PHS V & M

DEDICATED TO SMALL-ENGINED SMALL CARS & ENERGY CONSERVATION

Saab Clubs of North America
Editor and publisher: Jeff Delahorne, 5805 Oneida St., Duluth, MN 55804
(218) 525-3253 9 a.m.-8 p.m. except Sunday
Consultants: Dick Grossman, Jack Ashcraft, Carolanne Curtis, Andy Buc, Ted Tucker

#### MEMBERSHIP/SUBSCRIPTION

Dues for membership/subscription are as follows:

First year, third-class	5 I	na	il				.\$11.00
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Renewal, third-class							.\$ 8.00
Renewal, first-class							.\$ 9.00

First-year membership includes two back-issue newsletters, Club tech sheets and emblem. Renewal notification will be stamped on the open rectangle at the top of this page. A treasurer's report will be made three times a year. This is a nonprofit organization.

A collection of 15+ back issues with Club tech sheets punched for your 3-ring binder is available for \$8.00 postpaid. Individual back issues: 75¢ each.

Always specify: 96, 97, or 99/900 for appropriate tech sheets.

CENTRAL ILLIANA SAAB CLUB--CISC hosted Arsie Miller and Richard Miller (no relation) of the Schiller Park Saab regional office on April 17th at Milt Adler's office in Urbana. 23 members were present with 14 Saabs. After a very interesting presentation of the innovations Saab has planned for the future, including the third-generation Turbo, the planned production facility in Connecticut for Scania busses, and the Saab-Fairchild passenger plane, Arsie showed four interesting and amusing films. It was a very valuable and entertaining afternoon and the CISC appreciates their giving of their time.

WESTERN PENNSYLVANIA PICNIC-- Western Pennsylvania Friends of Saab picnic will take place on June 26 at Sweeney's Farm, near Ligonier, PA. There will be swimming, fishing, and a good time. Call Dennis Sweeney, 412-238-4556 or Rich Simpson 412-795-3037 for details.

CENTRAL WASHINGTON SAAB CLUB-- will have it's fourth annual meeting/get together on Sunday June 12th. We will meet at Alan BMW/Saab in Edmonds on Highway 99, between 9-11 am. We are planning a parts swap/sale and then a drive to a picnic spot. For more details call: Bob Eddy 206-486-9257 Seattle area; Shawn Irelan 509-548-7279 Wenatchee area; John Baird, 509-653-2067 Yakima area.

NEW ENGLAND SONETT CLUB--will meet Sunday June 5th, 1:00 pm, at the William Gregg House Restaurant in Londonderry, NH. This will be the annual election of officers. Bill Lee will also present a program on Sonett wiper motor repair and there will also be a demo on how to remove and replace the nose of a Sonett III. For more info contact Scott Prentice, 603-432-9912.

ROCKY MOUNTAIN SAAB CLUB--is at full boost and firing on all cylinders again. Our April meeting was our biggest ever. Jerry Danner presented a slide show of abused Saab's. Pictures of rolled cars, broken engines, melted turbo's and cracked transmissions kept everyone awake.

Our next meeting is on June 14, Tuesday at 7:30 pm. This time we will meet at The Saab Shop, 3577 So. Sante Fe Dr., Unit #1, Englewood. Mark Kline will speak on "CIS Fuel Injection System" and other important subjects of interest to Saab owners.

For a copy of our meeting schedule, write the RMSC at 8261 Upham Ct., Arvada, CO 80003. For other information call Stan Beitscher 424-4876 or 497-2680 or 497-4348 or Dennis Reul at 238-5696 or 759-3880. Everyone is welcome to our meetings.

SONETT CLUB OF SO. CAL, --meets the second Thursday of each month, 8 pm at Villa Rose's Restaurant, 15663 Brookhurst St, Fountain Valley, CA For more info, contact Phil Zarrow, 714-892-9639.

#### SAAB SALES UP 80% FOR APRIL; 52% IN MARCH

Saab Press Info: Reporting its thirteenth consecutive record-setting month, Saab-Scania of America today announced retail sales of 2,745 Saab cars during the month of April. This represents an 81-percent increase over April 1982, and a 60-percent increase--to 8,687 units--in the first four months of 1983.

Saab's largest sales increase came from the east, up 84 percent. The western and central states followed closely, with increases of 80 and 77 percent, respectively.

The April sales record followed March sales of 2,226 units which had been the best month in Saab's U.S. history, until the April figures were compiled.

Worldwide Sales Up: Preliminary first quarter reports released by Saab-Scania AB show that worldwide sales are up 15 percent. The Swedish automaker delivered 24,600 passenger cars during the first three months of 1983, compared to 21,500 for the same period last year.

The largest increase came from the U.S., where Saab-Scania of America first quarter sales rose 52 percent. Saab is targeting 22,000 sales in the U.S. this year, compared with 18,000 last year.

Sales in West Germany are up 41 percent so far this year, while other European countries reporting strong increases are Italy (up 44 percent), Holland (up 27 percent), and Belgium (up 25 percent).

To meet demand, Saab has increased production to an annual rate of 93,000 cars, up from 83,557 in 1982. Saab's best-seller is the 900 Turbo, which accounts for some 30 percent of production.

#### V-4 SPEEDOMETER SURGING & OTHER PROBLEMS

Robert Allen asked why a V-4 speedometer "surges" and "drops back" on freewheel (April '83, p. 2). I had such a problem which a mechanic corrected in connection with some other work. The speedometer drive gear is sandwiched between the third- and fourth-speed gears on the pinion shaft of the transmission. When the nut on the back of this shaft loosens, the speedometer drive gear can slip, and presumably does so when power is not applied to fourth gear. Tightening the pinion shaft nut fixed the surging speedometer in my car. .

Another curious speedometer problem occurs only in extremely cold weather. At higher speeds the reading becomes unrealistically high, even pegging at 100+ mph at a true speed of 50-60. Usually there is some noise also. This problem goes away when the temperature rises to 0°F. I believe it may be due to frost crystals inside the speedometer, but it may also be a frozen lubricant inside the speedometer cable which makes the center, or "drive" part of the cable, act like a spring, momentarily slowing at the speedometer end, then breaking loose and suddenly revolving at very high speed to catch up. For this to be correct the speedometer must notice the fast motion and ignore the slow. Unfortunately the manuals do not describe the speedometer's construction.

A third difficulty I have had was a sort of tick-

ing noise at all temperatures, with vibration of the needle ± 1 or 2 mph. The noise became worse until, with a loud snap, the speedometer quit somewhere in New Mexico. The cable was intact but the plactic connector inside the speedometer had snapped. Luckily I had time to locate the only 1968-69 speedometer in all of El Paso's junkyards. Later I was advised to squirt some oil into the speedometer at that cable connection. This is best done by removing it from the dash.

Rebuilding 95 Rear Shocks? -- As the operator of a "fleet" of three 95's, I would like to learn of anyone who can repair the seals on the rear shock absorbers (lever action). I have a small colelction of leaky and perhaps worn ones -- they cost a fortune.

Ed. Note: Performance Cars lists a rebuilt 95 rear shock for \$61.55 exchange. Their address is 9916 Jefferson Ave, Newport News, VA 23605.

Broken Upper A-Arm--David Roth's broken 99 A-arm (April '83, p. 9) intrigued me as I recently had a similar failure, except that it was on a 1969 95 that has gone 170,000 miles. I don't know about fatigue, but in my case the crack had begune earlier since the beginning of the split was rusty. It may have come from a particularly nasty pothole that I hit several months earlier. Luckily when the A-arm did break it was at about 3 mph at a stop sign; one mile further on the freeway and it is hard to see how I could have avoided a spectacular crash.

George Tiers, St. Paul, MN



Speedometer drive gear and spacers are sandwiched between third gear (rear) and fourth gear (front) and are not keyed to the shaft. Thus the speedo gear can spin over the shaft if rear pinion nut is loose, causing speedometer fluctuations.

CLUB NEWS, CONTINUED FROM PAGE ONE GREATER NEW YORK AREA SAAB CLUB-- Next meet ing will be June 26, Sunday at 10:30 am, at RAMA Auto Repair, 37-08 24th Street, Long Island City, Queens. RAMA owner Joe Magloglio will speak on Saab Do's & Don'ts. For more information, call Marc Frank, 212-438-2022.

SAAB CLUB NATIONAL CAPITAL AREA--Next meeting will be Wednesday June 8, 8 pm at the Silver Spring Public Library. Precision Imports in Fairfax, VA will host club members on June 4, from 1 to 5 pm for free 99/900 diagnostic service. Late in June, on a date to be announced later, there will be a two-day seminar conducted by Saab factory reps at International Motors. Details will be available at the June meeting. For more info, contact Toby Turpin, 301-384-6732.

CLUB T-SHIRTS STILL AVAILABLE -- We still have many of the Jack Ashcraft designed "Old Saabers" and "Giant Killer" T-shirts left from the second (and probably last) printing. We have Med, Large, and X-large in both styles. \$6.00 each plus \$2.00 per order shipping. Please state size and style.

#### MORE ADVICE FOR SURGING V-4 SPEEDOMETER

Speedometer surge in the V-4 (and 3 cyl.) transmissions may have one of two causes:

1) The carrier for the nylon speedo driven gear may be loose. Simply tighten with a large crescent wrench, being mindful of aluminum threads.

2) The large nuts which position the three shafts in the gearbox may have loosened, allowing end float of the shaft(s). This is more serious, as the nuts will continue to back off until they literally mill through the rear cover of the gearbox. Unfortunately, the only fix is to pull the trans' and retorque the nuts. This, however, is easy compared with the repair job that awaits if the nuts do cut through the cover.

Gary P. Stottler, E. Lansing, MI

#### YOUR OPINIONS ON NAT'L CONVENTION NEEDED

Plans for the August 27-28 Saab Club National Convention are progressing well, but Andy Federowski and I need to know what sort of activities those of you who plan to come are interested in. For instance, a swap meet has been mentioned, but it will flop if no one brings any parts to swap.

Some of the possible activites we could have are: Parts Swap, Manufacturer's and Distributor's Expo of Saab-related parts and accessories, Dinner or Banquet, picnic, tech' demonstrations (any volunteers?). Rally/Tour. This list in not inclusive, and we are open to any suggestions. We hope to have firm plans available for the June Newsletter.

So far the response has not been overwhelming. If you are planning on attending, let us know, please.

Jeff Delahorne, editor

#### PROTECTING INNER DRIVE JOINTS WHEN CLEANING

When you've pulled your engine and gearbox and want to clean out the engine compartment, it is hard to keep dirt out of the greasy inner drive shaft boots. Saab used to have plastic covers for this. It is easy to fit appropriate empty cans, anything 3 1/2 to 3 3/4" neatly does the job for V-4's and 99's. Just insert it into the boot. You need clamp it down only if you intend to use a hose or pressure wash.

V-4 Trans' Drain Plug Tool--I made my own drain plug tool for the late-model V-4 ('69-on) out of a 5/8'' bolt. I cut off the threads, then sawed two cuts parallel to each other and wide enough to accept the center divider of the drain plug. Then I drilled through the bolt at the bottom of the two cuts to remove the metal between.

Further advice: even with the proper tool in hand and the appropriate wrench to turn it, those taper threads can be tight, especially if they've been partially chewed up. I've found that placing a jack under the tool in place, with force applied upwards allows you to turn more easily without losing the tool's hold. Note that a little teflon tape will: seal; prevent vibration from loosening the plug; and make the next removal easier because you won't have to overtighten.

Robert Allen, Hamden, CT

# THE EASY WAY TO STOP STARTER RUN-ON WHEN IGNITION LOCK STICKS IN "START" POSITION

Sherwin Rubin also wrote in his letter about the radiator fan circuit breaker that he had just experienced the ignition-stuck-in-start problem and he now carries a pair of diagonal pliers to cut the yellow wire going to the starter solenoid in case of future problems.

But the easy way to quickly stop your starter from self-destructing if the ignition sticks is to pull the "start lock" relay (or metal link in place of the relay) on all '75 and later 99's. Some of the earlier 99's, especially the fuel injected ones, may also be disabled by pulling the wires to one of the relays

#### 10A CIRCUIT BREAKER CURES '74 99 RAD, FAN

I have had a lot of trouble with the 8 amp fuse in the radiator fan blowing in hot weather. I measured the current and on my fan it was close to 8 amps under ordinary running conditions. I replaced the fuse with a fuse holder-type of circuit breaker rated at 10 amps and have had no trouble since. I was told that this is a common failure and that a 16 amp fuse should be used in '74 Saabs. I have had no trouble with the fan on my '72 99.

Because of the problems I've had with the fuses I also added a switch across the temperature sensor on the radiator so I could ground the fan relay and keep the temperature down. I also had Scandinavian Imports in Rockville put a '72 temperature sensor in place of the '74 sensor and now it may be turning on the fan a little on the cool side, but I like it. Among other things, I think it will keep my fuel line hoses from aging as rapidly as they had when the '74 ran warmer.

I also had a gasket replaced in the sender connector on the gas tank which cured a problem I had with the gas pressure falling. Before this fix I had added a switch to the fuel pump relay to let me pump up the pressure before starting the car in the morning.

Keep up the good work. I enjoy reading each issue and the information is invaluable. Give my regards to Dick Grossman.

Sherwin Rubin, Washington, DC

by the EFI brain. I'm not positive about this, so some experimentation before disaster strikes might be a good idea.

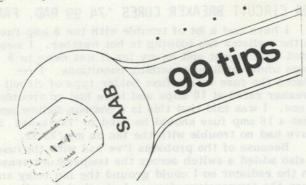
Pulling the relay will save you from having to fish under a possibly hot exhaust manifold for the elusive yellow wire to the solenoid. It might also save your starter and/or ring gear from expensive damage. Good Luck!

Jeff Delahorne, editor



Gunnar Ljungstrom with the first Saab, the prototype model 92, (92001). Mr. Ljunstrom, now retired at age 77, was the engineer in charge of the team which designed and developed the 92 in the late 1940's. The 92 was redesigned as the model 93 in 1955 and with Ljungstrom's influence, started the Saab traditions of front wheel drive, lightweight strong body construction, aerodynamic design, and good handling which continue today.

The Society of Automotive Engineers recently honored Mr. Ljungstrom for his technical contributions at Saab. (photo from "Saab Foraren" the Newsletter of the Saab Club of Stockholm.)

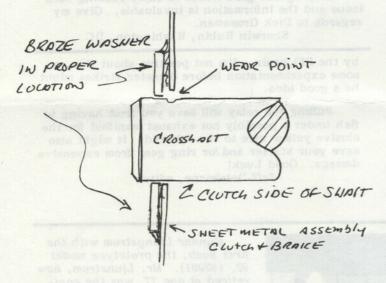


#### REPAIRING CLUTCH PEDAL SHAFT WEAR IN 99's

1974 and earlier 99's, after extended mileage show shaft and bracket wear in the clutch pedal cross shaft. To repair, remove the clutch and brake pedal assembly and have someone with a lathe turn out the center of a large steel washer to just slip over the shaft.

The washer should be brazed to the outside of the sheet metal assembly, using the cross-shaft to position while tacking. This will eliminate lost motion which prevents correct free play and clutch

action. Robert A. Griffith, Montville, PA



# INTRODUCING TURBOCHARGED-ENGINE LUBRICANT X-CALIBUR

Newly designed by Ethyl Corp. to withstand the severe conditions imposed by gasoline turbocharging. X-CALIBUR is an optimally formulated parasynthetic with an exlusive turbo-tested additive package.

SAE 10W-40... API SF/CC... 0.96 qts./can, minimum.

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Send check or money order for \$34.80 (6 cans) plus \$5 shipping to American Petroleum Dist., 10400 Westoffice, Ste. 114, Houston, TX 77042. Texas residents add appropriate sales tax on \$34.80

For more information call (713) 974-7537

#### MODIFIED FRONT MOTOR MOUNT FOR 99's

Those who have driven 99's in almost any type of competition, or on rough roads, especially in the snow, know that under acceleration with the car bouncing around, or a wheel hopping, they tend to jump out of gear. Second gear seems to be the worst, but it happens in third sometimes too.

The front motor mount is usually the culprit, especially if you've already shimmed the shift rod detent spring at the gear box, or used longer/stiffer springs as Ray Rosene did (April'83, p. 8). In severe cases, the through-bolt will actually break, especially on the thin bolts that the '78 and later models had.

What happens is that the powertrain responds to the power applied at the wheels by trying to lift up at the front. Since the gear shift rod is attached to the powertrain at one end, which is suspended on the rubber motor mounts, and attached to the gear shift lever at the other (mounted solidly to the body), any engine movement is the same

as pulling on the gear shift lever.

There is a rubber shock absorber in the shift rod ('78-on), or a u-joint ('77-back) which is supposed to handle minor movements of the powertrain, and it usually does. Until you combine the upward force (at the front) from accelerating, with shocks from bouncing over bumps, or wheel hop. Then, "zinnnng" suddenly you're in neutral with your

foot down, and the engine revs past redline.

The 2.0 litre engine is really tough, but several excursions past redline will usually result in a lifter being "caught" in midair by a cam lobe. The resultant explosion is not pretty, and if you drive very far after hearing the tell-tale "tack-tack-tack" start searching for a new camshaft and cam-carrier. This happened to my '79 while ice racing, and to Erik Zenz's '80 at the 100 Acre Wood Pro-Rally.

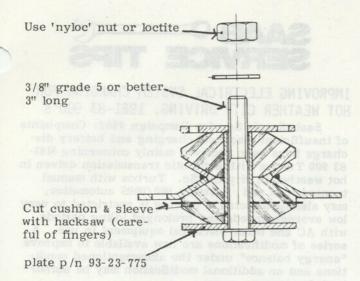
Fortunately I think I've found a fairly quick, inexpensive solution. Basically what you do is cut the bottom rubber cushion in half, and use a shorter through-bolt. The shorter cushion on the bottom limits upward travel of the powertrain, since the plate hits the motor mount collar after moving only an 1/8 or 1/4 of an inch. You still have some rubber damping during normal driving so there is not much, if any, added vibration through the mount.

Referring to the diagram, I used a 3/8 grade 5 bolt, 3 inches long, and drilled out the existing sleeve to accommodate the larger diameter bolt since my '79 came with a skinny 1/4" bolt. Pre-'78 99's will just have to have the sleeve shortened to accommodate the now shorter total cushion distance. I also used a thicker plate on the bottom which I got from a Turbo motor mount kit; p/n for the plate is 93-23-775.

If you have the Turbo motor mount, you can achieve the same results by turning the bolt over so the welded-on plate is on the bottom. But you will have to have the bolt turned down on a lathe and threads cut further down it so you can accomodate the shorter, cut down cushion.

Be sure to liberally loctite the two bolts which hold the collar (bracket) to the body, and either loctite the nut on the through bolt or use "nyloc" nuts.

I will pass along more experiences from preparing my '79 99GL for Pro Rallying, especially those



which are applicable to cars not used in competition. There's not as much information written down on "beefing up" a 99 for rallying or rough-road use as there was with 96's. The Swedes only started using the 99 for rallying rather late in the car's life, and most of the thousands of citizen-rallyists in Sweden who drive Saabs still use 96's. They regard the 99 as too heavy and slow, but here in the U.S. the 99 has done very well in the Production Class where its ruggedness and reliability work well on our rally roads which are generally rougher than those in Europe.

#### COIL WIRE ARCING CAUSES ROUGH RUNNING 900

I have a '79 900 EMS and had it die on me in a heavy rain storm. After that it idled rough and stumbled when hot only up to about 2000 rpm and then it smoothed out all the way to redline.

It turned out I had a burned (from arcing) coil to distributor wire. Saab puts a rain boot on the coil which should help keep water out, but it can also hold water in causing arcing. Removing the boot and replacing the wire solved the problem. Keeping the wire away from the secondary wires also helps.

Mike Brown, Hatboro, PA



#### NEW UPPER REAR SHOCK MOUNT REINFORCEMENT

Saab Service Info: A new, contoured reinforce ment plate which is welded in place has been introduced from M82 at the body where the upper end of the rear shock absorbers are mounted. These plates (L & R) are now available separately in spare parts stock for reinforcing earlier 900/99 models for rallying or for repairing earlier mounts damaged by off-road driving, abnormally rough road conditions, or pot holes.



To install on an earlier vehicle follow these basic steps:

1. Jack up the car one side at a time. Support the rear axle and remove the rear wheel and shock absorber on the side to be modified. If there is an upper shock mount reinforcement ring spot welded to the body, chisel it off (partially drill the spot welds first).

Scrape the undercoating off the wheel housing around the area where the plate will be welded.
 Remove the trunk carpet and any lining materi-

als from wheel house area.

4. Cover the end of the fuel tank, fuel lines and fittings and, on the left side, the fuel accumulator using rags soaked in water. Fill the vapor space in the gas tank with inert gas or engine exhaust. Leave the filler cap off and cover the open end of the fill pipe with a rag soaked in water. NOTE: Remove the fuel tank completely if insurance or local fire codes require it or if gas welding must be used.

5. Disconnect both battery cables.

6. Position the reinforcement plate over the body section, aligning the hole in the plate with the hole in the body. Arc weld around the outer edge of the plate.

7. Spray the area with primer and new undercoat-

ing.

8. Reinstall the shock absorber. Note: the original reinforcement ring may be place over the welded plate, under the top rubber bushing

#### SWEDISH EXPRESS

THE SAAB & VOLVO SPECIALISTS

WEBER TWO-BARREL KITS FOR V-4's

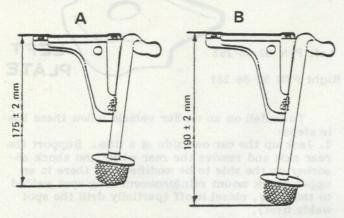
Includes Weber 32-36 DGV carb, manifold linkage, air filter, & manifold gasket. \$300 incl. UPS

Gabriel Red Rider oem replacement shocks with free lifetime replacement guarantee: \$15.95 ea. Swedish Express, 1131 E. Superior St Duluth, Minn. 55802, (218) 728-5334

#### APRIL SERVICE TIPS FROM SAAB-SCANIA

Tool Tip: Crow foot type tool, p/n 89-96-480 for torque loading the inner ball joint on power steering racks is also the right size (36mm) for the weatherhead type retaining nut on the engine end of the Turbo oil return line. Also there is a special socket available (p/n 83-93-472) for removing and replacing the Turbo APC knock sensor.

Two different engine oil suction pipes are used in H-engines depending on whether the car has automatic or manual transmission. They are:



A. Part No. 93 09 626, automatic transmission B. Part No. 93 44 763, manual gearbox

Use of the wrong one will definitely cause lubrication problems and severe engine damage.

Stellite coated exhaust valves-When doing a valve job, do not machine the stellite coated exhuast valves. Machining (refacing) removes the thin stellite coating and reduces the heat handling capability of the valve and may result in early failure. If an exhaust valve cannot be reseated with valve grinding compound it should be replaced--not resurfaced.

Fuel pump reprime: A late 1983 Saab 900 equipped with the new fuel pump and pre-pump system may be difficult to restart after being run completely out of gas. If two gallons or less of fuel is placed in the tank, the car must be level or the system will not reprime itself.

#### ERRATIC OPERATION, SOLENOID VALVE '82 APC

Saab Service Info 04/83-627: The APC solenoid can occassionally stick in the open position. When this occurs, two symptoms are usually reported: "pronounced jerks" or "charging pressure too high" during acceleration. Also where high charging pressure is experienced the overpressure switch may activate, interrupting current to the fuel pump.

These symptoms may be experienced with the engine warm or cold. A cold engine malfunction will be the most difficult to reproduce and diagnose.

Check the solenoid valve using the diagnostic chart in your Service Manual, Sec. 2, p. 291-39. Also see "Checking the APC system in the car,"

If these checks do not reveal a problem, check the hoses to the solenoid for leaks. If there are no leaks, replace the solenoid.

# SAAB SERVICE TIPS

IMPROVING ELECTRICAL SYSTEM CHARGING FOR HOT WEATHER CITY DRIVING, 1981-83 900's

Saab-Scania Service Campaign #503: Complaints of insufficient electrical charging and battery discharge have been received mainly concerning M81-83 900 Turbos with automatic transmission driven in hot weather in city traffic. Turbos with manual transmission and, possibly 900/900S automatics, may also be affected if driving is restricted to very low average speeds and prolonged idling periods with AC and other electrical equipment in use. A series of modifications are now available to improve "energy balance" under the aforementioned conditions and an additional modification may be authorized for extreme cases.

For M81-83 900's needing improved electrical charging, particularly Turbo automatics in hot weather in city traffic, the following recommended modifications are immediately available.

"Level 1" Modifications

A. Exchange discharged original equipment flat top battery for fully charged late-style Gould battery with twin-box top (M81-late M82 only).

B. If not already done, upgrade alternator adjustment link to M82-83 type (M81 only) and tighten V-belt to proper tension (all). (See Mar. '82 Newsletter, p. 9)

C. Install "Drive"-idle increase kit (automatics on-

ly).

D. Install rear window defogger time limiter kit (all).

E. Replace voltage regulator with special regulator for improved high temperature charging (all).

F. Check AC idle compensation valve function and idle speed setting, AC off (all).

"Level 2" Modification

This additional step, done together with C-F (and A/B if applicable), must have prior authorization by a Saab District Service Manager to be eligible for reimbursement (whether or not owner received notice of Service Campaign #503). It is to be reserved for M81-83 vehicles operated for prolonged periods only in city traffic under conditions requiring continuous use of the AC system and other standard electrical equipment or genuine Saab accessories.

G. Replace 70 amp alternator with 80 amp. alternator (change voltage regulator according to Step E, above) and install long/short twin belt drive system (included with new unit).

Owner's of M81-83 Turbo automatics located in the following metropolitan areas and States will be sent a service campaign notice: Phoenix, AZ; Tucson, AZ; Oklahoma City, OK; Texas, Louisiana, Florida, Atlanta, GA; Washington, DC; Baltimore, MD; Northern New Jersey; New York City, Long Island, and Westchester County; Boston, MA.

The Club thanks Mr. Daniel L. David, Manager Technical Services Dept., and Mr. Robert J. Sinclair, President, at Saab-Scania of America for their continued assistance in providing Saab Service Bulletins to the Club.

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#### FRONT BRAKE PULSATION/VIBRATION, '75-82

Saab Service Info 03/83-617: Brake pulsation is caused by lack of parallelism of the swept surfaces of the brake rotor or an uneven build up of foreign material such as rust on the outer swept surface. A thickness variation of as little as 0.0008 inches (0.02mm) can produce pulsation due to the solidity of the hydraulic column acting on the brake cylinders.

Typical problems resulting in a pulsation com-

plaint:

1975-82 models fitted with "Turbo brake pads"The original type of semi-metallic outer front brake
pad introduced in 1979 is not as abrasive as the
new asbestos-free pads and rust on the outer surface of the disc (e.g. from long term parking or infrequent use in damp, salty environments) may not
be completely cleaned away by application of the
brakes.

1982 models--For a while in production it seems that the outer disc surface may have been slightly wavy. On such cars pad material can build up on the top of the waves, increasing the possibility of pulsation. Only one front brake may be affected.

Recommended correction: The most effective remedy for both problems is grinding the outer side of the disc. This can be accomplished, without removing the discs from the car, by using grinding kit p/n 89-96-191 and the recommended abrasive cloth in accordance with the steps below.

To determine which brake disc is at fault:

1. Jack up the car.

2. Partially apply the parking brakes (until the

pads put a slight drag on the disc).

3. Rotate each wheel. The offending disc will display increased resistance to rotation each time the brake pads contact a high point on the disc.

NOTE: If using a dial indicator, the indicator needle will move each time a high spot passes under the indicator's foot.

To grind the outside of the disc:

1. Remove the wheel and brake pads. Disconnect the parking brake cable from the actuating lever.

Install the hub safety guard (orange plastic dish)
 Turn back the parking brake self-adjuster on

the disc to be ground.

4. Reinstall the inner brake pad and install the appropriate grinding block with 50 grit cloth. (The grinding blocks are marked "V" for left and "H" for right sides.)

5. Lock the opposite disc by applying the parking

brake.

6. Start engine and engage first gear. (Cars with automatic transmission will require increasing idle rpm to approximately 1000 rpm to overcome torque converter slippage and provide correct grinding speed.)

IMPORTANT! Wear Safety glasses--Be sure front of car is level from side to side to provide proper lubrication for differential--Rotate the brake disc

as slowly as possible.

7. Grind the disc by operating the parking brake

lever at caliper:

--Grind with light pressure to remove the high spots first (Leave overall surfacing until last)

--Remove the grinding block and clean the abrasive cloth after about five seconds of grinding. It will be necessary to repeat the process approximately four times.

-- Engage reverse and repeat the process twice

to finish the disc.

8. Remove the grinding block, clean the disc and reinstall the outer brake pad, reconnect the parking brake cable and reinstall the wheel.

9. Readjust parking brake:

--Pull the parking brake lever up five notches
--Pump the brake pedal until the parking brake
will hold when pulled up another two to four
notches (seven-nine notches total).

10. On vehicles with automatic transmission reset

the idle speed to specification.

11. Road test.

Aluminum oxide abrasive cloth is available in 9x11 sheets in 50 or 60 grit from 3M Company. The

trade name is "Three-M-ite, Elek-tro-cut."

NOTE! Removing the discs and machining them on a lathe is usually unnecessary and risks removal of too much material from the disc. It is not recommended for the problems described above.

#### SAAB PERFORMANCE AWARDS FOR RACE & RALLY

Saab Press Info: Saab owners participating in SCCA (Sports Car Club of America, Inc.) races and Pro Rallies can win a lot of money under the 1983 Saab Performance Awards Program, just announced by Saab-Scania of America, Inc.

Robert J. Sinclair, president of Saab-Scania of America, announced that about \$50,000 in prize monies is available to successful Saab drivers competing in a number of different events and classes

during the 1983 racing season.

"The success of the Saab cars both here and in the rest of the world owes a lot to the successes the cars have experienced on race tracks and rally roads," said Sinclair. "Many of these wins came as a result of the interest and enthusiasm of individual Saab owners, people who have been willing to spend much of their time--and money--to compete with their Saabs. The Saab Performance Awards Program is designed to support these enthusiasts."

The Saab president noted that for the third year in a row, Saab in 1982 won the Manufacturer's Championship in the Production Class of the SCCA

Pro Rally Series.

The Saab Performance Awards are offered to Saab drivers competing in the Showroom Stock A and B classes, as well as in the GT I and GT III classes in SCCA National races.

In addition, Performance Awards are offered to Saab drivers in both the Open and Production classes in the SCCA Pro Rally Series and to drivers in Divisional Pro Rally events.

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ELECTRONIC IGNITION REPAIRED IN '80 900

Symptoms: At first my car (1980 900 Turbo) would suddenly quit on the highway, after having warmed up for 10-15 minutes. After cooling off for a few minutes (five minutes at first, 20 min. to two hours later), it started fine again, and I could finish my trip. Later, after being parked for 30 minutes to two hours, the car would not start at all.

Of course when I took the car to the dealer, it refused to act up, so I decided to correct the problem myself. First, determine that no spark comes from the coil to the distributor (Use a spare spark plug attached to one of the plug wires and grounded against the engine) in my case, no spark.

I proceeded by modifying the troubleshooting

procedure in the shop manual as follows:

°I measured the coil's primary resistance between terminals 15 and 1; it should be 0.95 to 1.4 ohm. Mine was 1.0 ohm.

OI then measured the coil's secondary resistance, between terminal 1 and center; it should be

5.5 to 8 K ohms. Mine was 6.0 K.

°The next step was to test the ballast resistor, which consists of two resistors mounted in one single casing. I had to get at the connections and on the 900 the ballast resistor is under the hood rail behind the fuse box on the driver's side (pass. side on 99's) The values are very clearly marked as 0.4 and 0.6 ohm--mine were both correct, or at least within 20%.

So far, I had determined there was no spark, the coil is good, the ballast is good. We assume, of course, unless we check, that the hot wires are good. Then it must be the ECU or the impulse

transmitter in the distributor.

The ECU is a 3x3 inch black box located ahead of the wheel well, driver's side on 900's or atop the right-hand side wheel well on 99's so equipped. Remove the 3 hex screws with an 8 mm nutdriver. The wires to the ECU are clustered onto a flat connector and pressed into the base of the unit. Pull them out. On the ECU, each connector is numbered. On the corresponding connector to No. 7 and 31d (not on the unit itself) connect your VOM, set it to Volts AC, 0-10 range. Use alligator clips to hold a strip of wire to insert into the female connectors; place the meter somewhere in sight for observation from the driver's seat (or use the TSI socket) and crank the car and watch the meter oscillate to about 0.3 volt at least.

In my case, sometimes it did, sometimes it didn't. Let's first make the assumption that it did and proceed. These two wires come from the distributor. They correspond to the impulse transmitter connector near the base, which are next to impossible to remove without shifting the distributor.

But you can get to the impulse transmitter connections by removing the distributor cap and rotor, and the round-plastic dust cover under them. You will then see the impulse sending unit, and where the two wires connect to the pickup coil. Test for continuit between them and the Nos. 7 and 31d at the ECU end. In my case it was OK.

These carry a sine wave generated by the impulse sending unit, two full cycles per engine revolution, and of an amplitude of about one volt maximum at cranking rpm. The ECU straightens out

this signal into a square wave, and gives it a dwell of about 65 degrees. It also takes whatever is on the negative side of the signal and makes it positive. The cap and rotor then have a few degrees to play with and to reduce further to 50 degrees dwell spec.

Back in the impulse sending unit (under the dust cover) what you see there is a four-prong rotor (call it a spider as opposed to the plastic rotor) a  $1\frac{1}{2}$  inch diameter coil, and a slightly larger magnet, happily conspiring to make the laws of induction come true.

Anyway, the coil's resistance is supposed to be about 950 to 1250 ohms. Let's say around 1000, because in Volvo's, for example, it is slightly different and it probably doesn't make that much difference. My coil tested at 5000 ohms.

To replace the coil, you must remove the whole impulse sending unit, because it is attached to the unit with three flat screws underneath it.

After I exchanged the impulse sending unit, the car still did not run. In my case it turned out that the intermittant current at pins 7 and 31d at the ECU meant the ECU was faulty. No current meant bad impulse transmitter, but with current from the impulse transmitter at pins 7 and 31d, the ECU had to be the culprit.

The ECU is a \$271 unit, list. It was worth-while investigating further. It is just a little circuitboard, not sealed in epoxy as Detroit does, but easy to pick out a resistor here, a diode there, one output transistor encased in a round black one-inch dust cap sealed with soft paste. And one fivewatt, 50 ohm squre ceramic resistor between the circuit and the metal base.

I must give credit at this stage to an engineer friend of mine who thoroughly tested the unit. But in his words, there are only two parts that can be likely to fail: the output transistor and the limiting resistor (ceramic). In my case the resistor was bad; worse yet, it was intermittant. A new one cost all of 50 cents.

To test the transistor if you have to, carefully unsolder the collector, base, and emitter at the PC board. This is really a Darlington output stage, but it tests like a single transistor. A replacement would be a 150W, 10 amp Motorola like: MJ3000, MJ3001 or a 16 amp unit like MJ4033, 4034 or 4035. They cost about \$8 to \$10.

Alexandre G. Barbier, Waverly, NY

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# PRECAUTIONS TO TAKE WHEN DIAGNOSING 'HALL EFFECT' IGNITION SYSTEM ON ALL 900'S '82-

Saab Service Info: Modern High compression engines operating on the lean fuel/air ratios needed to meet stringent exhaust emission regulations require high ignition voltage and energy output. The high potential of these systems (over 30 KV) is capable of creating carbon tracking on the coil tower and the inside of the distributor cap if some of the simple tests of the past are performed where an open circuit is created in the secondary side of the ignition system.

To prevent damage to the components it is important to follow the precautions below when per-

forming tests on the system:

ODO NOT disconnect secondary (spark plug) wires while the engine is running.

ODO NOT crank or attempt to start the engine with any secondary wire removed or disconnected.

<sup>o</sup>Be sure distributor cap is in place before cranking and that all connections are secure.

Before performing a compression test or any test requiring the cranking of the engine, disable the ignition by disconnecting the primary harness (at

the ECU).

°DO NOT test coil for spark by holding coil lead close to ground while cranking. Instead, remove a plug wire from a spark plug and attach an extra spark plug (test plug) to it. Ground the plug shell to the engine and crank the engine to see if a spark is produced.

Do not use the coil output (max. voltage potential) test suggested by the equipment manufacturer. The open circuit is potentially damaging to the system.

#### FIXTURE FOR CARRYING PLYWOOD IN HATCHBACKS

Steve Parsons sent me photos and instructions on making a fixture which allows a 4x8 sheet of plywood to be carried in the back of wagonback 99's and 900's. His device appears to be easily constructed of 2x4's and 1x4's and is collapsible for carrying or storage. It allows you to carry full plywood sheets without damaging the weatherstriping or interior. For a diagram and instructions, send a SASE to: Steve Parsons, 119 Stahl, Washington, IL 61571.



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#### CLASSIFIED AD RATES

Ads offering parts or Saabs for sale or wanted at prices under \$200 are FREE to members and non-members. 25-word limit, plus name and address. Ads listing prices of \$201 to \$900, enclose \$2. Ads listing prices \$901 to \$2000, enclose \$5. \$2001 and up, enclose \$10. All ads without a price listed, enclose \$10.

Commercial ads, \$10 per column inch, two-inch maximum. We will delete all unnecessary superlatives and abbreviate where possible. Please enclose sufficient funds with ad copy; we will *not* bill.

#### CLASSIFIED AD DEADLINE.

The Classified Ad Deadline for the June Newsletter will be June 8, and the deadline for the July issue will be July 6. All classified ads and club meeting notices should arrive on or before those dates to insure making that issue.

#### SONETTS FOR SALE .

1974 Sonett, complete & running, minor rust around battery, new clutch, excellent restoration car: \$1250. Randy Cook, 1877 Oak Ridge Ln, Lawrence-ville, GA 30245, 404-962-0528.

1974 Sonett, hit on pass. door; trans. rebuilt last year, new clutch ass'y; motor uses no oil; wheel bearings & wiper motor new: \$1195. Jerry Starkey 612-866-0083, T-F 11-7.

#### 95's and 96's FOR SALE \_

1958 93B, complete, engine good, rusted out beyond restoration; to be trailered or parted out on location 45 mi. SE of Albany: \$200. R. Allen, 114 Kimberly Rd., Hamden, CT 06518, 203-248-8798.

1960 93, white, 90,000 mi., runs fine, body good; floor needs repair: \$600. New original upholstery available. Al Krebs, PO Box 72, Holicong, PA 18928, 215-794-7098.

1962 96 like new engine, clutch, trans., tires and brakes; white; 3 spd.; orig. emerg. travel spares kit: \$3000. Dan Salviano, 2731 W. Montebello, Phoenix, AZ 85017, 602-242-0389.

1962 96, reconditioned, solid body, good tires, extra rims: \$850. Walt Chapman, 73 Main St., Shelburne, MA 01370, 413-625-6147.

1965 96, 3 cyl., new brakes, cv joint & exhaust; body, eng., trans., and interior exc.; no rust: \$900 firm. Fred Whitford, 1765 Moffit Canyon, Bozeman, MT 59715, 406-587-2851.

1967 96 two-stroke/oil injection, 65,000 mi., very respectable condition, asking \$800. Bill Littlefield 203-384-0313 after 6 pm, Bridgeport, CT

1967 two-stroke 96, 108,000 mi., compl. reblt eng. at 80,000; reblt trans. at 70,000; some rust & rear quarter dent: \$675. Coleman Bynum, 9 Grand St., Cornwall, NY 12518, 914-534-7843.

1968 96 V-4, good eng., good int., complete, bad freewheel, some body damage, runs good: \$500 or serious offer. Brian Reas, 8017 196th Ave SW #B7 Edmonds, WA 98020, 206-774-8581.

MORE CLASSIFIED ADS ON NEXT PAGE.....

#### 95's and 96's FOR SALE, continued \_\_

1968 96 V-4, 115,000 mi., good shocks, tires & eng. trans. noisy, body needs welding--repaired poorly, not rusted: \$850. 408-730-0109 9am-5pm, or write Saabcraft, 912-C W. Evelyn Ave, Sunnyvale, CA 94086

1970 96 V-4, new clutch ass'y & hydraulics, new alt. & reg., ring & pinion replace 1 yr. ago: \$1300 or best offer. Stephen Prince, 20122 Shorewood Cir Huntington Beach, CA 92646, 714-968-2532.

#### 95, 96 and SONETT PARTS FOR SALE

'68 96 parts: grill w/turn signals: \$25; brake mas. cyl. (1 yr old): \$35; sport dash: \$40; driver's side front fenders: \$30 ea. many odds & ends. Mike Hamilton, 527 Plainfield, IN 46168 317-839-5445.

Sonett parts: '72 pan. ft & rear suspen., wiring, hydraulics, gas tank, etc, good rockers, minor surface rust: \$300, w/rear clip: \$500 Other parts, write for list Randy Cook, 1877 Oak Ridge Ln., Lawrenceville, GA 30245, 404-962-0528.

96 parts, from '65: speedometer: \$10; fuel gauge: \$8; inside mirror: \$5; back glass: \$25; all plus ship Tom Franko, 3512 Mayfair St, McKeesport, PA 15132, 412-672-6622.

V-4 parts: Distributor, alternator, Fomoco carb: \$35 ea.; Int. manifold: \$70; starter: \$20; fan: \$15 drivetrain manual: \$10. '74 Sonett Parts: air cleaner w/new filtrons: \$25; bumpers, ft or rear: \$65 ea; carpet set: \$45; seats: \$50 ea; door panels: \$75 pr radiator: \$35; gas tank: \$95; all in very good cond. Comer Buck, 122 Carolina Blvd, Isle of Palms, SC 29451, 803-886-6078.

Holley/Weber 2 barrel carb w/ K&N air filter, fact. reblt in box: \$65; MSS carb & manifold(w/ power brake fitting), used 15,000 mi: \$90 or ?; Personai 13" leather rimmed steering wheel, fits Sonetts & '69 or earlier 96's: \$70; Sonett III driving lights, oem in grille, used: \$45. Steve Anderson, 2521 Payne Rd, Des Moines, IA 50310, 515-255-2433

A/C unit '72 needs condensor: \$100; Floor console Sonett III '73-4: \$25; Saab service manual '60-64 95/96/GT750, large orange: \$75; parting out '72 95 doors solid, few dings, ugly paint: \$50 ea; alternator: \$50 etc. Also have some Saab sales lit. Bob Allen, 114 Kimberly Rd, Hamden, CT 06518, 203-248-8798.



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95, 96, and SONETT PARTS FOR SALE, cont'd

Parts from 96: good '66 trans.: \$100; left door: \$15 '67 right door: \$25; trunk lid: \$30; trailer hitch incl. bumper piece w/attach. holes: \$45. J. Berrian, 136 N. Rogers, Olympia, WA 98502

'66-'68 96 3 cyl oil-inject. parts: from two junked 96's incl. motor parts, body parts & whole trans.'s Mike Stockinger, 10832 W. Rockne Ave, Hales Corners, WI 53130, 414-529-1830.

1964 850 premix engine, complete, all new internals and new head, Alsbury crankshaft, machine-work comlete, ready to assemble, \$500 in invoices, will sell for \$300. Neal Zeilinger, Rt. 2, Box 65, Neola IA 51559, 712-545-3123

Rebuilt trans. for V-4 95/96, rib case, pinion in good condition: \$450 plus UPS. Jeff Delahorne, 5805 Oneida St, Duluth, MN 55804, 218-525-3253

Parting out 1958 93 and '66 96 incl. body parts, wheels, engines & trans, suspension & drive line parts, carbs, heads, glass, doors, fenders, trunks etc. Al Krebs, PO Box 72, Holcong, PA 18928, 215-794-7098.

#### 95, 96, and SONETT WANTEDS

Wanted: Saab roof rack for 96: \$25 or? Also diecast Tekno toy model 96: \$10; Sonett III owner's manual: \$15; any Saab sales literature 92-97 Bob Allen, 114 Kimberly Rd, Hamden, CT 06518, 203-248-8798.

Wanted: 3 cyl. 96 engine or good crankshaft for '68 3 cyl. or will consider sale of good body for same. Mike Stockinger, 10832 W. Rockne Ave, Hales Corners, WI 53130, 414-529-1830.

Wanted: Trunk lid for '72 96, olive green (GN8H) would like rust free or very good cond. Steve Anderson, 2521 Payne Rd, Des Moines, IA 50310, 515-255-2433.

Wanted: one pair 850GT seats, any cond., even frames w/out upholstery, offering up to \$50 each depending on cond. Don Kanner, 312-871-7652.

Wanted: one 3-carb, two-stroke engine, oiler or standard, good running cond.; do not need carbs, manifolds, generator or starter; prefer recent rebuild: under \$200? Bob Miller, 6701 N. Waycross Rd, Tucson, AZ 85743, 602-744-4211.

Wanted: wood steering wheel that came as factory option on 96's and earlier models. Jim Callaway, 3732 E. Cerritos (J) Los Alamitos, CA 90720, 213-430-4864 days

#### VICTOR SAAB

EXCLUSIVE FOR 1/4 CENTURY 1135 Easton Rd., Abington, PA 19001 We will UPS all parts to any location. We have one of the largest parts inventory on the East Coast. Complete line of 900, 99, and V-4 parts and accessories in stock. We have new and used parts for all model SAABS. Call Dan Stella or Dave Andrews. 215-886-8660.

#### 99's and 900's FOR SALE \_

1971 99 2dr., 4 spd, am-fm cass., 166,000 mi., all service records, featured in 1980 Quaker State TV and magazine ads, runs great, no rust: \$900 Bruce Dutton, 8724 134th St. N., Seminole, FL 33542, 813-392-2859.

1974 99 EMS, orange, v.g. cond., driven every day 85,000 mi; many new parts too long to list; orig. owner, never hit; serious inquiries only: \$2500 obo incl. v.g. parts car to match. Gary Cortese, 717-622-2230 days, 628-5295 eve's.

1974 99, EMS wheels, sunroof, gas shocks, sway bars, custom dk. brown paint w/black stripe; new style head, recent clutch, hydraulics & tune, reliable everyday driving: \$2000 or trade for late 96. Frank Entwisle, 222 Knoll Dr., Battle Creek, MI 49017, home: 616-965-8988, office: 616-966-4517.

1975 99LE 4 spd, 4 dr., very good in & out; KYB, Ansa, Cibie, 185 P-3's, stereo, tach & more; recent brakes, steering, clutch, alt.; 112,000 mi. of TLC all records: \$2695, Gary Stottler, 517-351-1610, MI

1976 99EMS, 54,000 mi., silver, needs work: \$1800 or offer; Also 96 parts. Doug Minkoff, 971 N. River, Ypsilanti, MI, 48197, 313-483-4561.

1978 99 GLE, 4 spd, no air or power steering, 2 dr. comb., green int/ext, 72,000 mi., very clean, new tires & injection system & clutch: \$4300. Randy Conner, 152 N. 32 #24, Lincoln, NE 68503, 402-476-2612 or work: 402-476-6061.

1978 99 Turbo, maroon, exc. cond. inside & out, very quick & clean car, carefully detailed with many new parts: \$8750. Robert Schaefer, 1726 Prairie, Downers Grove, IL 60515, 312-654-1022 days, 968-7852 eve's.

1978 Turbo, 3 dr., brownish red, 60,000 mi., boosted pressure, Edelbrock water inject., oversize tires, immaculate & extremely fast. Dai Williams 415-989-1955 (San Francisco).

1979 900 Turbo, 4 spd, black, very good cond., power steering, power windows, am-fm cass., Michelins, two extra Inca wheels w/tires, 40,000 mi.: \$7500. Tom Alpoyanis, wk--212-310-6818, other times, Marc: 212-438-2022.

#### 99 and 900 PARTS FOR SALE.

1979 instrument cluster from '79 GLE 900, 120 mph speed w / 27,000 mi., complete cluster \$100 incl. ship.; Also '79 5 dr. rear hatch, midnight blue, very good cond., w / window: \$200 Alex, 607-565-2711 eve's, or 607-755-2988 days.

Air Conditioner fits '78-era 99's; exc. cond., asking \$150; Cliff Karchmer, 10704 Meadowhill, Silver Spring, MD 20901, 301-681-9692 h/202-785-8400 wk

For 1970 99, two new lower ball joints: \$12 ea; one used turn signal switch: \$5; all plus postage. Tom Franko, 3512 Mayfair St, McKeesport, PA 15132, 412-672-6622

Two almost complete '72's parting out: glass, doors hoods, engines, trans (1 auto) a/c, radios, etc. All parts below \$100, most at giveaway prices. Bob Paasch, 207 S. 46th, W. Richland, WA 99352, 509-967-2395 home, 509-373-4439 work.

#### 99 and 900 PARTS FOR SALE, continued

'74 engine & auto trans., 70,000 miles, \$350 ea-will separate. Also '74 wagonback body parts & int. Dennis Sweeney, 412-238-4556.

Four near-new 900 '83 Turbo type factory wheels: \$350. Tom Treska, 4211 Adams, Des Moines, IA 50310, 515-274-4419.

Complete Air Condition assembly from '72 99, should fit other years as well: \$125 plus ship. Jeff Delahorne, 5805 Oneida St, Duluth, MN 55804, 281-525-3253

Four TRX wheels and tires with hub caps, two have almost new tread (used on rear) and two have 50% tread: \$450; Wanted: Tachometer or entire instrument cluster for 900. Doug Marble, 30 Beverly St. Pittsfield, MA 01201, 413-442-1218.

For sale: Sony XM-21 amp 12w/channel: \$30; Soney

For sale: Sony XM-21 amp 12W/Channel: \$30; Sony XM-41 amp, 20W/Channel: \$65; one pr. Phillips 4" front speakers: \$40; one pair stock 4x10 rear spkrs: \$55, all from new '82 Turbo & incl. Post. Dave Cobun, Rt. 7, Box 692, Morgantown, WV 26505, 304-594-1900.

Two 1979-80 factory Turbo mag rims, as new, from a '79 5 dr: \$90 ea. plus ship. Will Wallace, 1018
Johnson Ave., San Diego, CA 92103, 619-299-0800

Cylinder head from '79 900 EMS, 25,000 mi., no leaks: \$275. Alexander Thomas, 246 Cavan Lane, Glastonbury, CT 203-659-0643.

Fuel injection pressure gauge: \$35; Trailer hitch for 99: \$50; shop manual '75-76: \$10; Blaupunkt am-fm: \$35; Semperit 401 165x15, like new: \$25 D.A. Thomas, 815-436-6558, Chicago Area.

New Pirelli CN-36 175/70HR15 tire, removed from spare, never used: \$50 plus ship. Dave Herman, PO Box 412, Hollidaysburg, PA 16648 814-695-5123

#### 99 and 900 WANTEDS

Wanted: for '76 99 EMS: window crank, front floor & pass. side wheel well carpets, door opener trim, fuse box base, w/s washer resevoir (all in good cond.) Mark Schaefer, 5304 Blodgett, Downers Grove, IL 60515, 312-663-0253 days 968-5306 eve's

Wanted: factory Saab shop manual for 1981 900. Jerry Grant, 35247 LaFlora Dr., Yucaipa, CA 92399

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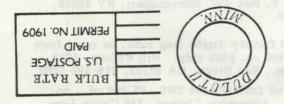
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99 and 900 WANTEDS, continued \_\_\_

Wanted: '76 EMS steering wheel, mag wheel, new Michelin zX 165x15, and one used TRX tire. Dennis Sweeney, 412-238-4556.

Wanted: 1974 power steering pump (mounts on right side). Dr. Stanley Botway, 2160 Jerusalem Ave, N. Merrick, NY 11566, eves 516-826-6005.

Wanted: '79-81 GLi-type steel wheels: \$20 ea or ? EMS steering wheel: \$75 or ? Jeff Delahorne, 218-525-3253

Wanted: complete head to fit '74 EMS, prefer recent vintage with no corrosion. Bob Paasch, 207 S. 46th W. Richland, WA 99352, 509-967-2395 home, 509-373-4439 work.

#### MISCELLANEOUS ADS \_\_\_\_

Club stickers from Rocky Mountain Saab Club--logo is airplane flying over mountains with club name, superimposed over Swedish flag. \$2.00 ea postpaid Stan Beitscher, Rocky Mtn. Saab Club, 8261 Upham Ct., Arvada, CO 80003

Wanted: Scale models of 99's and Sonett: \$5 ea or? Also dealers advertising brochure for '75 99; \$5 or? Also interested in other Saab literature and Scania

truck models and literature. Phil Nieman, 7620 W. 52nd St., Overland Park, KS 66202, 913-262-5966

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- p. 4 Repairing clutch pedal shaft wear in 99's Modified front motor mount for rally 99's
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- p. 6 Saab Service Tips Erratic Operation, Apc solenoid valve Improving Electrical system charging, hot weather city driving--Service Campaign 503
- p. 7 Front Brake Pulsation, '75-82
- p. 8 Electronic ignition troubleshooting '80 900
- p. 9 Precautions while diagnosing Hall Effect ign. Fixture for carrying plywood in wagonbacks

#### COMING NEXT ISSUE:

CB Antenna Mount for Sonetts Adapting Weber 34ICH to Sonett V-4 Reinforcing Front A-arms on 99's & MORE