

TECH TIPS

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. Each winner's NAPA jobber will also receive a \$100.00 prize.

In addition to the \$100.00 monthly prizes, NAPA Echlin will award an all expense paid trip for two to the 1992 Indy 500 to the Tech Tip winner who submits the best tip for 1991. The runner-up will receive a check for \$2500.00, also courtesy of NAPA Echlin.

So tear out those Tech Tip cards and start mailing us your Tech Tips. We'll print the best ones each month. Everyone will benefit from the shared information, whether you win or not.

CARBURETOR HOLD DOWN NUTS

Restarting carburetor hold down nuts following a carburetor overhaul can be very frustrating. The hold down studs are usually hidden under the body of the carburetor, making it very difficult to get the nuts started by hand. A long Phillips screwdriver can make the job a whole lot easier. To reinstall the hold down nuts:

- Slide a hold down nut over the tip of the screwdriver, then use your finger to hold the nut near the screwdriver handle.
- Position the tip of the screwdriver on top of the hold down stud. Most studs are slightly indented on top and will hold the screwdriver tip in position.
- Let the hold down nut slide down the screwdriver shaft. The screwdriver acts as a guide for the nut. Don't remove the screwdriver until you've got the nut started on the hold down stud.

Tommy Monroe
The Auto Shop
Sparks, Nevada

INJECTOR CLEANING

Many technicians find it hard to get the engine started after attaching aerosol injector cleaners to vehicles equipped with K and KE-Jetronic fuel systems. The following procedure makes the job a lot easier:

- Before attaching the aerosol cleaner, warm the engine to operating temperature. At the same time, warm up the injector cleaning canister by placing it near the engine.
- Then hook up the injector cleaning kit, following the manufacturer's instructions. At the same time, hook up an injector tester to the cold start injector.
- Adjust the injector cleaning kit regulator to 40-45 PSI.
- While cranking the engine, turn on the injector tester. This causes the cold start injector to spray

injector cleaner into the manifold, and will help get the engine started. Running the cleaner through the cold start injector also cleans the cold start injector.

Brian Quinty
Quinty's Quality Automotive
Rifle, Colorado

DRAGGING HONDA BRAKES

A rusted brake hose mounting bracket may cause dragging brakes on early Honda models with MacPherson strut front suspensions. Expansion of the rusted bracket can pinch the hose just enough to prevent the release of hydraulic pressure when the brake pedal is released. If trapped fluid pressure is applying the caliper piston, open the bleeder screw to vent the trapped hydraulic pressure, then see if the rotor turns freely.



To correct this problem, remove the metal bracket and clean out the rust inside the bracket. Replace the brake hose if it's damaged. When reinstalling the bracket, coat the inside with silicone grease to inhibit rust. Insert a washer on the mounting bolt between the ends of the bracket to give the hose some extra room. Don't forget to do the bracket on the other side too.

Pat Stewart
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REAR BRAKE ADJUSTERS

The rear drum brakes on many Japanese cars are adjusted by applying and releasing the parking brake. Many customers don't know this fact, and rarely use their parking brake.

Several problems can result if the parking brake isn't applied and released periodically:

- The rear brake adjusters or cables may freeze up from lack of use.
- The brake pedal may be lower than normal when the brakes are applied because the rear brake shoes are out of adjustment.
- The front brake pads may wear out prematurely because they are doing more than their share of the work.
- The front brakes may become overheated and squeal when applied.

If you run across any of these problems, try ratcheting the parking brake lever on and off several dozen times. The lever will start out with a lot of travel. The travel should gradually decrease as the rear brakes adjust. If ratcheting the lever doesn't bring the rear brakes into adjustment, remove the rear drums and free up the adjuster mechanisms. Tell your customers to use the parking brake periodically to keep their rear brakes properly adjusted.

Sonny Reeves
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PORSCHE 911 COOLING FAN REMOVAL

This tip will help you remove a Porsche 911 cooling fan without damaging the cooling fan or the alternator. The fan may seize tightly to the alternator shaft, especially if it's been in place for several years. This can make alternator or fan replacement very difficult.

Remove the alternator shaft nut and drive belt pulley first. This will reveal a ring of 16 holes in the steel fan hub. Tap four of these holes (maintain even spacing between them) with a 1/4-inch x 28 tap.

Install four matching bolts (1.75 inch long) in the threaded holes. Tighten the bolts evenly. The bolts will push against the alternator bearing housing that's directly behind the fan hub. The steel fan hub acts as a puller, and the fan will break free from the alternator shaft with a loud snap.

After the fan is removed, dress the tapped holes with a flat file. This removal method doesn't upset the cooling fan's balance and the tapped holes can't be seen after reassembly.

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