ly acquired IBM;

More than a year ago we asked Mr. Kjellberg to include us in Saab-Scania's technical bulletins mailing list. He in turn, asked Mr. J. E. Mattivi of the Saab-S Central Region to forward the sheets to us. In mid-November of 1975 Mattivi kindly sent us about 13 pages of the past years bulletins. Our Rick Sanders retyped most of these sheets on his new-

## SERVICE TIPS FOR 99'S

If the floor of a Saab 99 tends to become wet or fill with water when the vehicle is driven on a rainy day, check to see that the rubber plugs in each end of the rocker panels are present and properly seated. The rocker panels vent directly to the passenger compartment floor thus rocker panel leakage will result in water entering the floor of the vehicle.

If a fuel injection vehicle exhibits a rough, uneven idle, and missing at cruising speed, check to see that the main starter terminal is tight and free of corrosion. The fuel injection system receives its current from this terminal.

When diagnosing a problem which appears to be in a Saab 99 fuel injection system, always disconnect the alternator from the system at the regulator plug to be sure it is not causing electrical interference which might be causing the fuel injection computer to malfunction. A flat spot on an alternator commutatot would cause the vehicle to exhibit symptoms such as missing which would be the same as a malfunctioning fuel injection system.

The ignition timing on Saab 99's may now be changed from the previously recommended 4° BTDC to 12° BTDC (at 800 RPM with vacuum hose disconnected) for better overall engine performance on all vehicles except those sold in the State of California.

A quick check of the pressure sensor of a fuel injecton vehicle has been devised. Symptoms of a defective pressure sensor are excessive gas consumption and rough uneven running. Remove the wire from the coolant temperature sensor. If with the wire disconnected the engine runs normally, the pressure sensor usually is defective. If the engine continues to run uneven, the pressure sensor is usually good and the problem is elsewhere in the system.

A voltage output test should be run on all P.D. Is as there have been several cases reported of outputs as high as 17 volts on the SEV Marchal systems. This condition leads to rapid boil—away of battery electrolyte, battery caps popping off, or the destruction of the battery. Maximum output should be 14 volts.

If you have an automatic transmission with <u>chronic seal</u> leakage, a good thing to check would be the "O"-ring groove on the small end of the sealing plate (Part #8705790.) Proper depth should be .02 mm. Defective plates have depths of up to .05 mm.

When doing a new car prep, you should always check the tightness of the block draining petcock, right benind the starter. Loosen the starter rear mounting plate, and check with a slim profile 15/16" wrench. These have been coming through both loose and without gaskets, and cause a leak that does not always show during a pressure test.

On <u>air conditioning</u> installations it should be considered critical that the rear evaporator mount, new on the Phase 6, always be installed correctly. Failure to do so will lead to hose failure from chaffing on the firewall or the front evaporator cracking away from the dash mounting screws.

Always check the rear door struts on <u>Wagonbacks</u> to insure that they do not contact the rubber seal around the opening as it will cause a very bad water leak, even after the strut is adjusted, and will cut the seal if not corrected.

To correct brake squeal: clean the pad surface, groove in the pad, and inner caliper surfaces of any dirt or corrosi on. File off about 1/32 of an inch of less of the metal edge of the pad that rides against the caliper. Apply a good copper brake plate and caliper lube, in this instance Kent #50155, to the edge of the pads to prevent further rust and sticking.

To prevent the injector harness from falling onto the idler pulley on A/C equipped cars, always support the harness at the top center of the heater box with the extra clamp provided. This is in the A/C instructions but seems to be one of those small details everyone overlooks at one time or another.

The best 12 volt source to use when installing a tape deck or radio in the 99 is the red wire from the light switch to the ignition switch (Position #75 on wiring diagram). This wire is easily accessible as it is wrapped around the outside of the wire harness, and supplies current in both the G position and On position but is dead with the key off.

If a Saab 99 WagonBack exhibits symptoms such as backfiring through the intake manifold, poor performance and low fuel pressure (14–15 PSI), remove the <u>fuel pump</u> and inspect the <u>hose connecting</u> the <u>discharge outlet</u> of the pump to the steel gas line on the side of the pump for looseness. If the line can be pulled off at either end, either tighten the clamps until the hose can't come off or replace the clamps with ones of a smaller size that will hold the hose securely.

When working on a Wagonback, never attempt to disassemble or allow heat to be applied to the pneumatic lift assemblies on the rear hatch. Serious injury could result as the gas pressure in these units is approximately 900 p.s.i. Remove the pneumatic lift assemblies before applying a paint drying lamp in the course of body work on the rear of a Wagonback.

Ignition timing on 1975 99's is set as follows: Disconnect vacuum line at distributor and plug line. Start engine and set idle speed to 800 RPM. (Idle speed is adjusted via the air leak screw on the throttle housing.) Federal Manual and Automatic transmission vehicles are set to 14° BTDC. California (Western Region) Manual and Automatic transmission vehicles are set to 12° BTDC. Idle RPM is then reset to 875 ±. 50 RPM with power consuming equipment off and transmission in neutral.

When you install a Saab 99 radio, always ground it securely to the car body and install the noise supressor on the alternator. The suppressor is mounted to the alternator and its wire lead attached to the same terminal as the two gray wires.

8. (Continued from Page 5) SERVICE TIPS FOR 99's-

To prevent damage to the ground of A/C equipped vehicles, move them from their original location to the screw which secures the rear evaporator mount. The easiest method for installing this mount is to position the evaporator assembly with the front screws, then drill from the inside through the firewall. Install a Tinnerman nut on a rear mount and fasten the ground wires to it by means of a one inch metal screw from the engine side.

After working on the <u>brake</u> system, it is especially important to pump the brake pedal a number of times to bring the brake pads close to the discs. Pump until the footbrake and hand-brake function normally.

Do not use the 1975-style 99 exhaust system on earlier models under any circumstances. Clearance problems exist which will prevent a proper fit from being obtained if this modification is employed. Furthermore, the new exhaust system so installed would be far too close to the fuel and brake lines used on 1974 and earlier 99's and would present a risk of boiling in the fuel line and damage to the brake lines.

To obtain maximum radio reception, it is always necessary to "trim" the radio. To do this, select a weak AM station in the 1400 KC range and extend the antenna to its maximum height. Turn the trimmer screw on the radio until the loudest volume is obtained.

When diagnosing a problem in a Saab electronic fuel injection system, always disconnect the alternator from the system by removing its V belt (never unplug the alternator as diode damage may result). A flat spot on an alternator slip ring would cause the vehicle to exhibit symptoms such as misfiring, which which would be the same as caused by a malfunctioning fuel injection system.

If brake squeal occurs on a 1975 99, check to be sure that the brake dampner plates (front #8930448, rear #8930547) are installed and firmly snapped in place on the brake pad retaining pins. This should definitely be checked.

An important check of the 1975 <u>fuel pump</u> electrical system is to ensure that the pump ground connection located in the trunk under the rectangular access plate is both tight and clean of paint.

Should it be necessary to replace the <u>trim lining</u> forward of the dashtop near the windshield due to wrinkling caused by moisture, be sure that the <u>windshield moulding</u> is watertight before installing the new trimpad. If necessary, inject windshield sealant between the moulding and the windshield.

When checking for air leaks into the engine of a 1975-99, it is possible to use the rubber bellows as a pump. Place both hands around the area just above the sensor plate housing and squeeze downward. Listen carefully for air leaking from the valve cover, dipstick tube, etc.

To ensure that the <u>valve cover</u> is correctly installed, pay special attention to the end adjacent to the thermostat housing. It is possible for the cover to become lodged on the housing, thereby causing an air leak between the cylinder head and the cover gasket.

has been found that many problems first attributed to a fault in the C.I. system were actually the result of improper basic settings.

On any 1975-99 found to have water in the fuel system, be sure to change the <u>fuel filter</u> (Saab part # 83 19 733) after the water has been removed from the fuel tank. The fuel filters are water absorbent and thus must be replaced since they will obstruct the flow of gasoline to the fuel distributor.

The <u>fuel pump</u> of the 1974 Wagonback which is mounted in the fuel tank is the same unit (Saab part # 83 76 089) as the externally mounted pump used on other 1974 99 LE's. When replacing the Wagonback pump, it is necessary to transfer the auxiliary hardware (mounting, splash cover, strainer, hoses, etc.) from the old pump to the new one. This hardware may also be ordered separately as needed.

Check for the proper centering of the bushings in the rear suspension trailing arms and Pan-hard rod. If necessary, center the bushings in a press after coating them with a scap and water mixture. Do not use silicone spray on the bushings as it will cause them to remain slippery and thus move out of place again. Be sure to tighten all suspension bolts securely. This procedure will stop squeaks which may emanate from the rear suspension of the vehicle.

Speaking of oil filters, remember to install all spin-on type filters by hand tightening only. Never use an oil filter wrench to install an oil filter, only to remove it. First coat the rubber gasket of the filter with oil, snug the filter up, then hand tighten one half turn more. Start the engine and check that no oil is leaking past the filter seal.

Punctures in the corners of the vinyl portion of the rear seat lower cushion of a 2-door sedan can be caused by improperly screwed down plastic sill plates contacting the seat when it is in the folded down position. Screw down the carpets and door plastic sill plates especially at their rear-most ends.

When a Saab is on a lift, never move the steering rack to the full steering lock position by twisting a road wheel. There is a very serious risk of damaging the steering rack and pinion if this is done since the steering wheel will spin at high speed imposing a severe torsional strain on the steering gear when this rotatio is stoppes suddenly at full steering lock. To change the position of road wheels, always turn the steering wheel, not the road wheel itself.

If a fuel injected 99 is found to have an injector stuck open, always ensure that the excess fuel in the engine is completely cleared from the cylinder before connecting an HC/CO meter to the vehicle. Failure to observe this procedure may result in damage to the HC portion of your exhaust emission analyzer.

During brake pad replacement on a 1975 99, first crank back the pistons with Saab tool 89 96 043, then remove the cap on the brake fluid reservoir and proceed to push the pistons back by hand the rear of their travel. Failure to remove the cap on the reservoir may cause brake fluid to shoot out the breather hole in the reservoir cap damaging the paint work on the exterior of the vehicle.