiring of a component.

## Control, low-pressure

Cycling device connected to low-pressure side of system.

## Control module

One of several names for a solid-state micro-computer which monitors engine conditions and controls certain engine functions, i.e., air/fuel ratio, injection and ignition timing, etc. See

- Digital Ratio Adapter Controller Module
- Electronic Brake Control Module
- Electronic control module
- Manual Frost Control
- Powertrain Control Module
- Transmission control module
- Transmission Powertrain Control Module

### Control, motor

Temperature or pressure-operated device used to control running of motor. See

• <u>Idle Speed Control Motor</u>

### Control orifice valve

See

• Oil control orifice valve

### Control Override

• Boost Control Override

# Control plunger

- 1. A device in a fuel injection system which moves up and down to provide the correct amount of fuel to each cylinder.
- 2. One of several names for a solid state device which monitors engine conditions and controls certain engine functions, i.e., fuel injection, ignition timing, glow plug system in a diesels engine, etc.

## Control pressure

- 1. The pressure in a fuel injection system.
- 2. The pressure coming from line pressure or throttle pressure in the automatic transmission which pushes on the command valves.
- 3. In a Bosch CIS, the pressurized fuel used as a hydraulic control fluid to apply a counterforce to the control plunger in Bosch CIS. Control pressure alters the airfuel ratio through the operation of the control-pressure regulator
- 4. The lower chamber pressure, which is controlled by the <u>EHA</u>, to control mixture, warm up and decelerate air/fuel ratio

# Control, pressure motor

High- or low-pressure control connected into the electrical circuit and used to start and stop motor. It is activated by demand for refrigeration or for safety.

### Control pressure regulator

In Bosch CIS, the control-pressure regulator is a thermal-hydraulic device that alters the control pressure by returning the excess fuel from the control pressure circuit to the fuel tank. The control-pressure regulator controls the counterforce pressure on top of the control plunger. Also referred to as the warm-up regulator

## Control, refrigerant

Device used to regulate flow of liquid refrigerant into evaporator. Can be a capillary tube, expansion valves, or high-side and low-side float valves.

## Control ring

See

• Oil control ring

## Controls

- <u>Dual controls</u>
- Exhaust emission controls
- Instruments and controls
- Secondary controls

• Steering column controls

## Control screw

See

• Volume control screw

## Control seam

See

• Inflation control seam

### Control Semiautomatic

See

• Semi-automatic Frost Control

## **Control Signals**

See

• Powertrain Control Signals

## Control Solenoid

See

• Mixture Control Solenoid

## Control Solenoid Vacuum Valve Assembly

See

• Thermactor Air Control Solenoid Vacuum Valve Assembly

### Control stalk

A shaft which projects from the steering column just below the steering wheel. It may control lights, cruise control, wipers, windshield washer, signal lights, horn, etc. See

• Multi-function control stalk

### Control switch

See

Vacuum control switch

### Control system

All of the components required for the automatic control of a process variable.

#### See

- Anti-spin regulation traction control system
- Automatic Flight Control System
- Energy Management Control System
- Evaporation control system
- Evaporative emission control system
- Exhaust emission control system
- Feedback Control System
- Skid Control System
- Thermactor Exhaust Control System
- <u>Transmission control system</u>
- Vacuum Control System
- Wheel Slip Brake Control System

### Control, temperature

Temperature-operated thermostatic device which automatically opens or closes a circuit.

#### Control unit

See

- Electronic control unit
- Hydraulic Control Unit
- <u>Ignition control unit</u>
- Microprocessor Control Unit
- Mixture control unit
- Vacuum control unit
- Warm-up control unit

### Control vacuum advance

See

• Speed control vacuum advance

## Control valve

- 1. A valve which regulates or operates a system, especially a hydraulic or vacuum control system.
- 2. Valve which regulates the flow or pressure of a medium which affects a controlled process. Control valves are operated by remote signals from independent devices using any of a number of control media such as pneumatic, electric, or electrohydraulic.

- Air control valve
- Auxiliary Air Control Valve

- Auxiliary Control Valve
- Electric air control valve
- Electronic Air Control Valve
- Exhaust Heat Control Valve
- Idle Air Control Valve
- Manifold Control Valve
- Manifold heat control valve
- Oil control orifice valve
- Overrun control valve
- Purge Control Valve
- Suction Pressure Control Valve
- Thermactor Air Control Valve
- Vacuum Control Valve
- Vacuum Operated Exhaust Heat Control Valve

## Control valve assembly

A casting located in the sump of the automatic transmission. It contains most of the valves for the hydraulic control system.

#### Control wire

A wire cable which runs from a knob or lever to a device which operates or regulates. Also called a *control cable*.

### Conv

Abbreviation for convertible.

#### Convection

- 1. The transfer of heat from one object to another when the hotter object heats the surrounding air and the air in turn heats the other object.
- 2. The transfer of heat by the circulation or movement of the heated, or cooled, parts of a vapor or liquid
- 3. The circulatory motion that occurs in a fluid at a nonuniform temperature owing to the variation of its density and the action of gravity. Generally fluid flow occurs because of natural convection (convection caused by density gradients), and forced convection (convection enhanced by mechanical means), and may be characterized by stagnant regions, laminar flow and turbulent flow.

#### See

- Forced Convection
- Natural Convection
- Thermal convection

#### Convection-cooled motor

See

• Totally enclosed non-ventilated enclosure

### Convection, forced

Transfer of heat resulting from forced movement of liquid or gas by means of a fan or pump.

### Convection, natural

Circulation of a gas or liquid due to difference in density resulting from temperature differences.

#### Convenience

See

## • Flags of convenience

### Conventional

A vehicle with the engine forward of cab. Snub nosed, short hooded cabs are conventional. Step vans are conventional.

### Conventional battery

A battery that has one or more caps for adding distilled water or electrolyte.

## Conventional oxidation catalyst

(COC) a catalyst which acts on the two major pollutants HC and CO

## Conventional cross ply

A tire having two or more carcass plies arranged in a criss-cross manner and diagonally to the beads and travels approximately 1/3 the distance around the circumference before attaching to the other bead. Each cord in the next ply is arranged in the same manner, but in the opposite direction.

## Conventional gasoline

Finished motor gasoline not included in the oxygenated or reformulated gasoline categories. Note: This category excludes reformulated gasoline blendstock for oxygenate blending (RBOB) as well as other blendstock.

## Conventional ignition

The transfer of heat from one object to another when the hotter object heats the surrounding air and the air in turn heats the other object.

## Conventional ignition system

An ignition system consisting of the battery, ignition switch, ballast resistor, ignition coil, distributor, contact breaker points, condenser, centrifugal or vacuum advance unit, spark plugs, and high tension wires.

## Conventionally fueled vehicle

A vehicle that runs on petroleum-based fuels such as motor gasoline or diesel fuel.

# Conventional oil and natural gas production

Crude oil and natural gas that is produced by a well drilled into a geologic formation in which the reservoir and fluid characteristics permit the oil and natural gas to readily flow to the wellbore.

# Conventional spare tire

A spare tire and rim which is the same size as the other four wheels. Most cars do not have them because they take up too much space in the trunk.

## Conventional theory

The direction of current flow was arbitrarily chosen to be from the positive terminal of the voltage source, through the external circuit, then back to the negative terminal of the source

#### Conventional tire

A Bias ply tire.

### Conventional truck

Engine forward of cab in power unit. Snub nosed, short hooded cabs are conventional. Step vans are conventional.

#### Conversion

- 1. The change from one state to another, e.g., harmful gases into harmless gases.
- 2. Altered state of a particular system, or set of parts needed to achieve it.

### See

- Biochemical Conversion
- Energy conversion
- Shift Conversion
- Van Conversions

### Conversion coating

A coating of some metal which uses the same kind of metal in the coating compound and improves paint adhesion and corrosion resistance

# Conversion company

An organization that performs vehicle conversions on a commercial basis.

### Conversion factors

Force and power may be expressed in more than one way. A horsepower is equivalent to 33,000 ft. lb. of work per minute, 746 watts, or 2546 Btu per hour. These values can be used for changing horsepower into foot pounds, British thermal units, or watts.

#### Conversion rate

The rate at which a given catalytic converter purifies the exhaust gas stream, governed by various parameters such as operating conditions and converter design

### Conversion Vehicle

A vehicle originally designed to operate on gasoline or diesel that has been modified or altered to run on an alternative fuel.

#### Converted Vehicle

A vehicle originally designed to operate on gasoline or diesel that has been modified or altered to operate on an alternative fuel.

See

• Aftermarket Converted Vehicle

#### Converter

1. When used with LPG (<u>Propane</u>), it is a device which turns LPG (propane) from liquid to vapor for use in the engine.

2. Referring to a <u>transmission</u> it is the device that transfers engine <u>torque</u> to the transmission.

### See

- AD Converter
- Aftermarket Vehicle Converter
- Alternative Fuel Vehicle Converter
- Bessemer Converter
- Catalytic converter
- Dual-bed catalytic converter
- Lock-up torque converter
- Lockup torque converter
- Mini catalytic converter
- Monolithic converter
- Open-loop catalytic converter
- Oxidizing converter
- Pellet-type catalytic converter
- Primary catalytic converter
- Rust converter
- Single-bed 3-way catalytic converter
- Single-bed oxidizing converter
- Three-way catalytic converter
- Torque converter

#### Converter case

An assembly in the automatic transmission encasing the impeller with the converter cover welded to it. It contains the converter fluid and vane wheels and connected to the crankshaft by means of the drive plate and revolving at engine speed.

#### Converter, catalytic

See

- <u>Catalytic converter</u>
- Three-way catalytic converter

#### Converter cover

A part in the automatic transmission that is welded to the pump and makes up the converter case

### Converter Dolly

Sometimes called just *Dolly*.

- 1. An auxiliary axle assembly equipped with a fifth wheel (coupling device), towed by a semitrailer and supporting the front of, and towing, another semitrailer.
- 2. An undercarriage assembly with one or more axles, a fifth wheel, and a tongue, used to convert a semitrailer to a full trailer.

### Converter drive plate

See

• Torque converter drive plate

#### Converter Gear

Colloquial term for <u>converter dolly</u> Converter housing

- 1. A stationary outer part of the automatic transmission which encloses the converter case.
- 2. The housing of a catalytic converter. Also called *converter shell*.

See

• Torque converter housing

## Converter lock-up clutch

See

• Torque converter lock-up clutch

### Converter preheating

An <u>emission control</u> device which increases catalytic action in cold starts when HC and CO are their highest. Although not in use in <u>current</u> cars, it may become necessary in the future. Thus it may mean the following Take longer to start a vehicle in the morning, require a larger <u>battery</u>, necessitate plugging a vehicle into household circuit, need for frequent replacement of the <u>Catalytic converter</u>.

See

• Preheating

### Converter shell

The housing of a catalytic converter. Also called <u>Converter housing</u> Convertible



#### Convertible

Generally this is a two-door automobile without a fixed roof. Instead, the roof folds up or is removed in some way so that the passenger compartment can be exposed to the open air. Some roofs are made of flexible fabric or plastic which folds up behind the passenger compartment. Other roofs are not flexible and retract into the <u>trunk</u>. Some retract automatically while others must be manually removed and placed in the trunk.

Convertible coupés had two doors, while cars with four doors were called convertible sedans. The term *convertible* was introduced in the 1930s. In the 1950s, a <u>hardtop</u> <u>convertible</u> was introduced to look like a convertible with its top up; but its fixed roof did not fold or retract. A convertible was also called a *drophead coupé* or *open car*.

## Convertible adjustable gas pressure regulator

A regulator for conversion between gases having different heating values whose adjustment means can be positioned from one predetermined outlet pressure setting for one gas to another predetermined outlet pressure setting for the other gas with no intermediate pressure settings and without addition, deletion or substitution of parts.

## Convertible roadster

Technically a convertible is an open car with windows; a <u>roadster</u> is an open car without windows. Some manufacturers in the 1930s used the term *convertible roadster* to indicate a sport car.

### Convertible sedan

This is similar to the <u>sedan</u> body type, but with provisions of lowering both the all-weather side windows and the fabric top to create a four-door convertible.

### Convertible top

The soft foldable canvas or vinyl top of a convertible. It usually has a clear plastic rear window.

#### Convertible Victoria

A four passenger two door two-window convertible.

### Convex drum

A deformed brake drum in which the diameter at the center of the friction surface is smaller than that at the ends

#### Convex weld

A weld with the face above the old edges

### Conveyor

See

- Band Conveyor
- Bucket Conveyor
- Gravity Conveyor
- Roller Conveyor
- Skate Wheel Conveyor

### Coolant

Liquid in the <u>cooling system</u>. Usually a 50:50 mixture of water and <u>antifreeze</u> (ethylene glycol). This mixture lowers the freezing point of the water in the <u>cooling system</u>, prevents rust and corrosion, lubricates the <u>water pump</u>, and picks up heat from the engine and transfers it to the air passing through the <u>radiator</u>. As well the warm coolant provides heat for the interior heater.

- Cell Coolant
- Engine coolant
- Nontoxic Coolant

- Summer Coolant
- Toxic Coolant
- Winter Coolant

Coolant controlled exhaust gas recirculation

(CCEGR) a system that prevents exhaust gas recirculation until engine coolant temperature reaches a specific value

Coolant level warning light

A small light on the <u>instrument panel</u> which is illuminated when the radiator is low on coolant

Coolant pump

See

• Water pump

Coolant recovery system



Radiator overflow tank

A small bottle that acts as a reservoir for liquid expelled from the <u>cooling system</u> through the <u>overflow pipe</u> and returns the liquid to the system when it cools down. A special <u>radiator pressure cap</u> is also part of the kit. It is also called a *Closed Cooling System* when it is part of the <u>original equipment</u>.

Coolant temperature gauge

Instrument cluster gauge used to indicate engine coolant temperature.

Coolant temperature override switch

CTO A switch that prevents vacuum from reaching a component until coolant temperature reaches a certain value

Coolant temperature sensor

(CTS) A <u>thermistor</u> located at the bottom of the radiator which is connected to the temperature gauge. Usually the CTS is an <u>NTC</u> thermistor, or a resistor whose resistance varies with temperature See

• Engine Coolant Temperature Sensor

## Coolant tester



Coolant Tester

A bulb and syringe device which sucks up the antifreeze in a radiator to determine its level of protection.

## Cooled

See

- Air-cooled
- <u>Liquid-cooled</u>
- Water-cooled

## Cooled engine

See

• Air cooled engine

## Cooled valve

See

• Sodium cooled valve

### Cooler

- 1. A device for cooling hot liquid or air by passing air through the <u>Vanes</u> of a heat sink.
- 2. Heat exchanger which removes heat from a substance.

#### See

- aftercooler
- Air Cooler
- Baudelot Cooler
- Oil cooler
- Swamp Cooler
- Walk-in Cooler

## Cooler bypass

See

• Oil cooler bypass valve

# Cooler bypass valve

See

• Oil cooler bypass valve

## Cooling

Conditioning of a vehicle's air for human comfort by a refrigeration unit (such as an air conditioner). Use of fans or blowers by themselves, without chilled air, or by opening the windows is not included in this definition of cooling. See

- Air Cooling
- Charge air cooling
- District Heating And Cooling
- Fan cooling
- Flushing the cooling system
- Intercooling
- Solar Cooling
- Spray Cooling
- Thermosyphon cooling

## Cooling And Refrigeration

See

• Process Cooling And Refrigeration

## Cooling fan

- 1. A large fan designed to suck relatively cool air and force it onto a warm object like an engine.
- 2. A large fan designed to pull away the radiant warm air surrounding a hot object.
- 3. Electric fan used to pull air through a radiator on liquid-cooled vehicles.

## Cooling fins

The greater the surface area that needs to be cooled, the better you will be able to cool off a hot object, like an engine. By putting a number of fins on a surface, you increase the overall area. On air cooled engines, for instance, you will see a series of closely formed ridges or fins in parallel. As the air passes by them, the engine heat is dissipated. These projections or fins can be found on cylinder heads, cylinders, crankcases, and some electrical components like rectifiers.

See

- Axial Cooling Fins
- Radial Cooling Fins

# Cooling jacket

See

Water jacket

## Cooling system

The system that removes heat from the engine. In a water-cooled engine it includes radiator, Pressure cap, fan, Water pump, Thermostat, Water jackets; in an air-cooled engine it consists of a fan, cooling fins, and <u>Ducting</u>.

See

- Flushing the cooling system
- Jet Cooling System
- Water cooling system

### Cooling tower

Device which cools by water evaporation in air. Water is cooled to wet bulb temperature of air.

#### Coolmax

A garment constructed of four channel polyester, naturally hydrophobic fabric. Coolmax is designed to regulate body temperature during physical exertion by increasing air flow and transporting moisture through the fibers to the outside of the fabric where moisture evaporates.

### Co-operation And Development

See

• Organization For Economic Co-operation And Development

## Cooperative Research and Development Agreement

(CRADA) A federal and private joint research and development program that is used to further technology commercialization.

### Co-ordinated tow

When recovering a stuck vehicle, the process by which the engine power of both the tug and the stuck vehicle are co-ordinated - usually by a signal from an external marshaller -

and the clutches of both vehicles are engaged at the same time to enhance the chance of a first-time recovery.

## Coordinate measuring machine

An electronic machine that can take and record precise measurements of three-dimensional surfaces. Typically, a *scanner* has an articulated arm with a probe at the end that either physically touches the surface or 'scans' it with a laser probe. The scanner, by assigning digitized numbers based on an X-Y-Z coordinate system and a zero point, forms a point-by-point mathematical model of the surface. (Also called *point taker*).

### **COP**

- 1. Abbreviation for *Coil On Plug* Electronic Ignition
- 2. Abbreviation for Conference of the Parties

## Copolymer

A polymer produced from two different monomers. See

Graft copolymer

### Copper

A reddish metal that is an excellent conductor of heat and electricity. It is malleable, ductile, and non-magnetic with low to average strength and good corrosion resistance. Brass and silicon bronze, composed mainly of copper, gain their strength from the addition of other metals.

See

- Black Copper
- Blister Copper
- Cadmium Copper
- <u>Casting Copper</u>
- Cathode Copper

## Copper alloy

A combination of copper and another metal (e.g., zinc, tin, aluminum, lead, etc.)

### Copper core

The center electrode of a spark plug or the center wires of a high tension wire which is made of copper.

### Copper corrosion

A greenish residue called verdigris

## Copper-faced hammer

A hammer with a round head made of copper or brass. It is used to hit objects without damaging them where hitting them with a steel hammer might.

Copper plating

- 1. The application of a thin layer of copper by a process of electrolysis. Primarily it is done to electrical contacts and terminals to give excellent conduction of electricity.
- 2. Abnormal condition developing in some units in which copper is electrolytically deposited on some compressor surfaces.

## Copper Steel

When steel has a minimum of copper content it is classed as copper steel. The copper is added to enhance erosion resistance of the steel.

# Copy

Trucker slang for *understand* as in 'Do you copy?'

## Copy bill

A computer-generated printout that can be requested when the original freight bill <u>PRO number</u> is known. The copy bill will show all the necessary information about the shipment.

### Cord

- 1. A vehicle brand of which the 1925-1948 model cars are classic cars.
- 2. A strand of fabric or steel cable used in the ply of a tire.
- 3. A rope.

### See

• Bungee cord

#### Cordierite

A ceramic material of the formula 2MgO-2Al2O3-5SiO2 which is used for automotive flow-through <u>catalyst</u> substrates and ceramic wall-flow diesel filters.

### Cordura

The brand name for a heavy-duty, synthetic material made by DuPont that feels like canvas. It is often used in the manufacture of lightweight clothing, backpacks, and camping gear.

#### Core

- 1. When referring to <u>casting</u> -- a sand unit placed inside of a <u>Mold</u> so that when the metal is poured, the core will leave a hollow shape.
- 2. The magnetic center of a coil usually made of iron.
- 3. The primary part (engine <u>Block</u>, <u>Alternator</u>, <u>starter</u>, <u>radiator</u>, etc.) which has malfunctioned, but is still suitable for <u>Rebuilding</u> or <u>Remanufacturing</u>. You can exchange it for a new or rebuilt part. Thus, instead of paying full price for a new alternator, you can submit your old alternator as a core and pay a lower amount for the new alternator. *CORE* is an abbreviation for *cash on return*.

### See

Air Core

- Baked Core
- Bead core
- Copper core
- Heater Core
- Laminated iron core
- Magnetic Core
- Timer core
- Valve core

### Core, air

Coil of wire not having a metal core.

## Core charge

The word *core* is short for *cash on return*. When you purchase a part which is Rebuildable, you can return your old part and receive a core charge. Generally a core charge is collected for engines, <u>crankshafts</u>, <u>Alternators</u>, <u>radiators</u>, <u>brake shoes</u>. If the part is beyond repair, there may be no core charge.

## Core hole plug

See

- Core plug
- Freeze plug

## Core hole plugs

See

• Core plug

### Core/insulator

See

• Projected core/insulator nose

### Core/insulator nose

See

• Projected core/insulator nose

#### Core leads

See

• Carbon-core leads

## Core, magnetic

Magnetic center of a magnetic field.

Core plug

A metal plug located in the sides of the engine <u>Block</u> which can pop out because of excessive pressure or freezing and prevent the engine <u>Block</u> from <u>Cracking</u>. These plugs are located in the water jacket and can sometimes leak and should then be replaced. <u>Block heaters</u> are installed by removing a core plug and inserting a heating element. Core plugs are also called *freeze plugs* or *expansion plugs*.

## Core plugs

See

#### • Core plug

#### Core sand

Sand that has been combined with some liquid to get it to stick together for molding Core Solenoid

See

## • Air Core Solenoid

### Core support

The framework that supports the radiator and air conditioner condenser assembly and also serves as the attaching point for the front fenders, grille assembly, hood latch, etc.

#### Corncob

A <u>bicycle</u> term used to describe a cluster of <u>Cogs</u> on a racing <u>freewheel</u> because of the small variation in number of teeth on adjacent <u>Cogs</u>.

#### Corner

See

- Across Corners
- Decreasing-radius Corner
- Increasing-radius Corner
- Inside corner weld
- Outside corner weld
- Rear corner valance
- Rear corner panel

## Cornering

The negotiation of a curve, bend, or corner of a road. Good cornering ability allows the vehicle to go around a curve at a reasonable speed without body roll and breakaway.

### Cornering force

The forces exerted on a tire by the slip angle when moving around a curve. See

#### • Ultimate cornering force

#### Cornering limit

The maximum <u>speed</u> that a vehicle can travel around a particular curve. Cornering speed

The speed that a vehicle makes when turning. It is relative to the sharpness of the curve and the ability of the vehicle to stay on the road under control.

## Corner joint

A junction formed by edges of two pieces of metal touching each other at an angle of about 90°

## Corner panel

A panel used to fill a gap between larger panels or frame members meeting at an angle and to serve as a stiffener, such as those at the intersection of sidemembers and crossmembers and the rear corner panels of rear fenders.

See

- Rear corner panel
- Windshield corner panel

### Corner point speed

The transition between constant torque and constant power operation in an electric motor or an engine.

#### Corners

See

Across corners

### Corner steady

A British term for a jack stand used to support and level the corner of a parked travel trailer.

#### Corner valance

See

• Rear corner valance

### Corner weld

See

- Inside corner weld
- Outside corner weld

# Corn flakes

Trucker slang for A Consolidated Freightway truck as in 'Can I get a smokey report there corn flakes.'

### Corolla



Click image for books on Toyota Corolla

A model of automobile manufactured by Toyota

Corona



Click image for books on Toyota Corona

A model of automobile manufactured by Toyota

## Corporate Average Fuel Economy

(CAFE) Regulation enacted in 1975 which requires a motor vehicle manufacturer to classify its U.S. vehicle fleet sales as either domestic or import for the purpose of fuel economy averaging. It set federal fuel economy standards. The CAFE values are an average of city and highway fuel economy test results weighted by a manufacturer for either its car or truck fleet.

# Corporation

Business association endowed by law with the rights and liabilities of an individual Correction Capsule

See

• Altitude Correction Capsule

### Correction jet

See

• Air correction jet

#### Corrector

See

• Height corrector

### Corridor

A broad geographical band that follows a general directional flow connecting major sources of trips that may contain a number of streets, highways, and transit route alignments.

# Corridor analysis

A detailed analysis of a roadway performed for the purpose of obtaining the most accurate projected traffic volumes. The analysis takes into account existing traffic volumes, projected growth, and major traffic generating locations. A corridor analysis

will yield projected traffic volumes for every movement allowed on a facility including main lane, ramp, frontage road, and turning volumes.

#### Corrode

To eat away, gradually, the surface material from an object by chemical action, such as rust.

#### Corrosion

- 1. The chemical process in which metal is eaten away (i.e., rusting).
- 2. Deterioration of materials from chemical action.
- 3. The eating or wearing away of a substance, such as metal, usually caused by chemical decomposition brought about by an acid.
- 4. The residue left by the process of gradual wearing away of a metal surface by chemical reaction.
- 5. Detrimental change in the size or characteristics of material under conditions of exposure or use. It usually results from chemical action either regularly and slowly, as in rusting (oxidation), or rapidly, as in metal pickling.

#### See

- Anti-corrosion
- Atmospheric corrosion
- Bimetallic corrosion
- Cold-condensate corrosion
- Electrochemical corrosion
- Electrolytic corrosion
- Fatigue corrosion
- Fretting corrosion
- Galvanic corrosion
- General corrosion
- Graphitic corrosion
- Intercrystalline corrosion
- Intergranular corrosion
- Localized corrosion
- Microbial corrosion
- Oxygen corrosion
- Pitting corrosion
- Scab corrosion
- Selective corrosion
- Stress corrosion cracking
- Uniform corrosion

#### Corrosion control

The minimizing of corrosion by coating with a protective metal, an oxide, or similar substance, or with protective paint, or by making the metal passive.

### Corrosion cracking

• Stress corrosion cracking

#### Corrosion inhibitor

- 1. A substance which reduces or prevents corrosion in oils, anti-freeze, paints, etc.
- 2. Additives used to inhibit corrosion in the fuel system

## Corrosion prevention

The minimizing of corrosion by coating with a protective metal, an oxide, or similar substance, or with protective paint, or by making the metal passive.

### Corrosion product

A substance formed as a result of corrosion (i.e., the rust itself)

## Corrosion protection

The minimizing of corrosion by coating with a protective metal, an oxide, or similar substance, or with protective paint, or by making the metal passive.

## Corrosion resistance

The ability of metal not to corrode. For example, nickel has a high corrosion resistance while iron does not.

### Corrosion warranty

See

• Anti-corrosion warranty

#### Corrosive

Causing corrosion, e.g., acid is corrosive because it eats away the substance on which it is applied. That's why acid rain is so harmful to the surface of automobiles. See

Anti-corrosive

## Corrugated

Having a series of wrinkles or grooves arranged so as to produce stiffness.

## Corrugated bulkhead

A <u>bulkhead</u> that is not a flat panel, but has vertical or horizontal <u>corrugations</u>, thus eliminating the need for many welded stiffeners.

### Corrugations

Deformation of an unsurfaced track taking the form of transverse, close-pitch undulations - i.e., at right angles to the direction of the track. Sometimes referred to as <u>washboard</u>.

Corsica



Click image for books on Chevrolet Corsica

A model of small car produced by the <u>Chevrolet</u> division of <u>General Motors</u> from 1987-96.

Cortina



Click image for books on Ford Cortina

A model of automobile manufactured by Ford of England Corvair



Click image for books on Corvair

A model of small car produced by the <u>Chevrolet</u> division of <u>General Motors</u> from 1960-69 of which the 1960-64 Monza models are <u>milestone cars</u>. The 1962-64 Monza Spyder models are <u>milestone cars</u>. The 1965-69 Monza/Corsa models are <u>milestone cars</u>.

#### Corvette



Click image for books on Chevrolet Corvette

A model of sports car produced by the <u>Chevrolet</u> division of <u>General Motors</u> from 1953 to the current year. The 1953-70 models are <u>milestone cars</u>. See also a history of the <u>Corvette</u>

#### COSO

Abbreviation for *Copy of shipping order*. It is actually a photocopy of the shipping order. The COSO is the primary document used to move shipments from the origin terminal to the destination terminal.

#### Co-solvents

Heavier molecular weight alcohols used with methanol to improve water tolerance and reduce other negative characteristics of gasoline/alcohol blends. Tertiary butyl alcohol (TBA) was used commercially as a co-solvent for methanol/gasoline blends during the 1980s.

#### Cost

The price that a shop charges for a vehicle or one of its <u>components</u>. To the shop, it is the price they pay for the <u>component</u> (i.e., the net price plus shipping) to which they add an amount or percentage to arrive at the selling price.

See

- Capitalized cost
- Delivered Cost
- Net cap cost
- Net capitalized cost
- Operating costs
- Opportunity cost

### Total Out-Of-Pocket Cost

#### Cost-effective

Worthwhile. Usually a determination of whether repairing a vehicle is worth the expense in comparison with junking or selling it in favor of purchasing a newer vehicle. If you spend a \$1000 to repair a vehicle worth\$20,000, that is cost effective. If you spend a \$1000 to repair a vehicle worth \$200, it probably is not. The exception would be a vehicle which has nostalgic or historic value.

## cost, insurance, and freight

(CIF) The basis for quotation by seller that indicates seller will pay insurance and freight charges to destination only.

## Cost of production

Actual cost to the manufacturer of producing a vehicle (does not include mark-up). Cost option

An optional item for a new vehicle for which extra money must be paid to obtain it. Cost Pass Through

A cost sharing system where partial costs of a pallet are passed through from the purchaser to the buyer of the pallet.

## Cost per kilometre

A ratio which is obtained by dividing the total cost of the tire by the distance the tire has gone. The total cost involves adding up the initial price of the tire, price of retreading, repairs, rotation of tires, balancing tires, and other services. From this total any credits such as warranty, rebates, and trade-in value is subtracted. It must be remembered that when calculating the cost per kilometre of summer tires if winter tires were installed for a few months that only the number of kilometres that the summer tires were actually in use should be determined for this ratio. When purchasing tires, it may be helpful to divide the retail cost by the number of expected kilometres in order to compare one brand or one series against another.

## Cost per mile

A ratio which is obtained by dividing the total cost of the tire by the distance the tire has gone. The total cost involves adding up the initial price of the tire, price of retreading, repairs, rotation of tires, balancing tires, and other services. From this total any credits such as warranty, rebates, and trade-in value is subtracted. It must be remembered that when calculating the cost per mile of summer tires if winter tires were installed for a few months that only the number of miles that the summer tires were actually in use should be determined for this ratio. When purchasing tires, it may be helpful to divide the retail cost by the number of expected miles in order to compare one brand or one series against another.

### Cost-Per-Trip

The average cost of pallet use for a single one-way trip.

#### Cost reduction

See

## • <u>Capitalized Cost Reduction</u>

### Cost reduction effort

• Supplier cost reduction effort

### Cotal gearbox

A semi-automatic electrically controlled transmission made in France just afterWWII Cotter



#### Cotter

A tapered pin or wedge which is inserted into holes in two parts to secure them. Older bicycles used a cotter to secure the crank arm to the crank spindle. Also called *crank cotter* 

See

- Cottered crank
- Hair Pin Cotter

### Cotter Key

The retaining pin for a connecting link.

## Cotter pin



## Cotter pin

A fastener shaped like a pin, but split up the center. After it is inserted, the legs are bent around the item containing the hole. A length of wire which is folded almost in half and the bend forms an eye. Also called a *split pin*.

### Cottered crank

A <u>bicycle crankset</u> in which the <u>crankarms</u> are fastened to the axle by means of threaded Cotter pins and nuts.

#### Cotterless crank

A <u>bicycle crankset</u> in which the <u>crankarms</u> are fastened to the axle by means of nuts or bolts instead of <u>Cotter pins</u>.

#### Cotterless crankset

A <u>bicycle crankset</u> in which the <u>crankarms</u> are fastened to the axle by means of nuts or bolts instead of Cotter pins.

#### Coulomb

Abbreviated C. A unit of electric charge. It is the amount of electricity conveyed in one second by a current of one ampere. It is the quantity of electricity which must pass through a circuit to deposit 0.0011180 grams of silver from a solution of silver-nitrate. One electron has a charge of -1.602x10<sup>-19</sup> coulomb.

#### Council

See

- Battery Council International
- Canadian Automotive Repair and Service Council
- National Petroleum Council

### Council for Automotive Research

See

• United States Council for Automotive Research

#### Counter

The overhang of the stern of a ship.

See

- Binary Counter
- Cerenkov Counter
- Rev counter
- Revolution counter
- Trip mileage counter

#### Counter balance

A weight attached to some moving part so that the part will be in balance.

See

- Crankshaft counter-balance
- Crankshaft Counterbalance

#### Counterbalancer

A weight inside an engine that cancels out some of the engine's vibration

### Counterbalancing

The action of reducing crankshaft vibration by adding a weight at the vibration damper and/or flywheel

#### Counterbore

- 1. Enlarging a hole to a certain depth.
- 2. The cylindrical enlargement of the end of a drilled or bored hole.
- 3. A cutting tool for counterboring, having a piloted end of the size of the drilled hole.

#### Counterclockwise

Rotation to the left as if the hands of a clock were going backwards. In most cases it is the direction to remove a nut from a bolt. It is the opposite to clockwise.

#### Counter electromotive force

(CEMF) The induced voltage in an electrical motor armature caused by conductors moving through or *cutting* field magnetic flux. This induced voltage opposes the armature current and tends to reduce it

#### Counter emf

(CEMF) Tendency for reverse electrical flow as magnetic field changes in an induction coil.

#### Counterflow

Flow in opposite direction.

### Counter flow

A flow in opposite directions in adjacent parts of an apparatus, as in a heat exchanger.

### Counterforce

In Bosch CIS, the force of the fuel-pressure applied to the top of the control plunger to balance the force of the airflow pushing against the sensor plate

### Counter gear

See

## • Cluster gear

### Counter-rotating balancer

An internal or external gear- or chain-driven device, timed to a specific crankshaft revolution and used to balance the vibration of the throw, rod, and piston.

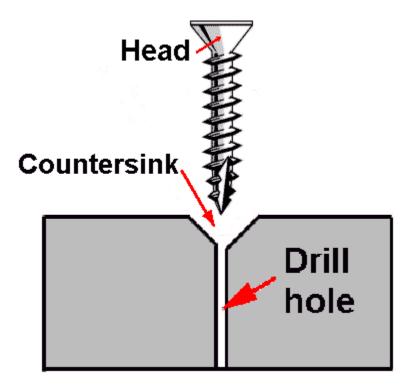
### Countershaft

The shaft in a manual <u>gearbox</u> that carries power by means of gears from the <u>clutch shaft</u> to the <u>driveshaft</u>, turning opposite to them. The British term is *layshaft* 

## Countershaft sprocket

Output sprocket from transmission. Mounted on the output shaft in an <u>indirect drive</u> <u>transmission</u> and on the high gear pinion in a <u>direct drive transmission</u>.

## Countersink



countersink To make a

tapered hole so that the head of a screw, bolt, or rivet may set <u>flush</u>, or below the surface. Countersteering

The way you use the handlebar to lean the bike into a turn. If you want to turn right, you push the handlebar to the left, and vice versa

#### Countersunk bolt

A bolt with a special head. The underside of the head is tapered to fit into a hole that has tapered sides (countersunk hole) so that when the bolt is screwed in all the way, the top of the bolt is flush with the surface

#### Countersunk head

Countersunk head On the underside of the head of a screw or bolt is beveled to fit a flaring hole. In contrast, the bearing surface of other types of heads is generally perpendicular to the body axis.

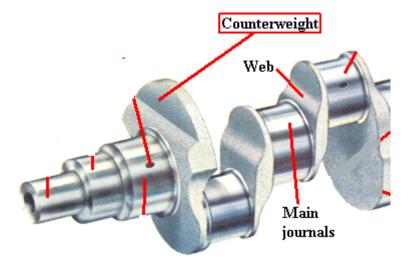
#### Countersunk hole

A hole with sloping sides where the top of the hole is larger than the bottom of the hole as in the shape of the letter V

### Countersunk screw

A screw with a special head. The underside of the head is tapered to fit into a hole that has tapered sides (countersunk hole) so that when the screw is screwed in all the way, the top of the screw is flush with the surface

## Counterweight



## Counterweight

- 1. A Balance weight
- 2. Weight added to a rotating shaft or wheel to balance normal loads on the part and offset vibration. Counterweights are used on the <u>crankshaft</u> and are often found on the <u>Flywheel</u> and <u>driveshaft</u>.

## Counting

See Cycle Counting.

Counts

See Blind Counts.

County mounty

Trucker slang for Highway Patrol as in 'You got a county mounty advertising at the 34.' Coupe

An enclosed single-compartment body with two doors and varying <u>passenger capacity</u> depending on seat arrangements. The SAE standard J1100 defines it as having less than 33 cubic feet (934 litres) of interior volume. Larger coupes have rear quarter windows. Coupes have fixed permanent back panels and top, as well as a luggage compartment in the rear deck. Originally it meant a vehicle which was *cut* (thus the French *coupé*) by a glass partition behind the front seats so that the driver was exposed to the air while those in the back were enclosed. A coupe with a small backseat is generally referred to as a <u>Club Coupe</u>.

See

- Club coupe
- Drophead coupé
- Hatchback coupe
- Sport coupe
- Three-door hatchback coupe
- Two-door coupe
- Two-door hatchback coupe

### Coupé

See

• Coupe

## Coupe Chauffeur

A chauffeur driven car with passengers fully enclosed and the chauffeur exposed. The body has rear quarter windows. Also known as a <u>Brougham</u> and a <u>Coupe Limousine</u>.

### Coupe DeVille

Usually a four passenger two-door car with a permanently closed roof over the rear seats and a removable top covering the front seats. Also known as a *Town Coupe*. See also Sedanca.

# Coupe Limousine

A chauffeur driven car with the passengers fully enclosed and the chauffeur exposed. The body has rear quarter windows. Also known as a <u>Brougham</u> and a <u>Coupe Chauffeur</u>.

## Coupe Milord

A four door touring car with a convertible top over the rear seats only. Also known as a Victoria.

### Coupelet

A term used especially by Ford to describe a Model T two-seater <u>cabriolet</u>.

## Coupled brakes

Brake system installed with certain large trailers whereby the trailer brakes are applied at the same time as are the brakes of the towing vehicle. Vehicles must be specifically modified to operate this system - with appropriate trailers.

## Couple distance

The distance between the front- and rear-seat <u>H-points</u> a critical interior packaging dimension.

# Coupled sedan

See

• <u>Close coupled sedan</u>

## Coupler

- 1. A device which links two other <u>components</u>.
- 2. A device located at both ends of rail cars and locomotives that connects the cars to each other.

#### See

- Brake Hose Coupler
- Bus-line Couplers
- Bus-wire Coupler
- Upper Coupler

### Coupling

A connecting device used between two objects so motion of one will be imparted to the other; it may be mechanical, <a href="hydraulic">hydraulic</a>, or electrical. See

- <u>Auto-inductive Coupling</u>
- Autocapacitance Coupling
- Back Coupling
- <u>Capacitance Coupling</u>
- Doughnut coupling
- Electrical Coupling
- Flexible coupling
- Fluid coupling
- Foettinger coupling
- Guibo coupling
- Layrub coupling
- Quick-connect Coupling
- Rotoflex coupling
- Rubber coupling
- Rubber doughnut coupling
- Shaft-to-cage coupling
- Shaft-to-shaft coupling
- Viscous coupling

# Coupling differential

See

• Viscous coupling differential

### Coupling point

This refers to the point at which both the <u>pump</u> and the <u>Turbine</u> in a <u>Torque converter</u> are traveling at the same speed, the drive is almost direct at this point.

## Couplings

Mechanical device joining refrigerant lines.

# Coupling sleeve

A collar or sleeve which is moved along the main shaft of a transmission by a selector fork engaging in a groove on its center and having <u>Dog clutches</u> at either end.

## Coupling unit

See

• Viscous coupling unit

### Courier bag

A flat rectangular-shaped bag with a long strap. They are slung over the head and one shoulder. Called a courier bag because they were originally made for motorcycle and bicycle couriers.

#### Course

Road course

## Courtesy light

A light in the cab of a vehicle which is illuminated when the door is opened.

### Coved

Recessed.

### Cover

- 1. The tire itself as opposed to the inner tube
- 2. A <u>panel</u> designed to protect or hide components.

## See

- Battery cover
- Car cover
- Clutch cover
- Converter cover
- Dust cover
- End cover
- End cover plate
- engine cover
- <u>Headlight cover</u>
- Nut cover
- rocker arm cover
- Rocker cover gasket
- Rocker cover
- Seat Covers
- Sill cover
- Tonneau cover
- Transfer port cover
- Transmission cover
- valve cover
- Wheel cover

## Coverage

- 1. The surface area that a given quantity of paint will cover adequately
- 2. The area over which a quantity of adhesive, coating, or sealer can be applied at a specific thickness, usually expressed in terms of square feet per gallon

## Coveralls



## Coveralls

A one-piece protective outer garment worn by mechanics.

# Cover Clip

See

• Seat Cover Clip

## Covered electrode

A metal rod used in arc welding which has a covering of materials to aid in the arc welding process

## Covered wagon

Trucker slang for Gravel trailer covered with a tarp as in 'There's a line of sand truck in this destruction up ahead.'

# Cover gasket

See

- Rocker cover gasket
- Valve cover gasket

# Cover plate

See

• End cover plate

#### Cover S-hook

See

• Seat Cover S-hook

### Cover Strip

See

- Spark Plug Cable Cover Strip
- Spark Plug Wire Cover Strip

### Cowboy

Trucker slang for Truck driver who constantly changes lanes at high speeds as in 'We got a bunch of real cowboys out on the road tonight.'

Cowl

- 1. The part of the vehicle body between the engine <u>firewall</u> and the front of the <u>instrument panel</u>. It usually houses the instruments and the <u>plenum chamber</u> for the <u>heater-ventilation system</u>. The British term is *scuttle*.
- 2. The part of the bodywork which protects and/or provides streamlining for a usually projecting component.
- 3. The hood-shaped top of a ventilator pipe.

#### Cowl chassis

A truck <u>chassis</u> with front fenders and hood as well as the instrument panel. It is used for companies want their own custom body and cab.

### Cowling

- 1. The part of the bodywork which protects and/or provides streamlining for a usually projecting component.
- 2. A piece of bodywork that covers the engine area

### Cowl panel

A British term for Cowl

### Cowl section

A subassembly of the body shell that includes the bulkhead, cowl, and windscreen pillars; it is preassembled in the factory and spot-welded with the other subassemblies to form the body shell

### Cowl shake

This is a vibration or shake of a vehicle, usually a <u>convertible</u> type, in the <u>Cowl</u> area due to lack of <u>Torsional rigidity</u> of the <u>frame</u> and body. A certain amount is almost

unavoidable in <u>convertibles</u> unless frame-strengthening weight penalties are of no concern.

Cowl side panel

A vertical panel at either end of the cowl

Cowl top panel

A vehicle panel that extends from one side to the other and is located below the windshield and behind the hood.

CP

- 1. Abbreviation for Contre pente
- 2. Abbreviation for *crankshaft position sensor* (Ford)
- 3. Abbreviation for *Canister Purge* (GM)

CP2

Abbreviation for Contre pente on both bead seats

**CPA** 

Abbreviation for Connector Position Assurance

Cpe

Abbreviation for **Coupe**.

CPI

- 1. Abbreviation for *Central Point Injection*. A GM fuel injection system that uses a centralized fuel injector delivering fuel through lines to injector nozzles located at each cylinder
- 2. Abbreviation for *consumer price index*

# C pillar

See

• C-post.

## C-pillar

The body post that supports the rear of the roof and to which the left and right sides of the back glass are attached. The third pair of structural posts, following the B-Pillars, supporting the roof and rear window. Also called *C-post*.

## C post

See

• <u>C-post</u>.

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The body post that supports the rear of the roof and to which the left and right sides of the back glass are attached. Also called *C-pillar*.

**CPP** 

- 1. Abbreviation for California Pilot Program
- 2. Abbreviation for Clutch Pedal Position

**CPS** 

Abbreviation for Central Power Supply

**CPSC** 

Abbreviation for *Consumer Products Safety Commission*, the certification agency for bicycle helmets.

**CPSOV** 

Abbreviation for <u>Canister purge shut-off valve</u>

**CPT** 

Abbreviation for *Carriage Paid To* which means the seller pays the freight for the carriage of the goods to the named destination.

**CPU** 

Abbreviation for *central processing unit* -- the primary *brain* of a computer module.

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CR

Abbreviation for Compression ratio

Crab

The action of a vehicle where the rear wheels are offset from the track of the front wheels.

**CRABS** 

Abbreviation for *Cement Recycled Asphalt Base Stabilization* -- A resurfacing process that involves grinding the existing roadway surface down to the gravel base, then adding a strengthening agent, such as cement, to the old asphalt. The mixture is then compacted and used as the base for a new layer of asphalt. The section is then overlaid with a new layer of pavement.

Crab-tracked

A situation where the front wheels are wider apart than the rear.

#### Crack

- 1. To open something just a little.
- 2. A fracture in something which does not split it open. A <u>Hairline crack</u> is a very narrow fracture which is often barely visible with the naked eye.

### See

- Circumferential crack
- Groove cracks
- Hairline Crack
- Incipient crack

## Crackage

Joint in a structure which permits movement of a gas or vapor through it, even under a small pressure difference.

### Cracked

A petroleum product produced by a secondary refining process such as thermal cracking or vis-breaking processes which yield very low quality residue.

#### Cracker

A non-American colloquial term for something that is very enjoyable, e.g., 'My car's a cracker.'

#### See

- Cat Cracker
- Nut cracker

## Cracking

- 1. The action of opening a valve slightly and then closing the valve immediately.
- 2. Forming of cracks for instance in the sidewalls of a tire because of the hardening of the rubber or in paintwork because of weathering.

### See

- Catalytic Cracking
- Heat cracking
- Radial cracking
- Stress corrosion cracking
- Stress cracking
- Thermal Cracking
- Weather cracking

## Cracking a valve

Opening a valve a small amount.

## Cracking groove

A split in the grooves of the tread caused by excessive strain.

## Cracking tread

A split in the grooves of the tread caused by excessive strain.

#### **CRADA**

Abbreviation for Cooperative Research and Development Agreement

#### Cradle

- A framework designed to hold or support something
- A form on which bows, etc., are assembled.
- The support in which a ship rests during launching called a launching cradle.

### Cradle frame

A motorcycle frame with two tubes passing under the engine to support it. See

• Open cradle frame

#### Crane

### Crane

A lifting device used to remove or lift a motor or transmission See

- Breakdown Crane
- Gantry
- Shop Crane

#### Crank

- 1. An arm set at right angles to a shaft or axle, used for converting reciprocal (to-and-fro) motion into circular motion.
- 2. The action of trying to start a vehicle engine or an electrical motor by means of a crank handle or by an electrical starter.

## See

- Cottered crank
- Cotterless crank
- Flat crank
- Hand crank
- Triple Crank

### Crankarm

- 1. A part on a bicycle, where one end is attached to the <u>bottom bracket</u> axle and the other holds a pedal, whose forward rotation provides the leverage needed to power the <u>bicycle</u>.
- 2. An arm set at right angles to a shaft or axle, used for converting reciprocal (to-and-fro) motion into circular motion.

#### Crankarm bolt

The bolt that holds a <u>crankarm</u> on the end of the axle in a <u>Cotterless crankset</u> Crankarm fixing bolt

The bolt that holds a <u>crankarm</u> on the end of the axle in a <u>Cotterless crankset</u> of a <u>bicycle</u>. Crank bolt

A bolt that run through the end of the crankarm and into the bottom bracket spindle. Crankcase

The lower part of the engine that surrounds the <u>crankshaft</u>. It contains the crankshaft, <u>piston cylinders</u>, <u>connecting rods</u> and other moving parts of the engine. As well, in non-air-cooled engines, it has a number of internal passages for the <u>coolant</u> and oil transfer. In air-cooled engines, it has internal passages for oil transfer; but usually it has fins on the exterior to dissipate the heat. The crankcase is not to be confused with the pan which is a thin steel <u>cover</u> that is bolted to the bottom of the crankcase. In most motorcycles, the crankcase also includes the primary drive and transmission.

- Barrel-type Crankcase
  - Positive crankcase ventilation
  - Positive crankcase ventilation system

### Crankcase breather

A vent which allows fumes and blow-by gases to escape. It reduces condensation. This breather is usually connected to the air intake of the carburetor so that the fumes can be burned in the combustion chamber

### Crankcase compression

The primary compression in a two-stroke engine located below the pistons and enables a more fresh charge to be fed into the cylinder. Also called *crankcase pre-compression*.

## Crankcase depression regulator

(CDR) a device which aids in the control of crankcase gases by maintaining a specific amount of vacuum in the crankcase

#### Crankcase dilution

An accumulation of unburned <u>gasoline</u> in the <u>crankcase</u>, an excessively rich fuel mixture or poor <u>combustion</u> will allow a certain amount of gasoline to pass down between the <u>pistons</u> and <u>cylinder walls</u> and dilute the engine oil.

## Crankcase emissions

Pollutants allowed to escape into the atmosphere from the crankcase Crankcase half

One side of a crankcase usually split down the middle. Usually found in motorcycle engine.

#### Crankcase leak test

Pressure test done to a two-stroke engine to determine if the crankcase is properly sealed. Crankcase pre-compression

See

• Crankcase compression

### Crankcase pressure

The vacuum built up by engine compression. Also referred to as *crankcase vacuum*. Crankcase scavenging

A system in a two-stroke engine where the fresh charge is induced into the cylinder by way of the crankcase and the transfer ports

### Crankcase vacuum

The vacuum built up by engine compression. Also referred to as *crankcase pressure*. Crankcase ventilation

Circulation of air through the crankcase of a running engine to remove water, blow-by, and other gases in order to prevent oil dilution and contamination, sludge formation, and pressure build-up.

See

- Closed crankcase ventilation
- Positive crankcase ventilation
- Positive crankcase ventilation system

### Crankcase ventilation system

See

• Positive crankcase ventilation system

### Crankcase Ventilation Valve

See

• Positive Crankcase Ventilation Valve

### Crank cotter

#### Cotter

A tapered pin or wedge which is inserted into holes in two parts to secure them. Older bicycles used a cotter to secure the crank arm to the crank spindle. Also called just *cotter* See

### Cottered crank

#### Cranked

Something which has an elbow or right-angle shape.

### Cranking

The act of engaging the <u>starter</u> by turning the key in the <u>Ignition switch</u> which makes the engine turn over. In the old days, a hand <u>Crank</u> was used to do this, thus the term *cranking*.

See

• Cold cranking ability

## Cranking ability

See

• Cold cranking ability

## Cranking circuit

See

• Starting system.

### Cranking motor

See

• <u>starter</u>

## Cranking on the throttle

The action of moving a twist grip so that more fuel enters the engine and thus increases the speed of the vehicle.

## Cranking speed

The speed at which the starter turns the engine.

### Crank kit

A reground or reconditioned crankshaft and new main and connecting rod bearings Crankpin

The bearing surface on a <u>crank</u> of the <u>crankshaft</u> to which the big end of the <u>connecting</u> <u>rod</u> is attached. Also called the <u>journal</u> or <u>crank throw</u>.

See

• Splayed crankpins

Crank pulley holder

Crank Pulley Holder

A tool which secures the crankshaft in place while other adjustments are being made. Crank sensor

A detection device which picks up signals to locate the position of the No. 1 cylinder and sends the information to the ECU in order to determine engine speed.

Crankset

#### Crankset

A group of <u>components</u> on a <u>bicycle</u> that includes the <u>bottom bracket</u> removable parts, two <u>crankarms</u>, and one or more <u>chainrings</u>. See

• Cotterless crankset

Crankshaft

Click to supersize Crankshaft

A main rotating shaft running the length of the engine. The crankshaft is supported by main bearings. Portions of the shaft are offset to form throws to which the connecting rods are attached. As the pistons move up and down, the connecting rods move the crankshaft around. The turning motion of the crankshaft is transmitted to the transmission and eventually to the driving wheels.

See

- Balanced crankshaft
- Built-up crankshaft
- Externally-balanced Crankshaft
- Journal Crankshaft
- Offset crankshaft
- Stroked crankshaft

### Crankshaft angle sensor

A detection device which picks up signals to locate the position of the No. 1 cylinder and sends the information to the <u>ECU</u> in order to determine engine speed.

Crankshaft axles

Extensions at each end of crankshaft to provide a mounting place for the main bearings, primary drive gear or sprocket, and alternator rotor or magneto flywheel.

#### Crankshaft balancer

A circular device in the front end of the crankshaft, designed to dampen some of the impulses from the combustion events in the cylinders. Also called <u>Harmonic balancer</u>

## Crankshaft counter-balance

A series of weights attached to or <u>Forged</u> integrally with the <u>crankshaft</u> so placed as to offset the <u>Reciprocating</u> weight of each <u>piston</u> and rod assembly

### Crankshaft counterbalance

Series of weights attached to or forged integrally with crankshaft and placed to offset reciprocating weight of each piston and rod assembly

## Crankshaft gear

A gear mounted on the front of the <u>crankshaft</u>. It is used to drive the <u>Camshaft gear</u>. Crankshaft journal

# Click to supersize Crankshaft journal

- 1. The journals running in the main bearings as opposed to those for the big-end bearings.
- 2. Part of shaft which contacts the bearing on the large end of the piston rod.

## Crankshaft position sensor

## Crankshaft Position Sensor

(CP or CKP) A detection device in the shape of a ring with lobes which sends information concerning the precise position of the crankshaft so that accurate ignition timing can be achieved.

## Crankshaft pulley

A wheel attached to the front end of the <u>crankshaft</u> which is connected by <u>Fan belts</u> to the fan, the <u>Alternator</u>, and other devices so that the rotating <u>crankshaft</u> can drive these other parts as well. The crankshaft pulley usually has <u>Timing marks</u> located on it, and these are necessary for checking and adjusting <u>timing</u> with a <u>Timing light</u>. Also called a *harmonic balance wheel*.

## Crankshaft reconditioning

Replacement of worn lower-end components in an assembled crankshaft. This involves pressing the crankshaft apart, replacing the crankspin, roller-bearing, thrust washers, and connecting rod, pressing back together and truing the assembled crankshaft.

#### Crankshaft runout

A term used to describe how much a crankshaft is bent

#### Crankshaft seal

Leakproof joint between crankshaft and compressor body.

## Crankshaft sensor

A detection device which picks up signals to locate the position of the No. 1 cylinder and sends the information to the ECU in order to determine engine speed.

### Crankshaft sprocket

A chain-sprocket mounted on the nose of the crankshaft which drives the camshaft by means of a timing chain

#### Crankshaft wheel

Portions of an assembled crankshaft that provide a mounting place for the crankpin and crankshaft axles.

#### Crank throw

- 1. The part of the crankshaft to which the connecting rod fastens.
- 2. The distance between the crankpin and the axis of rotation or centerline of the crankshaft, which is equal to half the stroke

See

• Crankpin

Crank web

Click to supersize Crankshaft Web

One of the pair of arms which carry the big-end journal. The webs join the crankpins and the main journals, and also serve as balance weights for smooth engine running.

#### Crash

A vehicle collision with another vehicle or a stationary object. See

- Car crash
- Frontal crash
- Head-on crash
- Oblique crash test

## Crash barrier

A longitudinal railing usually found on the edge of the road especially around a curve to help prevent vehicles from leaving the road.

#### Crash box

An informal term for a non-synchromesh transmission. Short term for *crash gearbox*.

## Crash gearbox

An informal term for a non-synchromesh transmission.

## Crash recorder

An electronic device which measures and records a number of characteristics of a vehicle for 60 seconds before a crash the speed, direction, braking, etc. so that the cause of a crash can be determined.

### Crash sensor

A detection device which deploys an air bag when a crash is determined -- usually because of excessive deceleration

Crash test

A controlled test of a vehicle in which it is propelled into a wall or another vehicle at a given speed in order to determine the effect on its structure and the effectiveness of its safety devices.

See

## • Oblique crash test

## Crash test dummy

A specially designed manikin which records the effects in the event of a crash Crate

- 1. A framework of wooden boards for protecting something during transport.
- 2. A vehicle which appears to be unreliable and ready to fall apart.

#### Crate Motor

- 1. A brand new, never fired engine or electric motor.
- 2. A remanufactured engine or electric motor.

### Crater

A depression in the face of a weld, usually at the termination of an arc weld See

## • Arc Crater

## Cratering

The formation of holes in the paint coat due to surface contaminants.

## Crawler

- 1. An off-road vehicle using track propulsion instead of wheels.
- 2. A British term for a slow-moving vehicle

## Crawler gear

A British term for a very low gear used especially in off-road application Crawler lane

A British term for a truck lane for slow moving trucks, especially going up a hill. Crawling

- 1. A colloquial term for traveling very slowly, usually at a time when there is a traffic jam.
- 2. An electric motor that runs up to one-seventh of full speed.

## Crazing

Many fine <u>Cracks</u> in the paint surface, resembling crow's feet. It is similar to checking, but more sever, where fine lines or cracks appear in the paint

#### CRC

# Abbreviation for Coordinating Research Council

#### Cream

- 1. To hit another vehicle.
- 2. A soft paste.

See

o Barrier cream

### Cream Cabinet

See

• Ice Cream Cabinet

### Crease

A wrinkle or ridge in metal as a result of design or accident damage.

### Creep

- 1. The tendency of a vehicle with automatic transmission to edge forward when idling when the transmission is in Drive and the brake is not engaged. Also called *idling drag*.
- 2. When a crankshaft has slightly excessive runout (is slightly bent), it can sometimes be corrected by laying the crank in its saddles, installing the center main bearing cap (with its bearing insert) and leaving it for a day or two. Sometimes the crank will creep or bend enough to put it within the specified runout range
- 3. The change of an adhesive or sealer under constant pressure or load, following its first slip from its original position (elastic deformation). Creep at room temperature is sometimes called cold flow
- 4. The flow of plastic deformation of metals held for long periods of time at stresses lower than the normal yield strength. The effect is particularly important if the temperature of stressing is in the vicinity of the recrystallization temperature of the metal.

### Creepage

The slow spreading of rust under the paint which usually first appears as a blister and then flaking

## Creeper

Click to supersize Creeper

A platform on four small <u>Caster</u> wheels that allows you to move around easily while lying on your back under your vehicle.

## Creep strength

A measure of the resistance of fasteners to stress under elevated temperatures. At higher temperatures, a fastener can change in dimension under the same load, and that is called creep. Creep can cause the loosening of fasteners as temperature increases.

### Crescent

The part between the inner and outer gears of an internal gear pump

Crescent Chain

Standard chain with a crescent shape top plate.

Crescent® wrench

Crescent Wrench

An <u>adjustable wrench</u> with smooth jaws. Used to fit a variety of sizes of nuts and bolt heads

Cressida

Click image for books on Cressida

A model of automobile manufactured by Toyota

#### Crest

- 1. The highest point of a screw thread. The opposite is called a <u>root</u>
- 2. That surface of the thread which joins the flanks of the thread and is farthest from the cylinder or cone from which the thread projects.

See

Thread crest

## Crest Clearance

As in a thread assembly, the distance, measured perpendicular to the axis, between the crest of a thread and the root of its mating thread.

## Crest Truncation of Thread

The distance, measured perpendicular to the axis, between the sharp root and the cylinder or cone which bounds the root.

#### Crevice corrosion

Rust or corrosion that develops on an object where there is a joint or sharp bend and is caused by a lack of oxygen in formation or by moisture.

Crew Cab

### Crew Cab

A pickup truck with a large passenger compartment with four full-size doors which lead to two full rows of seating. The doors are mounted so that they swing open the same way as most four-door car doors do. Toyota calls it a Double Cab, Dodge calls it a Quad Cab, Ford calls it a SuperCrew.

**CRI** 

Abbreviation for Color Rendition Index.

See

Metal halide lamp

Crimp

See

• <u>Cable Crimp</u>

## Crimper tool

See

• Wire stripper/crimper tool

## Crimping

The creation of corrugations in two thin metal parts as they are pressed tightly together in order to join them. This is often the method used to attach fittings to the end of an electrical wire-- thus avoiding the necessity of soldering

# Crimping pliers

## **Crimping Pliers**

A tool which looks like pliers with serrated jaws which are used to attach fittings to the end of an electrical wire.

## Crimping tool

A tool which looks like pliers with serrated jaws which are used to attach fittings to the end of an electrical wire.

# Crisper

Drawer or compartment in refrigerator designed to provide high humidity along with low temperature to keep vegetables-especially leafy vegetables-cold and crisp.

# Criteria pollutant

A pollutant determined to be hazardous to human health and regulated under EPA's National Ambient Air Quality Standards. The 1970 amendments to the Clean Air Act require EPA to describe the health and welfare impacts of a pollutant as the *criteria* for inclusion in the regulatory regime.

# Critical pressure

Compressed condition of refrigerant which gives liquid and gas the same properties.

# Critical speed

The top speed of an engine or shaft at which unwanted vibration begins.

## Critical temperature

Temperature at which vapor and liquid have same properties.

## Critical vibration

Vibration which is noticeable and harmful to structure.

#### CRK

Abbreviation for Cranking Signal

### Crocodile clip

British term for Alligator clip

#### Crosley

A vehicle brand of which the 1950-52 Hotshot/SS models are milestone cars.

#### Cross

See

### Bicycle Moto Cross

#### Crossbar

- 1. Any transverse bar, especially a tie rod across the chassis.
- 2. The top tube of a bicycle or motorcycle frame.

3. A short bar used to assist a combination wrench in providing extra torque. The British term is *Tommy bar* 

#### Cross-bolt

A system of securing the main bearing caps with four bolts per cap by which two bolts support the bearing cap from below, in the conventional manner, and two other bolts enter the bearing from the side, passing through the sides of the engine block. The crossbolts are visible from the outside of the engine. This system of securing the main bearing caps ensures good side-to-side, as well as up-and-down rigidity

## Cross border shopping

See

Canadian cross border shopping

### Cross bracing

Strengthening ribs or other members which connect two sides of a frame Crossbuck

Crossbuck The sign seen at railroad crossings with two diagonal arms, one arm bearing the word 'Railroad', the other arm the word 'Crossing.'

### Cross charged

Sealed container of two fluids which together create a desired pressure-temperature curve.

### Cross coat

Paint spraying technique in which consecutive coats are sprayed at right angles to one another

## Cross-country bike

A mountain bicycle suited to racing on varied terrain; features include wide-range gearing with super lows, sometimes with short <u>Travel</u> (3 inches or less) dual-suspension, great brakes, and a light performance-oriented frame

### Cross-country vehicle

An off road vehicle

#### Cross dock

The transfer of freight from one trailer to another at a terminal without being stored in the terminal warehouse.

### Cross-draught carburetor

A Sidedraft carburetor

### Cross flow

A flow of gas or fluid going across another flow at an angle essentially perpendicular to one another.

### Crossflow cylinder head

A cylinder head design (especially in an OHC engine) with the inlet manifold on one side and the exhaust manifold on the other side of the head, so that inlet and exhaust valves are arranged on opposite sides of the combustion chamber, giving a wider engine but better gas flow.

## Crosshatch pattern

Pattern created on engine cylinders during the honing process. Helps in proper ring break-in.

#### Crosshead

A sliding member to which a piston rod is attached.

## Crosshead-piston type

The piston is connected to the upper end of the connecting rod indirectly. The piston fastens to a vertical piston rod whose lower end is attached to a sliding member called a crosshead, which slides up and down in guides.

#### Crossflow head

A cylinder head with the intake valves) on one side of the combustion chamber and the exhaust valve(s) on the other. Also called <u>T-head</u>

### Crossflow radiator

A radiator in which the water flows sideways instead of vertically, and which is therefore wider than it is high, permitting a lower hood line

#### Cross hatch

See

### • Cross-hatch.

#### Cross-hatch

The desired checkerboard design of the inner surface of cylinder after it is **Honed**.

#### Cross-hatch coat

Checkerboard application of paint to be sure of a continuous paint film. One medium coat is usually followed by a second medium <u>Coat</u> in a perpendicular direction.

### Cross header

A pipeline that crosses over a tank providing a transit for cargo without tying into the vessel.

#### Cross-head screw

A screw with a slot which looks like an X or + into which the tip of the blade of a Phillips or Reed and Prince screwdriver can be inserted

#### Cross-head screwdriver

A Phillips or Reed and Prince screwdriver where the tip forms an X or +

### Crossing

The place where a railroad and a street intersect each other.

See

- Bike Crossing
- Grade Crossing

### Cross-jetting

Rejetting the carburetor jets from left-to-right to compensate for a left-to right variation in performance. These tests are usually conducted using an engine dynamometer

### Cross member

A brace or strut which provides structural stability for the sides of a frame -- often in the shape of an *X*.

See

- Rear axle crossmember
- Rubber-isolated crossmember

#### Crossover

- A widely used term to indicate a smaller two-box configuration SUV based on a car chassis rather than a truck chassis. E.g., Ford Flex
- A gap in the median between the two directions of a divided highway which can
  be used by normal vehicles to turn round. Most median gaps are strictly reserved
  for use by emergency vehicles only but crossovers for general use are
  occasionally seen on rural highways with very low traffic levels.

See

Heat crossover.

#### Crossover cable

See

• Stirrup cable

### Crossover gearing

A <u>bicycle Gearing</u> system whose shift sequence involves moving from the lowest to the midrange of gears on the smaller <u>chainring</u>, then crossing over to the larger <u>chainring</u> for the remainder of the gears.

## Cross ply

See

• Conventional cross ply

## Cross-ply tire

Tire in which the sidewall reinforcement plies run diagonally from the bead towards the tread - each layer of textile at a different angle to its adjacent layer. Generally superseded by radial-ply tires whose thinner, more flexible sidewalls and braced tread yield better grip and lower rolling resistance. Because of thicker, multi-ply sidewalls, not so prone to sidewall damage as radials and can have low-cost applications when operating continuously on rock. However, reduced pressures in soft going can, due to the thick sidewalls, cause overheating and possibly delamination of the tire. See

• Bias ply tire

### Cross-point screwdriver

A Phillips or Reed and Prince screwdriver where the tip forms an X or + Cross scavenging

Scavenging in a two-stroke engine with flow across the cylinder assisted by a wedge-shaped piston crown

#### Cross section

A view of an object when cut transversely at right angles across its center.

See

Section width

#### Cross-shaft

- 1. Any transverse shaft.
- 2. The outgoing shaft of the steering gearbox, to which the pitman arm is connected. TheBritish term is *rocker shaft*

## Cross-shaft lug wrench

See

• <u>lug wrench</u>.

## Cross-shaft lug wrench

See

• lug wrench.

### Cross shaft

The shaft in the steering <u>Gearbox</u> that engages the <u>Steering shaft</u> worm, the cross shaft is <u>Splined</u> to the <u>pitman arm</u>.

# Cross-spoke wheel

Modern design of alloy wheel which imitates the appearance of the classical wire wheel Cross Stringers

See Racked Cross Stringers.

#### Cross-threaded

The characteristic of a bolt or nut in which the bolt is inserted at an angle so that the original threads are damaged

## Cross three

A spoking pattern in which a <u>spoke</u> passes over two and under a third spoke before being attached to the rim.

#### Cross Tie

The wooden cross beams to which the rails are attached.

#### Crosswalk

Pedestrian crossing, usually at an intersection. See Scramble crosswalk

#### Crosswind

Wind blowing at the side of a vehicle

#### Crotch rocket

A term some people use to refer to **Sportbike**.

Crowbar

A iron bar tool with a crook at one end with a forking device for removing nails, etc. The other end has a wedge shape.

# Crowded engine compartment

An engine compartment or bay in which all the available space around the engine is occupied by other objects (alternator, pumps, air intake system, battery, wiper motor, heater motor, windshield washer motor, starter, radiator, air conditioner, hoses, pipes, wiring, electronic boxes, etc.)

#### Crown

- 1. Piston Crown The top part of the head of a piston.
- 2. The outward curvature of an apparently flat sheet metal panel.
- 3. A domed area of the hood, fenders or roof.
- 4. A subtle rise or convexity in a surface to make it look straight or flat instead of sunken.
- 5. The tread area of a tire.
- 6. The curve or convex surface of a properly finished weld.
- 7. A convex road surface that allows runoff to drain to either side of the road prism.

8. Click image for books on Toyota Crown A model of automobile manufactured by Toyota

#### See

- Boiler Crowns
- Fork crown
- High crown spoon
- Low crown panel
- Pent crown piston
- Piston crown

# Crown Dolly

See

- High Crown Dolly
- Low Crown Dolly

# Crown panel

See

- <u>High crown panel</u>
- Low crown panel

# Crown piston

See

• Pent crown piston

# Crown radius

The measurement of the curvature of a tire tread between the shoulders of the tire. Expressed as a percentage, it indicates the relative flatness of the tire tread area.

# Crown spoon

See

• <u>High crown spoon</u>

Crown Victoria

Click image for books on Ford Crown Victoria

A model of automobile manufactured by Ford

### Crown wheel

The larger of two gears in a bevel gear drive with teeth around its periphery facing sideways

# Crown wheel and pinion

A pair of gears in the final drive of a vehicle, always found in the back axle of a rearwheel drive layout where the pinion is on the end of the propeller shaft driving the crown wheel mounted on the differential at right angles to it, and also in front-wheel drives where the engine is not transversely mounted

### Crown width

The distance of a tire tread shoulder to shoulder measured along the buffed contour.

**CRT** 

Abbreviation for Cathode ray tube

Cruciform frame

A frame with an X-shaped bracing either as a chassis frame, or in a monocoque as strengthening for the floor

Crude

See

• <u>Light Crude</u>

#### Crude oil

A mixture of hydrocarbons that exists in liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Depending upon the characteristics of the crude stream, it may also include:

- 1. Small amounts of hydrocarbons that exist in gaseous phase in natural underground reservoirs but are liquid at atmospheric pressure after being recovered from oil well (casinghead) gas in lease separators and are subsequently commingled with the crude stream without being separately measured. Lease condensate recovered as a liquid from natural gas wells in lease or field separation facilities and later mixed into the crude stream is also included
- 2. Small amounts of nonhydrocarbons produced with the oil, such as sulfur and various metals
- 3. Drip gases, and liquid hydrocarbons produced from tar sands, oil sands, gilsonite, and oil shale

Liquids produced at natural gas processing plants are excluded. Crude oil is refined to produce a wide array of petroleum products, including heating oils; gasoline, diesel and jet fuels; lubricants; asphalt; ethane, propane, and butane; and many other products used for their energy or chemical content.

See

- <u>Light Crude</u>
- Reduced Crude Oil
- Topped Crude Oil

### Crude Oil Distillation

See

• Atmospheric Crude Oil Distillation

## Cruise

To drive at a constant speed, often at highway speed.

#### Cruise control

A feature that keeps your vehicle moving at a set <u>speed</u>.Old cruise controls were mere <u>throttle</u> control units which kept the engine speed the same.When the vehicle approached

a hill, the vehicle slowed down noticeable going up and speeded up going down. Later models used <u>vacuum</u> controls to push or pull on the <u>accelerator</u> rod. Newer models use electronic controls to accomplish this task. It can be turned off by hitting the off <u>Button</u> or touching the <u>brake pedal</u>. The resume switch allows you to return to the pre-set speed after brake disengagement. The <u>coast</u> switch slows the speed down and the <u>accelerate</u> switch increases it.

See

Automatic Cruise Control

#### Cruiser

- 1. Any motorcycle designed to be ridden long distances.
- 2. Motorcycle riders who ride long distances.

See

• Beach cruiser

#### Cruiser bag

A leather bag which is mounted on the top surface of the fuel tank or possibly other parts of a motorcycle. Although it can be filled with anything for a trip, usually it contains items thatyou want to access quickly (e.g., camera, road map).

#### Cruiser skirts

Optional accessory similar in function to <u>fender skirts</u> but are normally longer and fit on the outside of the body of the car. Most often used in customization work.

#### Cruiser stern

A spoon-shaped stern used on most merchant ships designed to give maximum immersed length

### Cruising circuit

The main carburetor metering system

### Cruising speed

Constant speed at which a vehicle can be driven on the highway

#### Crumb

See

• Buffed Crumb

# Crumple zone

An area of a vehicle that is designed to compress during an accident to absorb the energy from the impact.

### Crush

A slight distortion of the bearing shell that holds it in place as the engine operates See

Bearing Crush

### Black Crush

#### Crusher

A machine which crushes scrapped cars into small blocks.

### Crush height

The precision insert bearing must fit the bottom end of the connecting rod in order to transfer friction heat to the connecting rod. The insert will protrude a small amount above the rod bore parting surface. This distance is called the crush height. When the rod halves are drawn together, the inserts touch before the halves, thus forcing the inserts tightly into place.

### Crush washer

A disc with a hole in the center. It is placed around the threads of a bolt and secured with a nut or screwed into a hole. When the head of the bolt is forced against it, the washer is squashed. Crush washers are used on some spark plugs to provide a better seal when installed.

C RV

See

Class C RV

CRX

Click image for books on Honda CRX

A model of automobile manufactured by Honda

# Cryogenic fluid

Substance which exists as a liquid or gas at ultra-low temperatures (-157°C or lower). Cryogenics

- 1. The study of physical phenomena at a temperature below -46°C
- 2. Refrigeration which deals with producing temperatures of -157°C and lower.

# Cryogenic Storage

Extreme low-temperature storage.

# Crystal Silicon

See

• Single Crystal Silicon

### CR

Abbreviation for Compression ratio

### Crab

The action of a vehicle where the rear wheels are offset from the track of the front wheels.

#### **CRABS**

Abbreviation for *Cement Recycled Asphalt Base Stabilization* -- A resurfacing process that involves grinding the existing roadway surface down to the gravel base, then adding a strengthening agent, such as cement, to the old asphalt. The mixture is then compacted and used as the base for a new layer of asphalt. The section is then overlaid with a new layer of pavement.

### Crab-tracked

A situation where the front wheels are wider apart than the rear.

#### Crack

- 1. To open something just a little.
- 2. A fracture in something which does not split it open. A <u>Hairline crack</u> is a very narrow fracture which is often barely visible with the naked eye.

### See

- Circumferential crack
- Groove cracks
- Hairline Crack
- Incipient crack

### Crackage

Joint in a structure which permits movement of a gas or vapor through it, even under a small pressure difference.

#### Cracked

A petroleum product produced by a secondary refining process such as thermal cracking or vis-breaking processes which yield very low quality residue.

#### Cracker

A non-American colloquial term for something that is very enjoyable, e.g., 'My car's a cracker.'

See

- Cat Cracker
- Nut cracker

## Cracking

- 1. The action of opening a valve slightly and then closing the valve immediately.
- 2. Forming of cracks for instance in the sidewalls of a tire because of the hardening of the rubber or in paintwork because of weathering.

#### See

- Catalytic Cracking
- Heat cracking
- Radial cracking
- Stress corrosion cracking
- Stress cracking
- Thermal Cracking
- Weather cracking

### Cracking a valve

Opening a valve a small amount.

### Cracking groove

A split in the grooves of the tread caused by excessive strain.

### Cracking tread

A split in the grooves of the tread caused by excessive strain.

#### **CRADA**

Abbreviation for Cooperative Research and Development Agreement

### Cradle

- A framework designed to hold or support something
- A form on which bows, etc., are assembled.
- The support in which a ship rests during launching called a launching cradle.

# Cradle frame

A motorcycle frame with two tubes passing under the engine to support it.

• Open cradle frame

#### Crane



Crane

A lifting device used to remove or lift a motor or transmission

#### See

- Breakdown Crane
- Gantry
- Shop Crane

#### Crank

- 1. An arm set at right angles to a shaft or axle, used for converting reciprocal (to-and-fro) motion into circular motion.
- 2. The action of trying to start a vehicle engine or an electrical motor by means of a crank handle or by an electrical starter.

#### See

- Cottered crank
- Cotterless crank
- Flat crank
- Hand crank
- Triple Crank

#### Crankarm

- 1. A part on a bicycle, where one end is attached to the <u>bottom bracket</u> axle and the other holds a pedal, whose forward rotation provides the leverage needed to power the <u>bicycle</u>.
- 2. An arm set at right angles to a shaft or axle, used for converting reciprocal (to-and-fro) motion into circular motion.

#### Crankarm bolt

The bolt that holds a <u>crankarm</u> on the end of the axle in a <u>Cotterless crankset</u> Crankarm fixing bolt

The bolt that holds a <u>crankarm</u> on the end of the axle in a <u>Cotterless crankset</u> of a <u>bicycle</u>. Crank bolt

A bolt that run through the end of the crankarm and into the bottom bracket spindle. Crankcase

The lower part of the engine that surrounds the <u>crankshaft</u>. It contains the crankshaft, <u>piston cylinders</u>, <u>connecting rods</u> and other moving parts of the engine. As well, in non-air-cooled engines, it has a number of internal passages for the <u>coolant</u> and oil transfer. In air-cooled engines, it has internal passages for oil transfer; but usually it has fins on the exterior to dissipate the heat. The crankcase is not to be confused with the pan which is a thin steel <u>cover</u> that is bolted to the bottom of the crankcase. In most motorcycles, the crankcase also includes the primary drive and transmission. See

• Barrel-type Crankcase

- Positive crankcase ventilation
- Positive crankcase ventilation system

### Crankcase breather

A vent which allows fumes and blow-by gases to escape. It reduces condensation. This breather is usually connected to the air intake of the carburetor so that the fumes can be burned in the combustion chamber

# Crankcase compression

The primary compression in a two-stroke engine located below the pistons and enables a more fresh charge to be fed into the cylinder. Also called *crankcase pre-compression*.

# Crankcase depression regulator

(CDR) a device which aids in the control of crankcase gases by maintaining a specific amount of vacuum in the crankcase

### Crankcase dilution

An accumulation of unburned gasoline in the <u>crankcase</u>, an excessively rich fuel mixture or poor <u>combustion</u> will allow a certain amount of gasoline to pass down between the <u>pistons</u> and <u>cylinder walls</u> and dilute the engine oil.

### Crankcase emissions

Pollutants allowed to escape into the atmosphere from the crankcase

#### Crankcase half

One side of a crankcase usually split down the middle. Usually found in motorcycle engine.

#### Crankcase leak test

Pressure test done to a two-stroke engine to determine if the crankcase is properly sealed. Crankcase pre-compression

See

### • Crankcase compression

#### Crankcase pressure

The vacuum built up by engine compression. Also referred to as *crankcase vacuum*.

### Crankcase scavenging

A system in a two-stroke engine where the fresh charge is induced into the cylinder by way of the crankcase and the transfer ports

#### Crankcase vacuum

The vacuum built up by engine compression. Also referred to as *crankcase pressure*.

#### Crankcase ventilation

Circulation of air through the crankcase of a running engine to remove water, blow-by, and other gases in order to prevent oil dilution and contamination, sludge formation, and pressure build-up.

See

- Closed crankcase ventilation
- Positive crankcase ventilation
- Positive crankcase ventilation system

# Crankcase ventilation system

See

• Positive crankcase ventilation system

# Crankcase Ventilation Valve

See

• Positive Crankcase Ventilation Valve

### Crank cotter



#### Cotter

A tapered pin or wedge which is inserted into holes in two parts to secure them. Older bicycles used a cotter to secure the crank arm to the crank spindle. Also called just *cotter* See

• Cottered crank

#### Cranked

Something which has an elbow or right-angle shape.

### Cranking

The act of engaging the <u>starter</u> by turning the key in the <u>Ignition switch</u> which makes the engine turn over. In the old days, a hand <u>Crank</u> was used to do this, thus the term *cranking*.

See

• Cold cranking ability

# Cranking ability

See

• Cold cranking ability

# Cranking circuit

See

• Starting system.

# Cranking motor

See

#### starter

# Cranking on the throttle

The action of moving a twist grip so that more fuel enters the engine and thus increases the speed of the vehicle.

# Cranking speed

The speed at which the starter turns the engine.

### Crank kit

A reground or reconditioned crankshaft and new main and connecting rod bearings Crankpin

The bearing surface on a <u>crank</u> of the <u>crankshaft</u> to which the big end of the <u>connecting</u> <u>rod</u> is attached. Also called the <u>journal</u> or <u>crank throw</u>.

See

# • Splayed crankpins

# Crank pulley holder



# Crank Pulley Holder

A tool which secures the crankshaft in place while other adjustments are being made. Crank sensor

A detection device which picks up signals to locate the position of the No. 1 cylinder and sends the information to the ECU in order to determine engine speed.

#### Crankset



### Crankset

A group of <u>components</u> on a <u>bicycle</u> that includes the <u>bottom bracket</u> removable parts, two <u>crankarms</u>, and one or more <u>chainrings</u>. See

• Cotterless crankset

### Crankshaft



Click to supersize Crankshaft

A main rotating shaft running the length of the engine. The crankshaft is supported by main bearings. Portions of the shaft are offset to form throws to which the connecting rods are attached. As the pistons move up and down, the connecting rods move the crankshaft around. The turning motion of the crankshaft is transmitted to the transmission and eventually to the driving wheels. See

- Balanced crankshaft
- Built-up crankshaft
- Externally-balanced Crankshaft
- Journal Crankshaft
- Offset crankshaft
- Stroked crankshaft

### Crankshaft angle sensor

A detection device which picks up signals to locate the position of the No. 1 cylinder and sends the information to the <u>ECU</u> in order to determine engine speed.

# Crankshaft axles

Extensions at each end of crankshaft to provide a mounting place for the main bearings, primary drive gear or sprocket, and alternator rotor or magneto flywheel.

### Crankshaft balancer

A circular device in the front end of the crankshaft, designed to dampen some of the impulses from the combustion events in the cylinders. Also called <u>Harmonic balancer</u>

# Crankshaft counter-balance

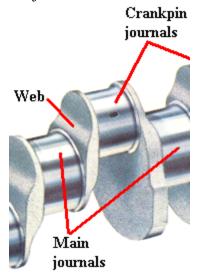
A series of weights attached to or <u>Forged</u> integrally with the <u>crankshaft</u> so placed as to offset the <u>Reciprocating</u> weight of each <u>piston</u> and rod assembly

### Crankshaft counterbalance

Series of weights attached to or forged integrally with crankshaft and placed to offset reciprocating weight of each piston and rod assembly

# Crankshaft gear

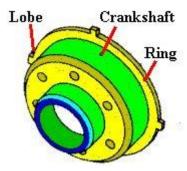
A gear mounted on the front of the <u>crankshaft</u>. It is used to drive the <u>Camshaft gear</u>. Crankshaft journal



Click to supersize Crankshaft journal

- 1. The journals running in the main bearings as opposed to those for the big-end bearings.
- 2. Part of shaft which contacts the bearing on the large end of the piston rod.

Crankshaft position sensor



#### Crankshaft Position Sensor

(CP or CKP) A detection device in the shape of a ring with lobes which sends information concerning the precise position of the crankshaft so that accurate ignition timing can be achieved.

# Crankshaft pulley

A wheel attached to the front end of the <u>crankshaft</u> which is connected by <u>Fan belts</u> to the fan, the <u>Alternator</u>, and other devices so that the rotating <u>crankshaft</u> can drive these other parts as well. The crankshaft pulley usually has <u>Timing marks</u> located on it, and these are necessary for checking and adjusting <u>timing</u> with a <u>Timing light</u>. Also called a *harmonic balance wheel*.

# Crankshaft reconditioning

Replacement of worn lower-end components in an assembled crankshaft. This involves pressing the crankshaft apart, replacing the crankspin, roller-bearing, thrust washers, and connecting rod, pressing back together and truing the assembled crankshaft.

### Crankshaft runout

A term used to describe how much a crankshaft is bent

#### Crankshaft seal

Leakproof joint between crankshaft and compressor body.

# Crankshaft sensor

A detection device which picks up signals to locate the position of the No. 1 cylinder and sends the information to the <u>ECU</u> in order to determine engine speed.

# Crankshaft sprocket

A chain-sprocket mounted on the nose of the crankshaft which drives the camshaft by means of a timing chain

# Crankshaft wheel

Portions of an assembled crankshaft that provide a mounting place for the crankpin and crankshaft axles.

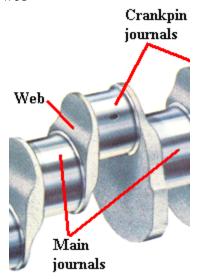
#### Crank throw

- 1. The part of the crankshaft to which the connecting rod fastens.
- 2. The distance between the crankpin and the axis of rotation or centerline of the crankshaft, which is equal to half the stroke

See

# • Crankpin

### Crank web



Click to supersize Crankshaft Web

One of the pair of arms which carry the big-end journal. The webs join the crankpins and the main journals, and also serve as balance weights for smooth engine running.

### Crash

A vehicle collision with another vehicle or a stationary object. See

- Car crash
- Frontal crash
- Head-on crash
- Oblique crash test

### Crash barrier

A longitudinal railing usually found on the edge of the road especially around a curve to help prevent vehicles from leaving the road.

# Crash box

An informal term for a non-synchromesh transmission. Short term for *crash gearbox*.

# Crash gearbox

An informal term for a non-synchromesh transmission.

#### Crash recorder

An electronic device which measures and records a number of characteristics of a vehicle for 60 seconds before a crash the speed, direction, braking, etc. so that the cause of a crash can be determined.

Crash sensor

A detection device which deploys an air bag when a crash is determined -- usually because of excessive deceleration

#### Crash test

A controlled test of a vehicle in which it is propelled into a wall or another vehicle at a given speed in order to determine the effect on its structure and the effectiveness of its safety devices.

See

• Oblique crash test

# Crash test dummy

A specially designed manikin which records the effects in the event of a crash Crate

- 1. A framework of wooden boards for protecting something during transport.
- 2. A vehicle which appears to be unreliable and ready to fall apart.

#### Crate Motor

- 1. A brand new, never fired engine or electric motor.
- 2. A remanufactured engine or electric motor.

#### Crater

A depression in the face of a weld, usually at the termination of an arc weld

• Arc Crater

### Cratering

The formation of holes in the paint coat due to surface contaminants.

#### Crawler

- 1. An off-road vehicle using track propulsion instead of wheels.
- 2. A British term for a slow-moving vehicle

### Crawler gear

A British term for a very low gear used especially in off-road application Crawler lane

A British term for a truck lane for slow moving trucks, especially going up a hill. Crawling

- 1. A colloquial term for traveling very slowly, usually at a time when there is a traffic jam.
- 2. An electric motor that runs up to one-seventh of full speed.

#### Crazing

Many fine <u>Cracks</u> in the paint surface, resembling crow's feet. It is similar to checking, but more sever, where fine lines or cracks appear in the paint

**CRC** 

Abbreviation for Coordinating Research Council

Cream

- 1. To hit another vehicle.
- 2. A soft paste.

See

o Barrier cream

### **Cream Cabinet**

See

• Ice Cream Cabinet

#### Crease

A wrinkle or ridge in metal as a result of design or accident damage.

Creep

- 1. The tendency of a vehicle with automatic transmission to edge forward when idling when the transmission is in Drive and the brake is not engaged. Also called *idling drag*.
- 2. When a crankshaft has slightly excessive runout (is slightly bent), it can sometimes be corrected by laying the crank in its saddles, installing the center main bearing cap (with its bearing insert) and leaving it for a day or two. Sometimes the crank will creep or bend enough to put it within the specified runout range
- 3. The change of an adhesive or sealer under constant pressure or load, following its first slip from its original position (elastic deformation). Creep at room temperature is sometimes called cold flow
- 4. The flow of plastic deformation of metals held for long periods of time at stresses lower than the normal yield strength. The effect is particularly important if the temperature of stressing is in the vicinity of the recrystallization temperature of the metal.

# Creepage

The slow spreading of rust under the paint which usually first appears as a blister and then flaking

Creeper



Click to supersize Creeper

A platform on four small <u>Caster</u> wheels that allows you to move around easily while lying on your back under your vehicle.

# Creep strength

A measure of the resistance of fasteners to stress under elevated temperatures. At higher temperatures, a fastener can change in dimension under the same load, and that is called creep. Creep can cause the loosening of fasteners as temperature increases.

### Crescent

The part between the inner and outer gears of an internal gear pump

# Crescent Chain

Standard chain with a crescent shape top plate.

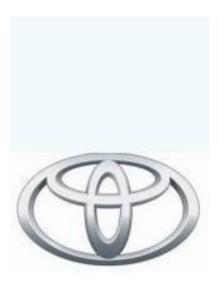
### Crescent® wrench



# Crescent Wrench

An <u>adjustable wrench</u> with smooth jaws. Used to fit a variety of sizes of nuts and bolt heads

Cressida



Click image for books on Cressida

A model of automobile manufactured by Toyota

# Crest

- 1. The highest point of a screw thread. The opposite is called a <u>root</u>
- 2. That surface of the thread which joins the flanks of the thread and is farthest from the cylinder or cone from which the thread projects.

See

Thread crest

# Crest Clearance

As in a thread assembly, the distance, measured perpendicular to the axis, between the crest of a thread and the root of its mating thread.

# Crest Truncation of Thread

The distance, measured perpendicular to the axis, between the sharp root and the cylinder or cone which bounds the root.

# Crevice corrosion

Rust or corrosion that develops on an object where there is a joint or sharp bend and is caused by a lack of oxygen in formation or by moisture.

# Crew Cab



Crew Cab

A pickup truck with a large passenger compartment with four full-size doors which lead to two full rows of seating. The doors are mounted so that they swing open the same way as most four-door car doors do. Toyota calls it a Double Cab, Dodge calls it a Quad Cab, Ford calls it a SuperCrew.

CRI

Abbreviation for Color Rendition Index.

See

Metal halide lamp

## Crimp

See

• <u>Cable Crimp</u>

# Crimper tool

See

• Wire stripper/crimper tool

### Crimping

The creation of corrugations in two thin metal parts as they are pressed tightly together in order to join them. This is often the method used to attach fittings to the end of an electrical wire-- thus avoiding the necessity of soldering

### Crimping pliers



# **Crimping Pliers**

A tool which looks like pliers with serrated jaws which are used to attach fittings to the end of an electrical wire.

### Crimping tool

A tool which looks like pliers with serrated jaws which are used to attach fittings to the end of an electrical wire.

### Crisper

Drawer or compartment in refrigerator designed to provide high humidity along with low temperature to keep vegetables-especially leafy vegetables-cold and crisp.

# Criteria pollutant

A pollutant determined to be hazardous to human health and regulated under EPA's National Ambient Air Quality Standards. The 1970 amendments to the Clean Air Act require EPA to describe the health and welfare impacts of a pollutant as the *criteria* for inclusion in the regulatory regime.

### Critical pressure

Compressed condition of refrigerant which gives liquid and gas the same properties.

### Critical speed

The top speed of an engine or shaft at which unwanted vibration begins.

# Critical temperature

Temperature at which vapor and liquid have same properties.

## Critical vibration

Vibration which is noticeable and harmful to structure.

#### **CRK**

Abbreviation for Cranking Signal

# Crocodile clip

British term for Alligator clip

### Crosley

A vehicle brand of which the 1950-52 Hotshot/SS models are milestone cars.

### Cross

See

• Bicycle Moto Cross

#### Crossbar

- 1. Any transverse bar, especially a tie rod across the chassis.
- 2. The top tube of a bicycle or motorcycle frame.
- 3. A short bar used to assist a combination wrench in providing extra torque. The British term is *Tommy bar*

### Cross-bolt

A system of securing the main bearing caps with four bolts per cap by which two bolts support the bearing cap from below, in the conventional manner, and two other bolts enter the bearing from the side, passing through the sides of the engine block. The cross-bolts are visible from the outside of the engine. This system of securing the main bearing caps ensures good side-to-side, as well as up-and-down rigidity

# Cross border shopping

See

• Canadian cross border shopping

### Cross bracing

Strengthening ribs or other members which connect two sides of a frame Crossbuck



Crossbuck The sign seen at railroad crossings with two diagonal arms, one arm bearing the word 'Railroad', the other arm the word 'Crossing.'

### Cross charged

Sealed container of two fluids which together create a desired pressure-temperature curve.

### Cross coat

Paint spraying technique in which consecutive coats are sprayed at right angles to one another

### Cross-country bike

A mountain bicycle suited to racing on varied terrain; features include wide-range gearing with super lows, sometimes with short <u>Travel</u> (3 inches or less) dual-suspension, great brakes, and a light performance-oriented frame

# Cross-country vehicle

An off road vehicle

#### Cross dock

The transfer of freight from one trailer to another at a terminal without being stored in the terminal warehouse.

# Cross-draught carburetor

A Sidedraft carburetor

### Cross flow

A flow of gas or fluid going across another flow at an angle essentially perpendicular to one another.

### Crossflow cylinder head

A cylinder head design (especially in an OHC engine) with the inlet manifold on one side and the exhaust manifold on the other side of the head, so that inlet and exhaust valves are arranged on opposite sides of the combustion chamber, giving a wider engine but better gas flow.

### Crosshatch pattern

Pattern created on engine cylinders during the honing process. Helps in proper ring break-in.

#### Crosshead

A sliding member to which a piston rod is attached.

### Crosshead-piston type

The piston is connected to the upper end of the connecting rod indirectly. The piston fastens to a vertical piston rod whose lower end is attached to a sliding member called a crosshead, which slides up and down in guides.

#### Crossflow head

A cylinder head with the intake valves) on one side of the combustion chamber and the exhaust valve(s) on the other. Also called <u>T-head</u>

#### Crossflow radiator

A radiator in which the water flows sideways instead of vertically, and which is therefore wider than it is high, permitting a lower hood line

#### Cross hatch

See

### • Cross-hatch.

#### Cross-hatch

The desired checkerboard design of the inner surface of cylinder after it is Honed.

#### Cross-hatch coat

Checkerboard application of paint to be sure of a continuous paint film. One medium coat is usually followed by a second medium Coat in a perpendicular direction.

#### Cross header

A pipeline that crosses over a tank providing a transit for cargo without tying into the vessel.

#### Cross-head screw

A screw with a slot which looks like an X or + into which the tip of the blade of a Phillips or Reed and Prince screwdriver can be inserted

### Cross-head screwdriver

A Phillips or Reed and Prince screwdriver where the tip forms an X or +

## Crossing

The place where a railroad and a street intersect each other.

See

- Bike Crossing
- Grade Crossing

### Cross-jetting

Rejetting the carburetor jets from left-to-right to compensate for a left-to right variation in performance. These tests are usually conducted using an engine dynamometer

#### Cross member

A brace or strut which provides structural stability for the sides of a frame -- often in the shape of an X.

See

### • Rear axle crossmember

• Rubber-isolated crossmember

### Crossover

- A widely used term to indicate a smaller two-box configuration SUV based on a car chassis rather than a truck chassis. E.g., Ford Flex
- A gap in the median between the two directions of a divided highway which can
  be used by normal vehicles to turn round. Most median gaps are strictly reserved
  for use by emergency vehicles only but crossovers for general use are
  occasionally seen on rural highways with very low traffic levels.

See

• <u>Heat crossover</u>.

#### Crossover cable

See

• Stirrup cable

## Crossover gearing

A <u>bicycle Gearing</u> system whose shift sequence involves moving from the lowest to the midrange of gears on the smaller <u>chainring</u>, then crossing over to the larger <u>chainring</u> for the remainder of the gears.

# Cross ply

See

• Conventional cross ply

### Cross-ply tire

Tire in which the sidewall reinforcement plies run diagonally from the bead towards the tread - each layer of textile at a different angle to its adjacent layer. Generally superseded by radial-ply tires whose thinner, more flexible sidewalls and braced tread yield better grip and lower rolling resistance. Because of thicker, multi-ply sidewalls, not so prone to sidewall damage as radials and can have low-cost applications when operating continuously on rock. However, reduced pressures in soft going can, due to the thick sidewalls, cause overheating and possibly delamination of the tire. See

• Bias ply tire

### Cross-point screwdriver

A Phillips or Reed and Prince screwdriver where the tip forms an X or +

# Cross scavenging

Scavenging in a two-stroke engine with flow across the cylinder assisted by a wedge-shaped piston crown

#### Cross section

A view of an object when cut transversely at right angles across its center.

See

• Section width

#### Cross-shaft

- 1. Any transverse shaft.
- 2. The outgoing shaft of the steering gearbox, to which the pitman arm is connected. The British term is *rocker shaft*

## Cross-shaft lug wrench

See

• lug wrench.

# Cross-shaft lug wrench

See

• <u>lug wrench</u>.

#### Cross shaft

The shaft in the steering <u>Gearbox</u> that engages the <u>Steering shaft</u> worm, the cross shaft is <u>Splined</u> to the <u>pitman arm</u>.

# Cross-spoke wheel

Modern design of alloy wheel which imitates the appearance of the classical wire wheel Cross Stringers

See Racked Cross Stringers.

#### Cross-threaded

The characteristic of a bolt or nut in which the bolt is inserted at an angle so that the original threads are damaged

#### Cross three

A spoking pattern in which a <u>spoke</u> passes over two and under a third spoke before being attached to the rim.

#### Cross Tie

The wooden cross beams to which the rails are attached.

#### Crosswalk

Pedestrian crossing, usually at an intersection. See Scramble crosswalk

#### Crosswind

Wind blowing at the side of a vehicle

#### Crotch rocket

A term some people use to refer to Sportbike.

### Crowbar

A iron bar tool with a crook at one end with a forking device for removing nails, etc. The other end has a wedge shape.

### Crowded engine compartment

An engine compartment or bay in which all the available space around the engine is occupied by other objects (alternator, pumps, air intake system, battery, wiper motor, heater motor, windshield washer motor, starter, radiator, air conditioner, hoses, pipes, wiring, electronic boxes, etc.)

### Crown



- head of a piston.
- 2. The outward curvature of an apparently flat sheet metal panel.
- 3. A domed area of the hood, fenders or roof.
- 4. A subtle rise or convexity in a surface to make it look straight or flat instead of sunken.
- 5. The tread area of a tire.
- 6. The curve or convex surface of a properly finished weld.
- 7. A convex road surface that allows runoff to drain to either side of the road prism.



8. Click image for books on Toyota Crown A model of automobile manufactured by Toyota

See

• Boiler Crowns

- Fork crown
- High crown spoon
- Low crown panel
- Pent crown piston
- Piston crown

# Crown Dolly

See

- High Crown Dolly
- Low Crown Dolly

# Crown panel

See

- High crown panel
- Low crown panel

# Crown piston

See

• Pent crown piston

# Crown radius

The measurement of the curvature of a tire tread between the shoulders of the tire. Expressed as a percentage, it indicates the relative flatness of the tire tread area.

# Crown spoon

See

• High crown spoon

Crown Victoria



Click image for books on Ford Crown Victoria

A model of automobile manufactured by Ford

#### Crown wheel

The larger of two gears in a bevel gear drive with teeth around its periphery facing sideways

# Crown wheel and pinion

A pair of gears in the final drive of a vehicle, always found in the back axle of a rearwheel drive layout where the pinion is on the end of the propeller shaft driving the crown wheel mounted on the differential at right angles to it, and also in front-wheel drives where the engine is not transversely mounted

#### Crown width

The distance of a tire tread shoulder to shoulder measured along the buffed contour.

#### CRT

Abbreviation for Cathode ray tube

### Cruciform frame

A frame with an X-shaped bracing either as a chassis frame, or in a monocoque as strengthening for the floor

### Crude

See

• <u>Light Crude</u>

### Crude oil

A mixture of hydrocarbons that exists in liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Depending upon the characteristics of the crude stream, it may also include:

- 1. Small amounts of hydrocarbons that exist in gaseous phase in natural underground reservoirs but are liquid at atmospheric pressure after being recovered from oil well (casinghead) gas in lease separators and are subsequently commingled with the crude stream without being separately measured. Lease condensate recovered as a liquid from natural gas wells in lease or field separation facilities and later mixed into the crude stream is also included
- 2. Small amounts of nonhydrocarbons produced with the oil, such as sulfur and various metals
- 3. Drip gases, and liquid hydrocarbons produced from tar sands, oil sands, gilsonite, and oil shale

Liquids produced at natural gas processing plants are excluded. Crude oil is refined to produce a wide array of petroleum products, including heating oils; gasoline, diesel and jet fuels; lubricants; asphalt; ethane, propane, and butane; and many other products used for their energy or chemical content.

See

- Light Crude
- Reduced Crude Oil
- Topped Crude Oil

### Crude Oil Distillation

See

• Atmospheric Crude Oil Distillation

#### Cruise

To drive at a constant speed, often at highway speed.

#### Cruise control

A feature that keeps your vehicle moving at a set <u>speed</u>.Old cruise controls were mere <u>throttle</u> control units which kept the engine speed the same.When the vehicle approached a hill, the vehicle slowed down noticeable going up and speeded up going down. Later models used <u>vacuum</u> controls to push or pull on the <u>accelerator</u> rod. Newer models use electronic controls to accomplish this task. It can be turned off by hitting the off <u>Button</u> or touching the <u>brake pedal</u>. The resume switch allows you to return to the pre-set speed after brake disengagement. The <u>coast</u> switch slows the speed down and the <u>accelerate</u> switch increases it.

See

Automatic Cruise Control

#### Cruiser

- 1. Any motorcycle designed to be ridden long distances.
- 2. Motorcycle riders who ride long distances.

See

• Beach cruiser

### Cruiser bag

A leather bag which is mounted on the top surface of the fuel tank or possibly other parts of a motorcycle. Although it can be filled with anything for a trip, usually it contains items thatyou want to access quickly (e.g., camera, road map).

#### Cruiser skirts

Optional accessory similar in function to <u>fender skirts</u> but are normally longer and fit on the outside of the body of the car. Most often used in customization work.

#### Cruiser stern

A spoon-shaped stern used on most merchant ships designed to give maximum immersed length

# Cruising circuit

The main carburetor metering system

Cruising speed

Constant speed at which a vehicle can be driven on the highway

#### Crumb

See

Buffed Crumb

# Crumple zone

An area of a vehicle that is designed to compress during an accident to absorb the energy from the impact.

### Crush

A slight distortion of the bearing shell that holds it in place as the engine operates See

- Bearing Crush
- Black Crush

#### Crusher

A machine which crushes scrapped cars into small blocks.

## Crush height

The precision insert bearing must fit the bottom end of the connecting rod in order to transfer friction heat to the connecting rod. The insert will protrude a small amount above the rod bore parting surface. This distance is called the crush height. When the rod halves are drawn together, the inserts touch before the halves, thus forcing the inserts tightly into place.

### Crush washer

A disc with a hole in the center. It is placed around the threads of a bolt and secured with a nut or screwed into a hole. When the head of the bolt is forced against it, the washer is squashed. Crush washers are used on some spark plugs to provide a better seal when installed.

**CRV** 

See

• Class C RV

**CRX** 



Click image for books on Honda CRX

A model of automobile manufactured by Honda

Cryogenic fluid

Substance which exists as a liquid or gas at ultra-low temperatures (-157 $^{\circ}$ C or lower). Cryogenics

- 1. The study of physical phenomena at a temperature below -46°C
- 2. Refrigeration which deals with producing temperatures of -157°C and lower.

Cryogenic Storage

Extreme low-temperature storage.

Crystal Silicon

See

• Single Crystal Silicon

CSA

Abbreviation for Canadian Standards Association

CSC

Abbreviation for *Coolant Spark Control* (Ford)

**CSE GND** 

Abbreviation for **PCM** Case Ground

C Solenoid

See

• M/C Solenoid

# C spanner

See

• <u>C-spanner</u>.

# C-spanner

A wrench whose end is shaped like a C, used to loosen the <u>Lockring</u> on aboutom bracket of abicycle.

### **CSSA**

- 1. Abbreviation for *Chambre Syndicale Suisse de L'Automobile et Branches Annexes* (Switzerland).
- 2. Abbreviation for *Cold Start Spark Advance System* (Ford)

#### **CSSH**

Abbreviation for Cold Start Spark Hold System (Ford)

cSt

Centistokes @ 50°C

**CSA** 

Abbreviation for Canadian Standards Association

**CSC** 

Abbreviation for *Coolant Spark Control* (Ford)

**CSE GND** 

Abbreviation for **PCM** Case Ground

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cSt

# **CTAV**

Abbreviation for Cold Temperature Actuated Vacuum Switch (Ford)

**CTC** 

- 1. Abbreviation for Chrysler Technology Center.
- 2. Abbreviation for *Cyclists Touring Club* -- cycling pressure group.

### **CTM**

Abbreviation for Central Timer Module

CTO

- 1. Abbreviation for Coolant temperature override switch
- 2. Abbreviation for Clean Tachometer Output

### **CTOX**

Abbreviation for Continuous Trap Oxidizer

**CTP** 

Abbreviation for Closed Throttle Position

C-Train

Colloquial term for a truck tractor pulling more than one trailer connected by <u>C-dollies</u>.

**CTS** 

Click image for books on Cadillac CTS

- 1. A model of automobile manufactured by the <u>Cadillac</u> division of <u>General Motors</u> from 2003-current
- 2. Abbreviation for Conti Tire System
- 3. Abbreviation for Coolant temperature sensor
- 4. Abbreviation for *Charge Temperature Switch* (Chrysler)

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### Cubby hole

A glove compartment on older cars, often without a lid.

#### Cube

- Abbreviation for Cubic Capacity -- the interior volume of a truck body, semitrailer, or trailer, measured in cubic feet.
- A pallet of concrete blocks.
- As a verb in the expression 'cube out before grossing out,' meaning fill by volume not by weight.
- Term used to describe how much loading space (percentage) inside a trailer has been used or is available. For example, a trailer that is loaded exactly half full would be called 50 percent cubed out of a possible 100-percent cube.

#### Cube rate

A rate based on trailer space instead of weight. Used for light, bulky loads.

#### Cubes

A colloquial term for cubic inches, or cubic inch displacement of an engine.

### Cube Utilization

The space used versus space available.

#### Cube van

- 1. A truck with a large compartment behind the driver's cab and used for moving various products.
- 2. Typically a straight truck with a van style cargo body where the width and height of the cargo body exceed that of the truck cab.

### Cubic capacity

Interior volume of a truck body, semitrailer or trailer, measured in cubic feet. See

• displacement.

#### Cubic centimetre

(cc) Metric measurement of engine <u>displacement</u>. 1000 cc = 1 litre which is about 61 cubic inches (61.02374409). Thus a 428 cubic inch engine is 7 litres (428/61) and a 2 litre engine is 122 cubic inches (2 x 61). American spelling is *cubic centimeter*.

### Cubic inch

A measurement of volume equal to 16.387 cc

### Cubic inch displacement

See

displacement

### Cubic inch engine

An engine which is measured in cubic inches rather than cubic centimetres.

Cub scouts

Trucker slang for Sheriff's deputies as in 'Cub Scouts at the 97 so you better watch out.'

Cu. ft.

Abbreviation for cubic feet

Cu. in.

Abbreviation for *cubic inch* (also C.I.).

Cul-de-sac

A short street having one end open to traffic and the other temporarily or permanently terminated by a vehicle turnaround at or near the terminus.

Cullet

See

• Quenched Cullet

Cult car

A car which has many enthusiastic owners, but may not necessarily be a classic or milestone car.

Culvert

- 1. A drainage pipe which carries water under a road
- 2. A conduit or conveyance structure under a roadway that is used to pass stream flow, storm water runoff or wildlife to improve safety, prevent accidents and improve traffic flow on the roadway. A culvert has a diameter or width of not more than 20 feet. Any crossing exceeding 20-feet in width is considered a bridge, length is not considered in the definition and is measured perpendicular to the direction of traffic on the roadway.
- 3. A drainage structure beneath an embankment. Culverts, as distinguished from bridges, are usually covered with embankment and are composed of structural material around the entire perimeter.
- 4. A metal, wooden, plastic, or concrete conduit through which surface water can flow under or across roads.
- 5. A pipe, a reinforced concrete box, or a series of pipes or boxes that provide an opening under the ground for passage of water or other uses.
- 6. Large metal tube installed under a road to protect flowing water or drainage.

See

- Aluminum Arch Culvert
- Arch culvert
- Box Culvert

# Culvert Replacement

Replace road culverts or road crossing pipes.

Cunningham

A vehicle brand of which all V Series models from 1916 are <u>classic cars</u>. The 1951-55 models are <u>milestone cars</u>.

#### Cuno filter

A <u>Filter</u> made up of a series of fine <u>discs</u> or plates pressed together in a manner that leaves a very minute space between the discs. Liquid is forced through these openings to produce a straining action.

# Cup

- 1. A type of lip seal used on hydraulic pistons.
- 2. The common hydraulic piston seal in master and wheel cylinders. By design, hydraulic pressure assists the sealing action.

#### See

- Adjustable cup
- Agitation cup
- Aligning Cups
- Bearing cup
- Bearing shell
- Cup washer
- fixed cup
- Suction Cup
- <u>Vacuum suction cup</u>
- <u>Viscosity cup</u>

### Cup chuck

An attachment to a lathe (i.e., chuck) shaped like a bell or cup that is screwed to a mandrel and can grip bits. Also called <u>bell chuck</u>

# Cup dent puller

See

• Suction cup dent puller

### Cup expanders

Metal discs formed to fit inside piston cups and to keep the lips of the cups in tight contact with the cylinder walls while the hydraulic system is not pressurized

# Cup holder

A device to hold a coffee cup or pop bottle. Also called beverage holder

### Cup Point

A point in the form of a cone, commonly having an included angle of 90 degrees, with a conical depression in the end commonly having an included angle of 118 degrees. The contact area is a circular ridge which has considerable holding power with slight penetration, applied to set screws generally.

# Cup point socket set screw

A headless <u>socket set screw</u> threaded the entire length. It has a hexagonal drive at one end and a cup shaped indentation at the other end.

## Cup seal

- 1. Synthetic rubber seal with a single lip used for sealing hydraulic and pneumatic pistons
- 2. A circular rubber seal with a depressed center surrounded by a raised sealing lip. Cup seals can contain high pressure in one direction, but do not seal in the other.

# Cup-shaped wire brush

Circular wire brush on an arbor for use with an electric drill

## Cup washer

A washer that is dished.

Curb

A stone or cement ridge between the road and the sidewalk. In Britain it is called 'kerb' Curber

- 1. A person who buys cars needing a lot of work and fixes them, then sells them privately from his own residence.
- 2. A person who steals a car, falsifies the registration information, and sells it from a place not near his own home. You need to contact him on his cell phone where he informs you that you need to meet him at some parking lot or on the curb of a residential area.

Curb feeler

#### Curb feeler

An attachment applied to the side of car near the wheels to detect the proximity to the edge of the curb. It consisted of one or two thin spring steel rods. The noise the feeler would make rubbing along the edge of the curb would alert the driver.

#### Curb idle

Normal idle rpm. Computer controlled on many modern vehicle

## Curb-idle port

See Idle discharge hole

# Curb-idle stop screw

A screw which provides an adjustable stop for the throttle lever

### Curb weight

The weight of a vehicle with standard equipment but without passengers or payload, but including all fluids (oil, full tank of fuel, coolant) and air conditioning (if equipped). Some add a 75 kg (165 pound) driver while others exclude the driver.

See

• Chassis Weight

Cure

- 1. A process of vulcanizing raw rubber through the application of heat, pressure, and time to permanently shape and set the rubber at the degree of hardness desired to protect it from the effects of normal operating temperatures and wear.
- 2. To change the properties of an adhesive by chemical action. Usually accomplished by the action of heat, pressure, and catalysts, alone or in combination

### See

- Chemical cure
- Undercure

#### Cure time

The time required at a reference temperature for a compound to reach optimum physical properties.

### Curing

- 1. Process of heating or otherwise treating a rubber or plastic compound to convert it from a thermoplastic or fluid material into the solid, relatively heat-sensitive state desired in the commercial product. When heating is employed, the process is called vulcanization.
- 2. The final drying stage where the paint reaches maximum strength.

#### See

• Chemical Curing

# Curing Adhesive

See

• Heat Curing Adhesives

## Curing agents

Substances used in friction materials to ensure the various elements bond together properly into a brake block.

# Curing gum

A soft, tacky rubber compound used in retreading and repair to facilitate bonding between different rubber compounds and between plies, etc. See

Cushion gum

# Curing rim

When retreading a tire, a special rim that supports the inflated tire during the curing process.

# Curing time

The length of time required for paint or plastic to harden.

# Curing tube

In retreading a tire, a heavy tube within the tire that provides pressure to force the <u>Casing</u> against the matrix during the curing process.

#### Current

- 1. The movement or transfer of <u>free electrons</u> through a <u>conductor</u>. The strength or rate of movement of the electricity is measured in amperes.
- 2. The most recent model vehicle (i.e., made in the same year as the present calendar).

### See

- Alternating current
- Average Current
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- Beam Current
- Bearing Current
- Bias Current
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- Direct current
- <u>Discharging current</u>
- Eddy Currents
- Electrical Current
- Electric current
- Excitation Current
- Full-Load Current
- Locked-Rotor Current
- Ouiescent Current
- Ripple Current
- Short Circuit Current
- Sine Wave AC Current
- Spark current
- Steady State Current

### Current collector

The conductive material in a fuel cell that collects electrons (on the anode side) or disburses electrons (on the cathode side). The current collectors are microporous (to allow for fluid flow through them) and lie in between the <a href="mailto:catalyst/electrolytesurfaces">catalyst/electrolytesurfaces</a> and the bipolar plates.

## Current density

A vector-point function describing the magnitude and direction of charge flow per unit area, generally expressed in amperes per square metre.

Current for low temperatures

• <u>Test current for low temperatures</u>

# Current regulator

A device for controlling the current output of a generator (which increases with engine speed) by opening a switch when the current exceeds a certain value, thus protecting the generator from damage due to excess current.

### Current relay

Device which opens or closes a circuit. It is made to act by a change of current flow in that circuit.

### Current transformer

An electrical device which reduces AC current to a predetermined level See

• Bar-type Current Transformer

### Curtain

See

• Side curtain

#### Curve

A gradual bend in the road. A sharp bend is a corner. See

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- Butterfly Curve
- Brush Curve
- Caustic Curve
- Distillation Curve
- Polarization Curve
- Quadrilateral Speed-time Curve
- Torque curve
- Vapor Pressure Curve

# Curve Chain

Chain designed to bend around curves in the horizontal position. Curved pein and finishing hammer

Curved pein and finishing hammer

A specialized hammer used in repairing damaged body work

### Cush drive

A motorcycle transmission shock absorber, usually a rubber cushion in the rear hub Cushion

#### See

- Air bag
- <u>Impact cushion</u>
- Seat cushion

# Cushion clip

# **Cushion Clip**

A C-shaped wire used to secure a vehicle's seat upholstery to the metal frame of the seat. Also called *hog ring* 

### Cushion gum

A soft, tacky rubber compound used in retreading and repair to facilitate bonding between different rubber compounds and between plies, etc.

#### Custom

- 1. A restyled or modified vehicle.
- 2. A new body mounted on an existing chassis.

### See

- Catalog custom
- Series custom

# Custom body

A special or coachbuilt automobile body uniquely designed and fabricated, as opposed to mass-produced bodies.

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### **Custom Car**

- 1. A passenger vehicle that has been modified in either of the following ways:
  - o to improve its performance by altering or replacing the engine and transmission.
  - o to change the styling shape to make the car look unique with different paint, upholstery, and other accessories.
  - o to change the suspension as with <u>lowriders</u>.
- 2. A vehicle that is made according to personal order and specifications. At first, the term applied to a car that the manufacturer claimed was above the standard model

having special appointments, features, and bodywork. In time, the custom model was overshadowed by even more elegant models.

#### Customer

- 1. A person who is at least potentially able to purchase something. Good customer service involves providing the customer with the best answers to his questions and the best choices to meet his needs or wants.
- 2. The person or firm for which the carrier is providing freight transportation services.

# Customer Pick-up

A load that is picked up at the warehouse by the customer (usually within the same day the order is placed).

#### Customize

- 1. To restyle or modify a vehicle.
- 2. To modify a car other than the restoration to the original condition. This may mean something as simple as adding a new engine or power options to changing the car so radically that its original nature is barely recognizable.
- 3. To mount a new body on an existing chassis.

#### **Customs Broker**

A government authorized individual or company that acts on behalf of importers for a fee to arrange for the processing of the paperwork of getting goods across international boarders by calculating the required taxes, duties, and excise fees. This information is given to the importer or exporter for payment.

#### Customs duties

Customs duties levied on imported goods under the <u>Customs Tariff</u>.

#### **Customs Tariff**

A schedule of charges assessed by the government on imports and exports.

#### Custom wheel

A special wheel with attractive styling, usually alloy, available as an aftermarket accessory, designed to make a car look more sporty

Cut

See

• T-cut

### Cut-and-fill

Earth-moving process that entails excavating part of an area and using the excavated material for adjacent embankments or fill areas.

### Cut-and-shut

A British term for a process of shortening a vehicle by cutting out a section of the chassis and/or bodywork.

#### Cutaway

A drawing which shows some of the exterior part and at the cutaway the interior parts and their workings are shown.

# Cut gears

See

• straight cut gears

### Cut-in

The temperature value or the pressure value at which the control circuit closes.

### Cut in front

The action of an overtaking (passing) vehicle which pulls back into the lane of the overtaken (passed) vehicle. Usually it is a derogatory expression of a vehicle's action which does not allow for much distance between the two vehicles. Also called, *cut off* as in 'He cut me off so I had to jam on the brakes to avoid hitting him.' Proper driving etiquette states that you should not pull in until you see the front of the overtaken vehicle in your rear-view mirror.

# Cut-in speed

The speed at which the generator has to rotate to produce a voltage which is greater than that across the battery terminals

### Cutlass

Click image for books on Oldsmobile Cutlass

A model of automobile manufactured by the <u>Oldsmobile</u> division of <u>General Motors</u> from 1961-99. It includes

- Cutlass (1961-81, 97-99)
- Cutlass Cruiser (1993-94)
- Cutlass Supreme (1966-97)
- <u>442 (1964-70)</u>

#### Cutline

The line around an openable body panel; e.g., doors, hood and decklid.

# Cut off

See

- Cut in front
- Deceleration fuel cut-off
- Fuel cut-off switch
- Power cut-off
- Power cut-off switch

## Cut-off switch

#### See

- Fuel cut-off switch
- Inertia fuel cut-off switch
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#### Cutout

- 1. A form of <u>Bypass valve</u>, located in the <u>exhaust</u> line, that can be used to divert the flow of exhaust from one pipe to another. Often used to <u>Bypass</u> the <u>muffler</u> into a straight pipe.
- 2. A device to connect or disconnect the <u>Generator</u> from the <u>battery</u> circuit. When the generator is charging, cutout makes circuit, when generator stops, cutout breaks circuit. Also referred to as *cutout relay*, and <u>Circuit breaker</u>.
- 3. A portion of a panel which has been removed so that a cover can be inserted.
- 4. A circuit-breaker, especially one in the charging circuit of a generator output is less than the battery voltage, so that the battery does not drain into the generator. Also called a *cutout relay*.
- 5. Temperature value or pressure value at which the control circuit opens.

#### See

- Automatic Cut-out
- Battery Cut-out
- Exhaust cutout
- Head Pressure Safety Cutout
- High-pressure Cut-out
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- Oil Pressure Safety Cutout
- Valve cut-out
- Wheel cutout

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See

• <u>Cutout</u>

## **Cut-Out Switch**

- Centrifugal Cut-Out Switch
- Low-pressure Cut-out Switch

#### Cutter

A small pincer with sharp jaws for cutting and stripping wires, etc. The British term is 'end cutters' or *end cutting pliers*.

See

- Bolt Cutter
- Cable Cutter
- End cutters
- Manual panel cutter
- Milling cutter
- Mini tube cutter
- Panel cutter
- Plasma Arc Cutters
- Sheet metal cutter
- Side cutters
- Taper cutter
- Tube cutter
- Valve seat cutter
- Variable hole cutter
- Water Jet Cutter

### Cutters

See

- End cutters
- Side cutters

### Cutter stock

Flux Stock. A petroleum stock which is used to reduce the viscosity of a heavier residual stock by dilution.

### Cut thread

A thread produced by removing material from the surface with a form cutting tool. This method keeps the unthreaded portion of the shank equal to the major diameter of the thread.

# Cut threading

The process of forming threads on a screw or bolt or nut by cutting away and removing the unneeded metal.

# Cutting

- Arc cutting
- End cutting pliers
- Flame cutting
- Heavy-duty diagonal cutting pliers
- Heavy-duty end cutting pliers
- High leverage diagonal cutting pliers

- High leverage end cutting pliers
- Hole cutting snips
- Oxygen acetylene cutting

## Cutting compound

An <u>abrasive</u> paste which is used to remove oxidation in the surface of paint in order to bring back the shine.

# Cutting disc

An <u>abrasive</u> wheel of an angle grinder

#### Cutting flame

A process in welding where cutting takes place by a rapid oxidation at a high temperature produced by a gas flame accompanied by a jet action which blows the oxides away from the cut.

# Cutting line

A line established by the factory along which welded-up assemblies must be cut when replacing a sheet metal part, in order to maintain structural strength in the finished repair

# Cutting method

See Patch cutting method.

# Cutting pliers

See

- End cutting pliers
- Heavy-duty diagonal cutting pliers
- Heavy-duty end cutting pliers
- High leverage diagonal cutting pliers
- High leverage end cutting pliers

### Cutting snips

See

• Hole cutting snips

## Cutting torch

An oxyacetylene torch for cutting through metal, used by welders.

## Cubby hole

A glove compartment on older cars, often without a lid.

### Cube

- Abbreviation for Cubic Capacity -- the interior volume of a truck body, semitrailer, or trailer, measured in cubic feet.
- A pallet of concrete blocks.
- As a verb in the expression 'cube out before grossing out,' meaning fill by volume not by weight.
- Term used to describe how much loading space (percentage) inside a trailer has been used or is available. For example, a trailer that is loaded exactly half full would be called 50 percent cubed out of a possible 100-percent cube.

#### Cube rate

A rate based on trailer space instead of weight. Used for light, bulky loads.

#### Cubes

A colloquial term for cubic inches, or cubic inch displacement of an engine.

#### **Cube Utilization**

The space used versus space available.

#### Cube van

- 1. A truck with a large compartment behind the driver's cab and used for moving various products.
- 2. Typically a straight truck with a van style cargo body where the width and height of the cargo body exceed that of the truck cab.

# Cubic capacity

Interior volume of a truck body, semitrailer or trailer, measured in cubic feet.

See

• <u>displacement</u>.

### Cubic centimetre

(cc) Metric measurement of engine <u>displacement</u>. 1000 cc = 1 litre which is about 61 cubic inches (61.02374409). Thus a 428 cubic inch engine is 7 litres (428/61) and a 2 litre engine is 122 cubic inches (2 x 61). American spelling is *cubic centimeter*.

#### Cubic inch

A measurement of volume equal to 16.387 cc

# Cubic inch displacement

See

• <u>displacement</u>

# Cubic inch engine

An engine which is measured in cubic inches rather than cubic centimetres.

## Cub scouts

Trucker slang for Sheriff's deputies as in 'Cub Scouts at the 97 so you better watch out.'

### Cu. ft.

Abbreviation for cubic feet

### Cu. in.

Abbreviation for *cubic inch* (also C.I.).

## Cul-de-sac

A short street having one end open to traffic and the other temporarily or permanently terminated by a vehicle turnaround at or near the terminus.

## Cullet

See

Quenched Cullet

#### Cult car

A car which has many enthusiastic owners, but may not necessarily be a classic or milestone car.

### Culvert

- 1. A drainage pipe which carries water under a road
- 2. A conduit or conveyance structure under a roadway that is used to pass stream flow, storm water runoff or wildlife to improve safety, prevent accidents and improve traffic flow on the roadway. A culvert has a diameter or width of not more than 20 feet. Any crossing exceeding 20-feet in width is considered a bridge, length is not considered in the definition and is measured perpendicular to the direction of traffic on the roadway.
- 3. A drainage structure beneath an embankment. Culverts, as distinguished from bridges, are usually covered with embankment and are composed of structural material around the entire perimeter.
- 4. A metal, wooden, plastic, or concrete conduit through which surface water can flow under or across roads.
- 5. A pipe, a reinforced concrete box, or a series of pipes or boxes that provide an opening under the ground for passage of water or other uses.
- 6. Large metal tube installed under a road to protect flowing water or drainage.

### See

- Aluminum Arch Culvert
- Arch culvert
- Box Culvert

### Culvert Replacement

Replace road culverts or road crossing pipes.

#### Cunningham

A vehicle brand of which all V Series models from 1916 are <u>classic cars</u>. The 1951-55 models are <u>milestone cars</u>.

### Cuno filter

A <u>Filter</u> made up of a series of fine <u>discs</u> or plates pressed together in a manner that leaves a very minute space between the discs. Liquid is forced through these openings to produce a straining action.

# Cup

- 1. A type of lip seal used on hydraulic pistons.
- 2. The common hydraulic piston seal in master and wheel cylinders. By design, hydraulic pressure assists the sealing action.

- Adjustable cup
- Agitation cup

- Aligning Cups
- Bearing cup
- Bearing shell
- Cup washer
- <u>fixed cup</u>
- Suction Cup
- Vacuum suction cup
- Viscosity cup

# Cup chuck

An attachment to a lathe (i.e., chuck) shaped like a bell or cup that is screwed to a mandrel and can grip bits. Also called bell chuck

## Cup dent puller

See

• Suction cup dent puller

## Cup expanders

Metal discs formed to fit inside piston cups and to keep the lips of the cups in tight contact with the cylinder walls while the hydraulic system is not pressurized

### Cup holder

A device to hold a coffee cup or pop bottle. Also called <u>beverage holder</u>

# Cup Point

A point in the form of a cone, commonly having an included angle of 90 degrees, with a conical depression in the end commonly having an included angle of 118 degrees. The contact area is a circular ridge which has considerable holding power with slight penetration, applied to set screws generally.

# Cup point socket set screw

A headless <u>socket set screw</u> threaded the entire length. It has a hexagonal drive at one end and a cup shaped indentation at the other end.

# Cup seal

- 1. Synthetic rubber seal with a single lip used for sealing hydraulic and pneumatic pistons
- 2. A circular rubber seal with a depressed center surrounded by a raised sealing lip. Cup seals can contain high pressure in one direction, but do not seal in the other.

#### Cup-shaped wire brush

Circular wire brush on an arbor for use with an electric drill

### Cup washer

A washer that is dished.

### Curb

A stone or cement ridge between the road and the sidewalk. In Britain it is called 'kerb' Curber

- 1. A person who buys cars needing a lot of work and fixes them, then sells them privately from his own residence.
- A person who steals a car, falsifies the registration information, and sells it from a
  place not near his own home. You need to contact him on his cell phone where he
  informs you that you need to meet him at some parking lot or on the curb of a
  residential area.



Curb feeler

## Curb feeler

An attachment applied to the side of car near the wheels to detect the proximity to the edge of the curb. It consisted of one or two thin spring steel rods. The noise the feeler would make rubbing along the edge of the curb would alert the driver.

#### Curb idle

Normal idle rpm. Computer controlled on many modern vehicle Curb-idle port

See Idle discharge hole

Curb-idle stop screw

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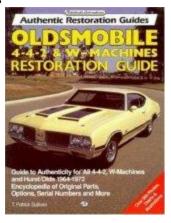
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An abrasive wheel of an angle grinder

#### Cutting flame

A process in welding where cutting takes place by a rapid oxidation at a high temperature produced by a gas flame accompanied by a jet action which blows the oxides away from the cut.

# Cutting line

A line established by the factory along which welded-up assemblies must be cut when replacing a sheet metal part, in order to maintain structural strength in the finished repair

### Cutting method

See Patch cutting method.

### Cutting pliers

See

- End cutting pliers
- Heavy-duty diagonal cutting pliers
- Heavy-duty end cutting pliers
- High leverage diagonal cutting pliers
- High leverage end cutting pliers

## Cutting snips

• Hole cutting snips

### Cutting torch

An oxyacetylene torch for cutting through metal, used by welders.

CV

- 1. Abbreviation for Constant-velocity
- 2. Abbreviation for Control Valve

**CVCC** 

Abbreviation for Compound Vortex Controlled Combustion System (Honda)

CV joint

Abbreviation for Constant velocity joint.

CV joint boot

A rubber cover over the CV joint. It usually has accordion folds.

CVK

Abbreviation for center vertical keel

See Center girder

**CVMA** 

Abbreviation for Canadian Vehicle Manufacturer's Association'

**CVO** 

Abbreviation for Commercial Vehicle Operations

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- 1. Abbreviation for Constant voltage regulator
- 2. Abbreviation for *Control Vacuum Regulator* (Ford)

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Abbreviation for *Continuously Variable Transmission*See Infinitely variable transmission.

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**CWIP** 

Abbreviation for *construction work in progress* 

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A process of case hardening

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### Cycle Audit

Process for ensuring that cyclists are safely catered for in new infrastructure provision.

## Cycle car

A term used to describe the very light production automobile made prior to 1922. It was usually made from <u>motorcycle</u> parts and generally powered by single-cylinder or twincylinder engine. They disappeared when genuine light cars appeared.

Cycle counting

The process of physically counting inventory or a regular schedule. After a period of time all products have been counted. A cycle is then defined as the time it takes to count all inventory once.

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See

Reverse Cycle Defrost

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See

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See

- <u>Deep Cycling</u>
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# Cycling clutch orifice tube

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A bicycle rider. A biker is a motorcycle rider.

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An instrument mounted on a bicycle to record speed, distance, and other functions. Often called just *computer*.

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Abbreviation for <u>cylinder</u>, as in 12-cyl. engine.

Cylinder

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- 2. Any tube-like device.
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### See

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# Cylinder bank

One half of a V-6, V-8, V-12, and V-16 engines along one side.

### Cylinder barrel

An external casing of a cylinder forming a separate unit, especially of an air-cooled engine

Cylinder block

Click image to supersize Cylinder Block

The basic framework of the engine to which other engine parts are attached. It is usually a <u>casting</u> and includes the engine cylinders, the upper part of the <u>crankcase</u>, <u>cooling fins</u> or <u>water jacket</u>, and a means of mounting the cylinder head.

See

### Engine block

# Cylinder block heater

An electric heater element in the water jacket connected at the other end to house current. The element warms the coolant so that in very cold weather the block will not crack and the car will start easier. Often just called *block heater*.

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The cylinder holes in which the piston slides up and down or in which a sleeve is inserted.

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Process that machines the engine bore to accept an oversize piston. Usually performed to recondition a worn cylinder.

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A quantity of fresh mixture fed into the combustion chamber prior to combustion Cylinder deglazing

Use of a hone to slightly roughen walls of a cylinder. It produces a crosshatch pattern which aids in seating new rings.

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## Cylinder Head

The detachable metal (<u>Aluminum</u> or iron) plate or cap that is bolted to the top of the <u>cylinder block</u>. It is used to <u>cover</u> the tops of the cylinders, in many cases the cylinder head contains the valves, it also forms part of the <u>combustion chamber</u>. It has water and oil passages for cooling and lubrication. It also holds the <u>spark plugs</u>. On most engines a <u>valve cover</u> or <u>rocker arm cover</u> is located on top of the cylinder head. Some engines have just one cylinder head covering several cylinders, while others have separate heads for each cylinder. In some <u>motorcycle</u> engines and small engines, the cylinder head is not detachable -- it is <u>cast</u> with the cylinder which forms a blind hole.

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A device used to detect cylinder head leakages which cause combustion gases to appear in the cooling system

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- 1. A tool that uses an <u>abrasive</u> to smooth out (hone) and bring to exact measurements such things as engine cylinders, <u>wheel cylinders</u>, <u>bushings</u>, etc.
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Use of a parallel cylinder hone to deglaze and crosshatch a cylinder, usually after boring. Cylinder housing

The working part of the master cylinder housing that contains the piston bore and pistons. Cylinder liner

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The inner surface of a cylinder.

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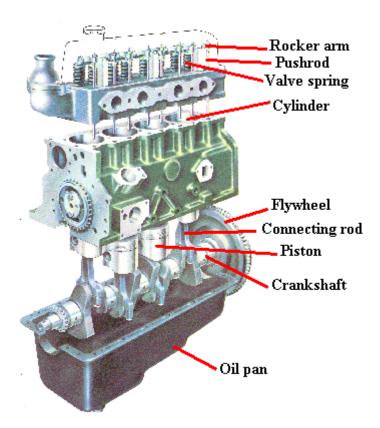
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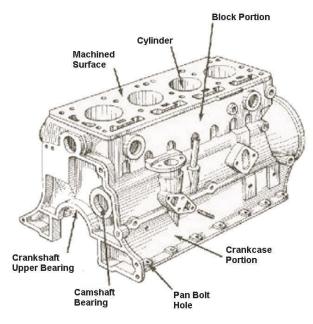
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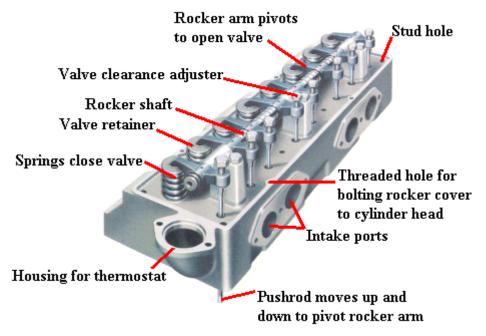
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