

Air Conditioning

Fan resistor - Commodore variable fan speeds are achieved by routing the supply power through resistors, similar to light bulb filaments, but they vary in size. A resistor each for speeds 1, 2 and 3, and the 4th speed is unrestricted. The resistor block houses these filaments, and is mounted in the air conditioning box. This ensures that air flows through the filaments when the fan is being used, to prolong the life of the filament. Unfortunately, like light globes, these filaments break. As each filament breaks, the corresponding fan speed will be lost. Solid state units have replaced the filament style and are more durable. The resistor block can be accessed from under the front windscreen plastic plenum cover.

Air conditioner compressor bearing - The air conditioning compressor pulley bearing, like any bearing, is prone to failure. When these bearings fail, the compressor will be very noisy when the air conditioning is in use. New bearings are available.

Air conditioning belt tensioner V8 - The air conditioning tensioner pulley bearing can fail and seize, which increases belt heat and reduces belt grip. This can restrict air conditioning output. These pulleys should be checked if the air con output is inadequate. Belt condition and tension should also be checked.



Gearboxes and Shifters

Torque converter - VP automatics use a lockup torque converter which acts like a 5th gear (overdrive). Through heat or excessive strain, these converters can distort, which causes driveline vibrations at between 1500 and 1800 rpm. Excessive strain and heat can be caused by heavy towing without a transmission cooler, or by lack of transmission servicing. Replacement is the most common method of repair.

Mount - The gearbox rubber mount is bolted to the transmission housing by 2 Allen head bolts. These bolts work loose, which allows the transmission to move independently of the mount, which can result in driveline vibrations during acceleration. Replacement bolts should be torqued and loctited in place to reduce the chance of recurrence.



Brake Issues

Disc rotors - All disc rotors have a minimum recommended thickness. As the brake rotor wears it becomes thinner and the recommended minimum thickness indicates when the brake rotor should be thrown away. This thickness is crucial for optimum braking, and many disc rotors are marked with their recommended thickness. Genuine rotors are useable down to 21mm, where as some aftermarket rotors can be used down to 20mm. If the rotor is used beyond this point, braking efficiency is greatly reduced. In many cases undersized disks result in excessive pedal travel, brake fade, pulsing brake pedal from rotor warping and generally ineffective brakes.

Hand brake - Commodores fitted with disc rear brakes use the internal area of the disc as a brake drum for the park brake. Either through design or wear, they never seem to work that well!



Central Locking

Actuators - The actuators are electrical micro switches that are positioned against each front door lock barrel. When the door lock barrels are used, the switches send signals to the central locking solenoids to lock and unlock the doors. These switches can come away from the door barrel assembly and no longer send signals to the solenoids.

Solenoids - The central locking solenoids are responsible for locking and unlocking the door mechanisms. These solenoids are a basic 12volt DC motor and can fail internally and stop working. Second hand units are available, but differ from front to rear.



Differentials and Tailshafts

Pinion Backlash - Two main items of any differential are the crown wheel and pinion. These items are matched together and are preset to specific tolerances, and one of these tolerances is backlash (movement between gears). Due to age and stresses on the gears, the amount of tolerance between the teeth of the crown wheel and the pinion will increase. This can be evident by increased tail shaft rotation before axle movement. As backlash increases the likely hood of differential failure also increases.

Tail shaft centre mount - Commodores use a 2 piece tail shaft and the centre is supported by a centre mount bearing which is bolted to the floor. The centre mount bearing is caged in rubber which helps absorb torsional twist and vibrations, but the rubber can split which allows the centre of the tail shaft to rotate unsupported. Tail shaft centre mount bearings are readily available, but the tail shaft needs to be separated for installation, and correct reassembly is important and best left to qualified repairers. The tail shaft centre mount bracket is also responsible for tail shaft drive angle. When a vehicle is lowered, repositioning of the centre mount bracket spacers is required to correct the drive angle, and reduce vibrations during take off.



Electrical Issues

ECU - The Engine Control Unit governs the majority of the engine electrical operation, and is subject to failure like any electrical component. Onboard diagnostic procedures allow testing of the ECU and engine components to help with fault diagnosis. Care should be taken with any vehicle that has an ECU, as voltage spikes or electrical failures can cause irreversible damage. Jump starting is a common cause of damage, and should only be performed with quality surge protected leads.

Temperature sender unit - The temperature sender unit provides the ECU with a varying voltage, which is used to calculate fuel delivery depending on engine temperature. If the sender unit fails, and the wrong voltage is sent to the ECU, the ECU fuel delivery calculations will be incorrect, and this can lead to excessive fuel consumption. In most cases a fault code will be stored in the ECM.

Oxygen sensor - The Oxygen (O₂) sensor is an exhaust probe that measures the amount of unburnt fuel in the exhaust gases. The ECU uses this sensor to trim fuel delivery and maximize efficiency. O₂ sensors are a common item to fail and can cause erratic engine idle and performance. O₂ sensor problems will usually store a fault code in the ECM.

DFI module and Coil pack - VP V6 commodores use a Direct Fire Ignition (DFI) module and three 2 coil packs to distribute spark instead of a conventional coil and distributor arrangement. These units can fail which will prevent the engine from starting.

Crank angle sensor - V6 commodores use a crank angle sensor mounted behind the harmonic balancer, to send crank position information to the ECM and DFI assembly for ignition calculations. The crank angle sensor's main weakness is internal cracking. A common scenario is with a cold engine, the sensor and engine are fine, but as the engine warms up and ambient temperature increases, the crank angle sensor expands with the heat and open circuits, which results in loss of ignition. Dousing the crank angle sensor with cold water will cause it to

contract and operate correctly, until it once again becomes warm. In order to replace the crank angle sensor, the harmonic balancer will need to be removed. Crank angle sensor faults will usually store a fault code in the ECM.

Thermo fan - V6 engine thermo fans suffer from intermediate operation, usually caused by connection problems at the thermo fan fuse or relay. Fuse terminal melting is common, usually because of bad connections and the amount of current draw through the system. External fuse routing is usually the quickest way to bypass damaged terminals, along with thoroughly cleaned wiring connections.

Tail lamps - VP tail lamps suffer from fading brake lenses. Problems also arise in VP tail lamps because of inadequate sealing to prevent water entry. Water entry into the tail lamps can lead to rusting globe terminals, which restricts electrical connectivity. Rectifying these problems usually requires new tail lamps and tail lamp wiring harnesses if rusted terminals are present.

Oil light - The oil sender unit on a VP commodore is responsible for the oil light, and an oil pressure signal to the ECM. Moisture contamination can cause the oil warning lamp to stay on until the moisture has dispersed. The oil sender units can also leak oil when fatigued, which causes a similar problem.

Speedo Sender - The electronic speedo sender on a VP commodore sends 10 ppr (pulses per revolution) to the speedo head for speed display. The speedo head then divides the input by 5 and sends a 2 ppr to the ECU for deceleration and idle control. The speedo senders can fail, which is evident when the speedo stops working, or when the speedo displays a flickering speed without the vehicle moving. VP's with automatic transmissions also rely on the speed signal for idle control during deceleration.

Wiper mechanism - VP wiper arm mechanisms commonly break at the right mounting bracket below the front windscreen. This sometimes results in the wiper arm hitting and cracking the front windscreen. Wiper mechanisms are available from most wreckers.

Power antenna - Power antennas can develop a parking problem, i.e. they do

not descend all the way, or consistently clunk during operation. Inside the power antenna mast is a plastic ribbed rope which is connected to cogs inside the power antenna motor. Either through moisture buildup inside the antenna from inadequate drainage, or plastic fatigue, the rope can break or lose teeth. New Mast and Rope assemblies are available through GMH dealers, be need to be fitted and retimed accordingly to ensure correct operation. Power antennas are controlled by a module, which is located on the left side of the dash, behind the glove box. The stereo triggers the module, and therefore the antenna will only stay up if the stereo is on. The module controls the height that the antenna will extend to, and this can be increased or decreased by the binnacle switch on the dash. The modules can be faulty, causing the antenna not to work, or to work intermittently. Modules are not all preset the same. Some may lift the antenna mast up to the limit, where as some may only lift them a few inches.

Power antenna mast and rope - Part number VS18188

Power antenna module - Part number 92029494

No Start - Calais - VP Commodores, fitted with a factory immobiliser, have a remote key switch usually found mounted on the left front door pillar. These switches can become faulty, or even fall apart, which renders the vehicle unstartable.

Override Switch - Part Number 92043709

Erratic tacho V8 - One possible cause of an erratic tacho in a V8, is caused by the distributor cap and/or rotor button wear. The cap and rotor can become worn through age, and their conductivity is reduced. Ignition leads can also affect the life span of these components.

Distributor cap - Part number GB926 (Bosch)

Rotor - Part number GB901 (Bosch)



Engines

Oil pressure V8 - Some VP V8 engine suffer from oil circulation problems and low oil pressure at cold idle. The oil pick-up strainer in VP's is smaller than earlier models, and is easily clogged by carbon deposits in the oil system. Insufficient servicing of the oiling system can increase carbon and soot deposits in the oil system, which can cause general oil circulation problems. Scheduled servicing and oil system cleaners can reduce carbon build up, but in extreme cases the sump and pick-up need to be removed and thoroughly cleaned to rectify oil pickup/pressure problems.

Harmonic balancer V6 - Standard harmonic balancers consist of inner and outer hemispheres which are located together by vulcanized rubber. Over time the rubber perishes or loosens and the outer hemisphere can move freely of the inner hemisphere. V6 balancers also contain a counter weight on the inner hemisphere to help absorb harmonic vibrations, but when the rubber splits or fractures, the counter weight can rattle against the outer hemisphere, which can be very loud. Harmonic balancer bolts are torqued and thread locked when installed, and can be difficult to remove. A Puller is also required after the bolt has been removed.

Harmonic Balancer - Part number 24501201 (up to eng # VH1274843)

Harmonic Balancer - Part number 24503066 (from eng # VH1274844)

Serpentine belt tensioner - The engine serpentine belt uses a spring loaded self adjusting bracket and pulley. The pulley's are often responsible for bearing noises and are a common replacement item. A word of warning; the 18mm pulley retaining bolt is left hand thread. The spring loaded bracket can be responsible for loud rattles, usually at low engine revs, when the tensioning spring fatigues. The tensioning spring can not be replaced separately, and therefore the entire tensioner bracket will need to be changed. Tensioner pulley - Part number M41023 and Tensioner assembly complete - Part number 92034888

Rear Main seal - Commodore rear main seals are rope, and these rope seals squeeze against the crankshaft at the rear of the engine. Hot engine oil and age reduces the seals ability to work effectively, and this can result in an oil leak from the back of the crankshaft. To replace the rear main seals the crank needs to be removed from the engine, which usually means that the engine needs to be out of the vehicle. Some tools (Sneaky Pete by Lisle) are available from auto parts stores, which are used for removing and replacing the rear seal with the crank still in place, but are not always successful.

Sump gasket - The sealing edge of VP sumps have raised ridges to prevent over tightening, but the rubber gaskets can split and deteriorate with age, which allows oil to leak.

Radiator - V6 radiators have plastic tanks and an alloy core, and are crimped together instead of soldered. The plastic tanks can perish and split (usually the right hand tank) which results in coolant and pressure loss, and the alloy core can suffer from electrolysis, caused by electrical currents from the thermo fan motor.

Throttle body - The throttle body is responsible for idle and acceleration control. The Idle Air Control (IAC) valve is bolted to the throttle body and controls idle speed and stability. The IAC works by allowing air to bypass the throttle body butterfly, and the amount of air supplied controls engine idle speed. The throttle butterfly and the IAC bypass ports can clog with carbon which can directly affect idle control and idle speed. To rectify carbon and idle problems, the throttle body assembly should be removed, cleaned and reset to factory settings.

Balance shaft bearing - Buick V6 engines have been around since the late 50's, and have been used in GM vehicles as well as Jeep vehicles. Initially, these engines were very harsh, and suffered from bad vibrations, which resulted in broken brackets. The engine was eventually altered, and a balance shaft was installed above the camshaft. This eccentric shaft helped equalize harmonic vibrations, but its rear bearing is now becoming a common source of engine noise. The rear bearing is a needle roller design, which can loose its hardening

and damage the balance shaft surface. This results in an unusual rattle/noise from the rear of the engine below the inlet manifold. Repair can be costly and time consuming.

Timing chain - The original timing chain is a pressed link steel design, which is quite strong, but does suffer from excessive stretching. When these chains become over stretched, they usually break the timing chain tensioner, which is mounted on the right side of the engine block. This results in engine rattles from the front of the engine, as well as engine performance loss. Engine detonation (pinging) under load can also be a sign of timing chain stretch. New chain and gear sets are available, along with revised timing chain tensioners.

Timing chain and sprocket assembly - Part number M40674

Timing chain tensioner - Part number 25535668 or 24501297 (VR style)

Cam and lifters V8 - Major problems can arise when cam lobes wear down, as insufficient lobe lift will restrict valve opening and therefore cylinder operation. After many kilometers, V8 cams and lifters wear naturally, but can equate in reduced engine power and noisy valve train operation.

Rocker gear V8 - Rocker gear wear is inevitable. Alloy rocker bridges and steel rockers arms wear with age, and wear increases noise and reduces valve lift. New rocker arms and bridges are available.

V8 Harmonic balancer - Harmonic balancers usually consist of inner and outer hemispheres which are located together by vulcanized rubber. Over time the rubber perishes or loosens and the outer hemisphere can move freely of the inner hemisphere. A few problems arise here, one being the danger of damage from loose parts, and the other being the loss of timing position which is located on the outer hemisphere.

Engine rattle but changes with A/C - The air conditioning compressors used on the V6, have a large front support bearing which can become noisy. Most times the noise will present itself under all conditions, except for when the air conditioning is on. The front bearing is replaceable and available. Bearing

assembly - Part number VS18161

Exhaust manifold V8 - VP V8's have steel headers factory and suffer from cracking. The RH header is most likely to crack around #8 primary tube to collector, mainly due to uneven expansion and contraction. External welding will not repair all of the cracks, as the manifold also cracks internally around the collector. New manifolds are worth almost \$300, and second hand manifolds are often already showing signs of cracking, if not already cracked.

Coolant Loss V6 - There are a few areas that the V6 engines leak coolant. Firstly is the water pump. There is a drain hole on the water pump housing that is specifically there to leak, if the internal seal of the water pump perishes. Secondly, if coolant has not been used or maintained, the front timing cover of the engine can corrode, and leak. Thirdly, the welsh plugs used in V6's are steel and not brass. The idea of this is that some corrosion is imminent, and it is cheaper for a \$1 welsh plug to be corroded, than other more expensive aluminium engine parts. Problem is, V6 welsch plugs are in a prick of a place, and can be awkward to change.

Catalytic converter - Catalytic converters are responsible for filtering oxides from exhaust gas to reduce emission. The inners of a catalytic converter are similar to honeycomb, and can become clogged with carbon and unburnt fuel. In this scenario, exhaust flow is dramatically reduced and engine power is taxed. A typical scenario of a blocked catalytic converter is when a vehicle struggles to rev over 2500 rpm. Competent exhaust mechanics can diagnose and/or check catalytic converters if needed.



Fuel System

Fuel tank - The majority of fuel injection fuel tanks contain a swirl pot. The internal primer fuel pump is situated in this swirl pot, which is designed to keep the fuel pump submerged in fuel, irrespective of fuel and vehicle movement. There is also a fuel return line (from the engine) above the swirl pot, which constantly keeps fuel flowing over the fuel pump. If this fuel return line becomes dislodged from the top of the fuel tank, it can fall into the swirl pot and aerate the fuel. This results in noisy pump operation and a gurgling fuel tank. Rectification of this problem usually requires another fuel tank.

Fuel pumps - The internal fuel pump requires adequate fuel for lubrication. Continuously running with very little fuel or running out of fuel can damage the pump, as there is no fuel for lubrication. If the pump is run without fuel, the heat generated can wear and seize the pump and no fuel will be delivered to the injection system. The EFI (Electronic Fuel Injection) system requires approximately 30-40 PSI to operate effectively. New pumps are readily available.

Electronic fuel pumps are also a cause of engine starting problems. Sometimes the car will start, run for a while, and then stall. As the fuel pumps get older, and lose efficiency, they get hot. Eventually they seize. Sometimes, if the car is let to cool (and the pump), the car can be restarted. (A little cheat note hear in case you ever get stuck, if you can't hear the internal pump working on first ignition, tap the bottom of the fuel tank, which jars the pump, and sometimes unseizes it. You will still need to get it checked/replaced, but it may not leave you stranded.)



Glass and Windows

Master switch - The main reasons for the master window switch to stop working are dirt, dust, spilt drinks, cigarette ash etc, which fall in past the switch buttons and contaminate the internal electrical contacts. Once the contacts become dirty, current draw is increased through the switch, which in turn fatigues and snaps the internal springs of the switch, and the switch no longer works. These switches are not serviceable. If you do get a new one, make sure you keep it clean.

Power window module - VP's with electric windows have a module just below the steering column, which is responsible for power window master control. The module contains a circuit board, and these boards suffer from dry solder joints. Solder is directly affected by variations in temperature, and can start to show signs of fatigue on hot days, by stopping window operation as the solder joint expands and separates. Eventually the module will fail totally, and the windows will be inoperable. A replacement module is usually required.

Power window circuit breaker - The power window assembly is protected by a circuit breaker in the under dash fuse panel, which is basically a fuse that disconnects power flow when excessive heat and/or load is present. Like anything electrical, these circuit breakers can fail and the power windows will not work.

Window wind-up - The front windup windows of VP's and the like, use many rubbers to seal against water. These rubbers move, either up or down, and can restrict the operation or ease of movement of the windows. These rubbers are available new, and when installed, they should be glued in place.

RH Front rubber - Part Number 92047144 (rear edge of glass)

RH Front rubber - Part Number 92046805 (front edge of glass)

LH Front rubber - Part Number 92046429 (rear edge of glass)

LH Front rubber - Part Number 92046805 (front edge of glass)

Leaking head lights - Leaks are mainly caused by the glass rubber seal not sealing. The glass can be removed and new seals are available. Sometimes either moisture and/or water enters via the rear rubber cap that covers the globe. It has also been found that the mounting brackets (which are riveted to the body of the headlight) become loose. Re-riveting with the use of sealant usually works.



Body and Interior Issues

Seat belts - Seatbelt fray is common in any aging car, and is illegal and unsafe. New seat belts are available for auto parts stores. Seat belt stalk buttons can fail and not properly lock when the belt buckle is inserted. In either situation, the seat belt unit should be changed to ensure occupant safety. The seat belts should also be changed if the vehicle has ever been in an accident, because the seat belt material stretches to absorb inertia.

Seat Base - VP seats often break the right front inner mounting tabs that bolt the mechanism to the floor. Seat runners are usually available second hand.

Door trim dust seals - VP's use an inner door window dust seal, to prevent dust and road noise entering the cabin. The rubber seals are initially glued to a trim strip which is colour matched to the vehicles trim. The rubber seals often become unstuck and fall inside the door cavity, which increases cabin noise and dust entry. Re-gluing is sometimes successful, or new ones are available through Holdens in a charcoal colour.

Door seals - VP Commodores use a rubber door seal around each door cavity which is glued to a colour coded pinch strip. The rubber often comes unstuck from the pinch strip and can tear. Re-gluing is sometimes successful, or new items are available from Holdens in a limited range of colours.

Steering wheel - Steering wheel padding is molded over a round metal bar, and after a lot of use the padding can rotate freely around the bar. This is defectable, as it compromises grip. A replacement steering wheel is required, whether it be new or second hand. Keep in mind that steering wheels are designed specifically to collapse with the steering column during an accident. Many sports steering wheels and/or boss kits are illegal, unless they comply with ADR's (Australian Design Rules).

Check straps - A check strap is a spring loaded arm inside the door that pivots between the door and door pillar. Ideally this strap holds the door open, but the spring of the check strap can snap which prevents the check strap from

functioning properly. The check strap can also clunk during door opening, which can be caused by a dry roller (part of the check strap) or by a worn pin against the door pillar.

Window regulators - Standard front window regulators are a pressed steel scissor design, but do wear out. Wear is evident if the window tilts forward while being wound up. The regulators can be adjusted by a slide located behind the door trim, but adjustment is limited. Tight or worn bailey channel (window) rubbers can inhibit the windows movement and place excessive stress on the regulator.

Window rubbers - VP door window rubbers are renowned for sliding from their original position. The front doors suffer most from this, with the front rubbers sliding up and the rear rubbers sliding down. This leads to leaking windows, loose windows, tight window operation, or very loose window operation. The rubbers can be moved and correctly positioned, but if left for too long the rubbers can be damaged and distorted. New rubbers are available from Holden dealers.

Bonnet hinges - When the double pivot bonnet hinges used on VP's wear out, the rear corners of the bonnet can touch against the windscreen when the bonnet is slightly opened. This contact can be enough to chip the edge of the windscreen or send a crack through the windscreen. New bonnet hinges are available through Holdens.

Bumper side brackets - The front and rear bumper end brackets are clipped to the body with T rivets. The bumper slides over these brackets, but the brackets are plastic and can break away from the bumper or from the body T rivets. New brackets are available from Holden dealers.

Door handles - The exterior door handles are plastic, and break when fatigued. It is advisable to replace broken exterior handles with VR-S handles, as they are metal. The only difference will be the gloss painted finish on the metal handle instead of the dull textured finish on the plastic handle.

Bonnet cable - The bonnet cable has an outer cover and an inner cable. The

outer cover is held to the radiator support panel by a small clamp, which is responsible for location and adjustment. The outer cover can tear through the clamp which will stop the bonnet from opening. The inner wire cable can stretch which also stops the bonnet from opening. New bonnet cables are available through Holdens.



Suspension and Steering

Panhard rod - The Panhard rod is a stabilizing bar used to locate the differential laterally. One end of the rod is connected to the right side of the diff, with the other end connected to the left chassis rail. As the suspension is lowered the differential assembly moves to the right and may cause the right wheel to foul against the guard. When this style of suspension set-up is lowered, an adjustable Panhard rod is usually required to re-centre the diff. Some Panhard rods are also available with a bend to increase exhaust clearance.

Upper diff arms - The upper diff arms locate the top of the diff housing to the inside of the rear chassis rails. These arms (2) have rubber bushes pressed in at either end that wear with age. When these bushes wear, the diff can tilt during acceleration and deceleration, which places more load on other suspension components. New bushes are readily available, as too are change over arms to save on time and tools.

Lower diff arms - The lower diff arms locate the bottom of the diff housing to the outside of the rear chassis rails. These arms (2) have a rubber bush pressed in at the chassis end that wear with age. When these bushes wear, the diff can tilt during acceleration and deceleration, which places more load on other suspension components. New bushes are readily available, as too are change over arms to save on time and tools. The differential housing contains the other pressed in bush that the lower diff arms connect to. These diff bushes are harder to replace as special tools are required.

Radius rod bushes - The radius rod is the bar that joins the front lower control arm to the front of the engine crossmember. The engine crossmember houses the front radius rod bushes. Over time, these rubber bushes soften or split and basically allow the lower control arm and strut assembly to move back and forwards which effectively alters the wheel alignment. Oil leaks are one of the main reasons for radius rod bush fatigue, as the oil softens the rubber. Original front radius rod bushes are pressed in, and need to be either pressed out or cut out. After market bushes are 2 piece, which makes

Steering rack - Steering racks have a few inherent problems as they age. Leaks are common, either from the rack ends, which fills up the dust boots, or from the top hub seal. The left hand inner shaft bush wears, which can cause a knocking sound while driving. Low pressure power steering line hoses also leak as they become brittle with age. One inherent problem V8 power steering metal lines have is they rub against the engine sump and wear away either the line or the sump until one begins to leak. Tigrod arm sockets also wear which can affect wheel alignment.

Strut bearing plates - The top strut bearing plates are responsible for mounting the top of the strut to the strut tower. As the shocker wears and loses its absorbing qualities, the rubber strut bearing plates try to absorb bumps, and eventually begin to distort and push the strut tower up towards the bonnet. It is quite common to see strut towers and strut bearing plates severely concaved, and in rare occasions the strut bearing plate has pushed through and hit the bonnet. There are several styles of replacement strut bearing plates available, standard, semi-adjustable and fully adjustable. Semi-adjustable and fully adjustable strut bearing plates allow for camber adjustment of the front struts, whereas standard do not. In most cases the semi-adjustable items suit both standard and lowered ride heights, and the fully adjustable items are usually reserved for heavily lowered vehicles or vehicles requiring more wheel alignment options.

Front Sway bar links - VP sway bar links differ to earlier models. In VB to VL models, the sway bar has short rubber mounted link rods connected down to the front lower control arms. VP's altered from this by using longer rubber mounted link rods that extend up to a bracket on the strut housing. The change in design decreased sway and increased stability. The rubbers wear with age, as do the rubber retaining washers. The washer holes enlarge which allows the sway bar link rod to rattle unsupported. This can cause front end clunking while cornering into a driveway or similar situations. New link rod kits are available genuine (rubber) and after market (Nolothane or urethane).