

Rabbit Tricks

Remember when Bullwinkle would proudly announce, "Hey Rocky, watch me pull a rabbit out of my hat."? More often than not, anything but a rabbit would emerge from the moose's trusty top hat. Nobody seemed more surprised than he was when it happened.

By the middle '70s, Volkswagen had been reaching into its top hat for years. Every year the factory pulled out another Beetle. After more than twenty years, some car buyers began to say "Wait a minute, I've seen this trick before." It was time for something different, and the Rabbit was it.

The Rabbit had many new features that we take for granted today. Front wheel drive, a transverse engine, and a dual diagonal brake system, to name a few. Unlike the Beetle, the Rabbit was offered in a wide variety of models. Over the years, there were carbureted and fuel injected engines, diesels and turbo diesels, and your choice of sedan, convertible, and pickup body styles. Even a high performance model. Something for everyone.

Public taste changes a lot faster than it used to, and the Rabbit's production run wasn't nearly as long as the Beetle's. It's already been better than seven years since the last regular production Rabbit was sold in this country. In spite of that fact, there are still lots of them on the road in most parts of the country.



Water leaks in the cowl area can play havoc with the fuse box and other electrical components in this area. Water can come from leaking windshields, missing radio antenna grommets, or rusted body panels. Corroded fuse box connectors can cause a wide variety of problems.

Extended Care

Most of the Rabbits you'll see for service today will probably be high milers, since even the youngest ones are at least seven years old. This doesn't seem to stop their owners from putting maintenance money into their cars, especially if the exterior is still holding together. Older Rabbits keep soldiering on, just like old Beetles did before them.

We'll highlight some of the more common Rabbit repair areas for you. We'll also look at what's likely to wear out, break, or fall off once the odometer gets close to (or into) six figures. Rabbits never included much high tech gadgetry, so most of our information is basic nuts and bolts stuff. Our tips should help keep your Rabbit customer's cars reliable and safe.

The information is divided into four basic categories: electrical, fuel, drivetrain, and several general interest tips. As we mentioned, there have been several Rabbit variations. The photo captions will describe which Rabbit we're talking about where necessary. The fuel system tips refer to the fuel injected models, probably because they are the most common at this point.

With all due respect to the bunny pullers of the world, we present our collection of Volkswagen Rabbit service tips and tricks. You really don't need to be a magician to keep these cars running.

— By Karl Seyfert

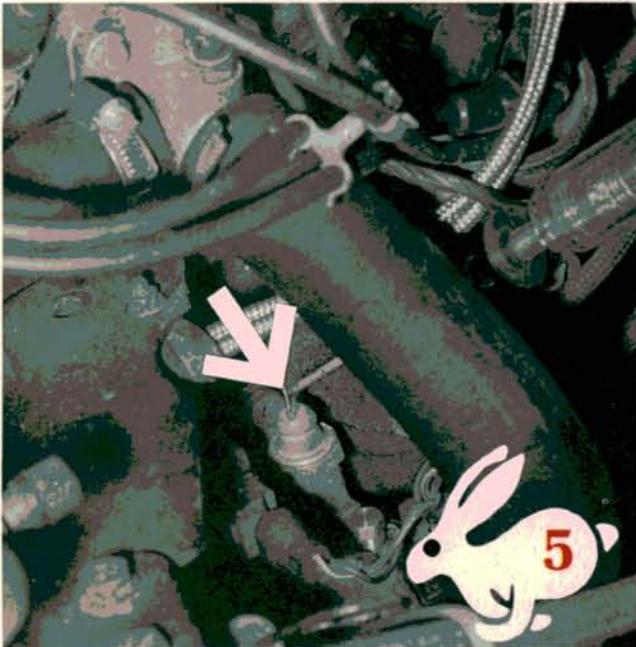


The corroded fuse box can be replaced, but the source of the water leak should also be found. Spread a fine layer of baby powder over the windshield and cowl area. Use a low pressure blow gun to lightly blow the baby powder. The powder will blow through any body openings and will show up inside the car.

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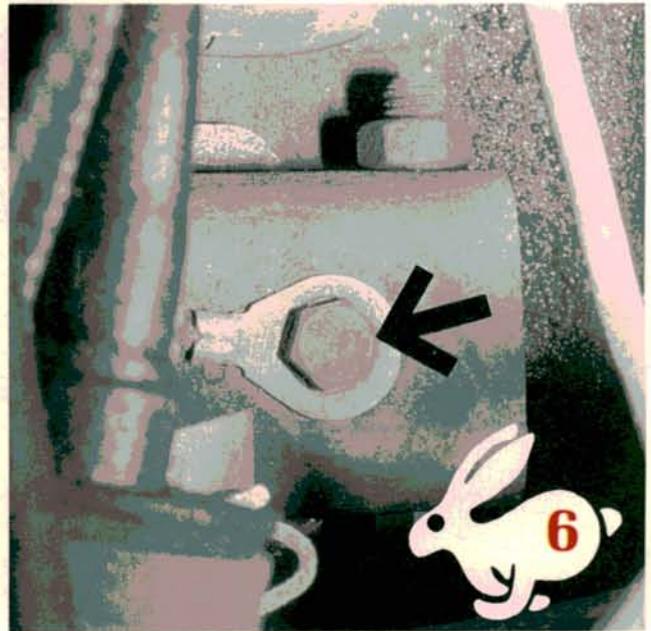
Water can also get inside the auxiliary relays located at the top of the fuse box. A frozen fuel pump relay may prevent the car from starting when the car is parked outside in cold weather. This can be difficult to diagnose because the ice will melt when the car is brought into a warm shop for service.



The Rabbit's dynamic oil pressure warning system measures oil pressure at both high and low engine RPM. The most common component failure is the low pressure sending unit at the oil filter housing. A cracked printed circuit in the dash or poor connections at the oil pressure sending units can also cause problems.



The seat belt interlock systems were bypassed on some cars by splicing the seat belt switch wiring together inside the door panels. Sloppy connections or corroded relay terminals can keep the engine from starting. To permanently override the interlock system, jumper interlock relay terminals 50 and C together at the fuse box.



The main ground cable runs from the battery to the body to the transaxle. A corroded connection at the transaxle can cause hard starting and a low alternator charging rate. A poor chassis connection may cause erratic dash gauge operation. An extra engine ground cable may be necessary on problem cars.

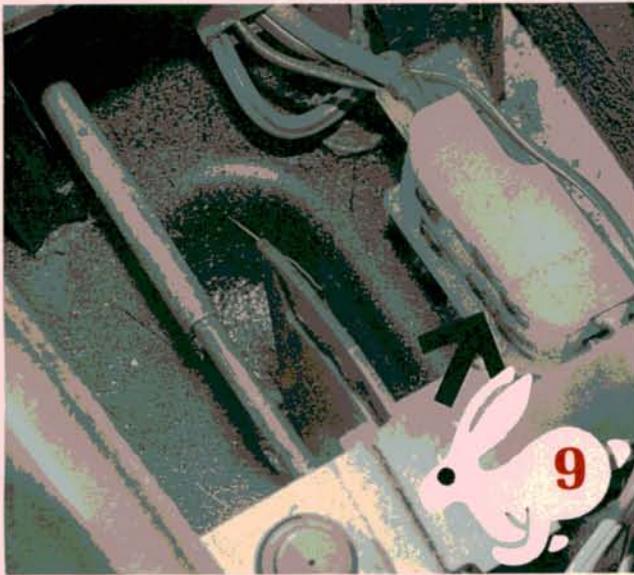
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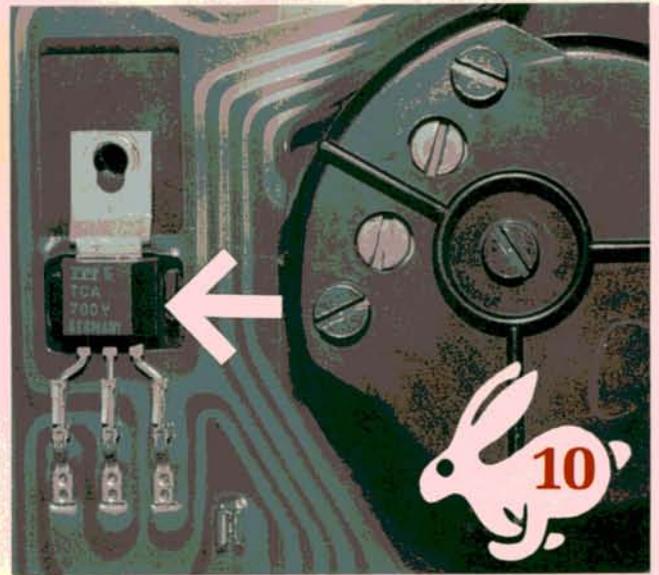
Look for oil leaking out of the back of the ignition switch if you're diagnosing intermittent starting problems. The oil is put inside the switch to cool the switch contacts. Once the oil leaks out, the switch may overheat. The switch may fail intermittently or quit working completely.



Worn distributor shaft bushings are common on both electronic and conventional point style distributors. Sloppy bushings will affect dwell on conventional distributors. Electronic systems usually keep working until the rotor starts hitting the inside of the cap or the shutter wheel hits the Hall generator.

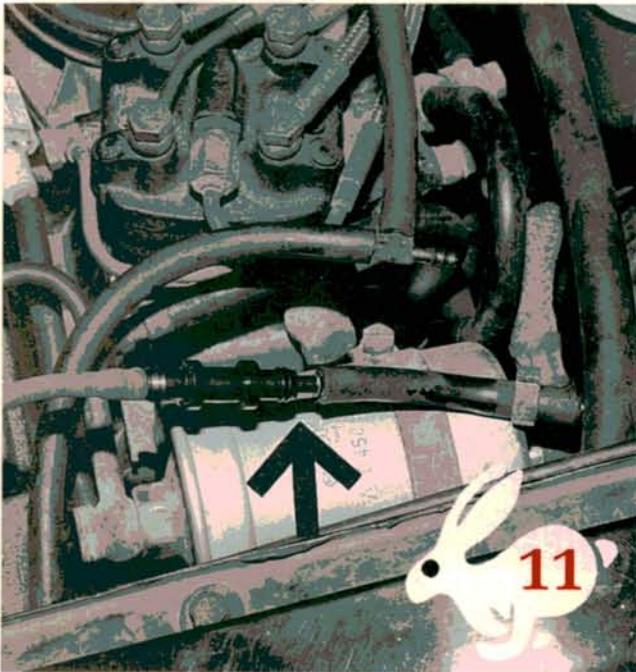


The neutral safety switch on automatic transaxle models is a set of sliding contacts in the shift console. Intermittent no starts may be caused by worn contacts or an improperly adjusted switch. Remove the console cover to clean and inspect the switch contacts. Also check the sliding contact on the shifter for wear.

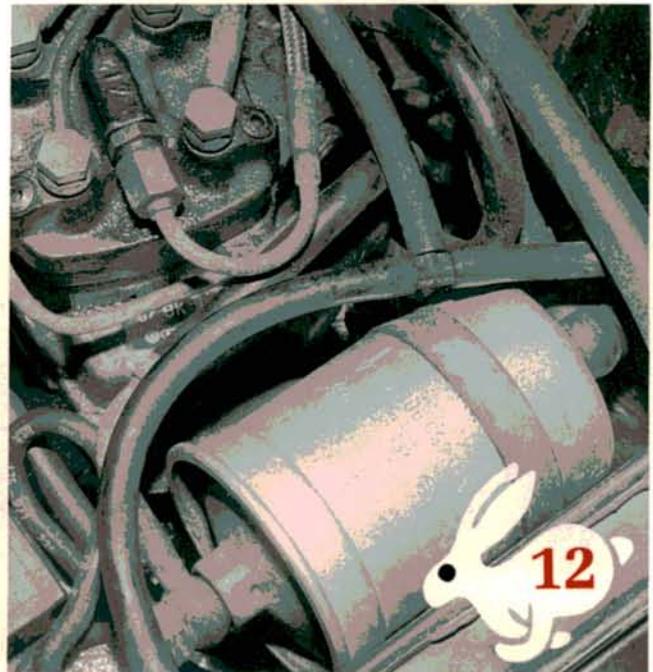


The voltage stabilizer controls voltage to the dash gauges. If the stabilizer fails, Volkswagen recommends soldering an inline diode to the new stabilizer's center ground lead with the diode's polarity ring toward the stabilizer. Ground the diode's other end at the coolant gauge ground post.

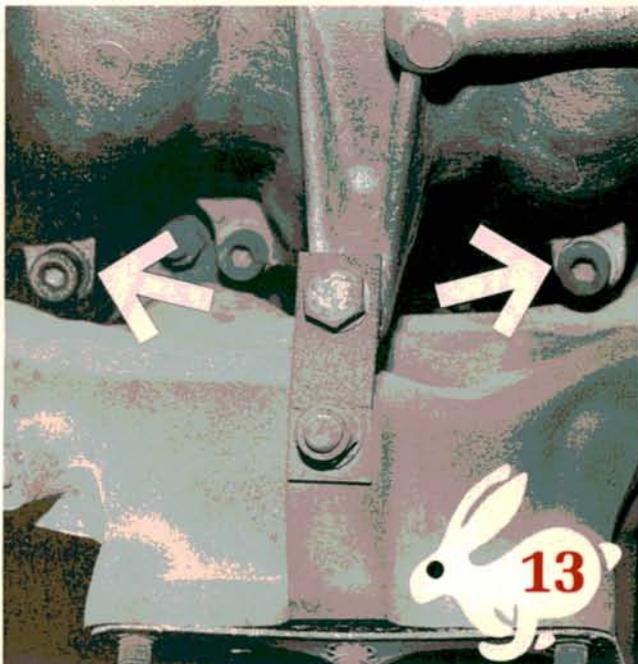
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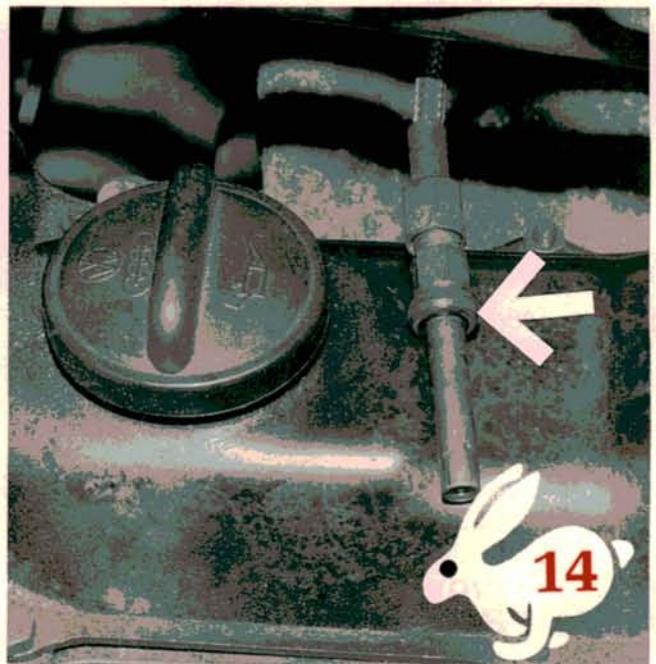
The evaporative emission system lines run through the right rear inner fender. Road debris can rust or damage the lines, allowing moisture and dirt into the fuel system. Tap into the evaporative system at the line leading to the gas tank. Pressurize the system with a hand pump, then check for leaks.



Fuel quality is especially important because of the many small fuel injection system passages. The fuel pump is ahead of the fuel filter and only has the fuel tank filter sock to protect it from dirt, moisture, and rust. If the car is clogging fuel filters, rust in the tank is probably to blame.

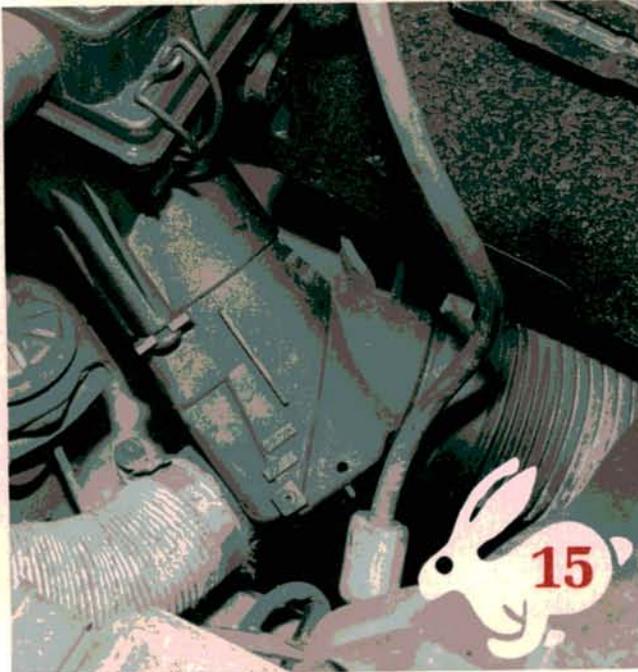


Damaged intake manifold gaskets can cause large vacuum leaks. Raise the car to check the underside of manifold. Several pieces of gasket were already sticking out of the manifold on this engine. The brace between the intake and exhaust manifolds should always be reinstalled after gasket replacement.

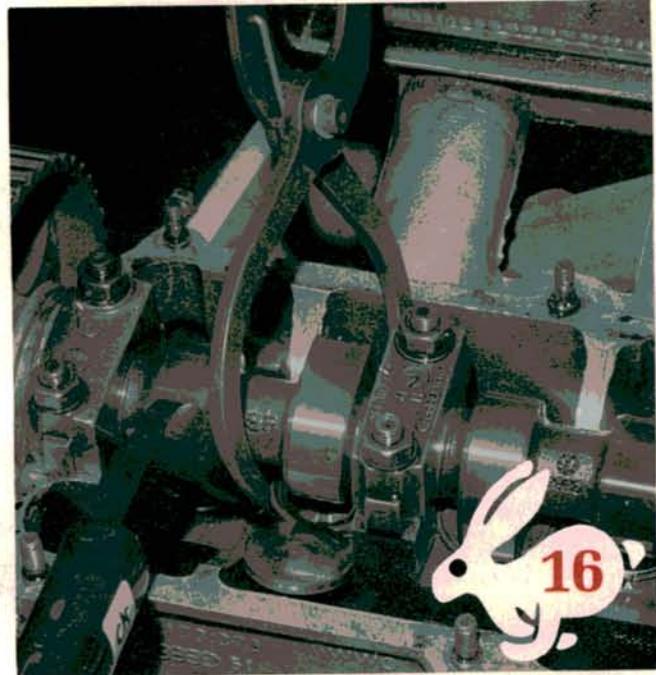


The o-ring injector seals and injector inserts are another source of vacuum leaks. To inspect the seal, carefully remove the injector with the fuel line attached. The injector and seal should fit snugly in the insert. Remove leaking injector inserts with a 12 mm Allen socket and reseal them with thread locker.

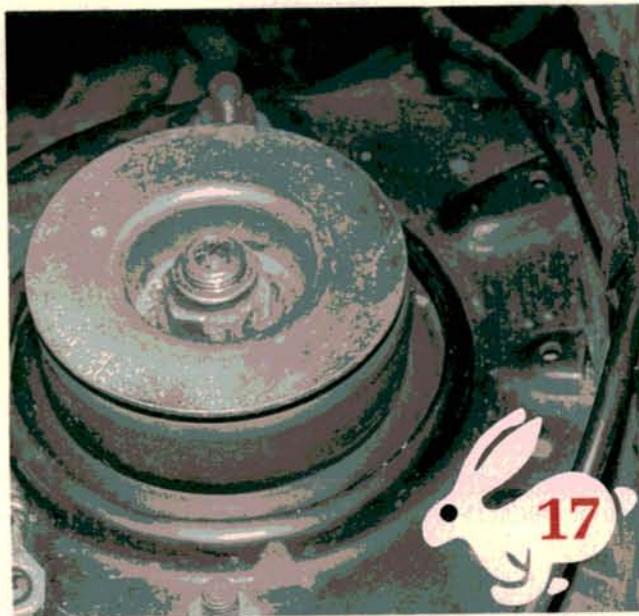
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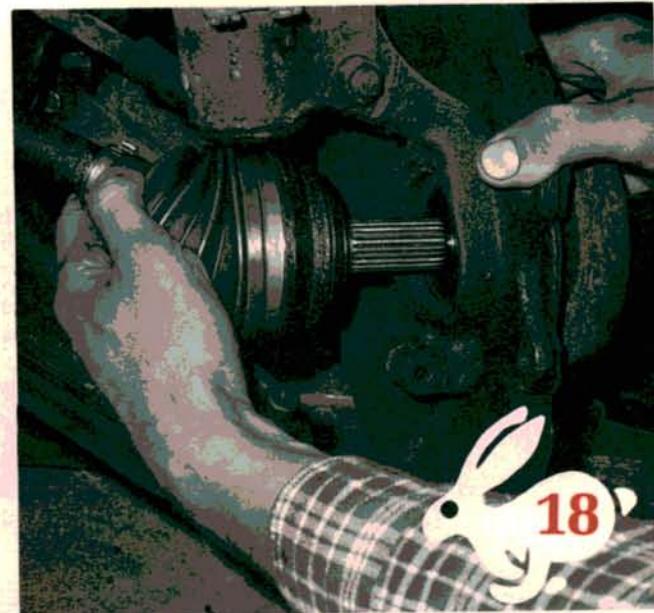
Check the operation of the intake air preheat system on fuel injected cars. If the engine is breathing outside air in cold weather, the damp air may cause an ice buildup as it passes the fuel distributor sensor plate. The ice jams the sensor plate, stalling the engine and keeping it from restarting.



Gas and diesel Rabbits use selective shims to adjust valve clearance. Rotate the engine until a pair of cam lobes are facing upward. Measure the clearance. Depress a valve, then remove the selective shim. Measure the shim, then install a thicker or thinner shim to adjust the valve clearance.



Not all front strut bearings are created equal. Some new bearings may have too much "slop" and will clunk over bumps when installed. Assemble the bearing on the strut shaft and check for looseness before installing the strut on the car. Shorten the spacer sleeve slightly to eliminate looseness.

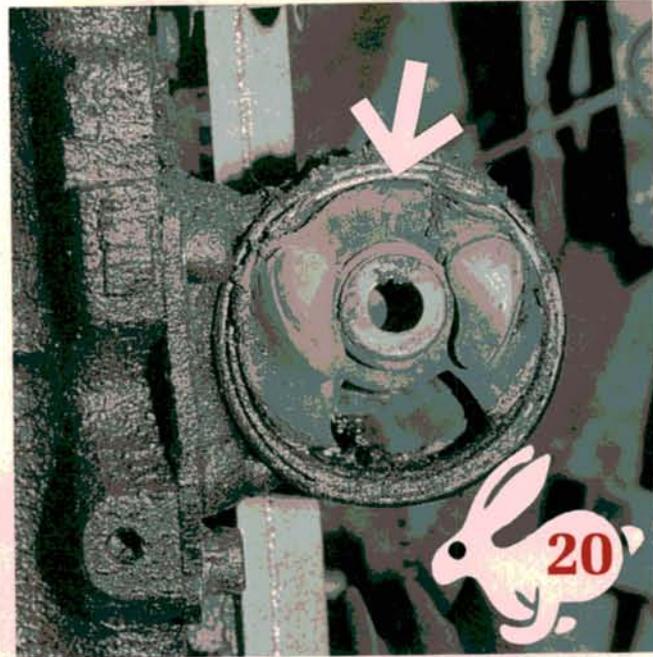


Rabbit CV boots fail about as often as other FWD cars. The outer CV joints and boots can be serviced without removing the drive axle from the transaxle. This can be a big time saver because the spline head inner joint attaching bolts can be tough to remove, especially on automatic transmission models.

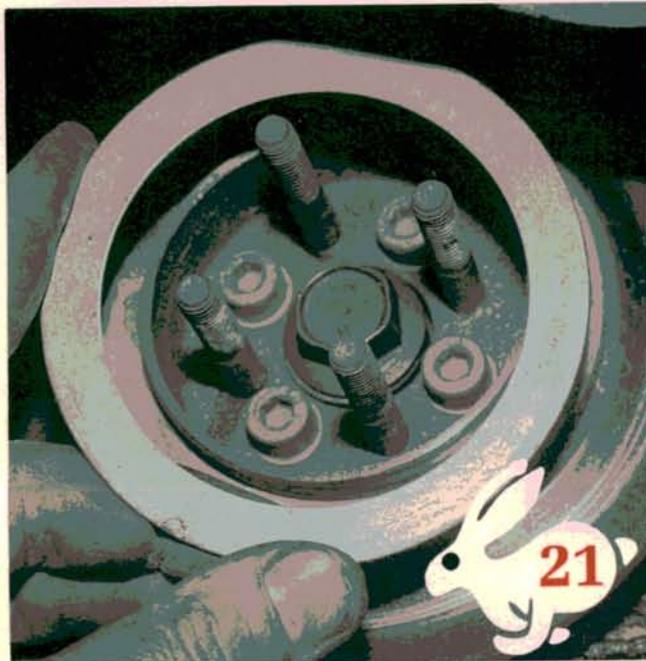
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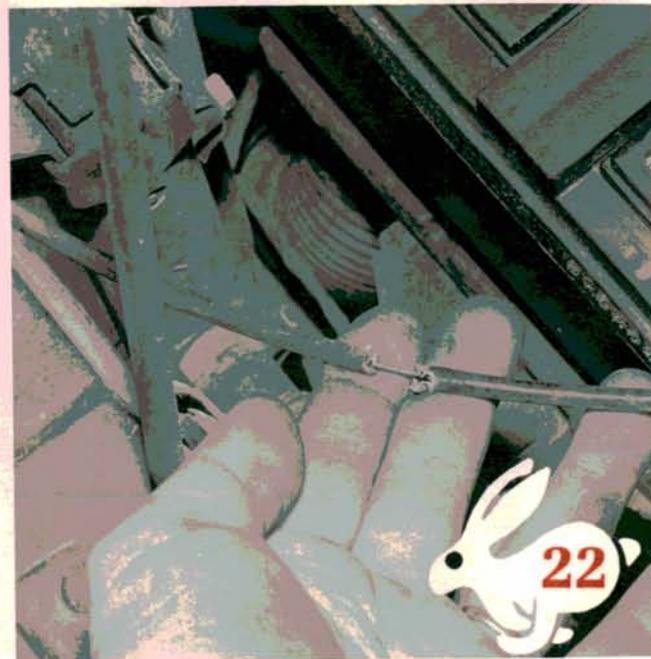
Stick shift Rabbits have a unique shift linkage. The linkage must be properly aligned and all of its bushings must be in good condition or shifting will be very difficult. Have an assistant run the transaxle through the gears while watching for loose or worn shifter parts from under the car.



Collapsed or misaligned engine and transaxle mounts can transfer engine vibration into the passenger compartment and cause manual transaxle shifting problems. Right side engine mounts shouldn't look like this collapsed mount. New mounts have a large air gap at the top when installed.



The air conditioning belt tension on later gas engine models is adjusted by adding or removing shims between the crankshaft pulley halves. When removing shims to tighten the belt, store the spare shims behind the alternator drive pulley. You'll need them the next time a new belt is installed.



The hood release cable passes right across the top of the battery. Most of them end up hurting like this one. To install a new cable, attach it to the end of the old cable in the passenger compartment. Disconnect the other end of the old cable from the hood latch, then use the old cable to pull the new cable into place.