

# GLO1—Glossary

**—A—*****A-pillar***

Either of the front pillars that support the windshield, the front of the roof, and door hinges. Also called windshield pillar or A-post.

***ABS***

Anti-lock brake system. A system which prevents wheel lock-up during braking.

***Accumulator***

A device, located in the low-pressure side of an air conditioning system, that removes moisture, and prevents liquid refrigerant and lubricant from entering the compressor.

***Acid Rain***

Atmospheric moisture, containing acids (usually from industrial sources), that can damage a vehicle's finish.

***Adhesion Promoter***

A material applied to a surface, before the application of either adhesive or paint, to strengthen the bond.

***Adhesive***

Any substance that is capable of bonding other substances together by surface attachment. In an auto glass replacement context, it is a high-strength polyurethane material unless otherwise specified.

***Air Spring***

A suspension spring using the compressibility of air inside a rubber bladder.

***Airless Welder***

A type of plastic welder, using heat from electricity to melt the plastic welding rod.

***Alkali***

Any caustic compound having a pH greater than 7.

***Ambient Temperature***

The temperature of the air in the work area.

***Anti-corrosion Compounds***

Wax- or petroleum-based coatings used to prevent corrosion. Usually applied inside closed sections of structural members.

***Anti-flutter Material***

An adhesive used between the inner and outer panels of a hood, deck lid, or roof panel to control vibration.

***Anti-roll Bar***

A transverse torsion bar, attached to the suspension system on the underside of the vehicle, to reduce roll.

**Anti-sway Bar**

A suspension part that limits the body lateral movement. Also called track-control rod, or track bar.

**Anti-theft Label**

An identifying label on certain factory-installed and replacement parts. Factory-installed parts contain the VIN; replacement parts contain “R” and “DOT.”

**Argon**

An inert gas used for shielding during welding.

**AWS**

American Welding Society. An organization that sets standards for all types of welding.

**—B—****B-pillar**

Either of the side pillars, near the middle of the vehicle, that support the roof. Also called B-post.

**Backlite**

The glass installed in the rear window of a vehicle.

**Ball Joint**

A mechanical joint in which a ball moves freely within a socket. Used primarily to connect steering knuckles to the control arms. Also used to connect tie rods to the steering arms.

**Base Metal**

The metal being welded.

**Bead Height**

The height of a weld bead above the surrounding base metal.

**Bead Width**

The width of the weld bead, measured at its base.

**Bend**

In the context of kink vs. bend, a type of damage where the change in shape is smooth and continuous. A bend can be straightened, leaving no permanent deformation.

**Bevel**

The edge of a surface that has been tapered to remove a 90° angle. Also called a V-groove.

**Bezel**

A metal or plastic part, used as trim around lamps, knobs, or accessories.

**Body Fillers**

Compounds used to build up and level low areas that cannot be brought back to their original contour by straightening.

**Body Repair Manual**

A model-specific repair manual published by the vehicle maker.

**Bowing**

The rounding, widthwise, of a seat-belt webbing, which inhibits its travel.

**Breakout Box**

An electrical junction box containing test points, which allows the signals in a circuit to be monitored while the system is operating.

**Bump Steer**

A change in steering angle, as the front wheels move over bumps, caused by misalignment of the steering linkage or rack-and-pinion assembly.

**Bumper Cover**

A flexible plastic cover that surrounds a bumper structure. Sometimes part of a fascia.

**Burnthrough**

A hole caused by excessive heat buildup which melts the base metal, allowing it to fall out of the weld joint.

—C—

**C-Pillar**

Either of two pillars that support the rear door latch and the roof. Also called C-post.

**Camber**

The inward or outward tilt of a tire at the top, measured in degrees from true vertical, when viewed from the front or rear of the vehicle. An outward tilt, away from the vehicle centerline, is positive camber, and an inward tilt is negative.

**Canister Purge Valve**

A valve in an emission-control system that allows hydrocarbons to flow from the charcoal canister to the engine intake manifold.

**Caster**

The angle of the steering axis, measured in degrees from true vertical, when viewed from the side of the vehicle. Caster is positive if the steering axis is tilted rearward, and negative if it is tilted forward.

**Catalytic Converter**

An emission control device in the exhaust system which uses a platinum-iridium catalyst to convert carbon monoxide gas and hydrocarbon particles to carbon dioxide gas and water.

**Center Bolt**

A special bolt used to hold the plies of a spring together and center the axle on the spring.

**cfh**

Cubic feet per hour. A unit for the flow rate of a gas.

**Channel**

A piece of U-shaped metal that is attached along the bottom edge of movable glass and connects the glass to the regulator.

**Clay Product**

A mild abrasive specifically made for removing overspray.

**Clips**

Devices which hold decorative chrome to the vehicle body, or hold moldings, etc.

**Clock Spring**

A coil that supplies deployment current to the airbag module in the steering wheel.

**Closure Panel**

A movable, exterior body panel, such as a hood, door, deck lid, etc.

**CNG**

Compressed natural gas.

**CO<sub>2</sub>**

The chemical symbol for carbon dioxide. A gas used for shielding during welding.

**Cold Solder Joint**

A solder joint that appears sound, but is electrically defective.

**Compound Shape**

A structural shape where the opposite sides are not parallel over its length, or a surface that curves in two or more directions over its area.

**Condenser**

The part of an air-conditioning system where the refrigerant is cooled, changing it from a high-pressure gas to a high-pressure liquid.

**Control Arm**

A suspension part, usually pivoted at each end, that keeps a wheel or axle in the proper position.

**Control Point**

Any of several identifiable points that are very accurately located during a vehicle's original assembly.

**Conversion Coating**

The part of a metal treatment system that modifies the metal surface to improve corrosion protection and paint adhesion.

**Convolute Area**

A series of ridges stamped into a structural part, such as a rail, allowing crushing or bending as a means of absorbing the energy of a collision.

**Coolant**

A mixture of glycol and water, circulated through a cooling system to move heat from the engine to the radiator.

**Corrosion**

The chemical reaction of air, moisture, or corrosive materials on a metal surface. Also called rust or oxidation.

**Corrosive Chemical**

An acidic or alkaline substance that, when in contact with unprotected areas of the body, will cause injury.

**Cosmetic Surface**

A surface that is finished or decorated to improve its appearance. Includes paint, glass, upholstery, etc.

**Critical Temperature**

The maximum temperature allowed by a vehicle maker to prevent loss of strength in metal, when heating to relieve stress.

**Crossmember**

Any of the transverse structural or stiffening members of a vehicle frame or underbody structure.

**Cure**

The process of drying or hardening of a material.

**Cure Time**

The time required for a chemical or material to dry or set at a given temperature and humidity. Cure time varies with the type of material used and the thickness of the application.

**Cutting Torch**

Common term for an oxyacetylene torch with a special tip used to cut metal. Can also be a plasma arc cutter.

**CV-joint**

Constant velocity joint. A type of universal joint that allows the output shaft to rotate at the same instantaneous speed as the input shaft. Used in halfshaft assemblies for driving wheels that are sprung independently of the differential.

**—D—****D-pillar**

Either of two pillars that support the roof and are located rearward of the C-pillars, as in stationwagons and vans. Also called D-post.

**D-ring**

The seat-belt mounting point located on the B-pillar or the door surround panel.

**Dash Lamp**

Any of the dash-mounted warning lamps that are used to display diagnostic trouble codes.

**Delamination**

The failure of the bond between layers, as when windshield glass separates from the inner layer of vinyl, or when paint peels from the substrate beneath it.

***Destructive Test***

A weld test where mechanical force is applied to the joint until it fails or the surrounding material fails.

***Dogtracking***

A condition caused by excessive thrust angle where, as the vehicle's wheels move straight ahead, the body appears to be moving at an angle.

***Drag Link***

A link found in some steering systems that connects the pitman arm to the steering arm. Also called center link.

***Dressing A Weld***

Grinding or sanding a weld bead or nugget to reduce the height, or make it flush with the base metal.

***Dry Spray Appearance***

A paint defect where the paint droplets flash before they flow together, resulting in a dull, overspray appearance.

***Dry-set***

To trial fit a glass assembly before applying adhesive.

***DVOM***

Digital volt-ohmmeter. A high-impedance instrument used to test electronic systems.

***Dye Penetrant***

A colored fluid that penetrates microscopic cracks, making them visible to the naked eye.

***—E—******E-coat***

Electro-deposition primer applied to metal parts, during vehicle assembly and replacement part manufacture, to prevent corrosion.

***Egg-crate Absorber***

A type of energy absorber that relies on the collapse of plastic ribs to absorb energy.

***Electronic Memory***

The storage capability of a programmable electronic device, such as a security system, memory seat, mirror, or radio.

***Engine Cradle***

A sub-frame bolted to the vehicle frame or underbody, that supports the engine. The engine cradle may also support the transmission and the suspension system. Sometimes called the powertrain cradle.

***Epoxy Primer***

A primer that uses a thermoset resin to increase corrosion protection and adhesion, with minimal shrinkage.

***ESD Strap***

Electro-static discharge strap. A wrist-band, with an electrical contact point and ground wire, which discharges static electricity from the technician's body. Usually contains a high resistance in the ground lead to protect the technician from electrical shock.

***Etch***

The process of chemically roughing a metal surface.

***Evaporator***

The part of an air-conditioning system where the refrigerant changes from a low-pressure liquid to a low-pressure gas by absorbing heat from the air in the vehicle's passenger compartment.

***Express Power Window***

A power window that lowers or raises non-stop when the switch is momentarily pressed.

### **Factory Seam**

The edges and seams where panels were joined during vehicle assembly. Also called factory joint.

### **Featheredge**

A tapered edge of a repair area, or the process of making a taper.

### **Filler Rod**

A plastic rod used in a plastic weld to form a bond and fill a damaged area. Also, a metal rod when welding metal.

### **Filler Strip**

A strip inserted into a rubber gasket after the glass is installed, forcing the gasket against the glass to form a seal and improve the grip. Sometimes called locking bead or spline.

### **Filler Wire**

The wire used to add metal to a weld puddle, to create a bead or nugget.

### **Fillet Weld**

A weld where the bead fills the junction between two pieces of base metal joined at an angle, as in a tee or lap joint.

### **Flame Treatment**

The light scorching of a plastic repair area with a torch, to strengthen the bond of the adhesive to be applied.

### **Flange**

A bend or offset formed along the edge of a panel, or around a hole in a panel.

### **Flare**

A tapered expansion of an opening. A flare is often used when connecting joints in tubing.

### **Flash**

The first stage of drying where some of the solvents evaporate. The surface dulls from a high gloss to a normal gloss.

### **Flash Corrosion**

Corrosion that forms when water dries on bare steel.

### **Flex Agent**

An additive that increases the flexibility of paint for use on plastic parts.

### **Flexible Filler**

A material used to fill and level repair areas on plastic parts.

### **Flux-cored Wire**

A type of welding wire having a central core of flux that creates a shielding gas when heated.

### **Foam Filler**

A plastic foam used in body cavities, primarily to stop the transmission of sound.

### **Frame Rail**

A fore-and-aft member of a frame or underbody structure.

### **Fuse Link**

A short length of wire, smaller in diameter (lower current capacity) than the rest of the circuit, spliced into a primary circuit to act as a time-delay fuse.

### **Fusion**

The melting and flowing together of two pieces of metal during welding.

### **Galvanic Corrosion**

Corrosion caused by contact between dissimilar metals when moisture is present.

### **Galvanizing**

A protective zinc coating applied during the production of steel.

**GMA Welding**

Gas metal arc welding. A welding process in which the electrode filler wire is fed continuously into the weld puddle while the puddle is protected by shielding gas. Also called metal inert gas (MIG) welding.

**Grit**

A numerical rating of the coarseness of sandpaper or sanding discs.

**—H—****Halfshaft**

A rotating shaft assembly using two CV-joints to transmit power from a differential to a wheel that is sprung independently of the differential. Commonly used in front-wheel-drive vehicles and some rear-wheel-drive vehicles.

**Hardener**

An additive that causes a chemical reaction to cure paint, body filler, adhesives, etc.

**Heat Sink**

A piece of metal that protects wiring, or other sensitive parts, by absorbing excessive heat. Clamp-on heat sinks are often used during repair operations such as soldering.

**Heat Stick**

A piece of metal or a compound that protects wiring, or other sensitive parts, by absorbing excessive heat. Clamp-on heat sinks are often used during repair operations such as soldering.

**Heat-affected Zone**

A metal area that has been heated beyond its critical temperature, causing it to lose strength.

**Heat-treatable Alloy**

Any substance whose strength will not be affected by the application of a controlled amount of heat. Usually refers to metals, such as alloys of aluminum, or iron (steel).

**HEPA Filter**

A high-efficiency particulate air filter. A type of air filter that traps at least 99.97% of all particles that are 0.3 micron or larger in size.

**Hg**

The chemical symbol for mercury. The height of a column of mercury, expressed in inches, is a measure of pressure or vacuum. One inch Hg equals 0.491 psi.

**Horizontal Datum Plane**

A horizontal plane, located at or below a vehicle's underbody, that serves as a reference for height measurements.

**HSS**

High-strength steel. A type of steel which is stronger than mild steel and able to withstand stress up to 70,000 psi.

**Hydraulic Modulator**

A part of an anti-lock brake system that controls the application of hydraulic pressure to each wheel cylinder.

**Hydrometer**

An instrument used to measure the specific gravity of a liquid, such as battery acid or radiator coolant.

**I-beam Suspension**

A heavy-duty, independent, front suspension system using long control arms that pivot on the opposite side of the vehicle from the steering knuckle. On rear-wheel drive vehicles the control arms are forged I-beams. On four-wheel drive vehicles the control arms are stamped steel assemblies.

**Idler Arm**

An arm that duplicates the motion of the pitman arm on the opposite side of the vehicle, in order to maintain steering geometry.

**Included Angle**

The sum in degrees of the camber and SAI.

**Inertia Switch**

A switch which shuts off the electrical power to the fuel pump and other circuits during a collision.

**Intrusion Beam**

A beam, inside the door frame, which protects the occupants during a side impact.

**ISO**

International Standards Organization. A worldwide group that through consensus sets standards for member nations.

**ISO Code**

An international code, usually molded into plastic parts, which identifies the type of plastic.

**Isocyanate**

A toxic additive used in some refinish materials, to force curing by molecular cross-linking.

**Isolator**

A friction type of energy absorber.

**Kingpin**

The shaft that a steering knuckle pivots around.

**Kink**

In the context of kink vs. bend, a type of damage to steel or aluminum where there is a sharp bend of small radius, typically more than 90°, over a short distance. Because of work hardening, a kinked area cannot be straightened without leaving a crack, tear, or permanent deformation.

**kPa**

Kilo-Pascal. A metric unit for pressure. One kPa equals 0.145 psi.

**Laminated Glass**

A type of safety glass that has a layer of plastic bonded between layers of glass. Laminated glass is used mainly for windshields.

**Lap Joint**

A type of weld joint made by overlapping two pieces of metal and joining them with a bead along one or both edges.

**Lap Shear Strength**

The maximum force per unit area that a lap joint can withstand in shear before failure occurs. Commonly expressed in kilopascals (pounds per square inch).

**Lateral Acceleration**

A sensor that provides an electrical acceleration signal to a control module.

**Let-down Panel**

A test panel used to determine the color match and the number of coats required to match a multi-stage finish.

**Lock Rod**

The rod that connects a lock cylinder, nightlatch, and power lock motor to the latch mechanism.

**LPG**

Liquefied petroleum gas.

**Lumbar Support**

An inflatable pocket built into a seat back that is used to vary the support of the occupant's lower back.

**—M—****Magnaflux**

A method of detecting cracks in steel parts, using an electric current to activate a magnetic dye.

**mb**

Millibar. A unit of pressure or vacuum. One mb equals 0.0145 psi.

**Media**

The material that is used, under air pressure, to remove paint from a surface in a process called media blasting. Types of media are ground-up plastic, sand, or other material.

**Metal Conditioner**

An acid-based material that is part of a metal treatment system. This material etches the metal surface to improve paint adhesion.

**Mild Steel**

Steel which can withstand stress up to 30,000 psi.

**Motorized Seat Belt**

An automatic seat belt that is applied to an occupant and pre-tensioned by a motor-driven mechanism.

**Mounting Spade**

A bracket that is adhesively bonded to a glass surface for mounting a mirror or other devices.

**MSDS**

Material safety data sheet. A document which provides safety, handling, storage, and clean-up information for hazardous materials.

**Multiple Pull**

Making a pull in more than one direction, or from more than one location, at the same time.

**—N—****Neoprene**

A synthetic rubber material that is resistant to acid and fuels.

**Neutral Flame**

A flame created by balancing the amounts of oxygen and fuel gas, so that the inner and outer cones are at equal heights.

**Neutralize**

To cause a substance or surface to be neither acidic, nor alkaline.

**NGA**

National Glass Association. A national trade association that represents companies involved in both auto glass installations and architectural glass work.

**NIOSH**

National Institute for Occupational Safety and Health. A U.S. research group that develops methods for controlling worker exposure to chemical and physical hazards.

**Nitrile Rubber**

A type of fuel-resistant rubber used for the manufacture of protective gloves.

**Nugget**

The fused area of a plug weld or spot weld.

—O—

**OEM**

Original equipment manufacturer. The original maker of a vehicle or equipment.

**Overspray**

Sprayed material that falls outside the intended spray area.

**Oxalic Acid**

A mild acid used to remove industrial fallout stains from painted surfaces.

**Oxidation**

The residue that forms on metal, or the dull layer which forms on the surface of paint. Oxidation occurs when the base material combines with oxygen.

—P—

**Passive Restraint System**

Any restraint system that does not require activation by the occupant to be effective, such as an automatic seat belt or supplemental airbag system.

**Pathogen**

A disease-causing agent, usually in a media such as blood.

**PGM**

Poly gel mitigator. A type of energy absorber that uses a gel instead of a fluid to absorb energy.

**pH**

Potential of hydrogen ions. A measure of the acidity or alkalinity of a liquid. The numerical range of pH is from 0, the most acidic, to 14, the most alkaline. A neutral liquid has a pH of 7.

**Pinchweld**

A flange extending from the body of a vehicle into the opening for glass parts, usually extending from the side pillars and roof.

**Pitman Arm**

The arm that converts the rotary motion of the steering gear sector shaft to the side-to-side movement of the center link in a parallelogram steering system.

**Plastic Adhesion Promoter**

A special primer containing adhesion promoters for refinishing plastics.

**Plastic Cleaner**

A cleaner used to remove contaminants from a plastic repair area before starting a repair, and again before applying primers or paint.

**Plastic Welding**

A welding process using heat and a filler material to repair plastic parts.

**Plug Weld**

A weld where two or more pieces of metal are joined by filling a hole in the outer pieces, while penetrating into the underlying pieces.

**Polyester Putty**

A material used to fill and level minor surface imperfections and low areas.

**Polypropylene Primer**

A special primer containing adhesion promoters for refinishing polyolefin plastics.

**Porosity**

The presence of holes or voids within a weld bead or nugget.

**Primary Damage**

Damage, at or near the point of impact, caused by the collision. Also called direct damage.

**Primer**

An undercoat or chemical applied to a surface to improve the adhesion, durability, and appearance of a topcoat or the bond of an adhesive.

**Primer-sealer**

An undercoat used to protect the primer from the solvents in the topcoat.

**Primer-surfacer**

A high-solid type of primer used to level and fill small imperfections in a surface.

**psi**

Pounds per square inch. A unit of pressure or stress. activation by the occupant to be effective, such as an automatic seat belt or supplemental airbag system.

**—R—****R-12 Refrigerant**

A type of refrigerant containing chlorofluorocarbon (CFC).

**R-134a Refrigerant**

A type of refrigerant containing hydrochlorofluorocarbon (HFC).

**Race**

The inner or outer bearing surface of a ball- or roller-bearing assembly. The balls or rollers support the load by rolling between the surfaces of the races.

**Rack-and-pinion Assembly**

A steering gear system in which the rotary motion of a pinion gear is converted to a side-to-side movement of a rack, the ends of which are attached to the steering arms by tie rods.

**Radius Rod**

A suspension part that controls the fore-and-aft position of an axle or a wheel. Also called radius arm or strut rod.

**Rail Dust**

The dust that falls on vehicles being shipped by rail. Similar to industrial fallout, but containing diesel particulates and powdered iron.

**Receiver-drier**

A device located in the high-pressure side of an air conditioning system, that removes moisture, and stores liquid refrigerant and lubricant.

**Redress A Tool**

To reshape, resharpen, or polish a tool.

**Reference Point**

An identifiable point on a vehicle that may be used for measurement when a control point is not available.

**Refractometer**

An instrument used to measure the specific gravity of a liquid.

**Regulator**

The mechanism that moves the glass when activated by a switch or crank.

**Relative Humidity**

The amount of water vapor in the air, expressed as a percentage of the maximum amount the air can hold under current conditions of temperature and pressure. Rain or fog forms when the relative humidity reaches 100%.

**Release Agent**

A solvent used to soften adhesives or sealants.

**Repair Taper**

The sloping sides of a repair area, formed by grinding, sanding, or cutting.

**Retrofit**

A post-production change to improve the performance, or change the function, of a part or system, using parts and procedures that have been tested.

**Ride Height**

The height measurement, from the surface supporting the tires to designated points on the vehicle structure, under conditions specified by the vehicle maker.

**Rocker Panel**

Either of two structural members, located below the doors, that support the door pillars and the floor pan.

**Roof Bow**

Any of several side-to-side structural arches that support the roof. The bows are attached to the roof rails, between the front and rear header panels.

**Run Glider**

A U-shaped track that guides the travel of movable glass and seals against water and air leaks.

**Runout**

Any radial or lateral variation in the dimensions of a part such as a wheel, brake rotor, or drum, measured as the part is rotated on its axis.

**Runs and Sags**

A paint defect caused by excessive paint flowing unevenly down a surface, causing ridges and lines to form.

**SAE**

Society of Automotive Engineers.

**SAI**

Steering axis inclination. The angle of the steering axis, in degrees from true vertical, when viewed from the front of the vehicle.

**Salvage Part**

A part, removed from a vehicle being scrapped, that is intended to be used as a replacement part.

**Sandscratch Swelling**

A paint defect caused by solvents being absorbed into sandscratches.

**Scan Tool**

An electronic service tool which displays trouble codes for diagnosing vehicle systems.

**Scuff-sand**

The process of roughing a surface by light sanding, or rubbing with a scuff pad.

**Sealant**

Any of various liquids which, when applied to a joint, dries to form an air-tight seal.

**Seam Sealer**

A material designed to keep moisture and fumes out of the passenger compartment, and protect seams and joints from corrosion.

**Secondary Damage**

Damage, beyond the point of impact, that resulted from the force of the collision. Also called indirect damage.

**Sectioning**

A repair made by cutting and removing the damaged portion of a panel, and replacing it with an undamaged part, as opposed to replacing the damaged panel at factory seams.

**Sector Shaft**

The output shaft of a steering gear box.

**Self-etching Primer**

A primer which contains an etching agent, used in place of metal treatment before priming, to provide corrosion protection.

**Setting Blocks**

Small, hard rubber blocks that are set along the bottom pinchweld during a windshield installation to maintain the position of the glass while the adhesive cures.

**Shielding Gas**

A gas or mixture of gases used to protect a weld site from atmospheric contamination.

**Short-circuit Transfer**

The preferred mode of filler transfer during MIG welding, where the filler wire alternately shorts to the weld puddle and then burns free, re-igniting the arc.

**Skim Coat**

A thin layer of material applied to a surface to cover imperfections.

**SLA**

Short-long arm. A type of independent suspension system having upper control arms that are shorter than the lower control arms.

**Slip Yoke**

The yoke in a universal joint that is splined, transmitting torque to or from the driveshaft while allowing the effective length of the driveshaft to vary as the driven wheels move through the range of the suspension system.

**Sodium Hydroxide**

A caustic chemical (lye) found in small amounts with the talc residue, following an airbag deployment.

**Solenoid**

A remotely operated device that converts an electrical input into a mechanical output for the purpose of actuating a latch, valve, switch, etc.

**Solid Axle**

A part of a suspension system in which the wheels are mounted at each end of a rigid beam or axle housing.

**Solvent**

Any volatile liquid in which a substance can be dissolved, such as cleaning fluids, thinners, and fuels.

**Speed Sensor**

A sensor that provides an electrical speed signal to a control module.

**Spindle**

The shaft-like portion of a suspension system that supports the wheel and bearings of an undriven wheel. May also refer to the hub of a driven wheel.

**Spot Weld**

A type of weld where two pieces of metal are fused together at a spot, using pressure and electric current, with no filler material.

**Spray Pattern**

The pattern made by material sprayed from a stationary spray gun as it strikes a flat surface.

**Spring Shackles**

A coupling that attaches the floating end of a leaf spring to the frame or unibody rail, allowing fore-and-aft movement as the spring flexes.

**Stabilizer Bar**

A transverse torsion bar, attached to the suspension system on the underside of the vehicle, to reduce roll. Also called anti-roll bar.

### **Steering Angle Sensor**

A sensor that provides an electrical steering-angle signal to a control module.

### **Steering Damper**

A shock absorber type device used to dampen vibration in a steering system.

### **Steering Knuckle**

That part of the steering system that supports the wheel spindle or hub, and pivots about the steering axis.

### **Steering Ratio**

The number of turns of the steering wheel required to steer the front wheels from lock to lock.

### **Stress-relieving**

A process using heat or hammering to relax work-hardened metal.

### **STRSW**

Squeeze-type resistance spot welding. A type of welding that uses a machine with two arms to apply pressure and electric current to the spot being welded. Also the machine for making such welds.

### **Structural Part**

Any of several parts that support vehicle weight, and absorb collision energy and road shock.

### **Substrate**

A term used for any layer or surface below the topcoat.

### **Suck-back**

A depression into the back side of a weld, resulting from the contraction of the metal in the weld area. Usually occurs when welding in the overhead position.

### **Tack**

To wipe very small particles from a surface using a special cloth, called a tack cloth.

### **Tack Weld**

A small, temporary weld placed at intervals along a joint to hold the pieces in alignment.

### **TCS**

Traction control system. A system which improves traction during vehicle acceleration and cornering.

### **Tempered Glass**

A strong, break-resistant type of safety glass that, if broken, shatters into small granular pieces.

### **Tensile Strength**

The maximum force per unit area that a material can withstand in tension before failure occurs. Commonly expressed in kilopascals (pounds per square inch).

### **Tensioner**

A device in a seat belt system which automatically tightens the belt around an occupant, when there is sudden deceleration of the vehicle.

### **Thermal Paint**

A paint that either melts or changes color when a specified temperature is reached.

### **Thermoset Plastic**

A plastic which is heated during manufacture and molded into a fixed shape. After manufacture, the shape cannot be altered by heat.

### **Three-dimensional Measuring System**

A measuring system that can locate points with the dimensions of length, width, and height, relative to three defined reference planes.

### ***Thrust Angle***

The angle between the centerline of the vehicle and an imaginary line that is parallel to the track of the rear wheels. Ideally, the thrust angle should be zero.

### ***Tie Rod***

A rod attached to the steering arm, that controls the steering angle of the wheel.

### ***Toe***

The angle that the tires point inward or outward relative to straight ahead, when viewed from above the vehicle.

### ***Tolerance***

The allowable plus-or-minus variation from a specified value.

### ***Tone Ring***

A toothed wheel on a hub or axle shaft, that changes the magnetic field of the speed sensor in proportion to the wheel speed. A tone ring may also be called a tone wheel, toothed wheel, reluctor, or gear pulser.

### ***Topcoat***

The final paint material applied to a surface. Several coats of topcoat are applied in some cases.

### ***Torsion Bar***

A steel rod that, when twisted, functions as a spring in a suspension system.

### ***Torsion Rod***

A type of rod that, when twisted, acts as a spring. Also called torsion spring.

### ***Track-control Bar***

A suspension part that limits the body lateral movement. Also anti-sway bar, or track bar.

### ***Trailing Arm***

A suspension part, mounted ahead of a wheel or axle, that controls the fore-and-aft position of the wheel or axle.

### ***Turning Radius***

The difference in degrees between the steering angle of the inside wheel and the steering angle of the outside wheel during a turn.

## **—U—**

### ***U-joint***

Universal joint. A device that couples rotary motion between shafts that meet at an angle.

### ***UHSS***

Ultra high-strength steel. A type of steel which is stronger than high-strength steel and able to withstand stress up to 110,000 psi.

### ***Undercoat***

Any of several types of paint materials that are applied before the basecoat or colorcoat, such as primers, sealers, etc.

### ***Undercut***

A weld condition where the base metal is burned away, below the surrounding area.

### ***Unidirectional Glass Cloth***

A fiberglass cloth with the fibers running mostly in one direction.

### ***Urethane Adhesive***

Any of several strong polymer adhesives that are used to install auto glass. Urethane adhesives are necessary to meet government standards for windshield retention in most late-model passenger vehicles.

## **—V—**

### ***Valance***

A decorative exterior panel used to fill a gap, or hide other parts.

### ***VAT***

Volt-amp tester. A voltage and amperage tester used to test starters and alternators under load.

**VIN Notch**

A gap in the dark band across the bottom of the windshield that allows the vehicle identification number (VIN) to be read from outside the vehicle.

**VIN Plate**

A permanently installed plate, displaying the vehicle identification number, which is viewable through the windshield from outside the vehicle.

**Viscosity**

The thickness of a liquid that affects its ability to flow.

**VOC**

Volatile organic compound. A solvent that, when released into the atmosphere, forms ozone.

**—W—****Wander**

An unwanted drift of a vehicle from straight ahead, caused by excessive wear or misalignment of the steering system. Driver corrections usually result in a side-to-side motion.

**Warning Lamp**

Any of several dash-mounted lamps that alert the driver of a problem or dangerous condition, such as check engine, low fuel, door ajar, brakes, etc.

**Wash Primer**

A primer which contains an etching agent and leaves little or no surface build. It is used in place of metal treatment, before priming, to provide corrosion protection.

**Wax and Grease Remover**

A cleaner used to remove contaminants from a repair area before starting a repair, and again before applying primers or paint.

**Webbing-sensitive Retractor**

A type of seat-belt retractor that locks up when a sudden pullout of the webbing occurs.

**Weld-bond Adhesive**

An adhesive used between the weld surfaces of a joint to seal and strengthen the joint.

**Weld-through Primer**

A corrosion-resistant primer applied, before welding, to mating surfaces which are uncoated, or where a zinc coating has been removed.

**Western Union Splice**

A method of twisting two wires together, before soldering, to make a mechanically strong joint.

**—Z—****Zinc Coating**

A coating of zinc applied to metal during manufacture to improve corrosion resistance. Also called galvanizing.