



Winning Tech Tip entries have been selected by the editors of *Import Service* as well as the technical staff at NAPA Echlin. Winning entrants will each receive \$100.00 from NAPA Echlin and a special NAPA Echlin jacket.

A cash prize of \$2500.00 will be awarded at the end of the year to the entrant who submits the best 1992 Tech Tip. The first runner-up will receive \$1000.00 worth of NAPA Echlin products.

So tear out those Tech Tip cards and start mailing your Tech Tips. We'll print the best ones each month. Everyone will benefit from the shared information.

HONDA CAM SEAL REPLACEMENT

A thin sheet of Mylar can be used to replace the camshaft seal on Honda engines. Without the Mylar, the seal lip may catch on the camshaft and fold under during installation.

To install the seal without damaging it, begin by cutting a 3 x 6 inch piece of thin Mylar sheeting. Roll the Mylar into a cylinder the same diameter as the camshaft. Place the Mylar tube between the end of the camshaft and the inside of the cam seal. Apply a light coat of grease to the tube, then slide the seal into place on the cam. Once the seal is properly installed, slowly remove the protective Mylar sheet.

NISSAN NO-STARTS

Many 1984 and later Nissan Sentra distributors have been replaced because the crank angle sensor mounted inside the distributor fails when the engine gets hot. The crank angle sensor will often work normally from the time the engine is cold right up until it reaches operating temperature.

If the crank angle sensor still works when the engine is cold, don't be too quick to pitch it into the scrap bin after you replace it. **A discarded Sentra distributor can be used to diagnose a similar problem on a 1984-88 Nissan 300ZX.**

The 300ZX distributor also has a shutter wheel crank angle sensor that's very similar to the Sentra's (with two extra cylinders). If you're diagnosing a 300ZX engine with no spark and no injector fire while cranking, use the following procedure and your "stalls when hot" Sentra distributor to diagnose the problem:

- Disconnect the 300's crank angle sensor harness connector at the distributor.
- Now plug the "stalls when hot" Sentra distributor into the 300ZX harness connector.
- Turn the ignition on, then rotate the distributor shaft.
- If the ECU now opens the injectors and fires the ignition, you've found the source of your problem.

Don Flores
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VANAGON COOLING SYSTEM BLEEDING

Use the following procedure to bleed the cooling system on water cooled Volkswagen Vanagon models. Instead of loosening the radiator bleed screw and running the engine until the coolant flows bubble-free, do this:

- Set the heater controls to maximum and raise the front of the vehicle.
- Keep the engine compartment bleeder screw closed.
- Remove the radiator bleeder screw, then insert the tip of a hand vacuum pump into the bleeder screw hole. The vacuum pump should have a fluid reservoir, like the type used to bleed brakes.

- With the engine off, draw coolant through the system by applying suction at the radiator bleeder. Refill the expansion tank as necessary.
- Reinstall the radiator bleeder screw, then run the engine to circulate the coolant.
- Bleed the engine compartment cooling system by unscrewing the engine compartment bleeder screw all the way, then pulling back on the bleeder screw stem to permit adequate air/antifreeze passage.

Dan Houg
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PORSCHE CAMSHAFT LUBRICATION

Always remove and clean the oil tube above the camshaft during valve adjustments on 1977-82 Porsche 924 engines. The oiling passages in these tubes can become clogged and cause the camshaft lobes to flatten out due to lack of lubrication. Carburetor cleaner and shop air pressure do a good job of cleaning the small tube passages.

VOLKSWAGEN ENGINE NOISES

If the VW Beetle you're working on sounds like a bird, check the distributor for dry distributor shaft lobes. Lube the lobes with a high temperature distributor grease. The points will probably need to be replaced too.

Louder, deeper noises may be caused by a blower fan that's cracked near the hub. Always check the fan for cracks whenever the alternator or generator is removed or replaced.

The preceding two tips were sent to us by:

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FOUR QUICK TIPS

It's amazing what you can do with the materials you'll find laying around the average shop. If you've ever used your ingenuity and a few bits and pieces to get yourself out of jam or make a job easier, you'll appreciate the following quick tips:

- To look for very small refrigerant leaks with your ultrasonic leak detector and to protect its probe tip from dirt and damage, slip a spark plug boot over the tip.
- The red plastic end caps from new fuel filters work well to cap transmission cooler lines during radiator R&R work.
- Domestic disc brake caliper pistons make good

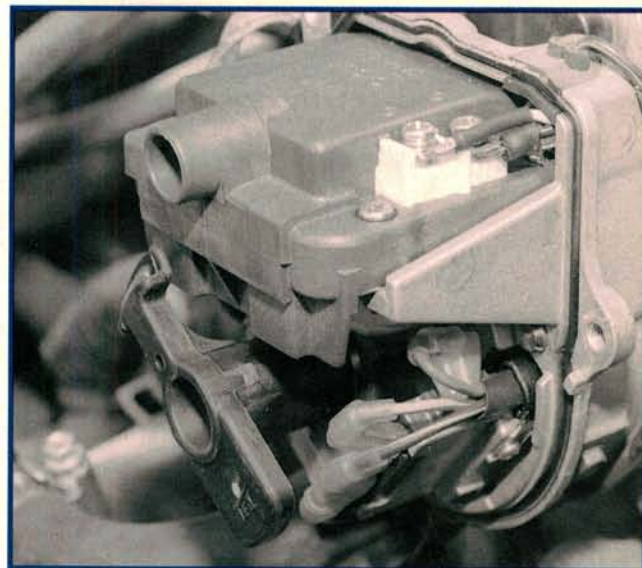
mandrels and seal drivers during wheel bearing press operations, straightening and installing wheel bearing dust caps, installing various seals, and driving transmission bearings onto shafts. Smaller import caliper pistons can also be used for driveshaft u-joint removal.

- Frozen tail lamp lens screws can be removed from plastic tail lamp housings without drilling or damaging the lens by heating the screws with a soldering iron. Touch the soldering iron tip to the screw head just long enough to soften the plastic lens housing, then remove the screw.

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HONDA DISTRIBUTORS

About 90 percent of all 1988-90 Honda Civic no-starts are caused by bad distributor ignitors. Make sure you don't create another problem while you're diagnosing or replacing the ignitor. The carbon button in the center of the distributor cap can be very easily damaged if you're not extremely careful when removing and installing the distributor cap.



If you break the distributor cap button, the car will probably run fine for a few weeks. But eventually it will come back with a burned up distributor cap, rotor, coil, and pulse generator. The total cost of the damage to the distributor is approximately \$450.00.

I speak from experience. I've accidentally damaged one carbon button and have seen three others that were broken by others.

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