

# SAAB CLUB

FEBRUARY 1985, NEWSLETTER #134

NEW ENGLAND SONETT CLUB-- The next meeting of the New England Sonett Club will be held Saturday, March 2, 1985 at the William Gregg House Restaurant, 176 Mammoth Road, Londonderry, NH from 1:00 pm to 4:00 pm.

Jeff Delahorne, Editor of the Saab Club Newsletter will be our featured speaker. Questions pertaining to Sonett maintenance, repair and performance as well as other subjects of interest will be discussed. Jeff will be traveling from Duluth, Minnesota to this meeting.

The William Gregg House Restaurant is located 2.6 miles west of NH route 102 from Interestate 93 (at the intersection of NH routes 102 and 128). Please make advance reservations for this meeting by February 15. \$3.50 per person will cover attendance and hot hors d'oeuvres. Mail to: NESC, PO Box 4362, Manchester, NH 03108.

CENTRAL ILLIANA SAAB CLUB-- will not meet in February so that members can arrange to go to the Auto Show in Chicago. The club will meet March 24th, 2 pm at Margrit Adler's house, 1407 W. University Ave, Champaign, IL, phone 356-9244. Weather permitting we will do some outside problem solving.

Upcoming in April will be a Time and Distance Rally followed by a cookout sponsored by Monty Tarr. We hope to coordinate this event with the newly reformed Chicago Area Saab Club. Details in March.

SUSQUEHANNA SAAB CLUB--The first meeting of the Susquehanna Saab Club will be held March 10, 1985 at Hotel Magee, Bloomsburg, PA, beginning at 2:00 pm. Any interested Saab enthusiasts from the N.E. Pennsylvania area are invited to attend. This will be an organizational meeting for the newly formed club. Details of the upcoming rally at Lycoming College, Williamsport, PA will be discussed. For more information and reservations, please contact: Bette E. Anderson, Cor. 2nd & Oak Sts., Berwick, PA 18603, 717-752-5304 (7-10 pm)

PENNSYLVANIA RALLY-A rally will be held at Lycoming College, Williamsport, PA on March 17, 1985. All interested persons should contact Boyd Smith, 717-433-3861 (5-9 pm).

SAAB CAR SALES UP 27 PERCENT IN 1984

ORANGE, Conn. -- Sales of Saab cars in the United States reached a record high in 1984, with 32,768 cars delivered by American Saab dealers. This represents an increase of 27 percent over the previous record of 25,833 cars reached by Saab in 1983.

The United States is now Saab's largest single market, surpassing the Swedish home market for the first time.

According to Saab-Scania of America President Robert J. Sinclair, the company set sales records every month for the past 33 consecutive months. In December 1984, Saab sales totalled 2,979 cars, up 25 percent ôver 2,383 in December 1983.

Mr. Sinclair says Saab is targeting sales of 38,000 cars in 1985, but he warns that the final figure will be a function of availability. "It all depends on how many cars the factory can send us," he said.

Saab Car Sales in the U.S. since 1980:

1980	13,513
1981	14,505
1982	18,179
1983	25,833
1984	32,768
1985	38,000 (estimate

(Excluding overseas delivery.)

New York Dealer is Top Saab Seller for '84 Zumbach Sports Cars, Ltd, in New York City was the top-selling dealer for Saab cars in 1984, according to Sten O. Helling, Vice President for Sales and Marketing for Saab-Scania of America.

The New York dealer, which also held the top-dealer position in 1983, retailed a total of 454 new Saab cars during 1984, according to Mr. Helling

Second place in the 1984 Saab sales race was claimed by Ramsey Saab, of Ramsey, NJ; while Tom Heydman Pontiac-Saab of Littleton, CO finished in third place; and VOB Auto Sales of Rockville, MD placed fourth. Other top-selling Saab dealers during 1984 included B&B Foreign Car Center, Santa Clara, CA; Gaston Andrey of Framingham, Inc., Framingham, MA; Mark Singleton Buick-Saab, Smyrna, GA; Patrick BMW-Saab, Schaumburg, IL; and Deane Buick Company, Denver, CO.

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

# V-4 MANUAL CHOKE HINTS & SANDBLASTING

If you install an aftermarket manual choke setup on the Fomoco V-4 carb, be sure to plug the hole in the choke mechanism where the now useless choke vacuum piston used to live. If you don't, you'll have a vacuum leak. While on the subject of vacuum leaks, spray silicone makes a great diagnostic tool for finding them. Just spray it on all intake gasket surfaces, injectors, etc., and any vacuum leaks will announce themselves with a sudden change in the engine speed. The silcone gets sucked in through the leak and instantly changes the mixture.

Sandblasting Cabinet -- Here is one for the handyperson/resorer. I haven't tried this, but I intend to. Sandblasting cabinets of any decent size run into the \$1000 range. Since you don't plan on production quantity sandblasting, why not build one out of plywood? If you make it two feet deep, four feet high and four feet wide, you'll be able to accomodate those rusty old steel wheels and even a door off of a 96. Set it up on four six-foot high pieces of perforated angle iron so that the siphon feed type sandblaster bucket can rest underneath and catch all the used sand through a screen. The bottom of the box should be built like an upsidedown hip roof (funnel) so the used sand flows into the bucket. Hinge one side and gasket it as you would a front door in a Minnesota winter. Install a simple plate glass window in front so you can see what you're doing.

For the access/handling gloves, cut two holes in front (a la a baby incubator) and figure a way to attach some good hardware store, elbow-length gloves designed for handling chemicals; these should be ideal. Put a short fluorescent lamp inside, and paint the interior with some tough oilbase white paint for durability and visibility. The whole thing should come in under \$100, minus the blaster, (\$22 to \$70) and the air compressor. Wishbones, vlave covers, axles, certain brake parts and more are candidates for sandblasting. Use silica sand and wear a good mask so you don't get silicosis.

Peter McLaughlin, Evanston, IL

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### MEMBERSHIP/SUBSCRIPTION

Dues for membership/subscription are as follows:

First year, third-class	3 ]	ma	il				\$14.00
First year, first-class							\$15.00
Renewal, third-class							\$11.00
Renewal, first-class							\$12.00

First-year membership includes two back-issue newsletters, Club tech sheets and emblem.

A collection of 15+ back issues is available for \$8.00

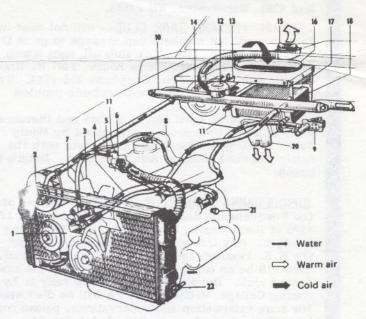
### SONETT COOLING SYSTEM HOSES MIS-ROUTED

All all V-4's, if you purchase the car from an unfamiliar owner, carefully check all water hose "patterns." My Sonett had several mis-connected hoses, which did not show up as a problem until winter weather came along and I drove on the highway. The upper half of the cooling system was misconnected, causing the following symptoms on the highway, only in cold weather: choke staying on, loss of heater output and engine running very warm--up to but not in the red on the temp gauge.

Using Saab's service manual diagram, I re-did the entire cooling system on my 97 and restored proper operation. Several more notes: There are two cooling diagrams for the V-4: up to and including 1968 and 1969-74. Make sure the correct diagram is used. Also, the only way to replace hoses on the V-4 is to do everything at the same time. It's not an easy job with 12 or so hoses, but it is the safest thing to do. If you are working on a Sonett, don't throw away the small molded hose on the heater box. It is unavailable from Saab, so you'll have to re-use it.

Clutch--Check the clutch slave cylinder mounting bolt on V-4's from time to time. It can work loose and cause loss of clutch action. Also make sure to bleed the clutch if the slave does loosen up and fall off.

Marc Vernon, Champaign, IL



### COOLING SYSTEM WITH FRESH AIR HEATER

	water pump
2.	Radiator
3.	Fan
4.	Water distribution tube
5.	Temperature transmitte
6.	Thermostat
7.	By-pass
8.	Water lacket automatic

- Water jacket, automatic choke
   Thermostat valve
- Expansion tank
   Bleeding nipples
- 12. Filling cap
- 13. Fan wheel
  14. Heater fan motor
- 15. Defroster jet, adjustable
- 16. Fresh-air intake 17. Collector box
- 18. Heater core
- 19. Defroster hose 20. Air inlet
- 21. Drain plugs (2)
- 22. Drain valve

# 900 HEATER VALVES, BRAKE MASTER & MORE by Steve Parsons

In the March 1984 issue of the Newsletter I had an article on how I repaired a leaking heater valve in my '81 900 by soldering the hole (a crack actually) closed. Well, last fall the little bugger started leaking again. However, the failure was not in the solder repair -- it held fine. The failure was the same as before -- a small crack in the metal cap at the forward end of the actual valve. It was in an area I hadn't soldered over before. This time I replaced the valve with a new one. From this experience, I would like to pass on some helpful hints.

1. If you have a heater valve failure, replace the valve if you can afford it (cost is about \$52 I think). Soldering will work, but you may have a

repeat failure relatively soon.

2. If your valve does start leaking and repairs are not close at hand, the valve can easily be bypassed (hopefully it isn't cold out!). Remove the hose that goes from the intake manifold to the lower heater valve pipe. Detach the other hose from the valve and reroute it back to the intake manifold. You may need a 7mm open end wrench to loosen some of the clamps.

3. The August '83 and January '85 Newsletters contain information on a new method for removing the heater valve. This method requires the use of a long (190mm) 4mm hex wrench with a rounded tip (p/n 84-71-054). If you don't have this wrench, forget this method. Use the old one.

After replacing the valve, I sectioned the old one. I found the failure was indeed a small crack, not a hole caused by corrosion. It is my opinion that the part was made too think and it was thermal stresses that caused the cracking. I sent the pieces up to Saab's Central Region HQ for their comments, but have not yeard back from them yet.

Brake Master Cylinder -- About a month before the heater valve failed I had to replace the car's brake master cylinder (this car has provided material for several Newsletter articles since I got it used in 1982 with only about 6000 miles on it). Mileage at the time of failure was about 46,000. This is most unusual for this failure to occur at this low a mileage and on this new a car. What failed was the primary piston seal--it became torn by running over a large (and I mean large!) pit in the bottom of the cylinder. There actually were four pitted areas, each one located on the bottom of the cylinder in the area where a piston seal runs. The most likely cause of the pitting (which was only on the bottom) was water contamination of the brake fluid. But how the water could have gotten there I don't know.

Anyway, here are some hints I learned from

this experience:

1. Change your brake fluid at 30,000 miles or every two years as Saab recommends. I was a bad boy and didn't (of course I didn't on my '77 and it is doing fine). Had I changed the fluid, the fail-

ure might have been delayed at least.

2. I do not recommend silicone brake fluid, since if moisture gets into a system with silicone fluid it would settle out on the bottom, causing the kind of pitting I saw. Since I bought the car used, I don't know if the pervious owner used silicone fluid, but what I pumped out of the system was black, smelly and would not readily mix with the new DOT 4 fluid I put in.

3. If you have a manual transmission and are installing a new brake master, be sure to cut off the end of the nipple that supplies brake fluid to the clutch master cylinder. If you don't cut off this molded-shut nipple, your clutch won't work very long!

4. Flush the clutch hydraulics while you are

5. As an added protection to keep the moisture out of the brake fluid, consider using the special shield (p/n 87-47-541) mentioned in the Jan. '85 Newsletter. This goes over the brake reservoir and master cylinder and helps keep water off them. It is of value, of course, only if your car has a louvered opening on the left side of the hood. I use the shield now even though I still have the opening blocked off with its blocking plate. Incidentally, this opening is in a positive pressure area of the hood. Removing the blocking plate may help remove heat from under the hood when the car is standing still, but once the car is moving, outside air will flow into this opening. Hot air will not flow

Snow Tires & Wheel Width--For winter use this year I bought some Kleber M&S's (165-15). They are a vast improvement over TRX's for winter weather! I mounted them on 4½" 99 rims (they required a slight filing out of the center hole to fit). Saab does not recommend  $4\frac{1}{2}$ " rims on the 900. I would agree, even though I am continuing to use the rims. The car is definitedly less stable with this narrow a rim in combination with this tall a tire. Five or 5½" rims would have been better.

WD-40--In the spring and fall for several years now, I've been spraying WD-40 into various areas of my Saabs to help prevent rust. WD-40 is supposedly highly penetrating, displaces moisture, and leaves a protective film. I spray it into the fender lip seams, into door bottoms/seams, behind the lower door weather stripping, in the rocker panels, behind the mud flaps, etc.

Steve Parsons, Washington, IL

# OPINION: NEW YEAR'S WISH FOR ONE MEMBER

One of my wishes for the New Year is that Saab owners would be more realistic. For example: "Wanted: good running Monte Carlo engine, will pay up to \$10." \$10 or whatever won't begine to pay for the labor to remove the engine from your wreck, or storing and cataloging it until someone comes along to buy it. Something I would like to do (get this for realistic!) is to buy up all the old 95's and 96's, rebuild all their old gearboxes (the right way) fix all the little problems and resell them for a good price (\$3,000?, \$5,000? not \$15,000), so that people could experience just how good and reliable these little gems can be.

I hate to see these fine cars running around as old hulks: "I don't want to spend \$1,000 fixing the transmission 'cause I just bough this ol' wreck for \$200 and I couldn't sell it for \$1200 'cause the wipers don't work and the paint is faded, etc." Well enough foaming for now, back to work.

Ted Bunding, Sunnyvale, CA

ATLANTA SAAB CLUB--Anyone interested in starting an Atlanta-area Saab Club chapter, please contact Lou Savage, PO Box 888304, Atlanta, GA 30356 404-394-2310.

# 900 REAR SHOULDER BELT RETROFIT & MORE

I recently installed a set of rear shoulder belts in my 1981 900 3-door. The belts were removed from a 1983 3-door that had met with an untimely death. The installation was rather easy, all of the mounting points were already there. All that was required was a hole in the headliner for the pivot point and one for the path to the supply reel. Once I determined the location of the bolt hole for the pivot point I cut a square hole in the headliner with a carpet knife. Detail is not too important here as the hole is covered by the pivot. The hole for the path to the supply reel was a bit more time consuming, I just trimmed until the plastic trim piece fit tightly. Both halves of the newer seat belt were required as the locking mechanism has been changed.

Fuel Level Sender--Early last December I noticed what appeared to be incredible gas mileage. I had driven 150 miles since a fill up and the gas gauge had not moved from full. Not quite believing that such mileage was possible, I removed the floor from the trunk to inspect the fuel level sender. I determined that the sender was bad by disconnecting the return wire while watching the fuel gauge and seeing no difference. Grounding the wire re-

sulted in the gauge reading empty.

Upon removing the sender from the tank I found the cause of the problem. One of the long bolts running the length of the sender had unscrewed and fallen until it hit the bottom of the tank, then jammed against the float. Replacing the bolt required full disassembly of the sender so the springs and contacts on the float could be positioned correctly. I am convinced that quick reassembly of the sender unit can be accomplished, but that it requires three hands or zero gravity. I managed to get everything right after an hour or so of unsuccessful attempts. The final step before reassembly was to re-solder the sensor wire at the bottom of the unit; this wire had to be cut during assembly. I have not had any trouble with the fuel gauge since. (See related fuel sender repair article in Jan. '83, p. 5)

Tires--I am currently running 165SR15 Vredestein Snow+ snow tires on steel wheels during the winter and 195/60HR15 Firestone S-660's on Shelby wheels during the summer. The Vredesteins are excellent snow tires, their only fault being a tendency to wander a bit at high speeds on dry pavement. The Firestones are very good dry weather performers but tend to break loose too soon on wet roads.

Air Dam--My most recent acquisition was a Flexdam air dam by Mitcom. Installation was not bolt-on, but required a bit of drilling and very careful positioning to install. I had to fabricate a center mount as nothing was provided. Despite these problems with installation, I am quite happy with its performance. High speed stability is noticably improved and highway gas mileage is up. The fiberglass is rather thin and hangs rather low, requiring constant attention when pulling in and out of driveways and other uneven surfaces. If you do not intend to pay constant attention to the safety of your air dam, stick with the original equipment spoiler.

Jeffrey C. Honig, Potsdam, NY

# MEMBER APPRECIATES V-4 RESTORATION TIPS

Thanks again to Peter McLaughlin for another article supporting the preservation of "double-digit" Saab models. After 12 salt-slush winters it is time to pull my '73 96 off the road. Luckily, I recently aquired a sound "unibody" from Texas and, after a few hundred man-hours, I should once again be able to take to the roads in a 96.

Incidentally, for all who curse the V-4 96 transmission, please remember: the transmission was designed for use with a three-cylinder, two-stroke engine that produced much lower stresses on the transmission. Of course, the two-strokes also avoided such nasty things as balance shaft gears and valve seats.

Hopefully, Peter's enthusiasm will provide others with the encouragement to maintain/retain their "old" Saabs.

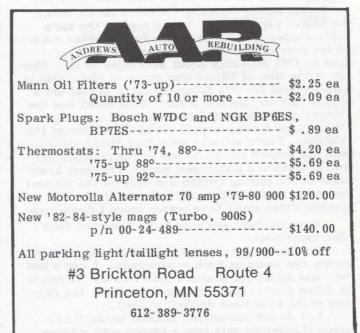
Monty Tarr, Catlin, IL

## 96 STORY IN "THOROUGHBRED & CLASSIC CARS"

It might be of interest of other devotees eager to keep the spirit of "96" alive, to know that the British magazine "Thoroughbred & Classic Cars," January 1985, published an interesting and comprehensive article on the Saab 96.

Beginning with the 92, and running through the final production model, the article covers history, production changes, variants, etc. The publications is available at most large magazine stores, and Anglophiles among the readers will appreciate such comments as "The strokers, particularly the tuned ones, tend to be peaky in their power, and need plenty of work on the gearlever to keep them on the boil."

Gary Andersen, Petaluma, CA



APPALACHIA SAAB CLUB-- will be meeting the third Tuesday of each month at Pennington's Fund Raising Co., 214 Market St., Johnson City, TN. Anyone interested in Saabs is welcome. For more info, call Mike Woods, 615-753-2101 or write Rt. 6 Box 349, Jonesborough, TN 37659.

HEATING UP FARLY 2-LITER'S & OTHER MISC.

by Bill Jenkins, Carlisle, PA

Early 2 liter 99's, and perhaps the 1974 model in particular, were never noted for copious heating and defrosting capabilities. I got disgusted with our EMS, especially with another winter approaching. However, the decision was made earlier on a cool, wet day, when at high speed the windshield misted up like the moors of Scotland.

Conversely, hot weather tolerance could also be better as the temp gauge would show a notable rise when snarled in traffic, idling, etc. All this in spite of good cooling system maintenance and repairs whenever indicated. (Yes, I use a manual radiator fan switch; don't we all?) Modine, a first rate American radiator manufacturer, catalogs cores for Saabs including a nifty heavy-duty variety destined for early air-conditioned cars. This is what I had my friendly local radiator shop order and neatly graft to my radiator side tanks. It is fully 25mm wider, so your fan support may have to be reset slightly. I would also advise moving the ground wire for the fan up to the top of the radiator front sheeting. There it can be easily serviced in the future.

Lack of Heat—The heater box is very interesting. Simply open it up by removing the front cover (take the alternator off). Disconnect the copper "thermostat" line off the core and the in/out water lines. Slide the core out and then vacuum out all the dead bugs, leaves, etc that enter through the cowl air pickup. This has not been helping your heater core. I also had the core put in the radiator shop's acid bath to make sure it would be clean and functional. By the way, the Saab heater and radiator cores are good quality—brass and copper materials used, not sleazy plastic and aluminum (e.g., Rabbit, Ford, etc.) These you don't refurbish, you replace.

Now, while the heater box is open, see if at the top there isn't a deviously well-concealed pivoted trap door! I closed mine, for the winter at least. When you replace the heater box cover, this trap can still be manipulated by the pivot rod high up on the box under the cowl lip. Use strip caulking to help seal the cover back snugly. This trap door was not previously acknowledged by Saab to my knowledge.

I also replaced the water control valve as I saw mild evidence of past coolant weepage. That's the tipoff. Another nice advantage of replacement is returning the handy bleeder valve to assist in purging air from the cooling syste. Saab had inexplicably omitted this feature for '74 and '75. Be sure to adjust the mechanical linkage to give you full operation of the new valve.

In any case, things seem to be measurably better. It is no Chevrolet in heating or defroster output, but quite tolerable now.

Miscellany--While the cooling system, hood and grill are out is a good chance to tidy things up. You'll never have such good access again. You might check the front motor mount; they love to loosen up. Check the battery box; does it need to be refinished?

A friend and I took the opportunity to R&R the oem clutch. It was time. Owners should consider utilizing the larger  $8\frac{1}{2}$ " Turbo assembly. It gives a nice feel and will put a smile on your face. Be crit-

ical vis-a-vis slave cylinder and pilot bearing. Replace all seals, o-rings and gaskets. We discovered an oil control seal installed backwards as well as a stripped threded hole in the primary drive casing. It is also not a bad idea to have an expert machine shop reface the flywheel--virtually all have a 'wave' in them. The crankseal will doubtless be weeping also. The seal now available is first-rate. Keep in mind that a very specific shop tool is needed for installation of the crank seal. Perhaps a friendly, trusted dealer or Saab mechanic should do all this, but at least you should know what you want.

I might also put in a plug for quality (not California off-brand) silicone hydraulic fluids. Well flushed, or utilized when new hydraulic parts are installed, seem to work well. It is DOT 5 while Castrol LMA is DOT 4, for example, and most fluids are only DOT 3. Silicone doesn't boil whether you are on Mulholland Drive or Road Atlanta. Best of all, for most drivers, it appears to reduce the constant failures of slave and master cylinders. I get mine in neat metal pint containers direct from Studebaker (Avanti)! Just be sure you carry a quantity in the trunk at all times. If a top-up in Timbuktu is indicated, don't let anyone mix in standard fluids.

I personally have a soft spot for these early EFI 2 liters of '73 and '74. They are 'brittle' compared to the heavier 99's of later years, but they do run, love to rev and can do a number on many other normally aspirated cars, most certainly including 900's. My wife humiliated some turkey playing Fangio in a Renault Fuego just after these repairs were done. But that's another story....

Dr. Bill Jenkins, 61 S. College St. Carlisle, PA 17013

Ed. Note: You can use the larger Turbo clutch assembly on 99's, but you have to use the 4 speed Turbo disk on the '75 and earlier 99's. There is insufficient room for the longer center housing of the 5-speed disk in these models (at least on the 5-speed disk I got).

Regarding Silicone Brake Fluid--See Saab's comments in last month's Newsletter (Jan. '85, p.7). They do not recommend it, though I know there are many Club members who do use it with satisfaction.

# UPDATE OF WARM-UP REGULATOR MODIFICATION

I have to report that the electrical modification that I have done in the wiring of the warm-up regulator (inserting a serial 20 ohm/20 Watt resistor) worked for about one year. (See Sept. '84 Newsletter, p. 11) Then all the problems returned again: poor driveability during warm-up, backfiring into the intake manifold, etc.

So I decided to dismantle the regulator. This is an easy job. I changed an o-ring inside in the fuel circuit (remove the back of the regulator). That did nothing. Then I checked the intake port of the fuel, where I found the problem.

Remove the 14mm banjo fitting (the larger one) attaching the fuel line to the regulator. A fuel filter (a very fine screen) protects the regulator. This screen was totally clogged with gum. You can clean it with a very sharp needle (which is what I did) or with carb cleaner.

Symptom of a clogged screen are: high fuel control pressure during warm-up with cold engine and high fuel conrol pressure even with a hot engine, possibly higher than Saab spec. (54 psi).

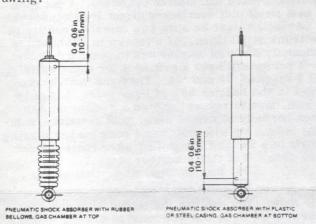
Joel Sougagne, Sherbrooke, Quebec

# SAAB SERVICE TIPS

SAAB SERVICE TIPS--December 1984

Safety Tip of the Month: Certain models of Saab automobiles from 1976 through 1983 are fitted with gas pressurized shock absorbers and beginning with late 1984 production all models are fitted with some type of gas pressurized shock absorbers. Gas-filled shocks may reach internal pressures as high as 430 - 580 psi (30-40 bar) and can cause personal injury if improperly scrapped.

In order to eliminate the risk of injury to some unknowing scrap hauler, the shocks should be emptied of gas prior to scrapping. This is done by drilling a hole (0.08" or 2 mm) as indicated in the drawing.



The tool well cover in the trunk is no longer fastened down by a plastic snap. As from early M85 production and VIN Serial Nos. F1010555 and F2005412 it is fastened by a rubber strap (like its "hinges") riveted to the floor beam and hooked over a knob on the upper surface (carpeted side) of the cover. On sedans a slot is cut in the panel behind the taillamp housing to hold the strap out of the way when the tool well cover is lifted.

Automatic transmission-When performing a 1,000 mile first service or anytime you change the differential oil on automatic transmission-equipped cars, always remove the fill plug first before removing the drain plug. This will help the oil to drain and it will remind you to refill the differential if the fill plug is sitting on your bench.

When investigating a complaint of lack of air flow from the center vent during acceleration, you should first check the vacuum line plug at the evaporator housing connection. Should a crack develop in this plug (p/n 94-38-219) a vacuum leak will occur which will relax the center air vent servo during acceleration.

All vacuum line connections are very important to the control of the air distribution system and should be checked first when diagnosing an air circulation complaint, particularly those line connections at the evaporator housing.

During October production of 1985 naturally-aspirated cars, an updated Automatic Transmission designated 008 was introduced. The new transmission (early M85 was 012) features a new pick-up tube, valve body and the elimination of the 2-3 shift valve circuit. Similar changes were made to Turbo Automatics (designated 009) from the beginning of M85 production.

Also a new oil pick-up filter was introduced from the following gearbox numbers: 008-1784, 009-2744, 012-3331. The new filter improves cold oil pick-up and reduces complaints of dropping out of gear and missed upshifts when the weather is extremely cold.

Complaints of poor driveability on M85 Turbos may be traced to loose LH Electronic Control Unit (ECU) grounding points on cars before VIN Serial No. F1006523. The ECU wires are grounded at the engine lifting eyelet by two 6mm bolts and may cause erratic fuel system function if not properly tightened. Be sure to torque these two bolts to 7.3 ft.lbs (9.8 Nm) before proceeding with the other system checks.

# PROTECTION PLATE, 900'S WITH AUTOMATIC

Saab Service Info 12/84-723: A protection plate is now available for installation on Saab 900's equipped with automatic transmission (M81-on). This new plate (p/n 69-13-545) replaces the existing longitudinal skid bars (p/n 92-30-095) and utilizes all the existing mounting bolts.

The new plate provides additional protection of the front pan on Type 37 automatic transmissionequipped cars and is very useful for daily travel on roads that are unimproved or suffering from extensive frost damage or are poorly maintained.





Oil sump protection plate 69-13-545

The Club thanks Mr. Daniel L. David, Manager, Technical Services Department, and Mr. Robert J. Sinclair, President, at Saab-Scania of America for making Saab Service Information bulletins available.

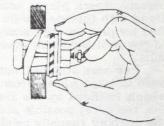
# FITTING ENGINE BLOCK HEATER M85 900's

Saab Service Info 12/84-724: The current accessory Engine Block Heater (p/n 02-04-255) may

### APPLICATION:

be fitted to all 1985 model Saab 900's. Please note the new location of the freeze plug (right center) and the positioning of the heating element within the block (9 o'clock).

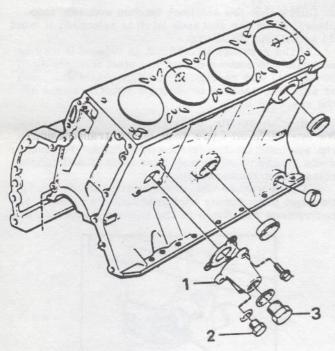
MODEL	ENGINE	YEAR	TORQUE IN.LBS.	FROST PLUG LOCATION	ELEMENT DIRECTION
99	4 Cv1.2000 cc	73-80	20	Right Rear	3 o'clock
900	4 Cy1.2000 cc	79-84	20	Right Rear	3 o'clock
900	4 Cyl.2000 cc	85-	20	Right Center	9 o'clock



# DRAINING COOLANT, M85 8 VALVE & 16 VALVE

Saab Service Info 12/84-726: When changing engine coolant, the block must always be drained in conjunction with the radiator. Use drain plug (2) when draining the block on all M85-, 8 valve and 16 valve engines.

When re-installing the plug, torque to 11 ft.lbs. (15 Nm). Should for any reason you remove the larger plug (3), torque to 22 ft. lbs. (30 Nm).



- 1. Housing
- 2. Drain Plug 11 ft. lbs. (15 Nm)
- 3. Large Plug 22 ft.1bs. (30 Nm)

# CONTINENTAL TS730 165SR15 HYDROPHILIC STEEL RADIAL TIRES

SAAB STEEL WHEELS - 1984 STYLE

Excellent for winter weather conditons -- both 99's and 900's. Same day UPS with M/C, VISA or COD

\$50 each/ \$100 pair, mounted and computer balanced (plus shipping)

# THE SWEDISH SOLUTION, Inc.

Saab Performance Specialsts 27999 Miles Road Chagrin Falls, Ohio 44022 (216) 248-1022

# FRONT BRAKE DRAG; NEW CARS OR NEW CALIPERS

Saab Service Info: 12/84-728: A complaint of brake pad smell or smoking (i.e., brake drag) results from prolonged running contact between the pads and the disc. The needed clearance may not be maintained if full brake pedal return is obstructed or if the initial brake adjustment is too tight to allow for the normal tendency of brake pad friction material to swell (increases pad thickness somewhat) during the brake-in process. In rare cases the action of the self-adjusting mechanism may be too sensitive for the owner's driving habits and conditions (e.g., frequent brake application with relatively high force in situations resulting in little or no pad wear).

This S.I. re-emphasizes the need to check initial brake adjustment at P.D.I. and recommends the best way to deal with a pad drag complaint. Unless the pads are damaged they need not and should not be replaced. Once pads have gone through their swelling phase they will wear normally from then on. New pads could cause the complaint to be repeated, depending on how the car is driven.

ED. NOTE: The three pages of the S.I. are a bit long to reproduce in their entirety. Any member who would like a copy of the complete service bulletin, please send a SASE to the Club.

### SCANIA GETS GOLD MEDAL FROM BRITISH

ORANGE, Conn.--The gold medal of the Institute of British Carriage and Automobile Manufacturers has been awarded to the Scania Division of Saab-Scania AB, for the design of the Scania R142 truck cab. The Scania cabover model was selected for the award at the 1984 International Motor Exhibition in Birmingham, England

The Institute's criteria for selecting the Scania cab were overall design, ergonomics, and fit and finish.



# REPLACEMENT TURBO FOR SAABS!

Improved throttle response, increased power, improved driveability and eliminates use of engine oil to lube turbo with the Aerodyne turbo for your 1979 thru 1985 Saab turbo. Call or write

George's Imports L.T.D. 7746 Wornall Road Kansas City, Mo. 64114 816-333-6582

# TORQUE & OTHER TIPS FROM BOB MITCHELL

Everything threaded on your car should be tightened to a certain point. That point is called "torque," the twist put on a bolt or nut or threaded object. Spark plugs, head bolts, indeed, everything with threads should be tightened to a specified torque, but how many of you think about one of the most important ones on your car? The wheel nuts.

I've seen stripped nuts, stripped lug bolts, even cracked wheels from owners having their wheels changed by the average "grease monkey." But the worst possible scene is about 2 o'clock in the morning (usually raining or snowing hard) when you can't get the nuts off a flat tire. What to do? Simple, buy a torque wrench.

Imported ones (and probably good enough for this purpose) sell in flea markets for as little as \$3.00. Sears puts the same type, but of excellent quality, on sale for about \$12. A truly professional wrench can cost up to \$80 or more. If you buy the cheapie, scribe or paint a mark on 75 ft. lbs., buy yourself a 3/4" socket and put it on, and then use it. Never let anyone mount a wheel for you that you don't tighten the nuts yourself. You may be saving yourself a miserable walk, even up to saving your life.

Caution: don't use the torque wrench to break the lug nuts loose when removing them; it is a precission instrument. Treat it as such when you put it in your trunk.

900 A/C--Those of you who feel you need or want every possible BTU from your late-'80 through early '84 air conditioner can improve its efficiency by adding Saab part number 9480609. This is a nice molded black plastic cover that replaces the black A/C tape that melts and falls off around the condensor.

Cut it across the top, right through the top two screw holes. A little nipping and fiddling will fit it around the end of the condensor. Fasten it in place, and then fill the cavity with some of the expanding foam available in a can at the hardware store. Remember, the foam expands, so don't overfill. When the foam dries, trim it up neatly with a knife or razor blade, it will look neater, and cool better too.

Clean Glass--For that ultra clean glass that we always want, use the trick of the professional. Clean your windows with a cleaner such as "Windex" and a lint-free cloth or paper towel, then polish with newspaper. I wonder if it would help your skiing if you used the sports page?

900 Thermostats--If you haven't already changed the thermostat in your 900 from 88° to 82° (per long ago Saab service bulletin) you should do so at your earliest opportunity. Bleed level down so when you take off the thermostat cover you won't get water into your warm-up regulator. With aluminum heads, we should do everything possible to keep them cool.

Bob Mitchell, Pleasantville, NJ

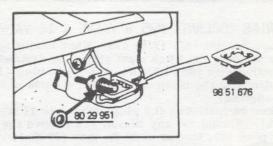
SAAB CLUB NATIONAL CAPITAL AREA-- meets the third Tuesday of each month at the Silver Spring Public Library. For more info, contact Toby Turpin, 301-384-6732.

# CORRECTING REAR SEAT RATTLES, '81-ON 900

Saab Service Info 12/84-729--Seat back rattles at the backrest latch may be corrected by the fitment of a latch collar (p/n 98-51-676) and one or two special washers (p/n 80-89-951) at the backrest rubber stop.

Modification Details, M81-841

1. Remove any existing plastic or tape and fit a collar (p/n 98-51-676) to each of the latch brackets. Pull out rubber stop and fit one or two of the steel washers (p/n 80-29-951) to each stop and reposition it.



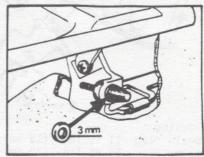
2. Check that the seatback latches securely into place. When the seatback latch is released, it must do so without difficulty.

If the seatback is difficult to release it may be necessary to remove one of the steel washers (p/n 80-29-951) and re-check the latch operation. Add or subtract washers to obtain a smooth release of the seatback latch.

Modification Details, M841

During M84 production some changes were made to the seatback latches to prevent rattles. In some cases, these changes may have made it difficult to release seat backs smoothly.

A 3mm washer was added during March production and later during May production a piece of adhesive tape was fitted to the latch to reduce rattles.



1. If these two modifications combine to make a seatback difficult to release, remove the washer from each side and instead fit a new latch collar (p/n 98-51-676).

# WARM-UP REGULATOR, continued from p. 11

The Saab manual says to change the warm-up regulator, but I decided to open the costly part and clean it thoroughly. There was some rust inside which I removed with a fine sand paper. There is a little piston inside that presses against the membrane. That piston was probably stuck. After cleaning and putting the parts together the car ran perfectly in cold and warm weather. The whole job took less than an hour.

J.R. Derome, Montreal, Quebec.

# PARTS MART



### 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: contact Editor for rates and info. 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 March issue is February 20th, and the deadline for the April issue is March 20th. All ads and club news must arrive on or before those dates to be included.

### SONETTS FOR SALE.

1968 Sonett V-4, white exterior w/black interior, completely restored: \$3000 firm. Carl, 312-382-2873 Barrington, IL.

1969 Sonett V-4, very good through out, no rust. 50,000 mi., Sonett III mags, stereo, air horns: \$2950 or ? Steve Parsons, 309-694-6588.

1972 Sonett III, amber yellow, original owner, estimate 100,000 mi., new clutch & trans. repair in '83, exc. condition, \$2500 or best offer. Alvin L. Milburn, 8694 St. Paul Hwy NE, Aurora, OR 97002, 503-678-5923.

1972 Sonett with 1980 Subaru conversion, light, fast & dependable: \$4000. Will take solid 96 body on trade. Dwayne Nelson, Rt#1 Box 236, Rupert, ID 83350, 208-436-6859

1973 Sonett III, 30,000 miles, rust & accident damage, 75% complete, semi-driveable, includes 7 alloy wheels, spare reblt trans., & misc. 96 V-4 parts. For sale as package only: \$1000. S. Harper, 1624 Secrest, Wooster, OH 44691, 216-264-3534.

1973 Sonett III, MSS exh., sunroof, stereo, recent BMW red paint, no rust, all factory manuals & loads of Sonett literature: \$2895. Chip Worster, 106 Oceanspray Ave, Satellite Bch, FL 32937, 305-773-5851.

1973 Sonett 30,343 mi., very good cond., driven fair weather only, need garage space for '57 T-Bird replacing Sonett: \$3800. Carol Forcum, Rt#7 Box 156, Marion, IL 62959, 618-983-8233.

95's and 96's FOR SALE\_

1972 95 wagon, new eng., trans., clutch, ball

95's and 96's FOR SALE, continued joints, shocks, exh., radiator, brakes frt & rear, Weber etc. \*\*2800 W. J. Makel 21

Weber, etc., runs perfect: \$2800. W.J. Makel, 211 Cedar St., Santa Cruz, CA, 408-427-3599 days, 408-425-5080 eves/weekends.

1973 96, West Coast car, black eng., trans. rblt by Ted Tucker, new compl. exh., brakes, clutch, radials, etc, orig. manuals/records, 80,000 mi, strong dependable. Douglas M. Lackey, 5216 Jenny June Dr., Louisville, KY 40213, 502-964-9889.

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

Weber twin 36mm carb w/dual intake manifold and stock Sonett carb modified to fit Sonett III: \$135 plus postage. Ed Steele, 429 E. Bellevue Ave, San Mateo, CA 94401, 415-340-8344.

1961 & '64 96's, good body & mechanical parts; Also 1963 93: good trans--body needs blocking and finish painting, towable; have engine to put in. Ken Ebling, PO Box 4835, Overland Park, KS 66204, 913-381-5396 after 10 pm.

V-4 hood, fenders, misc. sheet metal, pick it up free. V-4 engine, circa 1970: pick it up for \$50. Bob Mitchell, 403 E. Redwood Ave., Pleasantville, NJ 08232, 609-641-4460.

For 96 only: taillight lens: \$10; trunk ornament w/lights: \$10; complete black cloth interior in exc. cond.: \$100; back up light lens: \$5; All parts plus postage, all parts used. Tom Franko, 3512 Mayfair McKeesport, PA 15132, 412-672-6622 eve's only.

From Sonett III: dash grab handle, glovebox door, A/C vents, Coolaire A/C control w/harness, hood support brakets, aux. lamp blanking panels, rear 5-mph bumper w/braket: All \$5-50 plus shipping. Ron Canaday, 720-G N. 63rd St., Kansas City, KS 66102, 913-299-4751.

European headlights (new) with used grille pieces & retainers, alum. style w/o wipers, installs on your front panel in 20 minutes: \$199. Robert Allen 114 Kimberly Rd, Hamden, CT 06518, 203-248-8798

### 95, 96, & SONETT WANTEDS\_

Wanted: Filter end caps for '73 Sonett air cleaner: offer \$10 postage incl. Pete Briggs, 303 Wisteria Dr, Thibodaux, LA 70301

Wanted: two-barrel carb & manifold for V-4 and /or complete street/competition V-4 motor. Ken Burson 4213 Walnut, Omaha, NE 68105, 402-551-9665.

Wanted: good body for 96, no rust. Tom Durkin, 9725 S. Wood, Chicago, IL 60643, 312-238-5046 after 5 pm

# 95, 96 & SONETT WANTEDS, continued

Wanted: Any and all Saab sales literature, posters, promo. items, etc. Also want correspondence from other Club members who collect Saab stuff. Robert Allen, 114 Kimberly Rd, Hamden, CT 06518, 203-248-8798.

99's and 900's FOR SALE\_

1972 99E, 4-dr, 4 spd., 25 mpg, 4 new radials, eng. & body in solid shape, many new & rblt parts, great transportation, 160,000 mi.: \$1000. D. Christainson, 617-449-2000, x-2471, 7:30-4:30.

1974 99, v.g. body & mechanicals, always well maintained, second owner, Michelin XZX's, high miles, \$1800 obo. Geral C. Smuk, 2520 Evans Dr, Plano, TX 75075, 817-649-2093 eve's.

1976 99, new Bilsteins, turbo clutch, water pump, turbo wheels, interior, radiator, brakes, exh., valve grind, master cyl., am-fm cass. w/elec. tune memory/clock: \$4000. W.J. Makel, 211 Cedar St., Santa Cruz, CA, 408-427-3599 days, 408-425-5080

1976 99GL, hatchback, A/C, 4 spd, 72,000 mi., one owner, excel. cond.: \$2850. Barry Peterson, PO Box 2975, Las Cruces, NM 88003, 505-522-0324, Will deliver in SW Airlines area.

1980 900 GLi, three-door, perfect orig. blue paint, no rust, maintained by mech. engineer, exc. cond. Inca alloy wheels, rear spoiler, am/fm stero cass., KYB gas shocks, Semperit Hi-Speed 205/60-15's 95,000 mi.: \$4500 or best offer. Lowell Histand, Doylestown, PA 215-345-4751.

1984 900 3-dr, base model, Azure blue, A/C, Blau. 2010, rust proof & finish warranties, garaged nightly, 36K mi., NADA \$11,000-will take \$10,600 or older Saab in trade, 5 dr preferred. Also '72 99 parts car, make offer. David Booher, 504 Goshen Ct, Gahanna, OH 43230,

# 99 & 900 PARTS FOR SALE

Sunroof wind deflector: \$20; Side window wind deflectors: \$30/pair; Saab rear window louver: \$50 all plus UPS. Lowell Histand, Doylestown, PA 215-345-4751.

Two Vredestein Sprint ST 165SR15 tires, exc. cond. mounted & balanced on '78 orig. equip. steel wheels \$125 Plus ship. Matt Merrens, 73 Beekman St., Plattsburgh, PA 12901, 518-563-5694.

99 hood hinge ass'y: \$10 plus UPS. Ron Canaday, 720-G N. 63rd St., Kansas City, KS 66102, 913-299-4751.

MSS street header for 2.0L 99. New, never used: \$165 incl. UPS. Bruce Alexander, 4715 Pitt, Duluth MN 55804, 218-525-2884.

### 99 and 900 WANTEDS\_

Wanted: Stock trailer hitch for '78 GLE 5 door: \$30? Tach/clock w/ orange needle: \$25? Factory parts book covering '78 & newer 99's: \$40 Sport steering wheel for 99: \$30? Robert Allen, 114 Kimberly Rd, Hamden, CT 06518, 203-248-8798.

# 99 and 900 WANTEDS, continued.

Wanted: Trailer hitch and or wiring for '84 900: \$50? John Peterson, PO Box 1253, Fargo, ND 58107

Wanted: Limited slip differential for 99: \$200 or ? Also need lambda brain for '78-80 Turbo: \$50 or ? Jeff Delahorne, 5805 Oneida, Duluth, MN 55804, 218 525-3253.

### MISCELLANEOUS ADS -

SONETT RUST TREATMENT--The New England Sonett Club has several pages of detailed instructions available on where to look for rust in a Sonett and how to treat the problem, prepared by the NESC Technical Editor, Bill Lee. Send \$2 for a copy to: NESC, Box 4362, Manchester, NH 03108.

Terratrip Rally Odometers: electronic rally odometers used by top rallyists; easy dead wheel drive on any Saab. Models from \$190 incl. new ARC computer. Jeff Delahorne, 5805 Oneida, Duluth, MN 55804, 218-525-3253.

# 99 REAR SHOCK MOUNTS & SUNROOF DRAINAGE

An otherwise rustless 99 showed a design fault which can breed rust. For some reason there is a perfect little shelf by the top mount of the rear shocks. Road dirt saturated with salt collects here to keep conditions rust-excellent. I've seen the tops of shocks pull right out because the steel has been left to crumble. Pull your rear wheels and clean the area out and rust proof as best you can. Then clean frequently especially after heaby salt / sand season.

Sunroof drains--If you have a sunroof and plan to park it outside in autumn regularly, keep it away from trees. One leaf can cover the important (i.e. lowest) drain. The results can be disastrous. Smaller crud can get caught inside the drain tubes. To clean them I selected a flexible tube with a diameter (about 1/4" to 5/16" ID) that could be flattened out to fill the rounded slots that you can see as the front drains. I applied compressed air to blass debris out the bottom. The rear drains canno be seen without the miserable job of removing the sunroof. Since it is less likely for leaves to get back there I removed the outside rear vents to get at the bottom of the drain tubes. Compressed air again guaranteed the tubes were clear.

New 90 Model--Members might be interested in knowing that the dashboard is essentially unchanged, the same fake-wood lower strip, same heat/vent controls, etc. The steering wheel is a new style

with three large oval openings.

Other news is that the 92 is in the lobby at Orange at last. Also there are some 9000's in the area, though I have seen only one on the move. Several are reported to be in the Los Angeles area. Robert Allen, Hamden, CT

TULSA SAAB CLUB-- January meeting was held Jan. 22 at the Golden Corral. For more info on future meetings of the Club, contact Jim Glavas, 250-2150.

WATKINS GLEN TICKETS -- Saab enthusiasts interested in Sky Box seats for Watkins Glen events should contact Alexandre Barbier, 607-565-2711.

# 900 CRANK PULLEY MAKES HARD-TO-FIND NOISE

I just fixed a problem I don't recall reading about in the Newsletter. The engine of my '82 Turbo was making a noise-described by one as the air conditioner clutch going out; by another as valve clatter. It turned out to be the crankshaft pulley coming apart. The pulley and the sleeve that slides over the crankshaft (with key slot) are separated by a rubber cylinder which absorbs vibration. As the sleeve and pulley moved apart, the pulley made contact with some bolts on the rear of the engine, making the "valve clatter" noise. This is not a problem to let go for long.

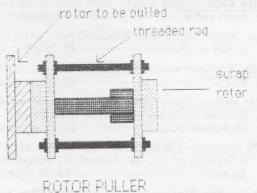
Craig Kille, Palo Alto, CA

ED. NOTE: See also the Saab Service Bulletin on this subject elsewhere in this issue.

# HOW TO REMOVE A BRAKE ROTOR FROM A SAAB

If you want to remove a rotor from the front wheel of a Saab and you go by the book, you start by removing the brake caliper and then you need the Saab special tool. I made an equivalent tool which has been used many times by members of the Montreal Saab Club. My special tool was made from two scrap rotors held together by 3/8" threaded rods and a small hydraulic jack that fits inside the puller. The jack must work in a horizontal position. I used three lengths of threaded rods and made 1/2" holes in the scrap rotors. The tool can also be used as a small press using longer threaded rods.

In order to remove a front rotor you first have to loosen the wheel nut using a good breaker arm if you don't have air tools. Then you remove the wheel, the brake caliper, the wheel nut and the special washer. You then screw the inside scrap rotor of the special tool to the car rotor using the four wheel nuts and you pull the rotor by pumping the small hydraulic jack between the hub and the outside scrap rotor.



On newer Saabs the front rotors can be removed without the special tool, just like the rear rotors.

Cleaning a Warm-up Regulator

Recently my 10-year old Saab was running poorly just after starting in cold weather. My pressure gauge read too high when the car was cold so the warm-up regulator was suspected. The control pressure being too high, the plunger in the fuel distributor was too low, not allowing enough fuel to the injectors. The mixture was too lean and the car ran pretty rough.

Continued at bottom of page 8....

# CHECKING CRANKSHAFT PULLEY, '84 900 MODELS

Saab Service Info 12/84-725: During the normal service of M84 900 models it is advisable that at the same time a visual check of the crankshaft pulley be performed. Some crankshaft pulley separation has occurred on 1984 models and if not corrected, a separated pulley may damage the oil pump housing. Please refer to the following inspection procedure for performing this check.

Replacement pulleys are treated with a self-vulcanizing agent on the rubber section to improve durability. This was introduced into car produc-

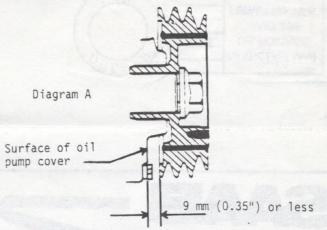
tion about 4/84.

Inspection Procedure:

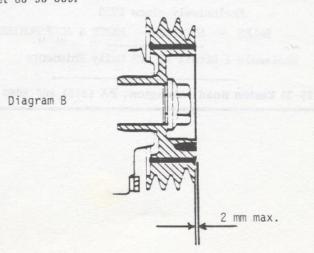
1. With the car on a lift, check the distance from the inner surface of the pulley (see diagram A) to the surface of the oil pump cover. This may be accomplished by stacking feeler gauges together and measuring the stack with a vernier caliper. A distance of 9mm (0.35") or less indicates that separation may have occurred. If so, a further check should be made (see step 2 and diagram B).

If clearance is more than 9mm (0.35") the crankshaft pulley is O.K. and need not be examined fur-

ther until the next service.



2. If equipped with AC, slacken the AC compressor drive belt and remove the AC drive sheave from the front of the crankshaft pulley. Use a straight edge and feeler gauge to measure the distance between the crankshaft pulley center section and the surface of the outermost pulley ring (see diagram B). If the distance is greater than 2mm, the pulley must be replaced. To replace the pulley use special socket 83-93-639.



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FEB. 1985



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Club Patches--embroidered three-color patches, 2-3/4"Hx4-1/4"W-----\$3.00 postpaid

First Million Book--Saab-Scania published book by
Gunnar Sjogren with Saab history and drawings
Softcover only-----\$3.00 postpaid

1976 Posters--16x20 poster with Mark Stehrenberger drawings of 92, 96, Sonett II, Sonett III and 99 EMS-----\$3.00 plus \$1.50 UPS

Convention Posters--17x22 bright yellow poster from '84 Convention-----\$3.00 plus \$1.50 UPS

All T-shirts are presently out of stock, as are brass grill emblems. Please Note: Shipping costs are per order; i.e. two mugs, UPS is only \$1.50. Send all orders to: The Saab Club, 5805 Oneida, Duluth, MN 55804.