



COMPACT  
FRONTWHEEL  
DRIVE CLUB  
of AMERICA

MAY 1980  
DEDICATED TO SMALL-  
ENGINEED SMALL CARS &  
ENERGY CONSERVATION

SAAB Clubs of North America • publisher & treas.: Dick Grossman - 1918 W. Hood- Chicago, Ill. 60660 • phone: 312-743-6742.  
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**MEMBERSHIP/SUBSCRIPTION**

Newsletter #82, our 65th multipaged monthly. Dues for membership/subscription are \$9.00 for the first year, including two back copies, 12+ tech' sheets and emblem. Renewal dues: \$6.00. Past dues notification will be rubber 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 non-profit organization.

Or: a three-ringed binder with a collection of back articles & tech' sheets is available for \$5.00 postpaid. Or, .30¢ one issue.

Always specify: 96, 97, 99, or 900 and year, for appropriate sheets.

**TWIN CITIES SAAB CLUB** - I am interested in starting a Twin Cities Saab Club for 96'ers & 99'ers and maybe even 900'ers if their noses come unstuck from the roof's of their cars. Zip: 55409  
Gary Zaidenweber, 3741 Harriet, #3, Mpls., MN.

**NEW ENGLAND SAAB CLUB** - Meeting on: 15,000 mile service, Tom Hylan, authorized Saab mechanic. On: May 28, 8: P.M., at Hilcrest Auto in Medfield, MA. Cider & cookies, guests invited. Close to Rt. 27 & Rt. 109 Intersection. (East of Rt. 27 and North of Rt. 109) on Janes Ave. Info: M. Perlmutter, 655-7516 - Bill Tesmer, Service & Parts Mgr. of Northeast Saab-Scania district will attend the meeting and will bring some literature on the 15,000 mile check-up.

**SONETT CLUB OF SOUTHERN CALIFORNIA** - Will hold it's first ever, Mountain Touring & Picnic, Sunday, May 18th. Meet at: Lloyds Restaurant parking lot. Angeles Crest Highway exit off 210 (Foothill) Freeway in LaCanada at 9:30 A.M. Bring your own food and beverages. ALL SAABs and friends welcome. Further info: Phil (714)892-9639, Ed (213)355-7562, Paul (213) 438-3257

**SOUTHERN CALIFORNIA** - Important SCSC meeting at 1:00 p.m. Sunday, June 8, at the home of Ron Cooper, 1208-23rd St., Manhattan Beach. Andy Buc will be resigning as president of SCSC in the near future - after nearly three years, it's time for some new blood. Assuming we continue, we'll have to address the question of club finances. We used to keep \$2 for each new member we signed up for the Chicago Saab Club, but now that we've come of age, we'll need to levy local dues.

From San Diego (405) Fwy., take Rosecrans Av. west. Turn left on Aviation (road passes under railroad bridge), right on Marine (Chevron station on the corner), left on Meadows (third traffic light from Aviation), right almost immediately on 23rd. SCSC's continuance is up to you. For information, or to contribute your ideas if you can't make it, call Ron Cooper (213) 546-1524, Andy Buc 980-9983, or Paul Florance 438-3257.

**GOOD NEWS.....**

G.M. - Cadillac announced they will offer a subcompact, 99 inch wheelbased car in "midway of the 1982 model year."

This will force Saab-Scania to look elsewhere than the rotten Cadillac dealerships for Saab franchises, hopefully back to the smaller independent-exclusive Saab dealerships. Also, it may now push Saab-Sweden to include a subcompact model along with their 900. The two car families or multicar family should always have at least one subcompact in their stable of cars.

**FUTURE 96**

A cousin of mine in Stockholm says the new Saab-Lancia Venture will result in a car about 2100 lbs. (his brother-in-law works for Saab) 1.4-1.6 litre Turbo and will be more along the 96 target dimensionally. The Lancia Delta is imported by Saab for Sweden.  
Paul Rivera, California

**PUBLISHERS REPORT, ESPECIALLY TO NEW MEMBERS.....** (CHICAGO MEETING see page 5.)

During the month of April we received and cared for 434 letters. Among them are about six letters from Poland, there are many young persons there who apparently are car buffs and want to obtain as much literature and emblems that they can accumulate.

In the meantime, we are pleased to report that we answered half our mail promptly. The letters that arrive during the second and third week of the month pile-up while we work on the Newsletter. It takes almost two weeks to gradually catch up with all the mail, and by the 5th day of May, I was able to answer some of the letters we received that day on the same day.

But, on the 6th day of May, I start to paste-up the May Newsletter and most of the 34 letters we received May 5th must wait 10 days for a answer. Ruth of course, registers all new members and address corrections immediately - every day. All orders for Ads that arrive by the 6th day of the month are typed up immediately and sometimes I wait until noon on the 7th for a last minute ad arrival before I take the paste-up to the printer.

Last month, our good neighbor, Teresa Schreiber helped to fold and label our Newsletter and our printer delivered a day earlier and so we were able to get the Newsletter out two days earlier than usual. We expect to have two volunteer workers to help us this month.

We also bought another electrographic copier, (\$1,700)

in our never ending effort to find ways to speed up or improve our production. I also attended another office equipment (computers, etc.) show last week - there are no machines available to us that can improve our work/production. The computer-video screened typewriters are all hokey and are not faster than the IBM typewriter that this Newsletter is printed from. Most of the video-typewriters are "dumb" typewriters: same space for M as I-non-proportional spacing. Ruth types on our 'proportional' typewriter directly from your handwritten copy. In that way we eliminate time spent or wasted in the big "pro" publishers plants. What we don't have is a vast staff or a nite shift, that is how the pro's get things done; a editor, rewrite person, typist or typographer, paste-up person, printers, binders, mailers, etc.

**LETTERS & REPLIES . . . . .**

"I got my new member packet, but you erroneously sent me 99 type tech' sheets. I own a 900, please send me the 900 tech' sheets."

Reply: I sent you the correct tech' sheets, all or our Club (99) tech' sheets are past articles from newsletters over the past 7 years. Your 900 is a 99, but with a lengthening of the front hood and a new style dashboard panel. Aft of the steering wheel is the same as most all 99's, the engine is the same, even the turbo "engine" is the same, only a lower compression ratio. SOME of the 99 tech' paragraphs do not apply to your new model 900, some others still do. It is impossible for us to acquire "old" tech' articles on a new model. The first time we began to print tech' articles-reports on the 900 was about mid-1979. A Club tech' article cannot happen until after a U.S.A. club 900 owner has acquired several months experience. We are not Saab-Sweden and this Club publisher does not own a fleet of Saabs, impossible.

"My 1978 GL had 8,500 miles on it and the dealer charged me \$215. to replace both disks and brake pads, is this normal?"

Reply: The rip-off is almost normal, yesterday (May 1) I replaced one brake pad on my own 1971-95 - the disks have 62,000 miles on it, the other pad had about 60% more wear to go. The right hand wheel was very good and I could still see the slight grinding pattern I ground on last year. Of course a professional mechanic is obligated to replace all four pads at repair time, (\$10. to \$14.), plus labor. Back to pads - I surmise that my one worn pad had been dragging due to rust-corrosion of the pivot and top clamp, which needs oiling and greasing every 3,000 or 4,000 miles. We did print several articles on this subject in the past - you did read them, (or should have).

Back to your \$215. bill, which is partly your own fault, I doubt that you make \$160. per day at work, you could have stayed at the shop and waited a couple of hours until the mechanic pulled the wheel off and given you a chance to eye-ball the pads and disks, so that you could see for yourself if the disks were "ruined" and whether or not if all four pads were worn down completely, (I doubt it). An alternative action you can take, is to go to a gas service station and pay the novice mechanic a

few bucks to remove the wheel that has the brake squeal and you both could look at (inspect) the brake pads. At the same time, you could ask the apprentice to rock the brake housing, while the pads are out, and apply a drop of oil on the pivots, and return the pads-pin in position. Later, you can go to the Saab mechanic and tell him what to do, or not to do. *Dick G.*

**WHATZA POSIDRIVE SCREWDRIVER ? II**

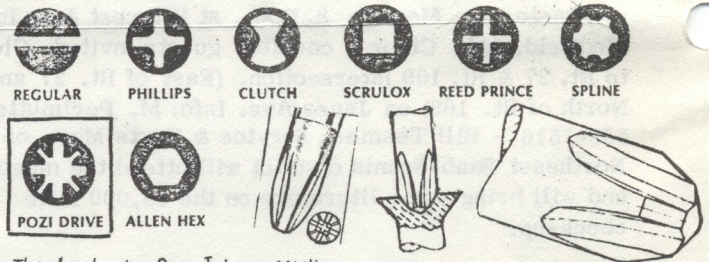
Well, we got four letters describing the posi-drive screwheads and drivers. I have yet to find one to purchase, (No, I'm not going to call on dozens of mill and tool supply firms just to buy a posi-driver). The point is; posi-drivers are not at all common enough to find in most large hardware stores or auto parts dealers. And most mechanics do not have a posi-drive set in their tool boxes. *Dick G.*

In the April issue, you described a posi-drive screwdriver, but it looks like a clutch drive to me. A posi-drive screw looks like a regular Phillips screw but is marked by small "nicks" in the head.

Enclosed is part of a page from a Snap-On catalog showing the different screwdrivers. Note the posi-drive has small "ridges" in the main "valleys" of its tip. When you apply torque on a posi-drive, the tip pulls into the screw rather than pushes out. Amazing!

Duane Burtner, Penn.

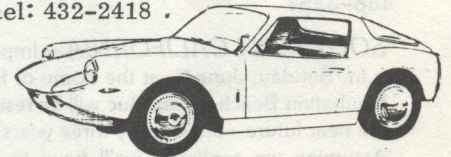
**SCREWDRIVER SELECTION**



Thanks also to: Don Johnson, Mich. & T. Chuhay, IND.

**NEW ENGLAND SONETT CLUB**

Next meeting Sunday 18th of May, we'll discuss "Poker Run" for the 15th of June. The May 18 meet will be at 3 Sequoia Avenue, Londonderry, New Hampshire at 2:00 P.M. For further info: Cecil Rowlette, (603)888-0164, or Mike Raphael: 432-2418 .



**VERMONT REPAIRS, SELLS REBUILT SAABS**

Don Bush, of Stan's Auto & Body shop, Essex Center, Vermont, writes us that in addition to mechanical and body repair work, they also sell rebuilt Saabs and rebuilt engines, transmissions. The Saabs they sell usually have their brakes, steering, engines, transmissions, etc., rebuilt with a 30 day-60day 100% guarantee. For information: 800-642-3322.

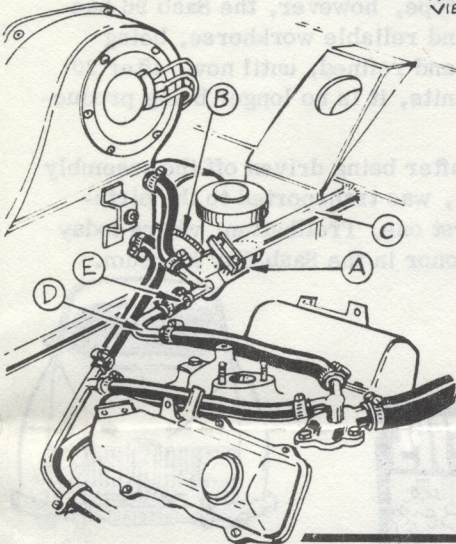
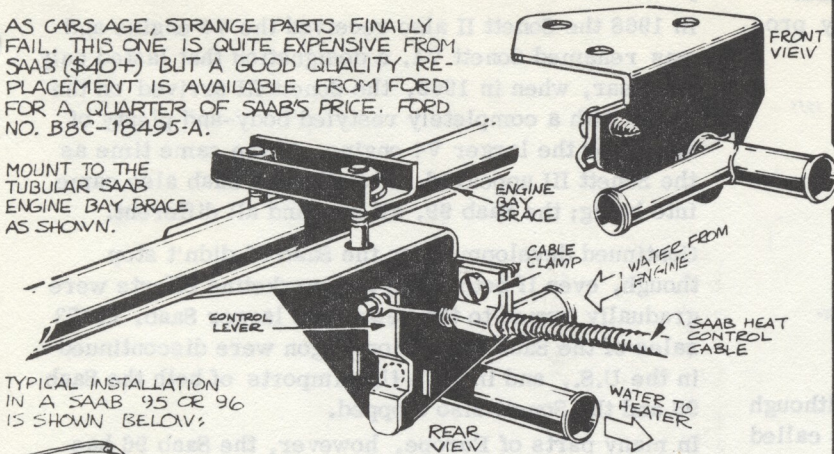
# AN INEXPENSIVE HEATER CONTROL VALVE FOR SAAB 95 & 96

by Jack Ahlqvist April 1980

AS CARS AGE, STRANGE PARTS FINALLY FAIL. THIS ONE IS QUITE EXPENSIVE FROM SAAB (\$40+) BUT A GOOD QUALITY REPLACEMENT IS AVAILABLE FROM FORD FOR A QUARTER OF SAAB'S PRICE. FORD NO. B8C-18495-A.

MOUNT TO THE TUBULAR SAAB ENGINE BAY BRACE AS SHOWN.

TYPICAL INSTALLATION IN A SAAB 95 OR 96 IS SHOWN BELOW.



MOUNT THE VALVE (A) WITH 2 QUARTER INCH BOLTS, NUTS, & LOCK WASHERS. THE STOCK SAAB CONTROL CABLE (B) WILL REACH IF YOU MOUNT THE VALVE ON THE ENGINE BAY CROSS BRACE (C). SOME HOUSEHOLD COPPER PIPE CAREFULLY BENT 90° (D), A SHORT LENGTH OF HEATER HOSE (E) PLUS SOME HOSE CLAMPS WILL MAKE THE NECESSARY CONNECTIONS.

REMOVE THE OLD VALVE OR JUST LEAVE IT IN THE CAR—ITS UP TO YOU—ITS NOT IN THE SYSTEM ANY LONGER ANYHOW.

THE CONTROL LEVER INSIDE THE CAR WORKS EXACTLY AS IT DID BEFORE.

isn't corroded or that the terminal lug is tight. If the end of the bulb does not make good contact with the terminal in the socket, try a little solder.

John Dahlgren, Box 1069, APO, N.Y. 09130

## V4 PCV VALVE & FLOAT FIX

I would like to inform the members of the club of a problem I had recently - my oil level in the engine of my V4 Sonett was rising - gas was in the oil. I changed over to an electric fuel pump - no help. After advice from my local shop, I replaced the PCV valve and reset the float level in the carburetor - fixed the problem. My next step would have been expensive, but this fix was good and took 10 minutes and an oil change. I would also like to thank all the members who replied to my want-ad. Car fixed and running good.

Ty Tobey, Dyess AFB, Texas

## END OF AN AUTOMOTIVE ERA - LAST SAAB 96 HAS ROLLED OFF THE LINE - SAAB PRESS RELEASE MARCH 1980

Uusikaupunki, Finland - An era of automotive history came to an end in January of this year, when the last Saab 96 rolled off the assembly line at the Saab-Valmet factory in Uusikaupunki, Finland, just over 30 years after the first of its predecessors had been finished.

A total of 730,607 cars of the same basic design, called Saab 92, 93, 95 and 96, had been built during the 30 years of production—one of the longest running series of automobiles ever produced.

## 1968 V4 TIPS

I am stationed now at Sembach, Germany which is N.E. of Kaiserslautern. There are many used and new V4 parts over here as the Ford Taunus also used the engine besides our beloved 96 & 97. If any Club members desire help with engine parts, I would be glad to help.

Some tech' tips for the '68 96: Be sure to check the heater hoses (water) that go by the carb as several I have looked at were pressing against the accelerator pump lever! I modified the "Y" connector so that I could run the hoses away from the carb.

Hood release cable broke on me - had to use a screwdriver to open the hood. Pushed against the release lever under hood with it. I recommend a Stranded cable as it is more pliable and less likely to "kink". Bought my cable from an imported car parts store for \$4.50 and it works like a champ.

When I replaced the clutch, during an engine rebuild, I found that I couldn't adjust the clutch enough. Just buy a longer bolt from your friendly local parts store and take the old bolt with you (American thread by the way). Then adjust clutch by the book and drive away.

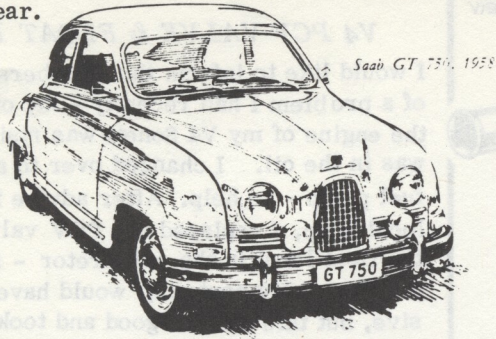
If the back lights aren't working check the ground screw ↗

It was right at the end of WW II that Svenska Aeroplan Aktiebolaget-Swedish Aircraft Corporation- decided that in order to maintain production and employment in what was expected to be an era of disarmament, they should switch some of their production capacity from aircraft to automobiles.

The first prototype was shown in 1947, but it wasn't until during the last days of 1949 that the first Saab 92 was completed at Saab's plant in Trollhattan, Sweden. The designation "92" was strictly a numerical designation derived from a series of numbers assigned to civilian Saab projects. Saab 90 was the Scandia commercial aircraft and Saab 91 was a single-engine trainer, commonly known as the Saab Safir.

The designers were all aircraft experts and the design of the Saab 92—and all the way up to the 96—reflects this aircraft heritage: Aerodynamic body to keep the air drag as low as possible; and unit body construction. In addition, the Saab had front-wheel drive, something that every Saab car since Day One has had, and a small two-cylinder, two-cycle engine developing 25 hp. - and all of the early ones, until 1952, were green. 1955 brought the next change to the new Swedish car.

This change was so radical that the car got a new designation, Saab 93. The new version was powered by a three-cylinder, two-cycle engine developing 33 hp; a new hood line; and a new rear suspension design—that remained with the car until the last one was finally produced this year.



The next model was naturally known as the 94, although hardly anyone recognizes this designation. It was called the Saab Sonett and was a two-seat prototype convertible unveiled in 1956. Only six copies were ever built of the first Sonett, but much experience was gained from this model -and later the Sonett would again reappear in the Saab line.

While the Saab 93 was the car that saw Saab start taking off in sales - and was the first Saab ever to be sold in the U.S. - Saab's competition activities also led to a new, sportier version with all of 45 hp and full rally equipment, called the GranTurismo 750.

1959 brought the Saab 95, a station wagon version of the 93, but this one was also equipped with Saab's first four-speed transmission. The station wagon was probably the highest finishing station wagon ever in a major rally. Because it was the only Saab with the four-speed gearbox, Erik Carlsson drove it in the 1961 Monte Carlo Rallye - and finished fourth overall. However good the 93 was considered to be, it became clear by the end of the '50s that some redesign was essential. The new car became the Saab 96, with a roomier interior and a new rear end with a much larger rear window, and about 100 more cc - 841 cc, compared to the 748 of the 93. The Saab 96 was introduced in 1960 and saw a redesign of its front end in 1965, at the same time that the Saab people started work on their second sports car design.

The sports car was called the Sonett II and was introduced in 1966 as a small, fiberglass bodied two-seater, based on the Saab 96 and with the same two-cycle powerplant.

The popularity of the two-cycle engine which required an oil-mixture in the fuel was waning in the mid-'60s, and Saab started looking around for a new, more conventional powerplant. The choice fell on a V4 engine manufactured by Ford In Germany, and in 1967 the Saab 96 V4 was introduced.

The V4, still basically the same used until the last 96, had originally been designed in the U.S. for the stillborn Ford Cardinal, but eventually came to be built and used by Ford of Germany, and now also by Saab of Sweden. A compact power plant, it had a dis-

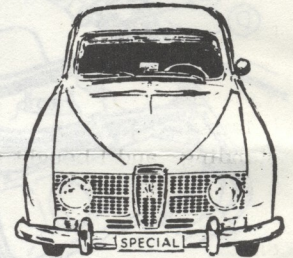
placement of 1,498 cc and developed 65 hp DIN, although some versions used for Saabs exported to the U.S. had a displacement of 1,700 cc and lower compression.

In 1968 the Sonett II also received the V4 engine and was renamed Sonett V4, a designation that lasted only one year, when in 1969, the Sonett III arrived on the scene with a completely restyled body-and plenty of space for the larger V4 engine. At the same time as the Sonett III appeared, a totally new Saab also came into being; the Saab 99, all new and all different.

Continued development on the Saab 96 didn't stop though, even if both sales and marketing efforts were gradually turned to the newer and larger Saab. In '73 sales of the Saab 95 station wagon were discontinued in the U.S., and in 1974 U.S. imports of both the Saab 96 and the Sonett also stopped.

In many parts of Europe, however, the Saab 96 has remained a steady and reliable workhorse, being gradually improved and refined, until now, after 30 years and 730,607 units, it is no longer being produced.

The very last one, after being driven off the assembly line at Uusikaupunki, was transported to the birthplace of the very first one, Trollhattan, where today it holds a place of honor in the Saab Car Museum.



**SVEN'S 2 TIPS**  
 750cc TORQUE SPECS  
 Bolts Marked "80" = 47 FT. LB.  
 Bolts Marked "100" = 58 FT. LB.  
 Torque HEADbolts in Sequence INDICATED: Start engine and RUN 'TILL HOT. Let cool to 86°F or Lower AND RE-TORQUE ALL  
**OLD SAABS ARE 570 OUT**  
 FROM 1959 KNOWING YOUR SAAB:  
 "CRASH CAUSED BY PUMPKIN ROLLING ON DRIVERS ACCELERATOR FOOT." (THANK TO MEMBER STEVE LAXTON, WAYNE, PA)

### CAN'T DO WITHOUT SAAB CLUB

Please renew my membership. A check for dues is enclosed. After 2 1/2 years and 51,000 miles, I can certify that I would never have kept my Saab if I hadn't joined the Saab Club.

Steve Perrine,  
Jamestown, R.I.

Regarding Dr. Fred Greene's comments on Gasohol in the April Newsletter: His filter deteriorates because Methanol is very hard on rubber and plastics. Gasohol that is available from gas stations is made with Ethanol which will not eat away plastic like methanol. Isopropyl alcohol is even less corrosive but you can't use the drug store variety because it's 30% water. You have to use anhydrous isopropyl which isn't commonly available. A 10% mix of methanol might eat up the nylon float in Solex carbs and that would cause real problems—maybe even a fire. Methanol is also hard on the metal of the engine - I wouldn't use the stuff. The oil companies tested gasohol with methanol and found it corrosive and so claimed gasohol was bad. But ethanol should cause no problems as Dick G. points out. Ethanol is also a better octane booster than the benzine and MMT that have been used by the oil companies at various times.

One more point: Dr. Greene should probably check the diaphragm on his fuel pump. The methanol could weaken that too, resulting in gas leaking out, or worse yet into the crankcase. I hope all this has been helpful. The alcohol info is courtesy of the chemists at the UW-Superior Center for Lake Superior Environmental Studies.

Jeff Delahorne, Minnesota

Dr. Greene's letter about gasohol prompts me to write this: 2 1/2 years ago I had a BAP/Geon #1535 solid-state electric fuel pump fitted on my V4. A month ago it failed. I felt 2 1/2 years' service was OK if not outstanding, and I bought another one. It packed up after 3 weeks, so I bought a Walbro 805 pump. According to the instructions with the Walbro, gasoline additives should be used sparingly and alcohol-based ones not at all—they may attack the bellows in the pump. Since the Jan. 5 clinic I'd been using an alcohol-based gas drier on John Johnston's recommendation, and when Lee Kelley and I tore down the first BAP/Geon pump, we found its diaphragm had split. So maybe the gas drier did in the two solid-state pumps?

Andy Buc, California

One of the uses of methanol (wood alcohol-  $\text{CH}_3\text{OH}$ ) is as a solvent for some plastics such as polyvinyl butyral.

Gasohol bought at a service station contains ethanol or grain alcohol ( $\text{C}_2\text{H}_5\text{OH}$ ). It should not harm his plastic filters.

I run gasohol in my Turbo and have had no problems. It keeps the tank, fuel lines and injectors clean and it has a high octane rating. I feel it is comparable to Amoco's premium unleaded in performance.

Gasohol has a higher level of evaporative emissions which could increase the chance of vapor lock in warm weather, but I've not had any problems.

Duane Burtner, Penn.

### NEED SOME ANSWERS!

Will the cellular bumpers from post 1972 99s bolt to the frame members of earlier years?

Can a 2 liter engine be put into a 1969-71 99? i.e. -can the drivers and half-shafts on my car work in the differential of the later engine?

Kurt W. Rieke, Cincinnati, Ohio

A meeting is planned for Wednesday evening June 11, 7:30 P.M., at the Evanston Environmental Center, 2024 McCormick Blvd., north of Emerson (Golf) St., southwest of Green Bay Rd., along the channel. Speaker will be: Mr. Miller, Sales & Service Mgr., Saab-Scania. We will also discuss and plan details for a rally. Nourishment will be provided for those who arrive directly from work. Coffee and for others. \$1.00 donation per car.

### COASTING IN NEUTRAL?

I have one question whose answer may be of interest to others. Since the advent of \$1.00 plus for a gallon of gas, I've started the practice of coasting in neutral whenever possible. Usually this is only for short distances but on several occasions I've coasted 3 or 4 miles down mountains. Now it seems I've heard that some manual transmission cars are circulating oil in the trans', only when the car is in gear. If this is true of my 1977-99, could I damage anything by continuing this practice?

Jay Jessup, VA.

Editor's note: I thought the engine provides the pumping of the oil. In the old days it was "against the traffic law" to coast out of gear. Let's hear it from the other subscribers.

### AIR FILTERS

K&N Engineering, Box 1329, Riverside, CA. 92502, makes a line of permanent oil-impregnated filter elements. Filters for Saabs are as follows: V4: E272; 1969-'74 99; E246; '75-on 99: E245.

Bosch AF228 filter fits the 99 and Beck-Arnley 042-0273, Fram CA2687, Geon C1966, Lucas F7378, Mann C1966, Worldparts W27-533.

K&N also makes a grease to seal the air filter element to the housing, and I'd imagine it could also be used on non-K&N air filters.

Andy Buc, California

### ANSWERS FOR STANGER & THORNE

Drain petcock - The 1975 engine block petcock is right under the exhaust manifold. Jack Spiegel, N.J.

Concerning Bob Stanger's inability to find the drain petcock for the engine coolant, let me assure him that there is a drain on the block. It is on the passenger's side of the block just behind the starter. One has to feel around for it behind the exhaust manifold so the engine should be cold. More than likely the petcock will be plugged with rust, so it should be removed altogether to drain the coolant.

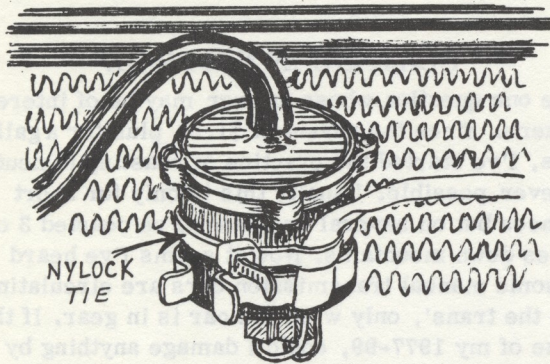
For Mr. Ed Thorne's gas smell in his 900, there is a nipple for the vapor recovery system that attaches to the filler neck in the trunk. A neoprene gasket goes between this nipple and the filler neck; this gasket has been a minor problem on the 900. The P/N is 93 31 455,

Dave Andrews, Newmanstown, PA.

CVS PRESSURE IMPULSE CONTACT HARNESS-  
1975-80 99

The Factory recommends that a tie strap be used to secure the impulse contact harness to the body of the switch. By providing support to the harness, possible vibration stresses are eliminated from the terminals at the bottom of the switch.

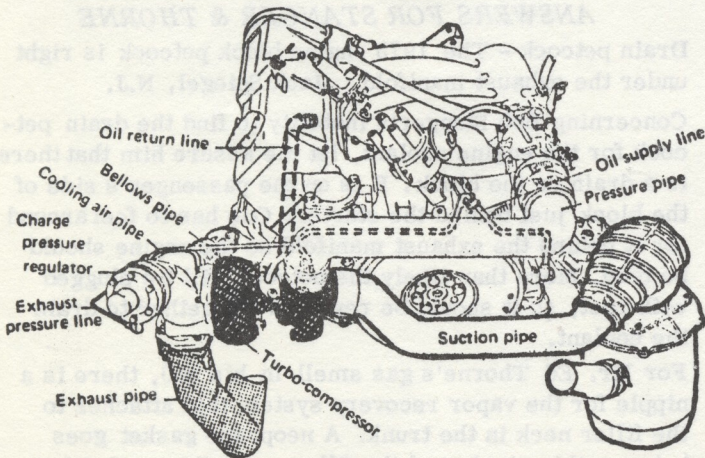
Secure the harness as shown during the next service.



DIAGNOSTIC PROCEDURE: OIL SMOKE FROM THE  
EXHAUST PIPE - TURBO'S

If oil smoke is emitted from the exhaust pipe of a Turbo, the following checks should be performed to determine the cause before repairs are made.

1. Check that the oil return line (10) between the turbo charger and the engine block is not kinked. A kink here can restrict the flow of oil and force oil past the turbine shaft seal and produce oil smoke from the exhaust pipe. If this is the case adjust the connection at the engine block so that the oil return line lies as straight as possible. The car should then be road tested until the engine and exhaust is hot so that the oil that has collected in the exhaust pipe is burned out. Then check that no further oil smoke is discharged from the exhaust pipe. If there are no kinks in the oil return line or if the above adjustment produces no effect, continue with the following steps.



2. Remove the air cleaner, bellows and CVS hose, and the suction pipe (5) between the air flow meter and the turbocharger. Clean all the oil from the air cleaner body, the connecting hoses and the suction pipe (5).

3. Reinstall the parts. If the air cleaner element is saturated with oil, replace it. At this time do not reconnect the crankcase ventilation hose to the air cleaner cover; let it hang down beside the engine. (Placing the end of the hose in a small container will indicate the degree of oil being blown through the CVS hose.)
4. Road test the car until the engine is hot; accelerate often to operate the turbocharger.
5. Run the engine at idling speed for five minutes approximately. Rev up the engine rapidly so that the turbocharger cuts in and then let the engine return to idling speed. Continually check the exhaust for oil smoke. If oil smoke is absent then repeat the procedure described under point 4. If oil smoke is no longer produced once point 4 has been repeated, then the turbocharger can be considered as operating correctly and the fault lies elsewhere.

NOTE: Reconnect CVS hose to the air cleaner housing.

OTHER POSSIBLE CAUSES OF OIL SMOKE -

- A. Excessive engine blowby - Check by doing cylinder leakdown test. (You are checking for worn rings and valve guides.)
- B. Clogged air cleaner causing high suction in CV System.
- C. Partial blockage of CV system causing high crankcase pressure. (This is mostly a cold climate problem with moisture freezing in the CVS line pushing oil past the piston rings due to the high crankcase pressure.)

NOTE: High crankcase pressure will also raise the oil pressure in the center section of the turbo unit and aid in forcing oil past the turbo seals.

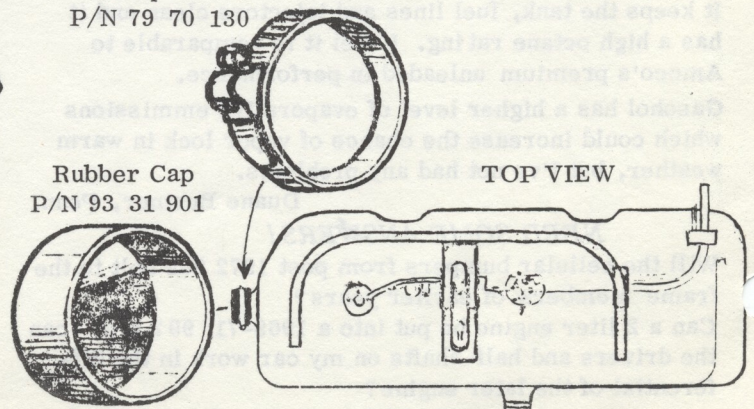
**WARNING:** High suction exhaust ventilating systems used in some shops can suck oil past the turbine shaft oil seal if an air bleed is not provided at the tailpipe connector. This oil will saturate the inside of the exhaust system causing smoking.

PLASTIC FUEL TANK, 1980 99 & 900

A rubber cap is now available as a separate repair part for the unused blank fill pipe connection on the 1980 plastic fuel tank. The cap is attached with a standard fill pipe hose clamp.

Clamp  
P/N 79 70 130

Rubber Cap  
P/N 93 31 901



## SAAB SERVICE TIPS

### REINSTALLING TURBOCHARGERS - MARCH 1980

..1 - When installing a new turbo, prime the center bearing with engine oil. Cover the oil outlet and fill the unit through the inlet opening. Drain off surplus oil and install the unit. Also change the crankcase oil and filter to provide the new unit with clean lubricant. To assure a proper oil supply on the first start up, disable the engine (remove fuel pump relay) and crank engine until the oil pressure light goes out. Continue to crank the engine for at least one minute (using ten second cycles to avoid starter overheating). You can now start the engine (after replacing fuel pump relay) with the assurance that the turbo bearings have oil.

..2 - After replacing a turbo unit that had oil leaking past its seals it is usually necessary to operate the vehicle over a prolonged road test to burn away the oil that collects in the exhaust system. Depending upon the degree of leakage that occurred it may be necessary to drive as long as an hour to eliminate the smoking.

**WHY DO TURBOCHARGERS FAIL ANYWAY?** Tests indicate that lack of lubrication and/or bearing overheating are usually at fault. Since it is the job of the engine oil to lubricate the bearing and carry away heat, this can mean a variety of things: Low oil level, low oil pressure, restricted oil flow to or from the turbocharger, wrong oil specification, and last but not least, deteriorated or dirty oil. Driver habits can also be a factor (revving up the engine after a cold start or shutting it off right after hard running will starve the oil supply to the spinning turbocharger).

**BE SURE TO CHECK FOR THE CAUSE OF FAILURE AND CORRECT IT - DON'T JUST R&R THE TURBOCHARGER.**

- Use ONLY oils rated SE and follow the multigrade viscosity recommendations for the upcoming seasonal temperatures. (See Owner's Manual.)

-Skip the additives - they're worthless and may even be harmful.

-Remind the owner to change oil and filter every 6 months or 5,000 miles, whichever comes first (more frequently under hard driving conditions -see Owner's Manual).

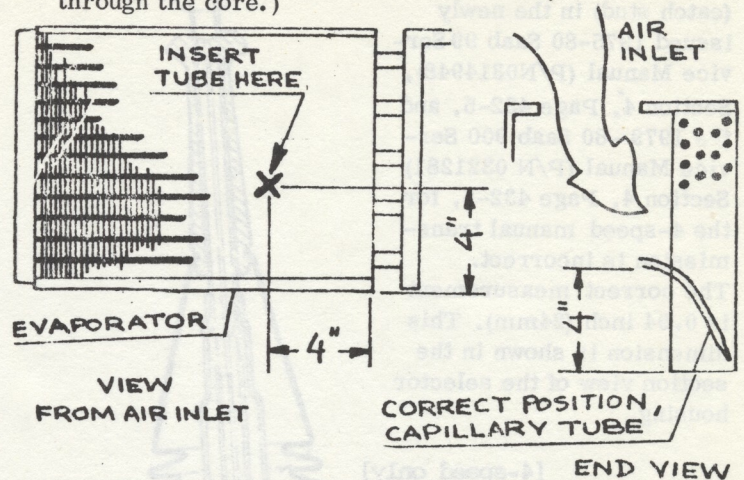
..3 - Putting new seals on any shaft or hub with worn, scratched, or otherwise damaged sealing surfaces is futile. The job will come back - leaking. Replace the shaft or hub with the bad sealing surface as well as the seal to assure a proper job.

..4 - New car won't start? If the cold start injector isn't operating during cranking, check that the harness connector plug at the thermo-time switch is not wired backwards. If it is, reverse the green and yellow wires.

..5 - A constantly running AC compressor with the new mid-M80 cycling clutch system (identifiable by the absence of the VIR unit near the air inlet plenum) could be caused by improper location of the thermo-

Page 7.

stat capillary tube in the evaporator core. Before making any other checks be sure the capillary tube is correctly installed as illustrated below. (A few of the early factory-installed units, around VIN 9080101-3500, may have this tube installed only part way through the core.)

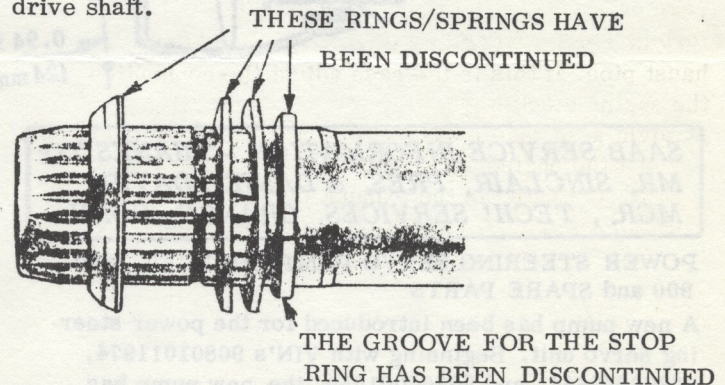


### INNER DRIVE SHAFT CHANGE - M80 & SPARE PARTS

Modifications simplifying the design of the inner drive shaft has been introduced with the following VIN's:

99803002500 - 99806003100 - 90806000586 - 90801008986 and 90802002798

All rings and cup springs have been eliminated in the new design along with the groove for the stop ring in the drive shaft.



Tests have shown that early shafts (below the above VIN's) may be installed without the rings and cup springs. Similarly, spare parts of the later design can be fitted to earlier cars (1975-80).

### NEW WATER CONTROL VALVE - 900 HEATER

Beginning with VIN's 90801015000 and 90802004754, a new water control valve was introduced. The new valve is completely mechanical (does not have the thermostat used previously) and is interchangeable with all 900's, 1979 and up, (soon as stock is available).

**NOTE:** Use a sealing compound (Permatex or equivalent) on the water valve flange and in the o-ring grooves to assure a tight seal.

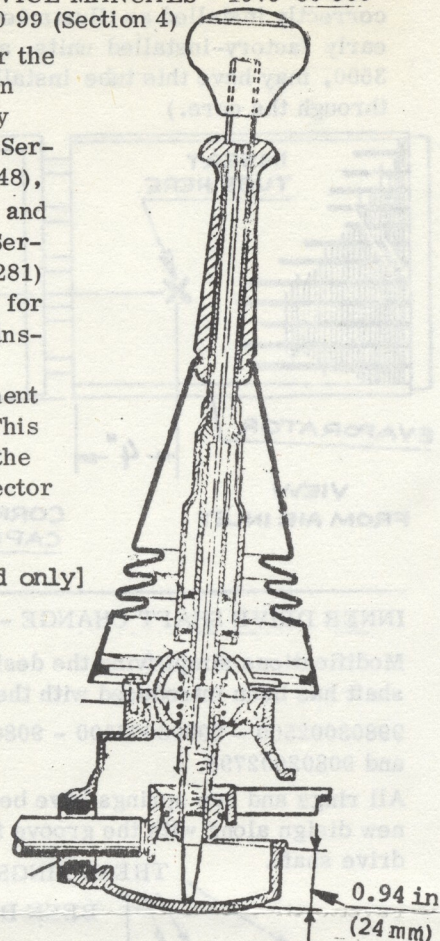
O-Ring - 9479213 } For 9459751  
O-Ring - 9479221 }

New Water Control Valve - 9459751

\*O-rings for the earlier valve will continue to be available for making repairs requiring dismounting but not replacement of the valve.

**CORRECTION TO SERVICE MANUALS - 1979-80 900 (Section 4) and 1975-80 99 (Section 4)**

The dimension given for the reverse gear lockout pin (catch stud) in the newly issued 1975-80 Saab 99 Service Manual (P/N0314948), Section 4, Page 432-5, and the 1979-80 Saab 900 Service Manual (P/N 0321281) Section 4, Page 432-5, for the 4-speed manual transmission is incorrect. The correct measurement is 0.94 inch (24mm). This dimension is shown in the section view of the selector housing.



**SAAB SERVICE INFORMATION - THANKS TO: MR. SINCLAIR, PRES. & DANIEL DAVID, MGR., TECH' SERVICES, ORANGE, CONN.**

**POWER STEERING SERVO PUMP CHANGE - 1980 900 and SPARE PARTS**

A new pump has been introduced for the power steering servo unit. Beginning with VIN's 90801011974, 90802003664, and 90806001550, the new pump has slightly larger mounting bolts and 10 mm X 1.5 stud bolts as opposed to the earlier 3/8-16UNC. The difference in the diameters is small and the bolts are easily confused resulting in stripped threads.

Also the mounting bolt apertures in the pump mounting bracket have been increased from 9.8 to 10.2 mm. The bolt holes therefore must be opened up to 10.2 mm if new model pumps are to be installed on cars with the earlier type of mounting brackets. The holes in the adjusting link mounting bracket are sufficiently large to accommodate the new bolt size.

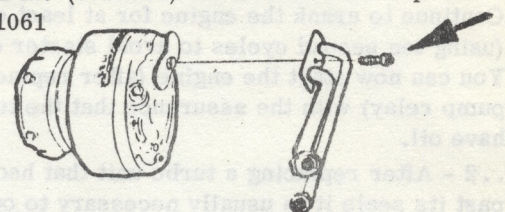
**NEW METRIC THREAD COMPRESSOR FOR 900 VIR AC SYSTEM**

A new compressor, P/N 9422957, for the air conditioning system has been introduced for the VIR air conditioning system as from VIN 90801013123. The new compressor has metric threads as opposed to the earlier model compressor with the same part number that had inch threads. The compressors can be identified

by the model number stamped on each compressor.

The new compressor with metric threads is model 1131223 and the earlier version with inch threads is 1131061. Both compressors are otherwise identical.

NOTE: The correct bolt for holding the connection hose on the compressor is:  
10 x 25 mm (8098261) for METRIC VIR Compressor model # 1131223  
UNC 3/8 x 1 in. (7960669) for INCH VIR Compressor model # 1131061

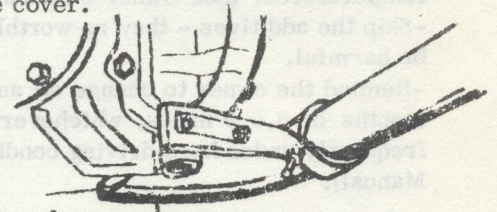


CAUTION: For dealer-installed AC units, care should be taken to check the kit for correct bolt. Also, be sure to use the correct bolt when installing a replacement VIR compressor.

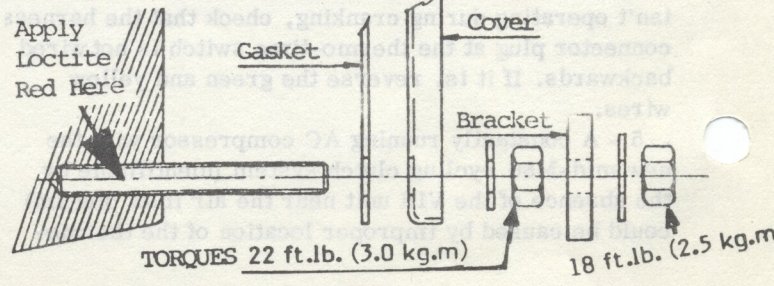
IMPORTANT: The VIR AC system has been replaced by a cycling clutch type AC system in 900's with factory-installed air conditioning above VIN 90801013495. Do not confuse the compressors of the two systems. They have the same external appearance but the pressure switches have different functions. The cycling clutch compressor is model #1131331. Refer to Section 854 of the 1979-80 900 Service Manual, Section 8 (subscription copies to be distributed to dealers by mid-March, 1980.

**FRONT EXHAUST PIPE BRACKET ON GEARBOX, Turbo Models - Checking Mounting Tightness When Servicing.**

During the 1,000 mile Break-In Service and every oil change/safety inspection service (5,000 mile intervals) look for signs of oil leakage from the underside of the final drive cover and check the tightness of the exhaust pipe bracket at the cover.



- 1. Check the torque of the nuts.
- 2. If the nuts are loose check the tightness of the studs.
- 3. If necessary, the studs should be removed and re-fitted with Loctite applied to the inner thread.





## CLASSIFIED ADS 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 \$201. to \$900. enclose: \$2.00. Ads listing: \$901. to \$2,000. enclose: \$5.00. \$2,001 & up: \$10., per 25 words, no charge for name & address.

We will delete superlatives, abbreviate where possible. Do not count 2 letter words. All ads without a price must enclose: \$10. check.

(Each Newsletter page cost over \$100. to produce and mail).

FOR SALE: 1972 Sonett III, good cond., reblt. engine, trans & clutch, red-orange/black. \$3700. (415)493-3043  
Lee Blaine, 3901 G Middlefield, PaloAlto, CA. 94303

PARTING OUT: 1973 Sonett. 4 mags/lugs; \$200. Eng; \$200. Trans; \$200. Doors; \$200. each. Windshield/gasket; \$125. Complete Int. & Drivetrain. Write for pictures, info. on parts. 1-512-769-3752  
Bibb T. Gault, Box 1026, Jourdanton, Texas 78026

FOR SALE: 1967 Sonett, serial #19. Rebuilt Monte Carlo engine. Black paint. This is the one to collect. \$5500. or b/o. (617)421-4584 days, 965-3234 eves.  
Peter Conley, 295 Tremont St., Newton, Mass. 02158

FOR SALE: 1971 Sonett, 51,000 mi., good cond. No extensive work required, but car is not perfect. Asking: \$2100. Plus: \$75. for spare V4 engine.  
Bob Bondurant, Huntington, N.Y. (516)575-2214 days-  
(516)421-5277 evenings.

FOR SALE: Hood from 1968 Sonett II V4, good cond. \$450. Other parts also available. (301)942-3261  
Karl Riedel, 11200 Mitscher St., Kensington, MA. 20795

FOR SALE: 1973 Sonett III, 70,000 mi. Have new rocker panels to mount: \$2,850. (419)368-7411 Zip: 44864  
H. Davies, 1172 Co. Rd., 2256, RD#1, Perrysville, Ohio

FOR SALE: 1974 Sonett, 44,000 mi., AM/FM cassette, new trans', clutch, battery, brakes & paint. Delivery possible. \$3595. 1-218-624-2448  
Dennis Palm, 5308 Ramsey St., Duluth, MN. 55807

WANTED: Front grill for Sonett III, \$25. Also other Sonett III parts. 2-bbl intake manifold \$?  
Steve Robbiano, 435 1/2 35th, West Palm Beach, Fla. 33407 (305)689-1994

FOR SALE: 1962-64, 2 cycle parts. Universal joints; \$30./pr. Wiper mtrs. & fan heater mtr.; \$10. Clutch alignmt tools; \$12. Starter mtrs.; \$30. Radiators; \$20. Back wagon door; \$69. Other items.  
John J. Bartko, 5712 Roosevelt St., Bethesda, MD. 20034- Days: (301)496-2586, Eves: 530-7633

FOR SALE: Model 93 RR fender; \$20., 3 types of hub-caps each \$5. (2) blocks early 850; \$20. ea. (2) used V4 cyl. heads; \$10. ea. Zip: 45239  
Larry Bean, 2873 Grosvenor Dr., Cincinnati, Ohio

WANTED: One sport steering wheel (leather) for late 99 EMS. \$40. or? (202)362-2566 Zip: 20016  
Bruce Coleman, 3940 Fordham Rd. Washington, D.C.

FOR SALE: 1965 850cc 96 Sport Special. Light blue, new brakes, good shape, 52K miles. \$1500. firm.  
ALSO: 1967 850cc 96 Sport Spcl. Metallic gray paint, new interior, clutch, brakes. Am/FM stereo, 90K miles; \$1900. ALSO: 2 barrel manifold/Weber 28-36 dcd, adapter plate, choke cable, air filter; \$175. Front 95-96 doors; \$50. ea. Heater cores & fans; \$10. ea. Drive shafts with drum brakes; \$40. Marchal Quartz 7" lights #6464; \$50. Plus shipping  
Paul Florance, 54-62nd Place, Long Beach, CA. 90803 (213)438-3257

FOR SALE: V4 engine complete; \$150. From '68 V4 1500 cc, 4 speed, non-ribbed trans', rebuildable; \$50./B.O. Shipping not inc. 1-404-231-0696  
David P. Mondecarr, 2909 Grandview Ave., Atlanta, GA. 30305

FOR SALE: Sport 850 eng., Rough, Inc., 3 Solex, oil pump & tank, 2 starters, di stribr., clutch, water pump, generator; \$125. - Clutch bellhousing, inner drive shafts, diff. & pinion, 4 sp. ? Also: air/cond., FOMOC carb, intake manifold from '73 Sonett.  
Lee Fischer, Box 638 Rose-Hulman, 5500 Wabash, Terre Haute, Indiana 47803 (812)877-2675 evenings.

FOR SALE: V4 starters; \$30. ea., alternators; \$30. Also other mech', body & interior parts for 3 cyl. & V4. (413)628-4435  
Roger Harris, Box 47, Ashfield, MA. 01330

SLEEP IN YOUR 96: Plans for "Bedkit" wood frame. Fits old or late 96's. Full size blueprints & instructions. \$5.00 to W.T. Boys, 1567 N. Oakland, Fayetteville, Ark. 72701

WANTED: Rear seat & back cushion for 3 cyl. 96. Offer: \$25. or?  
John Marinelli, 88 Echo Ln., S. Glastonbury, Ct. 06073

WANTED: Trans' tool set for model 96. Over \$100. Harry Wise, 4505 Gilead Way, Salt Lake City, Utah 84117, (801)272-1111

WANTED: For 1971-96: Doors, both sides. I have 3 three for earlier 96 that don't fit. Trade/sell.  
Jon Farbman, 780 King St., Chappaqua, N.Y. 10514 Days: (212)421-2050 - Nite: (914)238-8517

FOR SALE: 1976 GLE, 4 dr., automatic, A/C, AM/FM stereo cassette, sun roof, electric mirrors, aluminum wheels, rust proofed. Very good cond. \$4800.  
R. James, 144 Orrlawn Dr., Tallmadge, Ohio 44278 (216)633-3351

FOR SALE: 1978 99 GLE, 5 dr., 18,000 mi., A/C, sunroof, silver, good cond. \$8,000.  
G. Corrus, 360 S. Seymour St., Fond du Lac, Wisc. 54935 - After 5 P.M. 1-414-923-5821

FOR SALE: 1972 99 - 1.85 engine block; \$75. Also: 1972 99 trl. hitch; \$40. Shipping extra  
Charles W. Smith, RD#1, Box 58, Fillmore, N.Y. 14735 After 5 P.M. (716)567-4266

FOR SALE: 2-1978 EMS alloy wheels. Good cond. \$65. plus shipping. (717)421-2525 Zip: 18301  
Rich Osswald, P.O. Box 5, E. Stroudsburg, PA.

FOR SALE: 1973 99 EMS, 2.0l, 42K miles, no rust, no problems. Religiously maintained. \$3500.

Jon Farbman, 780 King St., Chappaqua, N.Y. 10514  
Days: (212)421-2050. Nite: (914)238-8517

FOR SALE: 1977 EMS Alum' alloy wheel & CN-36  
Pirelli tire; both brand new. \$135. (807)345-0118  
Harry D. Elmslie, 340 Dawson St., Thunder Bay,  
Ontario, Canada P7A 3V2

FOR SALE: 1978 Red Turbo, like new, 22,000 miles,  
\$8,000. Bus. (919)929-1352. Res. (919)942-7156  
J.W. Page, P.O. Box 2512, Chapel Hill, N.C. 27514

FOR SALE: 1979 3 dr. Turbo, AM/FM cassetts, metal-  
lic green, mats, all records, 4,500 miles. \$11,000.  
Pat Currie, 2644 Milwaukee St. Madison, WI. 53704  
(608)241-7953

PARTS FOR SALE: From '70 99-Engine; \$150., rims;  
\$10. ea. Also: windows, radiator, hood, trunk lids,  
doors, lenses, brake calipers, starter, alternator,  
etc. (608)255-1551 days, 238-8136 nights.  
S.E. Heller, 10 S. Owen Dr., Madison, WI. 53705

PARTS FOR SALE: From 1970 99. (2) front seats,  
light brown (one newly recovered) \$50. Used carpet  
set, \$20. Also engine, brake, dash parts - prices  
haggable. WANTED: Front bumper '69-'72 99,  
\$35. (?) Upper case for air intake preheater, 1.7  
liter engine, \$10.  
Kurt Rieke, 2235 Kemper Ln., Cincinnati, Ohio 45206

FOR SALE: Shop manual & rear bumper for '74;  
\$20. & \$75. Postpaid. Also exhaust manifold (small  
crack) and 1 gal. 75EP trans' oil free.  
Craig Williams, 3068 W. Tower Ave., Cincinnati, Ohio  
45238 (513)922-3449

FOR SALE: Dunlop Steelmax '70, 175/70, HR12, like  
new 4 tires for \$160. Supersprint exhaust, #101/s for  
'75 on, like new; \$70. (215)826-3346  
Joe Siska, Jr., 102 Ave. A., Palmerton, PA. 18071

FOR SALE: Trailer hitch 2000GWL-Idea Mfg., chrome  
bar. New, for pre 1972 99's, no welding; \$40./offer.  
Jerry M. Bryant, Rt. #4, Box J., Hayesville, N.C.  
28904 1-704-389-3454

FOR SALE: 1978 LE 99 clock, brand new; \$25.+ ship.  
David Samuels, 211 E 43 St. N.Y., N.Y. 10017

FOR SALE: 1972-99E (1.85 engine), 59K miles, excl.  
cond. \$300. or B/O, plus freight. (412)941-3150 dys.  
John Jan, 5503 Centre Ave, Pittsburgh, PA. 15232

FOR SALE: BRAS FOR 99 & 900. Blk & Brn: \$75.  
\$1.50 letter xtra (i.e. Turbo EMS) Foam air filters:  
\$18.95 - Catalytic replacement pipe: \$12.50 - Send  
check-money order, STARBUCK, P.O. Box 756, Aums-  
ville, OR., 97325 - Year-Model-Color (6-8 wks de-  
livery

WANTED: H<sub>2</sub>O pump cover for '70 99; \$15. Also  
exhaust manifold 1970 style; \$25. ALSO GIVEAWAY-  
A/C system of '70 99 - no compressor - Coolaire  
(Miami). (218)365-5751  
Brian Dahlin, 1219 E. Madison, Ely, MN. 55731

WANTED: 1977 Saab repair manual. Offer: \$25./or?  
Bill Keebler, 20 Cottonwood Ln., Littleton, Colo. 80121

WANTED: Switch & dashboard & clips for headlights: \$5. or?  
(1969). (404)428-8719 Ernie Soto, 310 Wylie Rd.  
Lot 44, Marietta, GA. 30067

#### RECOMMENDED MECHANICS:

Gary Reider, RD#4, Box 232, Boyertown, PA. 19512  
(215)845-2982

Mike Farley, 5394 Monroe St., Toledo, Ohio 43623

RECOMMENDED DEALER: Roberson Mtrs., 2116  
S. Topeka, Topeka, Kansas (913)232-3334

RECOMMENDED SHOP: Spectrum Fiberglass Repair,  
31145 Outer Hwy. 10, Redlands, CA. 92373. Hwy. 10  
East, Yucaipa Exit (714) 794-5987

DELETE: Deane Buick-Saab, Denver, Colorado.

"Sells most Saabs (U.S. sales), has least mechanics."

#### TECH TIP - 900 TURBO

If the headrest inserts keep falling out due to poor fit  
or cold weather, just add some G.E. silicone to the  
raised portion of the insert. Let dry and replace. They  
will be snug and can be removed at any time. It works!

Denis Harrington, N.Y.

#### LOCATION + CORRECTIVE ACTION '77GLE

GASOLINE ODOR: Return line from the fuel distributor  
was cracked where it runs over the rear axle. This was  
later repaired on a Recall. The repair consists of re-  
placing a longer section of the hose to increase the axle  
clearance.

SECOND ODOR PROBLEM AND LEAK: The rubber  
sleeve which supports the fuel pump in the tank was loose.  
The original design of the two clamps which hold the rub-  
ber are faulty. They cannot be tightened sufficiently.  
They must be replaced with the infinite adjustable type.  
Note: A new rubber sleeve was tried but did not solve the  
leak.

DIFFICULTY STARTING IN DAMP WEATHER: High  
voltage leak at the ignition coil from the high tension lead  
to the primary terminal connection. Caused by dirt ac-  
cumulation on the top of the coil exterior. Cleaned and  
problem solved.

POOR DRIVABILITY DURING WARM-UP: Resistance  
of the high voltage leads to the spark plugs excessive.  
They should be approx. 16K. I had three at 30K to 50K  
and one lead infinite changed for new leads and the dif-  
ference was astonishing.

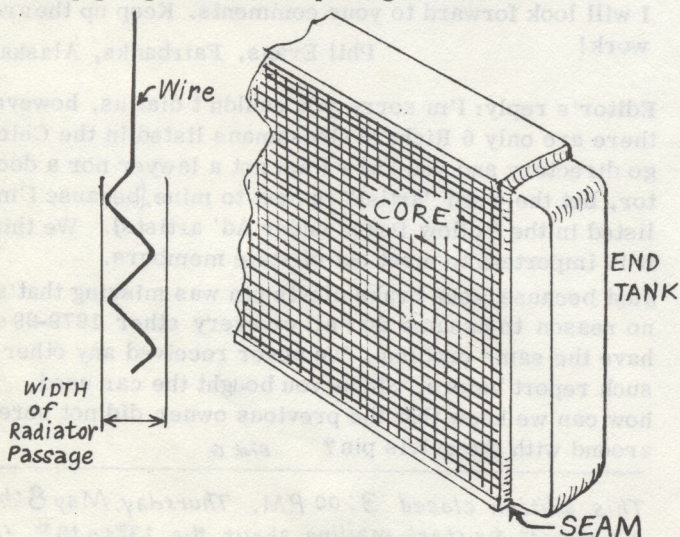
#### TEMPERATURE GAUGE HUNTING-COOLANT LOSS:

The heater control valve was leaking coolant at times  
(\$75. for a new one). The heater valve is a poor design.  
It would be better and probably cheaper to replace it with  
another type if one can be found that fits. One can also  
remove the automatic sensor coil which automatically  
opens and closes the valve, it is not really necessary  
and it must accelerate the wear on the rubber seal which  
caused mine to leak. J. Smith, Montreal, Canada

When it has been determined that the car engine is overheating due to radiator blockage it must be cleaned out somehow. One common method is to have a radiator shop boil out the core. The radiator is placed in a hot tank of anti-freeze and then compressed air is blown through it. The technique will usually clear light blockage but will have little or no effect on really plugged up cores.

The other alternative is to rod the core. This done by removing the end tanks and forcing rods through the passages to clear the core. It is very easy to ruin the core and if a shop does this you buy the core generally. Many shops, also, will not handle '74 and newer radiators. If you can solder with a propane torch then you can rod your own radiator.

1. Remove the radiator from the car as per Shop Manual. Separate the cooling fan assembly from the radiator.
2. Take a propane torch and begin to melt the solder from the seam (see illustration.) Hold the radiator upright and work from the top down. Once most of the solder is melted from seam grasp the end tank gently with a pair of channel lock pliers. Now try to heat the end tank evenly while trying to rock it free.
3. With the tank removed you will be staring at rows of long oval shaped holes. These are the tubes when the coolant flows and you will also notice that many are filled with a pasty gook. Take a piece of wire and bend it as shown in illustration, leave a tail of about 24 inches. For cars with the old style radiators use 1/16" welding wire to make your rod. For newer cars use 1/32" (.031) piano wire. Due to high carbon content, piano wire is much stiffer. I am not sure when they changed radiator styles but it was around 1974.
4. Get comfortable, this part takes awhile. Force the wire down each passage, when it gets stuck work it up and down a little and pull out and wipe the gook off. Keep going until all the passages are clear.



5. Take a hose and spray out radiator from the side you were working from. Keep at it until the water coming out the other end is clear.
6. Solder the end tank back in place using acid coil solder. Be sure to fill the joint well to prevent leaks.

Reattach the fan assembly and install the radiator back in the car. Fill with a 50-50 mix of Prestone and say good-bye to overheating. John Payne, Worcester, MA.

### REWORK OF 1971-99 CORROSION, RUST

I recently acquired a '71 99E which arrived with a dead battery. The proximity of the exhaust manifold had a lot to do with its demise. I cured this by cutting a piece off a batt of glass fibre house insulation and inserting between battery and manifold, held in place by glass fibre buy screen material. Another piece was stuffed between manifold and alternator.

Corrosion occurs around battery terminals and other electrical connectors, causing intermittent faults which are hard to pinpoint. The corrosion can be removed by immersion in a saturated solution of Sani-Flush or similar toilet cleaner, for 10 to 20 minutes. For relay contacts use a shallow dish so that only the contacts are immersed. Don't let the stuff get inside the case.

Do not use force when removing or tightening battery terminals. Flexing the terminal post flexes the fragile grids inside and shortens the life of the battery. If a terminal will not come off, cut the cable, remove the battery and carefully cut the terminal with a hacksaw. Any corrosion which has crept along the cable should be removed with Sani-Flush before fitting a new terminal.

Due to a large hole in #3 piston, the engine had to be rebuilt at great expense. The 1709 and 1854 cc engines share many parts with the Triumph TR7. For example, valve springs are half the price from B-L dealer than from Saab.

Nuts and bolts which have rusted together fall into two categories, those which have been exposed to road salt and those which have not. The latter usually respond to a wire brush and penetrating oil, the former rarely do, they will shear off first. This can be a problem if the nut is 'captive' inside the frame or body panel. Such bolts always come free if first heated to red heat, which requires oxy.-acetylene equipment. In the case of a brake caliper or wheel cylinder where the coupling has rusted to the hydraulic pipe, turning the coupling will twist and break the pipe. Usually the caliper can be unscrewed from the coupling instead of vice-versa. Once off the coupling can be loosened by heat and reassembled in the usual way.

The combination of brake fluid and water is second only to salt and water in its ability to rust parts together, so periodically check that the rubber caps on the bleed screws are present and intact. After bleeding, fluid is trapped inside the bleed screw and if left exposed the screw will rust. Due to the mass of metal involved, they seldom respond to heat. Any attempt to unscrew them inevitably results in their shearing off-requiring replacement of the entire caliper. Similarly the rubber boots on the caliper pistons should be checked as the slightest split will let water in and the piston can rust to the point where it will not move. Even if it does move it may not retract, causing the pad to stay in contact with the disc causing drag, overheating and rapid pad wear.

Alexander Will, Canada

CLEANING OLD RADIATOR  
When it has been determined that the engine is over-  
heating due to radiator problems, it must be cleaned out  
thoroughly. The best method is to have a radiator  
shop pull out the core. The radiator is placed in a hot  
tank of anti-freeze and then compressed air is blown  
through it. The technique will usually clear light block-  
age but will have little or no effect on really plugged up  
cores.

WAY 1980

# FIRST CLASS

RETURN POSTAGE GUARANTEED

c/o R.M. Grossman  
Box # 60272  
Chicago, Ill. 60660



FIRST-CLASS MAIL  
U.S. POSTAGE  
PAID 15¢  
PERMIT NO. 1793

## BRAKE CLEVIS PIN MISSING

I recently stopped in Chicago on business and attempted to call you. There are numerous Grossmans with doctor or lawyer after their name, but no Grossman with "Saab Club President." Perhaps next time I will be fortunate enough to make contact so I can take you and your wife out for dinner.

In the short time I have owned my Saab, it has been my observation that you truly take interest in the well being of Saab owners in general and club members in particular. I find this refreshing and I hope the information I have to impart will be helpful.

My 1979 EMS displayed very poor braking when the snow and ice finally melted and the car brakes could actually be evaluated. Troubleshooting disclosed a leaking hydrovac which was replaced by my dealer, Devlin's Alaskan Automotive. In the process, they discovered the clevis pin attaching the brake pedal rod to the hydrovac was missing from the system. It had never been installed!

Dick, do you think this could be a significant or common problem? I'm accustomed to the excellent braking performance of quality sports cars and recognized the Saab's brakes were deficient. My car was previously owned by a person who was accustomed to a Dodge Power Wagon's brakes. The defective Saab brakes felt good to him and he was a mechanic for the Saab dealer!

12.

I think the missing clevis pin may not be an isolated problem. It can be recognized by excessive brake pedal travel, higher than normal pressure, and a hiss from vacuum leaking if the hydrovac has been damaged. The vacuum leak will cause a drop in R.P.M. when the brakes are applied with the engine idling.

I will look forward to your comments. Keep up the great work!  
Phil Evans, Fairbanks, Alaska

Editor's reply: I'm sorry you couldn't dial us, however there are only 6 Richard Grossmans listed in the Chicago directory and you know I am not a lawyer nor a doctor, but the word "artist" is next to mine, (because I'm listed in the Yellow Pages under Ad' artists). We think it is important to meet out-of-state members.

Just because your brake clevis pin was missing that's no reason to assume that all or every other 1979-99s have the same problem. We never received any other such report before. Since you bought the car used, how can we know that the previous owner did not screw around with the celvis pin? Dick G.

This edition closed 3:00 P.M. Thursday, May 8<sup>th</sup>.  
We expect to start mailing about the 13<sup>th</sup> to 15<sup>th</sup> to  
About 2,975 members. 3,800 copies printed.