



# NINES

THE SAAB CLUB NEWSLETTER

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June  
1991  
no. 204



Bob Sinclair (left) will turn the operation of Saab Cars USA over to Sten Helling

## Bob Sinclair to retire, Sten Helling new CEO

Hans Halbach becomes chairman

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## An end to cold start trouble? Thermo Accumulator

page 10

## The Mighty Three *DuStroke describes Saab's smallest engine*

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## First time amongst the pylons

page 22

### Tech Talk:

Oil Analysis

New Oil Filter Wrench

Fuel Injection Pre-pump

Tranny Tech - 900 & 9000

begins on page 14

## Regional Club News

### New Clubs

#### Central States SAAB Club

Missouri, Indiana, Central and Southern Illinois as well as anyone else. Looking for any technical solutions/letters, etc. Contact: Jason Henske  
Rte 3 Box 80-A  
Litchfield IL 62056  
217/324-4426  
Fax: 217/324-3731

#### SAAB Club of New England

Anyone interested in becoming a charter member should contact:  
John Healey  
P.O. Box 118  
Bethany CT 06525  
203/230-9032

### Calendar of Events

#### Northern Illinois SAAB Club

July 14 - 20th Anniversary Dinner, location to be announced.  
Andy Federowski, 312/631-4476  
Jon Petersen, 708/675-6540 days

#### Milwaukee SAAB Club

July 20 - Tech Clinic, Brake systems.  
Dave Hinz, 414/476-3080

#### SAAB Club National Capital Area

July and August meetings moved to the Davis Library in Bethesda, MD.  
Meeting dates: July 18 and August 15.  
Toby Turpin, 301/384-6732.

#### Southern California SAAB Club

Aug 18 - Big Bear Lake Picnic and Classic Auto Show, 11am-4pm. For details & map send SASE to:  
Paul Florance  
126½ Main St.  
Seal Beach CA 90740

#### SAAB Owners' National Convention

August 2 - 4, Crystal Mountain Resort, Washington State.  
For more info, see page 4.  
Deadline for convention registration has been extended to July 12.  
Skip Schott, 206/486-1351

## Make Convention reservations soon

Mount Rainier, Washington State, is on the cover of Life magazine's "Summer Special Issue". If you attend the 1991 SAAB Owners' Convention, that's where you will be!

Saabers from the East Coast, Midwest, Southwest, Canada, California, our own North Coast and Sweden have already made reservations to participate in this year's National Convention. Resort personnel tell us that rooms are filling quickly. To be assured that you have a place to stay, make your reservations at Crystal Mountain Resort by July 1st. And we've extended the deadline for convention registration to July 12th. Due to the remote location of Crystal Mountain, we may not be able to accommodate last minute convention registration; reservations are a must.

A full program of events (but at a "Northwest" pace") has been finalized. Speakers and subjects include: Pirelli Tires, Bosch products, Jack Ashcraft Design, Zymol wax, Ove Hasselberg (from Saab Cars western office), and our own Tennis brothers famous two-stroke clinic. An ongoing swap meet on Saturday should provide plenty of shopping. Saturday's drive to sunrise on Mount Rainier will allow ample time for those of you who wish to hike this scenic park. On the menu for Saturday evening's banquet is a Northwest favorite, barbecued salmon.

Many local members will drive, drag or tow their cars to the event. Several will tow Saabs with Saabs (too many Saabs, not enough drivers). Washington does not use salt on its highways in the winter, so you may be surprised at the large number of older Saabs which are still used as daily drivers. Besides many older 93s and 96s you will see many Sonetts, both -V4 and -III, the only Saab 9000 road racing car, and a NATO combat Saab 99 hatchback (just back from the Persian Gulf?).

Besides Ove Hasselberg from Saab, we are expecting Sten Helling, Bob and Anne Sinclair, Erik Carlsson, and from Saab Automobile AB in Sweden, David West, vice president of product strategy.

The party is ready, all we need is your RSVP. Hope to see you in August!

Rich Roberts  
Bothell WA

#### SAAB Club of North America

2416 London Road, Unit 900  
Duluth, MN 55812-2221

218/ 724-1336, 9am - 6pm Mon - Sat  
Fax number: 218/ 728-6307

#### NINES Editor & Publisher:

Tim Winker

#### Editorial Ass't / Membership

Joan Oswald

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Editorial contributions are welcome. All material submitted is assumed to be for publication unless clearly labeled otherwise. Double-spaced typewritten articles are preferred, but most anything is acceptable. We cannot answer every inquiry and reserve the right to edit materials submitted.

Those wishing to submit articles or letters on 5¼" or 3½" IBM-formatted disks, please convert to ASCII text files (<filename>.TXT). Please include a printed hard copy, and a SASE if you want the disk returned.

The title of the newsletter, NINES, comes from the model designation of Saab's automobile production -- they all begin with "9", from the 92 to the 9000.

**CHANGE OF ADDRESS:** Eight weeks notice is required for change of address. Please send new address and old address, including zip codes, to the SAAB Club at the address above.

**RETURNED CHECKS:** There will be a fee of \$10.00 charged for checks returned for any reason.

## Letters to NINES

### Another view on McCue

I have subscribed to the Saab Club Newsletter since we purchased our 900 hatchback in 1981. We purchased this wonderful car and also our 1987 9000 Turbo 5-door (another fine car, no problems at all) from Ramsey McCue in Loma Linda, California. The agency was in San Bernadino and moved to a new, spacious, well equipped Sales and Service building in Loma Linda.

We have known the owner, manager, repair people, parts manager, etc. for eleven years. we have no misgivings of highly recommending this Saab agency. The personnel have always treated us courteously and serviced the cars remarkably well.

Mr. McCue has always been in control of the agency. he has always been friendly and approachable. In my 75 years of experience and having driven many types of cars since I was 18, Mr. McCue has been the *only* agency owner I know that remembers his customers and walks up to say hello to them. He keeps an eye on the work being done and sees to it that his customers are pleased.

The reason for this letter was the "Sweet & Sour" letter in the May 1991 newsletter. In my opinion, there must be a great deal more behind the person who wrote this letter. [Dr.] Guy G. Giacomuzzi cannot be accurate in his analysis of the problems he mentioned. What kind of a driver would drive so recklessly as to bend three of the wheels? Maybe being a *professional* makes him much more knowledgeable in automotive techniques than any one else.

As an editor, did you even check anything of the poorly written letter? I feel that the facts are distorted and irreparable damage may have been done.

I hope the scandal can be corrected. The agency does not deserve this strong adverse criticism. I feel that an investigation is indicated and a strong retraction is in order.

I enjoy and use the newsletter. Keep up the otherwise good work.

Jerome G. Grant  
Yucaipa CA

### Kool Your Bouncing

KYB may mean "Keep Your Bilsteins" for your Saab 900 (Robert Edelman, NINES No. 195, 9/90, p.18), but my experience with KYBs on our 1990 Plymouth Voyager is quite different. The original rear shocks wore out at 10,000 miles (no complaints - this is ten times the lifetime of typical American original equipment). Since they did not leak they would not qualify for replacement under warranty. Even tho Chrysler would guarantee a replacement set forever, if I paid for one, it seemed unlikely that they would replace for anything but leaks. (Many mechanics and other people think that the function of shock absorbers is "not to leak".)

Failing to raise Koni America by phone for the first time ever, I phoned KYB at (800) 592-2677, then [KYB's technical department] at (708) 620-5555 and talked about damping constants with a wonderfully technical Japanese. He pointed out that what I wanted for light load and good ride was the GR-2 series and not the KG series; and that all KYBs are warranted forever. So for a very reasonable \$39 each, our local mechanic installed them in the rear only.

Boy, what an improvement! Better ride from the very beginning, and no change in 5,000 miles. All pitching so characteristic of Voyagers gone. Reason: Less damping jounce and much more in rebound with valving done to perfection.

Here is another recommendation of Parrformance in Lititz, PA for Saab repair and purchase, new or used. This outfit can repair any part of any Saab, including roof-liners and automatic transmissions. It is run with cheer and competence and honesty.

We brought our '85 900 S in for a weird automatic transmission flaw. Because we live over 70 miles away, Rick Parr offered a "loaner" for about five days without being asked.

The loaner is a 1979 900 GLE 5-door with new Hakkapeliitta snow tires. It is one of Parrformance's under \$3,000 snowmobiles, a great concept lacking only a reasonable amount of snow and ice in these parts to succeed. I had forgotten how powerful the early 8-valve engines are, how well they start and warm up from cold, and how nicely the old 4-speed manual transmission shifts.

Dr. Joel M. Kauffman  
Philadelphia PA

### Looking for a good mechanic

As a Saab owner of nearly ten years and a subscriber to your newsletter for nearly two, I look forward to reading each issue - even if there's nothing I can use, there's always something of interest. I do feel the newsletter has one major shortcoming - no information on reputable and reliable mechanics and/or dealerships. Yes, information on how to replace an alternator or the suggestion, "Ensure the fuel rest pressure is within spec..." is fascinating, but as far as I'm concerned, you may as well be speaking Dutch. I know too little about my Saab's anatomy to do much more than carefully maintain it and, when necessary, bring it to a mechanic who I hope will do the job correctly. Yes, I'd love to spend an afternoon loosening the booster on my pedal shaft boot; hell, I'd even settle for changing the oil. But the combination of living in a large and cramped city like Manhattan and being singularly lacking in mechanical ability is, to say the least, limiting.

Isn't it possible, on a regular basis, to solicit subscriber information as to mechanics and dealerships they trust and which ones to avoid at all costs? It seems that NINES is in a position to perform this service, one that I consider a lot more valuable than how to install a double stand-off clamp or redecorate your glove compartment. - I have a feeling I speak for many of your readers, we are not all mechanical geniuses.

Richard Smith  
New York NY

*There was a Mechanics List in the newsletter a few years back, and I still try to maintain a file of who works on Saabs across the country. The old list needs to be updated, as some shops have likely gone out of business and others have opened. Send your recommendations to "Mechanics List" in care of the Saab Club.*

*One of the problems (as illustrated in the first letter this month) is that a bad experience even at a good shop can sour the consumer on the repair shop, or on the product, when the problem might only be a mechanic who is unable, for whatever reason, to correct the problem.*

*Unfortunately, New York City seems to be a wasteland as far as top-notch Saab repair. Any recommendations in and around that metropolis are especially welcome. I have had good reports on Lighthouse Motors in Brewster, NY, but some folks don't seem to be willing to drive that far. - TW*

# 1991 NATIONAL SAAB OWNERS CONVENTION

## August 2nd, 3rd & 4th Seattle, Washington

The Northwest SAAB Owners Club is proud to host the 1991 National SAAB Owners Convention at the Crystal Mountain Resort, just 1 1/2 hours southeast of Seattle. This special three day event will feature a Friday night get-acquainted party, SAAB technical sessions, an informal concours, new & vintage parts swap, scenic tour of Mount Rainier, Saturday evening gala banquet with SAAB guest speakers and Sunday morning brunch with round table discussion. We are looking forward to a great weekend, and hope to see you there. For detailed information on this event, please refer to the article in this issue of NINES.

For your convenience, 200 rooms will be held at the Crystal Mountain Resort until July 1, 1991. You must reserve your rooms directly with the resort. Please contact Phyllis at (206) 663-2558 to reserve your room.

### CONVENTION REGISTRATION INFORMATION:

NAME(s): \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY/STATE: \_\_\_\_\_

ZIP/PHONE: \_\_\_\_\_

SAAB(s) OWNED: \_\_\_\_\_

INTERESTED IN INFORMAL CONCOURS (Y/N): \_\_\_\_\_

**Convention  
Registration Deadline  
Extended to July 12**  
*(Please make Resort  
reservations separately)*

### REGISTRATION FEES: (Include Friday party, 3 meals on Saturday and Sunday brunch.)

Total Number of Adults:

Whole Event \_\_\_\_\_ x \$65 = \_\_\_\_\_

Saturday Only \_\_\_\_\_ x \$50 = \_\_\_\_\_

Total Number of Children under 12:  
(whole event or sat. only) \_\_\_\_\_ x \$25 = \_\_\_\_\_

TOTAL = \_\_\_\_\_

Check or money order payable to:  
Northwest SAAB Owners  
C/O Skip Schott  
20220 80th Ave. SE  
Snohomish, WA 98290  
Ph. (206) 486-1351

Cancellations for full refund will be allowed until July 5th.

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KENT, WASHINGTON

# Doktor Nio's SAAB Klinik

Submit your questions with as complete information on the problem as possible, also giving the year and model of SAAB. Problems of general interest will be answered here. No requests for personal replies please. Questions which would require modification of, or would defeat Federally required emissions systems will not be answered. For a proper diagnosis, it is recommended that you contact an authorized SAAB dealer or repair shop.

Send your questions to: SAAB KLINIK, 2416 London Road, Unit 900, Duluth, MN 55812-2221

I own a 1985 900 (base) with 81,000 miles on the odometer. Two problems:

1. When the temperature outside is cold, the ignition is stiff to turn with the key inserted.
2. The car starts and runs fine when the temperature is cold (down to -10°F so far), but starting with a warm engine, the idle drops to a near stall. It will idle fine after being driven a couple of blocks or foot on the gas for 20-30 seconds. After that all is fine; idle at 1,000 rpm, plus or minus. The air valve (p/n 9313909) was changed by the dealer, and throttle, idle, air bleed, mixture and timing have all been adjusted.

Robert Dupuis  
St. Lambert, Quebec

1. *Either the lock cylinder and geartrain are dry and stiff, or the ignition switch is binding. You may have to dismantle the lock/switch console and remove the switch and then see if the key turns freely (this is not a pleasant experience).*
2. *The mixture could be set so rich that until the oxygen sensor is up to signal sending temperature, the warm restart is an uncontrolled overly rich mixture. Have the lambda modulating ratio checked.*

The EDU (Electronic Display Unit) on my '86 9000 Turbo is very dim. I can barely see it at night and cannot see the display at all during daylight. The left side display for temp, mpg, voltage, etc., is dim, while the right side display is normal when I start the engine. Did the left side of the Saab brain go fishing? Fuses and battery check out okay. Should I start saving for a new \$300+ EDU? Any other owners with the same problems?

Russ Lowe  
San Francisco CA

*The EDU has replaceable light bulbs at each end. It is not much fun getting to them. The top of the dash must be lifted off and the instrument cluster removed. It takes a special bulb, p/n 85 66 853.*

I have a 1981 900 Turbo, 4 door, automatic, with 95,000 miles on it. For the

past several months, I have had difficulty starting the engine from a cold start. The first indicator of it not starting properly is when the engine would fire briefly and quit. Then to start it, I must open the throttle full open and crank the engine for 10 to 15 seconds. Upon starting, it will run as if it's been flooded, but the exhaust does not smell of raw gas.

The valves were adjusted 15,000 miles ago. I have gone through the Exhaust Emission Control system fault tracing procedures in the Saab Engine Manual (M 1981-84), beginning on page 254-22 and 254-26, using a Lambda tester with the assumption that it is a cold start problem. The results were within specs.

Jim Hallman  
Oregon City OR

*If all the tests check out, start the engine cold and when it stalls, pull the spark plugs and see what they look like. Since you have an '81, I'm going to mention the possibility of a crack in the cylinder head. The crack allows coolant to seep into the combustion*

*chamber overnight and then the engine will misfire until the coolant has burned off. If the head is seeping, the plug for that cylinder will be very clean. Give it the taste test. Glycol is very sweet and just a touch on your tongue (yuck!) will tell.*

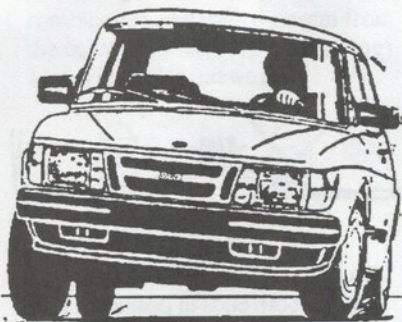
I've been waiting and waiting for a shop manual for the '91 9000 Turbo. My dealer has been telling me to chill out as the new B234 engine and the '91 chassis electrics have not been well documented yet. Any idea on when this will become available? Will this replace the 6 volume set detailed in the December 1990 issue of NINES?

Shep Siegel  
Derry NH

*Saab updates their manuals as the systems are updated. Consequently, you can buy just those portions of the manuals that you feel you may need and not the entire set. These manual sections should help:*

2:1 B234 Basic engine, M90-, p/n 0341990  
0 News, M1991 p/n 342691

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# SERVICE SUBJECTS



# FROM SAAB

## Replacement Door Seal Section

Application: All 9000 models  
PSI 05/91-0111, Sec. 8/Pg. 19

Over time, normal wear-and-tear that is associated with getting in and out of the car can damage the door seal along the sill area. If the damage is limited to the sill area, an economical alternative to replacing the entire door seal is now available.

The new seal section, P/N 42 50 502, is available in black only. Since the color-keyed portion of the seal is covered by the sill cover, any discrepancy from the color of the interior trim will not be noticed.

### Parts Required:

Seal P/N 42 50 502

### Seal Installation Procedure

1. Remove the front sill cover (Figure 1).

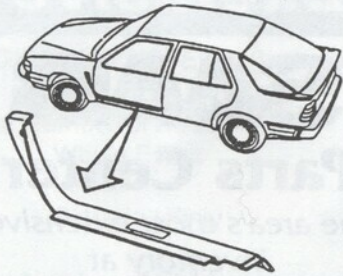


Figure 1.

2. Using the replacement seal as a guide, mark the section of the door seal to be replaced (Figure 2).

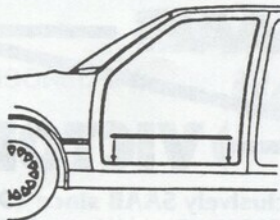
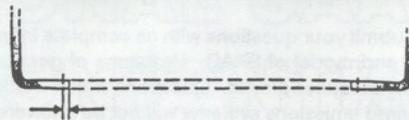


Figure 2.



3-4 mm (approx. 1/8 inch)

Figure 3.

3. Cut the damaged door seal 3-4 mm inside the marks (Figure 3). Use a pair of clippers to cut through the metal strip inside the seal (Fig. 4).

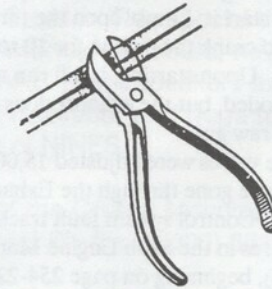


Figure 4.

Use a knife to cut through the rubber. The knife will cut better if the blade is wet. Try to keep the cut as straight as possible (Figure 5). Remove the damaged section of seal.

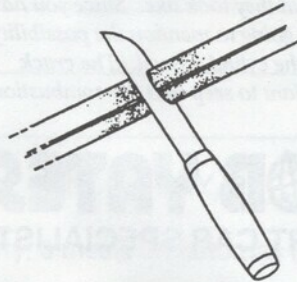


Figure 5.



Figure 6.

4. To fit the replacement seal, start by putting both ends in position. Then press the seal from the middle out towards the sides (Figure 6).
5. Reinstall the sill cover.

Saab Parts and Service Information updates are provided to NINES as a courtesy to Saab owners by Daniel L. David, director service and technical, and Sten O. Helling, President of Saab Cars USA, Inc.

## Consumer Information/Tips 5/91 Change in MTBE blend percentage allowance

The U.S. Environmental Protection Agency has approved an increase to the oil/gas refinery industry in the amount of methyl tertiary-butyl ether (MTBE) permitted to be blended with gasoline from the former 11% to the current 15% (by volume). Saab had previously approved the 11% MTBE level for use in engines and fuel systems as documented in the 1990 and 1991 Owner's Manuals. Recent evaluation and testing has been completed on the 15% MTBE blend with the resultant approval for Saab automobiles.

Many of the so-called Reformulated Gasolines of "clean gasolines" being marketed today in the U.S. for purposes of reducing vehicle emissions are blends of gasoline and MTBE.

## Flat tire repair

In the January 1991 issue of *Motor* magazine, the editor reports on an article he read in the tire trade magazine *Atlas Tire Bulletin*. While the story is quite horrifying, it should also serve as a reminder about the precautions and safety habits that should be a part of your daily routine. Paraphrasing from the editorial:

A motorist had pulled into a service station to get a tire repaired that had picked up a nail. The mechanic had removed the nail and started to clean the puncture with "a rasp like tool...", when the tire exploded with tremendous force!"

The mechanic was very seriously injured and was listed in critical condition at the hospital. The explosion also caused considerable damage at the service station, and to a car driving by the station.

Apparently, the motorist with the flat had inflated the tire with a gas tire inflator (an aerosol can that screws onto the valve stem) as a temporary measure until he could get to a station to have the tire properly fixed. The can's contents consisted of a latex sealer and a flammable gas. It is possible that the mechanic's rasp snagged on the tire's steel belt, causing a spark that ignited the flammable inflator gas.

Probably not many people realize that some tire inflators are explosive. The inflating gas in these type of aerosols is a mixture of propane and isobutane. For these types of inflammable inflators, peel off warning labels are being applied to the cans by some manufacturers. In order to warn

the technician of the potential hazard, part of the label is supposed to be applied to the tire when the inflator has been used. Obviously there are practical problems inherent with this warning method. There are also some nonflammable tire inflators, however, most of them use CFCs as the inflating gas.

Lessons to be learned? Precautions to be observed?

- Assume and prepare for the worst.
- Remove the valve core stem outdoors (if possible) and away from any source of flame, sparks, and excess heat, including cigarettes.
- Use an approved method of patching the leak from the inside of the tire.

### Wheel bolt tightening torques

For 1988- 900 models and all 9000 models, torquing the wheel bolts on a new alloy wheel involves a bedding-in action around the bolt holes. The "new" wheel definition is an out-of-the-box replacement wheel from spare parts.

When tightening the bolts for the first time on a new alloy wheel, the torque should be 92-107 ft lb (125-145 Nm). It is essential that the bedding-in takes place when the wheel bolts are torqued for the first time. If not, the torque loading may gradually decrease, resulting in the wheel bolts working loose.

Subsequent tightening of the wheel bolts should be at the normal torque specification of 77-92 ft lb (105-125 Nm).

**Note**

**Do not use an air wrench when installing wheel bolts.**

The wheel bolt tightening specification for alloy wheels at the PDI has not changed and should be at the normal torque of 77-92 ft lb.

It is also important to note that the wheel bolts should not be overtightened on the steel wheels as this could damage the taper on the bolts.

### 900 and 9000 models

#### Fuel filter blockage

With the sophisticated engine/fuel management systems that are utilized in Saabs, an engine malfunction occurrence is often prematurely attributed to the "ECU". Try to make it a practice to "start at the beginning" and look at the overall picture. Complaints of "lack of power," "bogs down," "hesitates," or "stalling" should be diagnosed methodically or you could be led to an

inaccurate and premature condemnation of the wrong component. In the cases with the above complaints, going back to the basics correctly diagnosed that each case of engine power loss was the result of a clogged fuel filter.

Jumping to the conclusion that the ECU is at fault may be an expensive misdiagnosis.

### Corporate emblem replacement program

Saab Cars USA has initiated a program to replace any corporate emblem (hood and/or trunk) where the color layer has failed to adhere to the disc. 1985-88 900 models and 1986-88 9000 models may be observed to have this problem. Improvements to the manufacturing process for the emblems were later implemented that eliminated this occurrence.

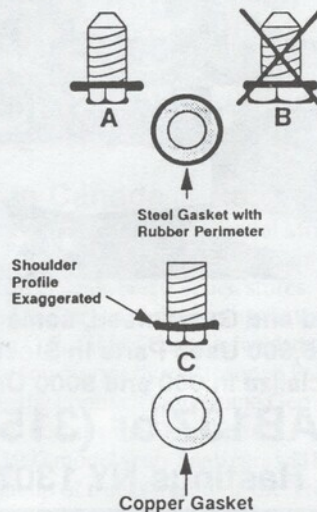
### 900 models only

#### Engine oil drain plug

During mid 1991 900 production, the engine oil drain plug in the manual gearbox was changed from 19mm (wrench size) to one with a 13mm head. This change was made to reduce the possibility of overtightening the larger head drain plug which can lead to cracks in the gearbox case.

The new 13mm headed drain plug (A) will physically resemble the 19mm drain plug (B) (except for the head size difference) and will use the same flat steel washer with the rubber bonded to its perimeter.

This new drain plug and washer combination are quite different from the old style (before the 19mm plug) 13mm plug (C) and washer.



The previous 13mm drain plug (C) had a slightly concave shoulder and was used with a copper washer that "deformed" to the shoulder when tightened.

Another distinguishing difference between the drain plugs (A vs. C) is that the new one has a tapered end whereas the previous plug was cut flat across the threads.

It is important to note that the drain plug gaskets must not be interchanged between the two different drain plugs due to the bolt shoulder difference and the gasket material.

**Torque spec: 21-29 ft lb (29-39 Nm)**

### WARNING

#### DO NOT OVERTIGHTEN DRAIN PLUG

Gearbox case damage solely related to improper drain plug tightening is not covered by warranty.

### Deletion of manual gearbox oil drain plug

As a running change during M91 manual gearbox production, the oil drain for the transmission has been deleted from the main case beginning with gearbox serial no. B27831-. The drain was removed since all manual transmissions are "filled for life" and do not require regular oil changes as part of the service recommendation. The elimination of the gearbox drain also removes a possible source of leakage and prevents owners or "Quick Lube" facilities from inadvertently mistaking the gearbox oil drain for the engine oil drain. If the gearbox needs to be drained prior to a repair, the oil may be removed by loosening the differential end cover. As always, the gasket will need to be replaced anytime the end cover is removed.

The magnet, previously located in the gearbox drain plug, has been moved to the end cover. It is attached to a stud on the cover behind the filter element. During transmission repairs the filter will need to be removed first so that the magnet can be cleaned of any wear particles. To clean the filter, wash it carefully in solvent and let it air dry. Do not blow it dry with a compressed air nozzle held close to the filter, otherwise the fabric mesh can tear and render the filter useless.

Replacement main cases for 1991- 900 5 speeds, P/N 87 28 875, will also have the

*Continued on page 17*

## Sinclair Announces Retirement

Robert J. Sinclair, 59, chairman and chief executive officer of Saab Cars USA, Inc., has announced his retirement after more than three decades as a high-profile, imported automotive executive. Well known for his dynamic nature and varied avocations, effective September 1, 1991, he will spend his retirement pursuing such interests full-time.

Sten Helling, 53, president and chief operating officer of Saab Cars USA will assume the added responsibilities of chief executive officer. Succeeding Sinclair as chairman of the board at Saab Cars USA will be Hans Halbach, who will continue in his position as executive vice president, sales and marketing, of Saab Automobile AB in Trollhattan, Sweden.

According to Sinclair, "It has never been my plan to work to the traditional retirement age of 65, as I have many and varied personal interests that business pressures have kept me from pursuing to the degree which I'd like." He continued, "I love fly fishing. A leading automotive journal recently summed it up when it

quoted me as saying, 'It takes ten minutes to tie a fly. I don't have ten minutes.'"

Sinclair first joined Saab in March, 1958, as one of Saab's first field representatives when the company was known as Saab Motors, Inc. He further served as public relations manager and advertising manager. In 1962, Sinclair accepted a position with Volvo. He went on to assume the role of president of Volvo's western U.S. distribution company, which was based in California. There he created a strong and effective network of dealers, dramatically increasing sales volume.

Sinclair rejoined Saab in 1979 as the importer's president, and helped change the automaker's image from that of a producer of economical small cars to the upscale, performance contender that it is today.

Under his guidance, Saab enjoyed 60 consecutive months of retail sales records during the 1980's, and also introduced the high-performance Saab 9000 series to the U.S. market. A source of great pride for Sinclair is the Saab 900 Convertible, which he conceived and proposed to management in Sweden, and which has gone on to achieve the popularity it enjoys today. It recently surpassed the 25,000-unit produc-

tion mark.

Sweden's King Carl Gustav XVI named Sinclair a Commander of the Polar Star in 1986, the highest honor presented to persons other than heads of state for economic, cultural, or academic contributions to Sweden.

In July, 1990, Sinclair was named chairman and chief executive officer of Saab Cars USA, Inc.

Sten Helling joined Saab in 1980 as national manager of sales and marketing, and was appointed vice president of sales and marketing and an officer of the corporation in October of the same year. Under his direction, Saab passenger-car sales grew from 14,500 units to 47,000 within a six-year period. He was appointed to the position of executive vice president, sales and marketing in 1987.

Sten Helling was named president and chief operating officer, Saab Cars USA, Inc. in July, 1990.

Immediately prior to joining Saab, Helling was national sales manager for Volvo of America, where he held a number of sales management positions since joining that company in 1965. He first began working at AB Volvo/Sweden in 1963.



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## SAAB NEWS

### Future for Saab looks brighter

Despite a first quarter 1991 that seems to show more red than a battlefield, the future for Saab Automobile AB looks very bright. Recent articles in *Automotive News* (May 6, 1991) and an interview with David J. Herman, president of Saab Automobile AB, in *AutoWeek* (May 27, 1991) explore what has happened in the first year of the joint venture between Saab-Scania and GM Europe, and what may be ahead for the company.

Employee productivity is up, absenteeism and turnover are down, plant utilization is up, inventories of new cars are down, the U.S. dollar is stronger and sales of new cars in the U.S. are improving.

Saab Automobile expects to build 80,000 to 90,000 new Saab cars this year. By the end of the '90s, the company hopes to build and sell about double that - 180,000 units.

Though Saab sales in the U.S. have improved, the figures are not so good in Europe and Japan. Sales of all new cars in the Scandinavian countries are down about 30 percent. Though the total new car market in Germany is way up due to reunification, it is the entry level models that are leaving the showrooms, not the luxury cars. In Japan, the overall import market has been slipping.

New models are not expected to be introduced until 1993, beginning with the 900 replacement. Based on the Opel Vectra/Vauxhall Cavalier platform, the lines of the new 900, known as Project 104, come from the pen of Bjorn Envall, head of Saab's design department. It will continue to use Saab's four cylinder engine, though whether in-line or transverse has not been made known.

In the *AutoWeek* interview, David Herman said of the future 900, "I have said I didn't think you could do it in less than two years because it wouldn't be a Saab. What I can tell you is that it's going to have an exclusively Saab drivetrain in it. Very important."

When asked about the utilization of an Opel platform, Herman replied, "If you talk about the underbody, which somehow limits this outer dimension, then you would be right. But the underbody itself does not define the car except in a dimensional sense. It doesn't tell you what the torsional stiffness of the chassis is, it doesn't tell you about the steering characteristics, it says nothing about the drivetrain, the appearance or the feel of the car."

Project 106, the 9000 replacement, is planned for late 1994 or 1995. It will likely be based on the next generation Opel Omega chassis, with a standard four cylinder and optional V6 engines. Though the basic platform and V6 engine would be developed in association with GM, the design and specs will continue to be strictly Saab.

A rear-drive big Saab, Project 108, should follow in about 1996. GM's North Star V8 is a likely powerplant, and the new model would compete with 5-series sedans from BMW and Mercedes-Benz 300s.

While Saab has benefited from its association with General Motors, GM Europe is receiving plenty in return from Saab. The Opel Calibra is now being built at the Saab-Valmet plant in Uusikaupunki, Finland. The transverse manual gearbox used in the 9000 will likely find its way into future Opel/Vauxhall models, as it is one of the few front-drive boxes that has been able to stand up to 200-plus horsepower.

When Saab introduces its new top-of-the-line model, Opel will retire its Senator model in order to position Saab as GM's upscale marque in Europe. The Senator was introduced in 1987 to compete with mid-range sedans from BMW and Mercedes, but has never been very competitive with the more established luxury models.

### GM restructuring dealer network in Canada

Passport is out, Geo is in. Due to a problem in brand awareness, General Motors of Canada will be dropping the "Passport International Automobiles" name on September 1, 1991. Seventy Passport dealers will become Saturn-Saab-Isuzu Truck stores. Chevrolet-Oldsmobile dealers will add Geo, which is tied to Chevrolet dealerships in the U. S.

Since many Canadians see advertising from the U.S., GM of Canada decided to align their product names with those sold south of the border. Formerly sold through Passport, the Daewoo Optima and Isuzu Impulse will become the Pontiac Tempest and Geo Storm, as in the U.S. The Chevy Sprint/Pontiac Firefly will become the Geo Metro.

Saturn will make its Canadian debut with the 1992 model year. Saab cars will be sold in the same showrooms as Saturn and the Isuzu lineup of trucks including the Trooper.

### Special financing extended

The special retail finance program for Saab 9000 models has been extended through July 31, 1991.

According to William S. Kelly, vice president, sales and marketing, "The special 1991 support programs utilized during the previous months have contributed to the 18.7 percent sales increase that we have enjoyed, year-to-date."

For the first five months of 1991, 12,328 new Saabs have been registered, compared to 10,390 vehicles for the same period last year.

Saab's Financial Services Corp. is offering the lowest retail finance rates in its history for the Saab 9000 series. Financing for all 1991 Saab 9000 models is available at 3.5% for 24, 36, or 48 months. The special finance rate requires a 25% down payment. Through Saab's special retail finance program, a '91 9000 hatchback (manual transmission) may be purchased with monthly payments of \$369 for 48 months.

The special retail finance program is subject to model availability. Further details are available directly from any of Saab's dealers, nationwide.

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## Thermo accumulator protects environment and promotes safety

*Breakthrough nearly eliminates cold starts*

Saab has launched tests on a thermo accumulator - a technical innovation which greatly improves the environmental properties of the gasoline engine when it is started from cold.

The thermo accumulator maintains the coolant at a temperature of no less than 78°C (172°F) for more than three days. So if the thermo accumulator is kept charged, the engine of a car need never be started from cold, which offers major environmental benefits.

The thermo accumulator also vastly improves the effectiveness of the heating and ventilation system, since good defroster action is available immediately after the car is started.

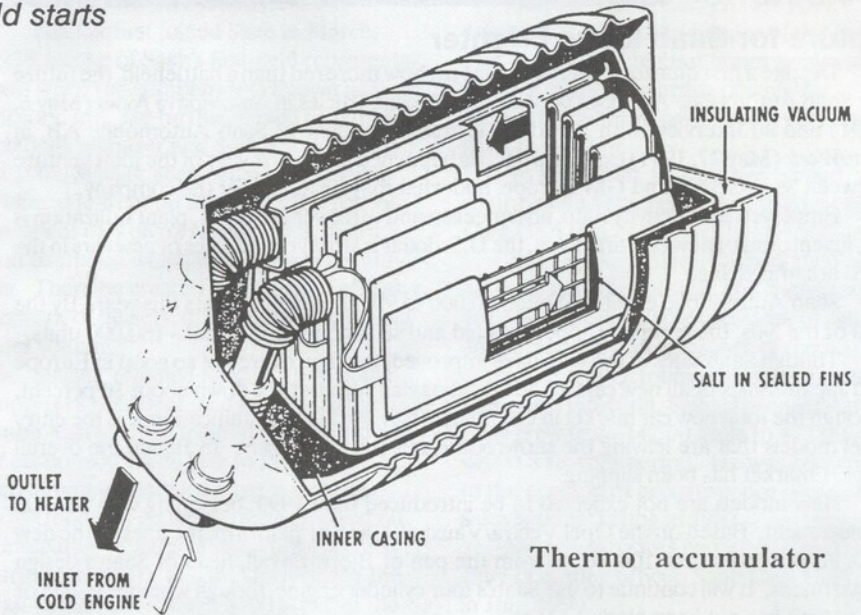
The thermo accumulator also opens the door to the use of alternative fuels.

The thermo accumulator re-uses the excess heat stored in it, and uses no additional fuel.

Modern three-way catalytic converters eliminate about 90 percent of the pollutants in the exhaust gases from petrol engines. Tests in all corners of the world also clearly demonstrate that catalytic converters are very reliable and durable.

The climate-related exhaust emission control system launched by Saab more than two years ago focused attention on the importance of a high engine temperature for minimizing the exhaust emissions. The three-way catalytic converter does not become fully effective until it is hot. So it is vitally important to reduce the engine warming-up period to the minimum possible.

By launching the climate-related exhaust emission control system on the 1989 models, Saab has come a long way towards solving the problem of emissions when the engine is started from cold. The main features of the Saab climate-related emission control system are redesigned combustion chambers, higher control capacity of the fuel injection system, an exhaust manifold that promotes fast heating, and early connection of the oxygen



sensor (the Lambda sensor).

Current tests on the thermo accumulator are aimed at reducing the exhaust emissions further.

### The thermo accumulator - a giant vacuum flask ...

The thermo accumulator - developed by the German company Schatz Thermo Engineering - consists of a container with an inorganic substance that changes from solid to liquid form at a temperature of +172°F. When in liquid form, the substance has the unique property of being able to store vast quantities of heat.

The container is surrounded by an insulated shell based on the vacuum flask principle - two shells with vacuum between them.

The insulation of the container is so good that, after having been fully charged, the thermo accumulator stays at 172°F for more than three days.

When the car is in normal use, the thermo accumulator is charged by the heat from the coolant. After starting from cold with the accumulator charged, the car needs only travel around 4 miles before the accumulator is recharged again. The accumulator has a heat capacity of up to 600 Wh.

When the engine is started from cold, the thermo accumulator delivers heat to the coolant - between 60 and 70 kW during the first few seconds: As a result, the engine warms up very quickly, and if the accumula-

tor is kept fully charged, the engine will never have to be started from cold in the traditional sense.

The elimination of starting cold is highly beneficial to the environment, to safety and to the motorist.

### ... which reduces exhaust emissions ...

The most important benefit of the thermo accumulator is that it minimizes the emissions when the engine is started from cold and during short journeys. This is particularly important in a country such as Sweden, where the average journey has been shown statistically to be 7 kilometers (4.4 miles) and the mean ambient temperature during the year is around +2°C (36°F).

Tests carried out at the Saab engine laboratory using the first "cold" part of the CVS cycle (*Constant Volume Sample*, the EPA's standard emission test) show that the emissions of hydrocarbon (HC) and carbon monoxide (CO) from a car fitted with the thermo accumulator are much lower, although the proportion of nitrogen oxides (NOx) in the exhaust gases is slightly higher (see graph on next page). But the nitrogen oxide emissions when starting from cold and during warm-up are still low.

The CVS cycle is used in the certification of engines to determine whether or not the engine meets the exhaust emission requirements. Since the "cold" part of the CVS cycle covers a distance of 5.6 kilometers (3.5 miles), it is very similar to typical

**CVS Cycle "Cold" Test (Grams/kilometre)**

	<u>HC</u>	<u>CO</u>	<u>NOx</u>
Without thermo accumulator	4.02	30	0.22
With thermo accumulator	3.5	21	0.23
<b>Change:</b>	<b>-12%</b>	<b>-55%</b>	<b>+5%</b>

Swedish motoring condition and habits.

**... and saves fuel**

When testing the thermo accumulator, Saab engineers found a valuable spin-off. The fuel consumption in the CVS cycle test run at 20°F went from 21.5 mpg to 23.3 - an improvement of 8 percent.

The reduction in fuel consumption is also beneficial to the environment, since it reduces the emissions of carbon dioxide which is widely regarded as contributing towards the greenhouse effect. The rate of carbon dioxide emission is directly proportional to the fuel consumption of the car. So the lower the fuel consumption, the lower the emissions of carbon dioxide.

Since the engine need very seldom be started from cold in the true sense, its wear is also reduced.

**Warm air "on tap"**

The thermo accumulator also provides safety benefits by reducing substantially the time needed for warming up the air in the car interior.

Tests at Saab have shown that, in a car equipped with thermo accumulator, the time needed for warming up the defroster air to 50°F is reduced from the usual 5 minutes to less than 1 minute. This test was run when the car was started from cold at an ambient temperature of -4°F, and after the car had been left standing outdoors for 3 days.

The thermo accumulator is beneficial to the interior climate even at moderately low temperatures. After starting from cold at an outdoor temperature of 50°F, the defroster air temperature is raised to 100°F after only a few seconds. The corresponding time on a car without thermo accumulator would have been almost 4 minutes.

The fast warming up of the air in the interior also improves comfort. The driver is more relaxed, and is better able to concentrate on his task of driving. Fast heating of the interior air also enables the driver to wear lightweight, comfortable clothing.

Since the thermo accumulator provides fast heating of the interior, the normal motorist need not equip his car with separate interior heater. Neither need he run the engine to warm it up while he is busy scraping the ice off the windows.

**Facilitates change-over to alternative fuels**

Alternative fuels, such as alcohols - ethanol and methanol - involve problems when the car is started from cold. The problem is solved today by starting the engine on petrol and then changing over to the alternative fuel after the engine has warmed up.

On a car with a fully-charged thermo accumulator, these problems are reduced, since the engine need not be started from cold in the usual sense. The thermo accumulator thus makes it easier to change over to alternative fuels, since it minimizes the technical problems in other parts of the fuel system.

Schatz Thermo Engineering - the company that designed the thermo accumulator and has carried off the fundamental research work associated with it - has acquired sufficient production capacity through its licensee Behr-Thomson to ensure regular deliveries of the thermo accumulator during 1992.

"Although it will take several years before any significant numbers of the thermo accumulator can be installed in production cars, our tests have demonstrated that this is yet another way of developing and refining the traditional Otto engine," says Stig-Goran Larsson, Technical Director at Saab Automobile.

The thermo accumulator may contribute handsomely to current efforts aimed at reducing the environmental impact of the internal combustion engine.

*from Saab Automobile AB  
Public Relations*

*Saab's version of the thermo accumulator was on display at the Stockholm Motor Show in April.*

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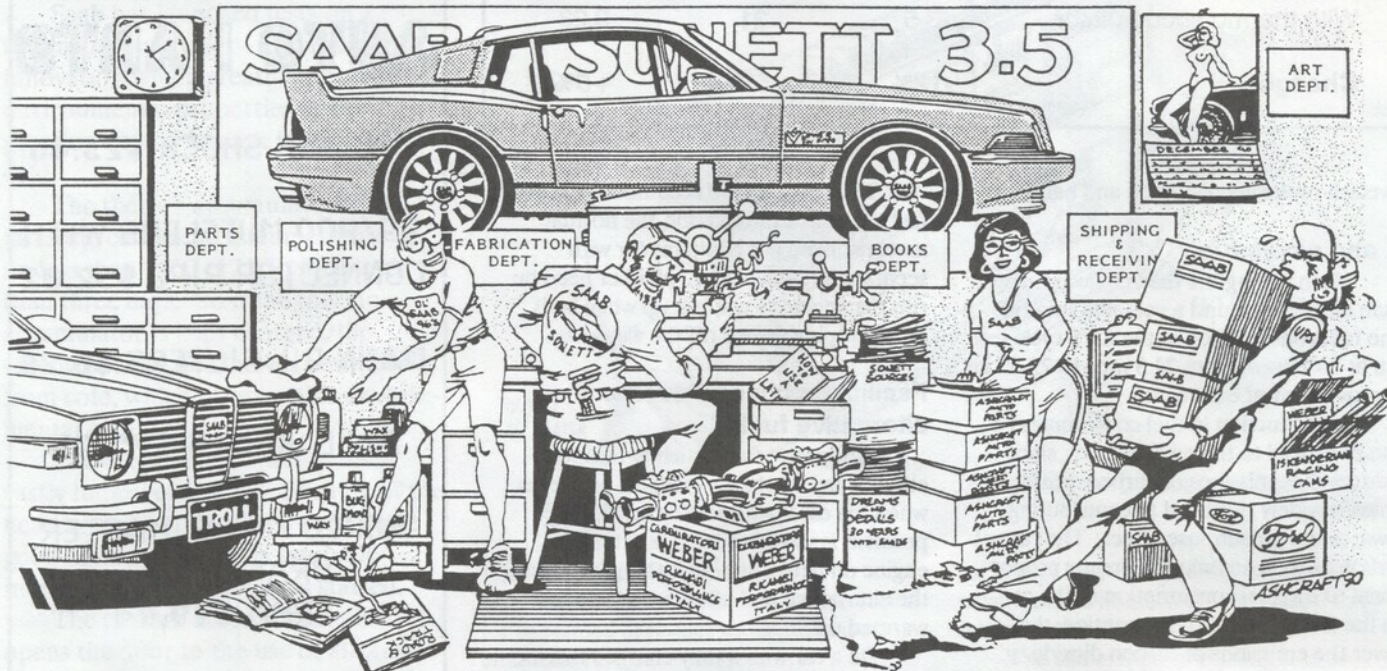
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# SHIFTIN' GEARS

By Jack Ashcraft



## FANATICS and FREE ADVICE

**SONETT FANATIC**-- Sō-nēt' Fe-nāt'ic. n. 1. One who wrenches on plastic Swedish cars. 2. Builder of autocross cars that embarrass Porsche owners. 3. Purveyor of NLS parts. 4. Nut who gets calls at 5AM from Saabophiles ignorant of time zones. 5. Author of books about plastic cars with Ford engines. 6. Supplier of advice to those with great Saab stories. 7. Questionable character whose Christmas cards have illustrations of cars, aeroplanes, sexy women, or all of the above. 8. Label given by Midwestern gearhead editor who keeps his 99 on blocks, waiting for higher gasoline taxes. Lat. Ashcrafticus Saabfixicus. Coloq. Saaab wrench.

### FREE ADVICE

Being a certifiable Saab nut gives me a certain status. It also makes me think there must be a lot of OTHER Saab nuts out there based on the interesting calls I get, some left on my answering machine. Some of these are left rather reluctantly by those who either don't trust, or openly loathe such devices, but see it as their last desperate hope for Saab help:

"Hul-hullo? Thisis Billy Bob Culpeppah. Ahmin Farksvll ana fella wansa sell me a three cycle Saab, y'know? An hesez you kin tell me th histry o them three cycles soas I kin fixit mahsef. Call me, heah? Foah six wahn foah foah eight tenny six fahv fahv after bout six."

Some are really brief, a sign that the caller is obviously pained at the cost of a long distance call added to the indignity of talking to a robot:

"John Henderson. Saw you in NINES. Six oh nine, eight eight six, fifty eight ten. I hate these machines. Son-of-a-b(click!)..."

Other calls are about parts orders:

"Jack! Kent Wilvershim in Moline. Sent my fifty-seven bucks Sunday--it's now Wednesday--no parts yet! Call me! Four one one six six two twenty twenty."

I DO actually call some people back. I usually do NOT call back on free advice calls. I already seem to be a majority stockholder in US Sprint from the looks of my telephone bill. Those I call are generally surprised to hear from me personally. Maybe thats like getting a call from J.C. Whitney himself ("Did you want tan or black fox tails, sir?") and personal response from the boss himself is totally unheard of in this day and age of CART SORT.

A couple of things I DON'T do:

I don't tell you how to do something unless I'm sure it will work.

I don't seek el cheapo ways of repair or restoration. Rather, I will tell you ways that will work reliably and satisfactorily. If you want to do it on the cheap that's your problem.

I don't try to sell you something you don't want or don't need.

I guess being a CERTIFIED SAAB NUT is really enjoying working on these little Swede cars, figuring out how to make changeover kits and actually improving the breed as I go about helping to keep them on the road.

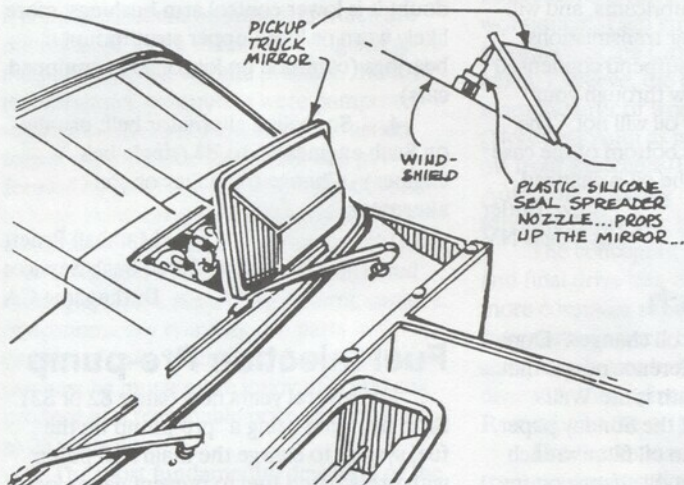
Another enjoyable thing is knowing more about the parts in the local parts man's catalog than HE does. This lets me give HIM a Saab Story for a change.

I also understand the FOLLY of attempting to maintain automotive purism on a budget. One caller told me he could NEVER buy a set of my rocker panels because they weren't made in Sweden and because they were HEAVY DUTY and not the original thickness. Well!.....whatever is fair. I prefer to keep the cars fairly close to, but better than, original,

by using parts and technology unavailable when they were built. A fanatical attitude, to be sure, but one that washes well from a practical--if not purist--standpoint.

And now that I'm a CERTIFIED SONETT FANATIC, things can only get worse, but will probably be even more fun. Skol!

## SMOKE 'n MIRRORS



Anyone who has ever attempted to change ANYTHING inside the instrument panel of a Sonett II or V4 has questioned the ancestry of the engineer who laid out the thing, and probably questioned the moral fiber of the entire engineering and design staff at Saab as well, and wondered if the whole effort wasn't one of smoke and mirrors and little else.

Well, in this instance a MIRROR may help to prevent SMOKE--both that from inside the panel and that which clouds your garage in a blue cloud. I use a discarded pickup mirror with a foam strip glued to it's front edges (if it slips and falls it doesn't bash the windshield). A plastic spreader nozzle that is packed with silicone sealer is just right to prop the mirror up.

Then I can sit in the driver's seat, look in the mirror and do anything that needs to be done down inside the instrument panel. All I have to do is think backwards (it's in the mirror, remember?) and that begins to work pretty quickly. This is one method that takes the frustration out of a Sonett dash job ("Dash"--my father steadfastly refused to call it an instrument panel. It was a "dash", by damn, and that was that).

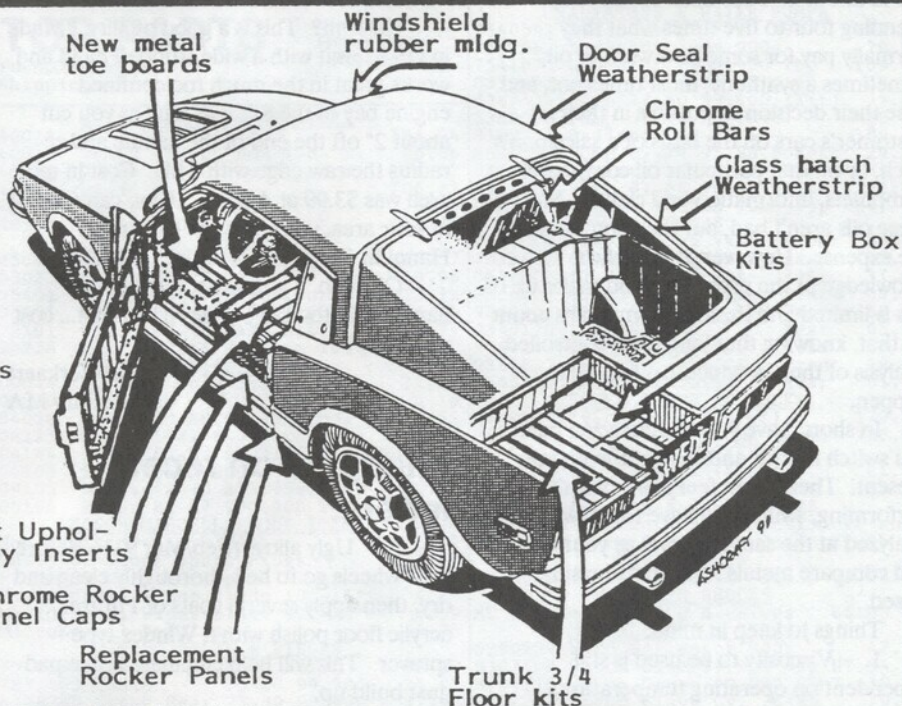
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# TECHNICAL TALK



Technical articles written by subscribers may recommend procedures or parts not approved by Saab-Scania of America, Inc. The SAAB Club and NINES cannot stand behind the correctness of information in these articles, but offers them based solely on the experiences of the writers.

## Lube analysis

All the letters recently printed in the newsletter regarding transmission oils are just idle talk unless the various claims can be substantiated via some type of analysis. Claims that one oil is quieter, smoother, facilitates better shifting tells you little. The true test of an oil's performance is the amount of wear it prevents. This is easily detected by measuring the amount of metal showing up in the used oil. Is the oil quieter because it is tackier, or thicker? Does it facilitate easier shifts, because it's thinner or slicker? Is this better?

Again, gear oils and the metals that go into transmissions are much more complex and require more analysis that "It sounds quieter", or "it seems smoother", when comparing the performance of one or more oils to another. I see Saab repair shops spending four to five times what they normally pay for some new wonder oil, sometimes a synthetic, most times not, and base their decision to put this in their customer's cars on the basis of a salesman's pitch, or on that particular oil company's pamphlets, information and claims. Most of these oils aren't bad, but they don't warrant the expense. However, the public's knowledge of the properties and make up of oils is limited and these oil companies count on that, knowing that long term controlled analysis of their products isn't going to happen.

In short, have your oil analyzed before you switch brands and look at the metals present. Then if you feel your oil isn't performing, switch and have the new oil analyzed at the same interval as your old oil and compare metals. You may be surprised.

Things to keep in mind:

1. Viscosity to be used is still dependent on operating temperatures encountered.
2. Chlorinated Sulphur, found in most gear oils, is corrosive to brass and copper in transmissions, causing wear.
3. Motor oil in a transmission doesn't

have extreme pressure lubricants, and will cause wear in hypoid gear transmissions.

4. Motor oil will suspend condensed water and cause it to flow through your bearings and gears, gear oil will not. The water will remain on the bottom of the case to be drained off when the oil is changed.

Steve Butler  
Las Vegas NV

## Oil filter wrench

I like to do my own oil changes. Done 'em all my life. Only difference now is that the newspaper underneath is the Wall Street Journal instead of the Sunday paper.

I've never needed an oil filter wrench until I tried to do my first oil change on my 1990 900 SPG. I am now the proud owner of a Plews-Parker Professional Filter Wrench, model 70-889/Custom.

Custom? This is a good quality, "Made in USA" unit with a wide studded band and works great in the much too confined engine bay of the SPG, as long as you cut about 2" off the end of the handle and re-radius the raw edge with a file. Cost in my area was \$3.99 at ADAP. If you can't find it in your area, you can write to Parker Hannifin Corp., Eden Prairie, MN 55344.

Oh yeah, if you write, tell 'em the handle is 2" too long. They'll like that... cost reduction!

Wes Verkaart  
Duxbury MA

## Thoughts on recent letters:

1. Ugly alloys (Feb/Mar 91) - Before your wheels go to hell, thoroughly clean and dry, then apply several coats of Future acrylic floor polish with a Windex-type sprayer. This will help eliminate brake pad dust build up.
2. Every three to four years have the radiator boiled and rodded out. Helps eliminate hot spots between number 2 and 3 cylinders.
3. 9000 front suspension rattles - I

doubt it is lower control arm bushings, more likely worn or loose upper strut mount bearings (common on lots of strut equipped cars).

4. Squealing alternator belt, usually on Saab engines up to '83 (single belt engines) - Change the pulley on the alternator.

Marshall Pruett  
Park Road Saab Services  
Burlingame CA

## Fuel Injection Pre-pump

For several years now (since 82 or 83) Saab has been using a "pre-pump" in the fuel system to charge the main fuel pump with pressurized fuel to prevent vapor lock. If this pre-pump goes bad, you may experience vapor lock, stumbling, "flat spots", etc., especially during hot weather when the fuel level in the tank is low (below half full).

The cost of a new pre-pump from Saab is \$82 (Sept 90). However, the pump appears to be made by AC (at least the one removed from my '86 Turbo was), and it can be obtained from an AC parts dealer for "only" about \$50 (not bad, I guess, for what looks like a \$15 pump). The AC part number is EP106. You will have to re-use the original inlet screen. Installation is fairly simple if you have a service manual showing how to do it, but very dangerous due to potential fuel vapors. Wait for a cool time of day and for the fuel to cool to air temperature.

If you start experiencing some of the above problems and you suspect the pre-pump is the problem but you can't get it changed right away, keep the fuel tank level above half. This should keep the inlet of the main pump submerged in fuel and help prevent vapor lock problems. It also should help assure that the main fuel pump won't be damaged due to being starved for fuel, which is a necessary lubricant for the fuel pump.

Steve Parsons  
Washington IL

# Tranny talk

## On the 99/900 4/5 speed

In most respects, the internal design of the transmission (final drive excluded) is classic conventional rear-drive. Credit for this goes to the north-south engine arrangement and the antiquity of the design of the 99/900. The former is also connected with the latter.

While Saab can and does defy tradition, it is still dependent on suppliers which are not about to make massive tooling investments for a small volume product. Back in the dark ages, computers were pampered residents of ivory towers, and production meant mass production, which was performed by great massive machines devoted to huge numbers of a single product. Today the computer is everywhere, and production means flexible, microprocessor controlled robot-populated machining centers, capable of economically cranking out parts in batches of one. Therefore, a small producer can now be much more innovative and still produce at a reasonable price as compared to 25 years ago.

The most fundamental deviation of the 99/9000 transmission from conventional rear-drive practice is its location, in the

sump of the engine. A secondary deviation is the integration of the transmission and final drive. The former was also done by BMC in the Mini/MG 1100/Austin America drivetrain, which unfortunately used a common oil supply for the engine and transmission. If you think Saab transmission can be troublesome, "you ain't seen nothing." Given the slightest bit of neglect, the BMC system would go belly up. The Peugeot front-drive system of the same era was similar. I am embarrassed to confess ignorance of the Citroen system, Citroen being, I believe, the oldest continuous manufacturer of front-drive automobiles. (Note that Audi as we now know it was spun off from Mercedes-Benz to VW, the old Auto Union having ceased to exist as a separate entity due to World War II.)

The concept of combining transmission and final drive into a single unit is relatively more common, especially as a result of the many rear-engined European post-war cheapies. It also has been used by such diverse front-engined cars as Porsche, Alfa Romeo, and the original Pontiac Tempest.

The fundamental design feature of the transmission has dictated many of the design details. The location of "fifth gear"

(in quotes because fifth is a direct drive) outside the gear case proper is dictated by packaging constraints. Similarly, the dreaded final drive pinion bearing housing is constrained by packaging considerations. In its original incarnation (as from the Swedish engine onward [late 1972]) it was considered to be of robust proportions [referred to as "the Kong box"]. The change to aluminum from cast iron for this part lowered the fatigue strength, while the onset of turbocharger and 4-valve heads have increased the loading.

From an owner's point of view, the most outstanding feature of the 900 drive train is the way the clutch practically leaps to the garage floor at the first touch of a wrench. Jimmy at Quest Motors claims he can change a clutch on a 900 in an hour; even quicker if he opens his eyes.

## On the 9000 transmission

In overall layout, the 9000 conforms to what has become conventional automotive practice for modern designs. The only sedans in the U.S. market which deviate from the front-drive layout are the fossilized, and the Ultimate driving status symbols. The weight and packaging

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AL36X	5/78-80 99 Non Turbo	147.35	40020	76-80 99,900 Non Tbo	85.86
AL69X	85-86 900T,86 9000 Turbo	204.95	40032	76-80 99,900 Calif cars	106.22
AL95X	67-74 95,96,Sonett	68.15	40051	78-80 All Tbos.	106.22
AL96X	74-4/78 99	102.25	40084	81-83 900 & Tbos.	179.95
AL112X	79-80 900 Non Turbo	103.35	40136	84-86 900 & Tbos.	110.82
AL128X	84-85 900 Non Turbo	186.95	<b>BOSCH FILTERS</b>		
<b>BOSCH FUEL PUMPS</b>					
GFP202	82-86 900,82-84 Turbo	225.06	05005	Fuel 75-77 99	14.57
GFP213	75-81 99,900, & Turbo	169.95	05021	Fuel 78-79 99,900 & Tbos	10.96
GFP270	69-74 99E,99 EMS	135.86	05401	Fuel 80-4/85 900,Turbo	15.12
GFP288	1985 900 Turbo 16V	143.88	05601	Fuel 5/85-86 900,16V,&Tbo	16.58
GFP294	86 900 16v,9000 Turbo	167.04	72101	Oil 67-88 Saab All	3.71
<b>BOSCH STARTERS (EXCHANGED)</b>					
SR32X	85-87 900,9000 & Turbos	214.45	73228	Air 75-86 2.0 exc 16V	5.50
SR77X	70-74 99	86.30	<b>BOSCH IGNITION PARTS</b>		
SR78X	75-84 99,900 & Turbos	93.45	00044	12 Volt Universal	14.23
SR79X	69-73 95,96&71-74Sonett	83.55	03010	Dist Cap - Most Saabs	5.18
SR80X	67-68 95,96&68-70Sonett	87.95	04038	Rotor 78-80 99,900 Tbo.	4.55
<b>IGNITION CONTROL UNITS</b>					
00014	99,900 78-81	232.13	04125	Rotor 1981 900,Turbo	6.27
00139	900 82-84	109.01	04144	Rotor 82-85 900T;82-87 900	9.52
<b>BOSCH LAMBDA SENSORS</b>					
01051	77-86 1 Wire	38.95	04168	Rotor 1985 900	7.80
03006	86 900 16V	112.46	09105	Wires 72-80 All 99s,900s	12.95
03009	84-4/85 900 Turbo 16V	134.33	09106	Wires 81-87 900,900 Turbos	12.95
03028	5/85-on All Turbo 16V	144.07	<b>BOSCH MISCELLANEOUS ITEMS</b>		
<b>BOSCH IDLE SPEED REGULATORS</b>					
40502	85-86 16V	134.94	Non Resistor Spark Plugs 1.32		
<b>BOSCH FUEL INJECTORS</b>					
50045	71-74 99 All 1.7,2.0	35.62	Resistor Super Spark Plugs 1.50		
02004	75-80 99,900 Exc 78 99T	20.81	Platinum Resistor Spark Plugs 2.48		
02012	81-86 900 All 8 Valve	22.50	MicroEdgell Wiper Blade 10"-16" 4.84		
<b>BOSCH COLD START VALVES</b>					
70401	75-80 All	35.94	MicroEdgell Wiper Blade 17"-20" 6.19		
70406	81-86 All 8 Valve	42.69	MicroEdgell Refills 4.78		
<b>CONSTANT VELOCITY JOINTS</b>					
8921728	75-80 99,900 Outer Jnt	137.95	<b>TIMING BELTS &amp; PIECES</b>		
8942633	81-85 900 Outer Joint	137.95	7500697	Chain 85on 16Vs	28.69
8945735	69-84 All Inner Tripod	49.95	7871403	Chain 73-80 99,900	29.75
<b>COUNTERSHAFT</b>					
8358509	73-80 99:79-80 900 2.0	225.00	8346785	Crank Gear 73-80 99,900	37.95
<b>RADIATORS &amp; WATER PUMPS</b>					
7540503	Radiator 1977-80 99s	175.00	8346793	Idler Gear 73-80 99,900	34.95
7541063	Radiator 79on 900s	179.95	8346801	Cam Gear 73-80 99,900	41.25
7541071	Radiator 79on 900 Tbo	169.95	8347874	Tensioner 73-80 99,900	26.65
8358491	Pump 75-76 99 12 Cog	69.95	8817405	Tensioner 81-88 900 8V	19.98
8367674	Pump 77-80 99,900 (Kit)	79.95	9359779	Chain 81-88 900 8V	19.98
8389058	Pump 69-76 99 (Kit)	32.95	<b>COUNTERSHAFT</b>		
8389751	Radiator 69-76 99s	189.95	8358509 73-80 99:79-80 900 2.0 225.00		
8814591	Pump 67-74 95,96,Sonett	29.95	<b>MUFFLERS</b>		
8817819	Radiator 78-80 99 Tbo	189.95	7282007	67-73 95,96 V4s Front	39.95
8817900	Pump 81-88 900 8 Valves	36.95	7533631	69-88 All 8V NonT Rear	39.90
9382649	Radiator 86on 9000 5sp	297.00	8838005	67-73 95,96 V4s Rear	31.39
<b>POWER STEERING RACKS</b>					
26 980	79on 900s (Short)	179.95	9326463	81-83 900 Turbos Rear	63.35
26 1980	79on 900s (Long Rack)	229.95	9349143	86on 900 NonT 16V Center	69.50
<b>REPCO METALMASTER PADS</b>					
111M	76on 99,900s (Rear)	21.95	9349176	1986 900 Rear	65.95
226M	99,900 Front Brake Pads	21.95	9349192	84on 900 Turbos Rear	82.89
<b>KYB GAS-A-JUST SHOCKS</b>					
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<b>KONI SHOCKS</b>					
Adjustable Shock (most Saabs) 58.95 ea					
<b>BILSTEIN SHOCKS</b>					
HD Setting for 900 8 valves 66.85 ea					
<b>MISCELLANEOUS ITEMS</b>					
0260257	Wind Deflector 900s	47.50	8307498	Clutch Disc 99,900 4sp NT	34.95
8704116	Clutch Cover 99,900 NonT	39.95	8722209	Clutch Slave Cyl 76-85	79.95
8904575	Brake Disc 69-74 99 F&R	36.95	8939589	Front Caliper 75-85 All	199.80
8941981	Frt Brake Rotor 81on 900	36.95	8944977	Clutch Master Cyl 79-85	66.15
8948127	Master Cyl 75-85 All	138.25	8985384	Ball Joints 99,900	22.95
9746322	900 Heater Control Valve	80.95			

advantages of transverse front drive are present on every North American made sedan except the Subaru Legacy, which deviates because of its four-wheel drive legacy, and the Luxo-Dinosaurs, whose market consists of police departments and octogenarians. Neither group is known for the mental faculties of its members. Of course, the conventional front engine/rear drive is much more common in coupes, where the design motivation is to provide the largest possible hood and the smallest possible rear seat and trunk, while at the same time outweighing any sedan of comparable wheelbase and power rating. Why is this called "sport"?

In detail design, the 9000 transmission splits the application of synchro rings between the primary and secondary shafts according to the gear ratio. Such practice is motivated by providing the largest possible synchronizers within a given envelope, and this is done by attaching the synchronizer to the larger gear of the pair. This also provides generous clearance for the shifting forks shafts.

In the old fashioned layout, the larger gear of the pair is always on the secondary shaft because the final drive ratio is kept as

low as practical. This is because the pinion has a minimum practical number of teeth for efficient meshing, and the ring gear should be kept physically small for weight, packaging, and cost reasons. Thus, all gear ratios in the transmission should be greater than one, with the "top" gear being direct drive for maximum highway efficiency. In the transverse system, the total number of gear teeth in the final drive is fixed by the power (which sets the tooth size) and the required separation between the transmission secondary and the drive shafts. You can't design it so that the drive shaft goes through the transmission. The final drive ratio can therefore be much lower without compromising weight or packaging. In fact, the long departed and unlamented Simca even had an idler gear in the final drive, despite what must have been a 6:1 final drive.

Ah, but what of all the "overdrive fifth gear" systems you see? "Overdrive" is more conveniently engineered into an automatic transmission than another, shorter gear ratio. The "overdrive" fifth gear can use the same final drive ratio as the automatic version, simplifying manufacturing and parts distribution.

Splitting the synchronization between primary and secondary shafts does add cost to the system, because the primary shaft can no longer be made from a single solid blank, with all sliding gears and splines on the secondary shaft. As a result, this design feature is more commonly used on more expensive cars. Of course, the cheaper ones usually are of limited power, making the gear train lighter and giving the synchronizing rings an easier job.

One detail which seems to be unique in the 9000 transmission is the overhung fifth gear. The overhung gear allows the primary and secondary shafts to be relatively stiffer, because there is a shorter distance between the bearings. Elementary beam theory puts the deflection of a beam to be proportional to the length between supports taken to the second power, which is a powerful motivation to shorten the distance between supports as much as possible. The bulbous housing for this overhung gear combined with the bearing support web provides a very stiff end to the gearbox, reducing noise and vibration transmission to the body while keeping the weight down.

Press drivers have assigned a "rubbery" feel to the 9000 shifter. I find the feel to be wonderfully precise and light; the only time it feels rubbery is when one drives in a ham-fisted manner. If the shifter is slammed without regard for the machine's operation, the rubber isolators in the shift rod deflect mightily, but this only occurs when one is abusing the machine. As always, Saabs are not designed to appeal to the feeble minded, nor are they designed for those who must wear gloves lest their knuckles get skinned on the pavement as they walk. If happy motoring to you means slamming the shift lever from gear to gear with all the finesse of George Foreman, this car won't make you happy. If you delight in a shift feel which can almost be described as dainty, and holding the shift knob as you would hold a parakeet, then the 9000 will make you smile all through the gears.

Steve Goldberger  
North Canton OH

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## Consumer Information

continued from page 7

oil drain plug deleted when current inventories are exhausted.

### Exhaust system heat shields

When a car is in for a normal service, don't forget an inspection of the exhaust heat shields while performing the routine underbody check of the exhaust system. The integrity of the heat shields, especially in the area above the catalytic convertor, should be scrutinized.

Some cars may have shields that are rusted through, particularly in areas that use a heavy salt concentration on the roads during winter months or if the catalytic convertor has overheated due to a misfire condition. If the heat shield is not intact, the wiring harness located above the exhaust tunnel may overheat. This in turn could lead to a short circuit. The customer may complain of excessive floor temperatures.

### Convertible top closing improvement

To improve the closing action of the convertible top, two rubber bushings for the top stack were introduced into production at VIN L7006824. The bushings cushion the closing action and prevent the top from contacting the windshield frame as the top is raised. These bushings can be installed on earlier models also.

### 9000 models only

#### Retrofitting water cooled turbo

Should circumstances dictate that a water cooled turbocharger will better suit the needs and driving patterns of a 1986 9000 Turbo owner, a kit exists that permits a relatively easy retrofit. Turbo mounting kit, P/N 88 18 973, contains all the hardware and the installation instructions needed to fit a water cooled turbocharger in an M86.

### Deletion of undercoat oil

The surface protection of certain suspension bolts has been improved with a special corrosion protection called Dacromat. The Dacromat coating can be identified by its flat grey color. Additionally, the surface finish of the entire underbody and subframe assemblies has also been improved. Because of this new protection, the black protective undercoat oil previously sprayed over the suspension bolts is no longer being applied. This running change

took place from the following VIN's: M1012437-, M2008239-.

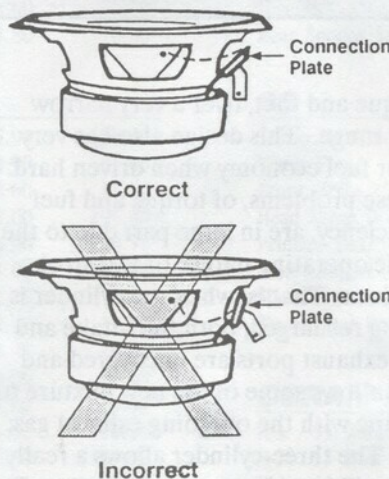
On 9000 models produced after these VIN's, it is not necessary to add any additional underbody protection to the suspension.

900 models are not affected by this running change. Black undercoat oil will continue to be applied to the suspension joints and brake lines.

### Front speaker "buzz"

When investigating customer complaints of a "buzz" noise from the front speakers on 9000 models, a blown speaker may not always be the cause. Recent checks on woofers that have been returned under warranty have shown that the speaker itself is functioning properly, but the braided wire that attaches between the speaker cone and the speaker wire connection plate is vibrating against the cone.

The vibration (buzz) can occur if the speaker wire connection plate is not positioned correctly. As shown in the drawing below, the correct position for the

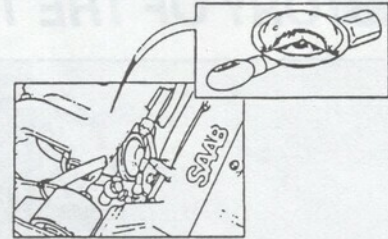


connection plate is with the connectors pointing straight down. If the connection plate is positioned back into the speaker cone frame, the braided wire will/can make contact with the cone and create the "buzzing" noise when the cone deflects.

Make sure that the plate is positioned correctly and that the braided wire does not contact the cone. Conversely, the wire should not be taut as that will restrict the movement of the cone.

### Buzzing/knocking noise

On 9000 models equipped with the B234 engine, a buzzing/knocking/ticking/



popping noise that can be hard to describe, let alone determine where it is coming from, can sometimes be attributed to the fuel line pulse dampener. This fuel line shock absorber dampens the pressure waves created when the fuel injectors are rapidly opening and closing.

A malfunctioning fuel pulse dampener can create the types of sound described above but is often difficult to pinpoint because the noise is transmitted into the interior of the car and cannot be heard under the hood.

The dampener is mounted on the inlet end of the fuel injector rail (see diagram) and is simply a diaphragm that absorbs the shock waves set up in the fuel rail by the cycling of the injectors.

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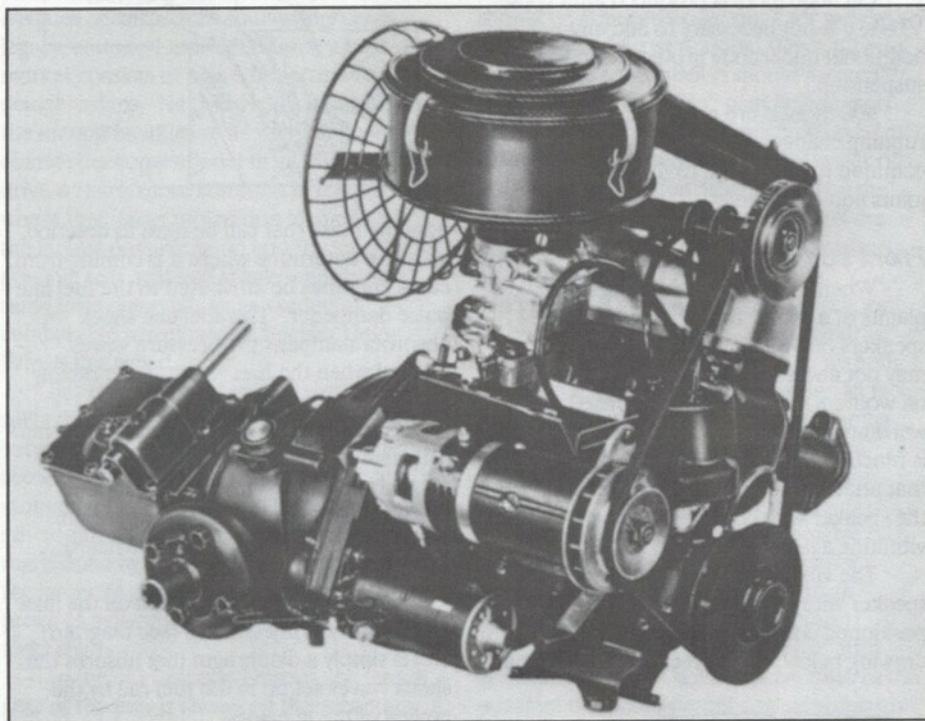
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## HISTORY OF THE THREE CYLINDER TWO STROKE



### That Wonderful Engine

Copyright 1991 by Simon DuStroke

Surprisingly, a two stroke engine for the 93 was not a sure bet. High level talks were held with other manufacturers about co-designing and co-producing a suitable engine. When this proved unworkable, Saab's manufacturing experience with two strokes, the engine's small size and high specific output must have won the day. Occasionally it is said that the Saab engine was a copy of an admittedly similar DKW unit. The connection is through a consultant, who had worked at DKW, that Saab hired to help develop this new engine.

The most commonly asked question about the Saab three-cylinder engine is, why three cylinders? A full answer is both too long and too technical but let's have a go at a simple, albeit not exactly correct, explanation.

For various engineering reasons, two-cylinder two stroke engines, like that of the 92, produce very little

torque and that, over a very narrow rev. range. This design also has very poor fuel economy when driven hard. These problems, of torque and fuel deficiency, are in large part due to the basic operating nature of two stroke engines. That is, when the cylinder is being recharged, both the intake and the exhaust ports are uncovered and this allows some of the new mixture to escape with the outgoing exhaust gas.

The three-cylinder allows a really nifty engineering concept called 'pulse charging' to work conveniently. Conveniently is the key thought as this concept is not limited to three-cylinder engines. With the help of some fancy math and a suitable manifold, this is how 'pulse charging' works. The exhaust pulse pressure wave from another cylinder arrives to effectively 'seal' the exhaust port of a charging cylinder and thus keeps the incoming fresh charge from escaping. This greatly increases the engine's efficiency and also 'tunes' the engine for more torque over a much broader rev. range.

For those of you who wish a full explanation, try Chatterton's book, pages 24-25.

It might seem strange that the new three-cylinder engine actually had a smaller displacement than the two cylinder engine it was replacing (748 vs 764). This new engine size made the competition-minded very happy because it put Saab in the 750cc International racing class.

There was more good news: the power output went up five horsepower to 38bhp (SAE), with an even bigger increase in torque from 41 to 52 ft. lb. Things were poppin'!

The 92 had been cooled by what is technically called *thermosiphon*. As the coolant is heated by the engine it rises up to the radiator, is cooled and falls back down to the bottom of the engine to be heated again. This is how Henry cooled the Model T, but the 93 needed something more sophisticated. The answer was a modern cooling system with only a couple of strange twists. One was that the water pump was made in a unit with the generator. Why? Sorry, no idea. The new front design allowed more air through the engine compartment so the radiator blind was moved to behind the front grill. To allow the warm air to escape, circular holes were added on the wheel arches. To the very end of this body series in 1980, these vents (made unnecessary and thus filled in during the 1965 changes) could be seen as a reminder of the 93 heritage. In the 92, the rad provided the heat for the cabin but the cooling system modernization provided the fresh air system with its own separate heat exchanger. Oh such progress!

This engine was soon hopped up and the first of the special Saabs was on its way.

Next Time: Buck Rogers & the 95

*Simon Du Stroke*



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Cross Spoke Wheels (set) 86 -	2316.00	1850.00
Silver Spoke Wheels 86 -	170.00	135.00
Tuning Kit 90 195HP	675.00	550.00
Tuning Kit 90 177HP	595.00	470.00
Tuning Kit 86-89 170HP	312.50	195.00
Sport Exhaust CD 89 -	364.00	310.00
Sport Exhaust 5dr 89 -	311.00	260.00
Sport Exhaust 5dr 86-88	327.00	275.00
Rear Spoiler CD 89 -	375.00	300.00
Rear Spoiler 5dr 87 -	304.50	240.00
Rear Louver 5dr 86 -	295.00	235.00
Headlites 5dr 86-89	152.50	110.00
Car Covers	170.00	135.00
Floor Mats	115.50	90.00
Wood Dash Inlay	995.00	875.00
Euro Headlite Kit 86-89	425.80	340.00
Cargo Mat 9000 4dr 89 -	92.00	70.00
Cargo Mat 9000 5dr 86 -	94.80	70.00

## 900

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SPG Wheels 88 -	263.50	200.00
SPG Wheels 81-87	253.00	195.00
Ronal R15 Wheels 88 -	250.00	200.00
Silver Spoke Wheels 88 -	170.00	135.00
Tuning Kit 90 - 185HP	800.00	650.00
Tuning Kit 86-89 170HP	312.50	210.00
Sport Exhaust 87 -	376.00	275.00
Chassis Kit 79 -	936.50	725.00
Rear Louver 3dr	295.00	225.00
Floor Mats	103.00	80.00
Cassette Holder	34.00	25.00
Sunroof Wind Deflector	83.20	65.00
Euro Headlite Kit 87 -	430.10	345.00
Euro Headlite Kit - 86	477.60	375.00
Cargo Mat 3dr 81 -	69.20	55.00
Hood Protection Strip	42.00	32.00
Water Pump 81 -	76.60	60.00
Air Outlet Covers	42.00	33.00
Headlites 87 -90	150.00	110.00
Rear Spoiler 3dr 79 -	197.00	145.00

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Rear Transmission Mount	32.90	25.00
Mudflaps 95/96	14.60	11.50
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Handbrake Cable 95/96	22.25	17.50
Door Seal 95/96	42.40	32.50
Front Park Lens 69 -	30.40	24.00
Rear Lens 96	38.00	29.00
5 Blade Fan - V4	45.80	35.00
95-96 Windshield 68 -	151.50	120.00
95-96 Front Fender - 68	144.50	115.00
95-96 Front Fender 69-71	184.50	145.00
95-96 Front Fender 72 -	175.00	135.00
95-96 Front Muffler - V4	49.40	37.50
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## 99

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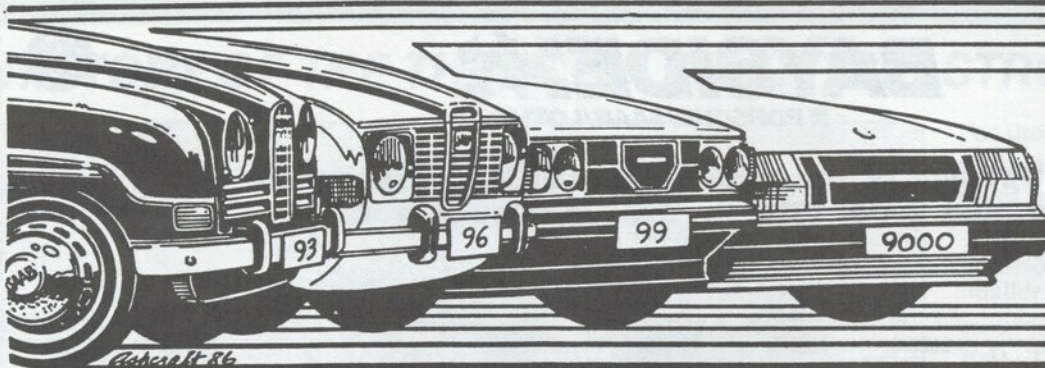
Blaupunkt "Monterey"	365.00	110.00
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**COMMERCIAL DISPLAY ADS:** Contact the editor for rates and info. Deadline, the 10th of each month for the following month's issue.

### Sonett For Sale

'74 Sonett III, #2238, Yellow, 80k mi. All original, driven weekly, A/C.  
Mike Vest, 139 Escondido,  
Altamonte Spgs FL 32701. 407/834-0923

'73 Sonett III, Blue, 45k mi, needs tires, some chassis & interior work. Car in Calif. \$2,000?  
Fred Cappeller, Chicago IL. 312/489-1790.

'73 Sonett III, ground up restoration, many new parts, rebuilt trans, recent valve job, new tires, old style bumpers. Baja Red, 84k mi, no rust, stored winters. Spare eng & trans. \$3,100 obo. Art Tillman, Elkhorn WI. 414/742-3179.

'69 Sonett V4, for restoration or parts, very good body, original paint, good rear window, complete, badly rusted pan, \$1,500.  
Rob Allen, 114 Kimberly Rd,  
Hamden CT 06518. 203/248-8798.

### 93s, 95s, & 96s For Sale

'72 96, Tan, rust free, garaged Ariz. car. Sonett III wheels, European Saab trim: large bumpers, rear louvers, Halda Speedpilot & extras. \$2,950. Contact Bud Clark or Ted at J&B Imports, 213/282-7378, or Steve Butler, 702/255-8271.

'67 96 two-stroke, needs body work. On blocks for too long. Lots of spare stuff including engine. Tires new when blocked, trans recently rebuilt, engine good. \$700 obo. Manny Schweitzer, 87 Nassau Rd, Great Neck NY 11021. 212/689-0630 W, 516/487-0718 H.

'66 96 Monte Carlo 850, 46k mi, mint interior, minor rust on body, needs engine rebuilt & paint. Call for photo & price.  
Dennis Sweeney, RD #1 Box 410,  
Ligonier PA 15658. 412/238-0900.

'63 96 bullnose, 850cc, excellent body, ready for paint, with complete running parts car & many spares. Call for photo & price.  
Dennis Sweeney, RD #1 Box 410,  
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### 2-Stroke & V4 Parts

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From '69 Sonett V4: windshield, dash & instruments, wiring harness, doors, seats, engine, gas tank. Make offer.  
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'72 95, w/rebuilt 1700cc V4, rebuilt brakes & MC, one new caliper, 10k mi on eng & brks. Rusty. Drive it away, \$700, engine only, \$500.  
Nat Koren, PO Box 1431,  
Montpelier VT 05601. 802/456-1705.\*

Two '73 Sonett parts cars. Both complete, nose damage on both, one green, one orange, one has A/C. \$500 each or both for \$900. James Gadberry, 2103 Sardis Rd, Nancy KY 42544. 606/636-6275.

### 99s & 900s For Sale

'88 900 4dr, 5spd, Rose Quartz w/Bokhara Red, 66k fwy mi, new Michelins, perfect. \$7,700. Wayne E. Hough, 1005 8th St, Mukilteo WA 98275. 206/347-6925.

'87 900 SPG, 63k mi, mechanically perfect, paint excellent, minor body dings, interior very good. \$11,500. Bill Atherholt, RD 1 Box 190, Sweetwater NJ 08037. 609/567-4712.

'85 900 SPG, 86k mi, original owner, immaculate condition. Always serviced by Saab dealer, never driven in winter. Purchase of new SPG reluctantly forces sale. \$9,000 obo. Jim Lester, 650 36th Ave NW, Rochester MN 55901. 507/287-6938.

'85 900 SPG, 70k mi, Black w/Tan Leather, bra, Yokohamas, clean. Asking \$6,000.  
Dan Wax, 630 Hillside Dr,  
Cedar Hill TX 75104. 214/291-3658 H,  
214/875-7049 W.

**'83 900 Turbo**, 3dr, 5spd, Black, 128k mi. Driven daily. Sunroof, PW, PS, PB, AC, PDL, VDO, optional wheels, service records, very reliable. \$2,900. Mike Vest, 139 Escondido, Altamonte Spgs FL 32701. 407/834-0923.

**'78 99 Turbo**, 3dr, 100k mi, new head, recent ft calipers, AC, body very good, clean. \$2,200. Kim Hopp, RD #1 Box 335A, Oley PA 19547. 215/987-9299 or 987-6509.

**'77 99 EMS**, excellent condition, under 100k, many extras, original owner, most years in storage, must see to appreciate. Tom Burlington, Lodi CA. 209/334-6020.

**'75 99 EMS**, 140k mi, engine tired, trans OK, interior fair to good. \$500 obo. Jeff Schille, 808 21st Ave N, S St Paul MN 55075. 612/457-6891.

**'73 99 2dr**, 94k mi, mint, rust free body, rebuilt chain drive 4spd & clutch, new rotors & calipers, headers & sport exhaust, new interior, needs only paint to be outstanding. Call for photo & price. Dennis Sweeney, RD #1 Box 410, Ligonier PA 15658. 412/238-0900.

**'71 99 2dr**, fair condition, \$500. Cyl head, trans, fuel inj & other '76 EMS parts, Send SASE for parts list. Lawrence Mazurek, 10660 Saratoga, Oak Park MI 48237. 313/545-2533.\*

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**4 factory mount & bal Gislaved snows/rims**. Fit 900 without anti-lock brakes (bought new SPG). Perfect, used one season. \$350 +frt. Wes Verkaart, 25 Cross St, Duxbury MA 02332. 617/585-8469.

**4 steel wheels** from '75 99, excellent condition, would like to sell as set, \$200. Jim Kuhlman, 8708 137th St NW, Gig Harbor WA 98329. 206/857-6993.

**'85 900 short block**, 51k mi, must sell, \$325 obo. Phyllis Dunn, Norwalk CT. 203/847-9733 H (lv msg), or 203/853-8008 ext. 5209 W.

**Saab trailer hitch**, good condition w/wiring & plug, fits 84-to ? 900, \$50. '84 900 Turbo clutch disc, lo mi, \$7.50. '84 alloy wheel, small dent but holds air, \$15. John Friedman, 606 S Coler Av, Urbana IL 61801, 217/344-8532.

**Aluminum rear window louver** for 900 3dr. Excellent condition. \$80 +shpg. Andy Jader, 3646 Beechwood Dr, Lee's Summit MO 64064. 913/345-7870 days, 816/373-5383 eves.

**99, 900 headliner kit**, comes with glue, 3½ yds and complete instructions, \$87.50. Trollhattan Motors Inc. 301/682-4688 or 1-800-32-TROLL. Evening & Saturday hours.

**Your Saab manual transmission rebuilt** from \$795. Includes replacement of bearings & seals and set to factory specs. Why buy used and not be sure? Call for details. Freight add'l. Mastercard, Visa and AmEx accepted. Trollhattan Motors, Inc., 1015A Old Eastern Av, 2nd floor, Baltimore MD 21221. 301/682-4688 or 1-800-32-TROLL. Eve & Saturday hours.

**'82 900 w/AT** (runs) & '81 900 w/5spd (not running) for parts. Plus many wheels, tires, turbos, manifolds. \$800 for everything or will sell just parts. Phil Gibbs, 202-16 23 Ave, Bayside NY 11360. 718/352-0088.

**900 & 9000 parts**: 79-90 engines, trans rebuilt & used, interiors, headliners, wheels, new & used turbos, much more. European Car Parts, 57 N Plains Industrial Rd, Wallingford CT 06492. 203/284-8989.

**900 parts**: console gauge pkg - oil pres/temp volts, everything works except temp sender, \$75. Chastain rear window louver for pre-85 4dr (no CHMSL cutout), excellent condition, \$75. Rear headrest covers, Colorado Red, for late 4dr, \$15/pr. Rear headrests, Bordeaux Red velour, \$25/pr. Front seats, Bordeaux Red, from '80 GLE, w/pedestal bases from dining room set, \$200/pr. 99 EMS alloys, \$50 ea. All +shpg. Lynn Merk, 37 Pawson Trail, Branford CT 06405. 203/481-0533.

**Complete '87 tan cloth interior** from '87 900 3dr, 27k mi, \$500 or will trade for dark cloth. Four '86 900S alloys w/MXVs, caps & nuts, \$750. Tan eggcrate floor mats, \$50. '84 base car engine & auto trans, 68k mi, can demo, \$1,000. 9000 km/hr speedo, \$100. Rob Allen, 114 Kimberly Rd, Hamden CT 06518. 203/248-8798.

**Parting out**: eighteen 99s and twenty-three 900s, 1973 thru 1988, one 1986 9000T. New OE sunroof deflectors, 9000 only, \$39. Quantity discounts. Rod Beckner, 604 E First St, Albany OR 97321. Tele/fax 503/928-6351.

**2 clutch slave cyls** for 69-75 99 (8711368) \$10 ea. A/C compr for 99 York F209R, \$15. Saab/Clarion power amp (0273060) from fancy '82 900, \$30. John Blas, 2400 S 2nd, N Riverside IL 60546. 708/447-3021.

**Parting out 99s & 900s**, turbos, trans, wheels, etc. Reasonable offers accepted. Kim Hopp, RD #1 Box 335A, Oley PA 19547. 215/987-9299 or 987-6509.

**Wanted, All Models**

**900 Turbo 16v parts car**, 3dr, 5spd, '86 & up, NE region. Inca and Ronal silverspoke alloys, early & odd SAAB sales brochures, posters, manuals, dealer signs, toy cars, etc. Rob Allen, 114 Kimberly Rd, Hamden CT 06518. 203/248-8798.

**1987-1990 900 base** (preferred) or 900S, 3dr, 5spd, excellent shape throughout, low miles. No rebuilds. Will pay good money for the right car. Send photo and particulars to: Richard Peterson, 212 N 5th St W, Mt Vernon IA 52314.

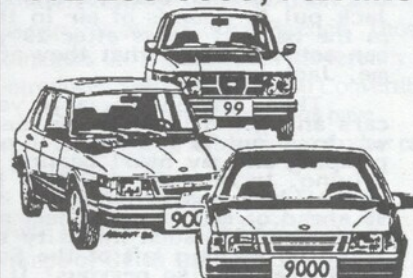
**For Sonett V4**: tail light lenses, front marker lenses, side marker lenses. Continuous loop seatbelts/mounting hardware from late Sonett. G. Reiss, 888 E Clinton St, Phoenix AZ 85020, 602/870-3039.

**Back issues of NINES wanted**. Bill White, 534 Caisson Rd, Falmouth VA 22405. 703/373-0996.

**Newsletter, 1984-88**; shop and parts manuals covering 1981-82 900s, same for late 99s. David Potter, 2410 Indian Trail, Austin TX 78703. 512/478-8125.

**Wanted**: 96 trans tool p/n 784122(4) "Pinion shaft arbor", to buy (\$25) or borrow (to copy). Peter McLaughlin, 1804 Grant St, Evanston IL 60201. 708/869-0443.

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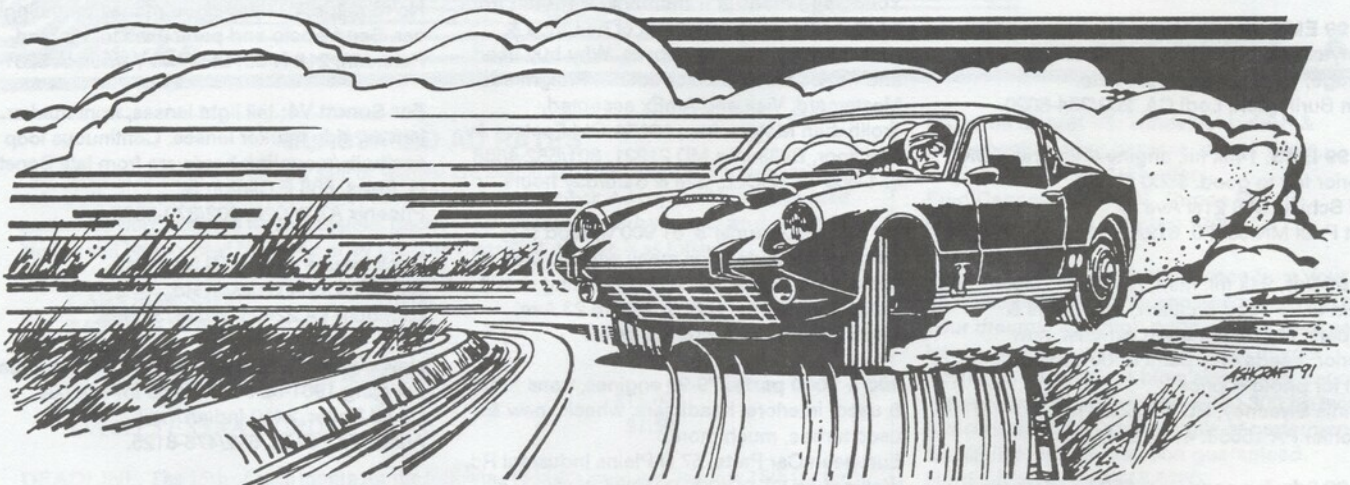
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## SIDEWAYS AT SIXTEEN

When it comes to autocrossing, being the youngest son of Jack Ashcraft—a veteran of 29 years of autocross racing in Saabs—just ain't easy. Especially that very first autocross. Here is how it was, in the boy's own words:



On the morning of the event, the weather was a mixed bag of ominous clouds and bright sky. My head was playing cruel tricks—showing me visions of spins, slides and assorted off-road excursions. I wasn't really sure how I was going to do but I did have confidence in the car, a 1968 Saab Sonett.

The car was stock except for dual exhaust, Koni shocks, a front sway bar and some gum-like Yokohama front tires. The car was set up to allow the rear to slide out just enough to corner faster. Jack put 40 pounds of air in the front and 30 in the back. I guess after 29 years of racing, one can actually know what they are doing and believe me, Jack knows.

Then, there's me, a 16 year old who likes fast cars and going fast. (Remember those days?) As we drove out to the track, I could feel the blood pumping and my heart beating as fast as we were driving. In between clouds of blue smoke—2-stroke smoke (Jack was driving "Ol' Blue", the '63 Saab 96 ahead of me), I could feel my hands gripping the wheel with such intensity that I thought there would be nothing left of the Sonett wheel when we got there. Why so nervous? It was to be my first time racing, and the first time to go legally over the posted speed limit (emphasize LEGALLY).

When we pulled into the parking lot, there was actually quite a large crowd for the first event of the season. Many heads turned as Jack emerged from "Ol' Blue" and more turned as the bronze Sonett pulled in. The old timers came over to talk to Jack and said the usual, where ya been and what ya been doing? Great stuff, then it was time to register. As Jack filled out his card, I was standing

somewhere in between standing and falling down (due to shaky knee syndrome). I soon found out that everyone there went through the same thing when they started.

Before the event we figured out our car numbers: Jack was assigned # 97 and I used #96. Pretty original, huh? After tech inspection, Jack went out to "clear off the rocks" and let me watch. I was standing next to a pair of guys in their late teens and their father, who owned a 924 Porsche. He was explaining to them how the Sonett, "that little car" as he put it, had the dreaded FRONT WHEEL DRIVE syndrome. Pretty terrible.

My turn came to practise. One word for my run was SLOW. That was fine with me, I didn't want to show 'em how fast I could really go! As the real racing started we were in a group with a VW GTI. The GTI didn't pose any threat to Jack and I didn't threaten the GTI. With a price tag still on my helmet I went out and did manage to go fast enough to get the tail loose. There was even an experience with some dirt on the far side of the course but I won't go into that. When it was all done, I managed to best six other drivers and one was the Porsche 924 owner!

All in all, I had a great time and encourage any of you reading this who have sons and daughters my age to take them out in your Saab—Sonett preferred—show them how to handle the car and let them race in an autocross. Most of all, try to get the point across that the public streets are not the place to play hero driver. Do it on an autocross course. It works for me...but now I'm hooked on autocrossing!

*Chris*

### A NOTE FROM THE OLD MAN:

Shaky knees notwithstanding, Chris made smooth, clean runs without foolishness or drama and this smoothness bodes well for future race improvement. More importantly, his driving on the public roads will improve. What a young driver learns on the autocross course could well save his or her bacon in an emergency road situation in the future. Giving a son or daughter this training is time and tire rubber very well spent.

*Jack Ashcraft*

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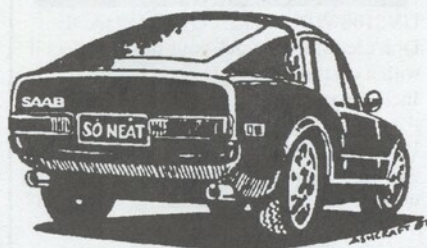
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## Rear View

Best of luck to Bob Sinclair, past president of Saab-Scania of America and more recently chairman and CEO of Saab Cars USA, who has announced his retirement effective September 1st. Sinclair and his wife Anne have been regular participants at the National Saab Owners' Conventions, and I hope they continue to join us at our annual festival.

The management style at Saab Cars is unlikely to change, as Sinclair and Sten Helling, current president who will be taking Sinclair's responsibilities as CEO, have similar philosophies on selling Saabs here.

The position of chairman will go to Hans Halbach, vice president for international sales and marketing at Saab Automobile in Trollhattan. Halbach joined Saab late last year after four years as executive vice president for Porsche AG in Germany. The appointment of an insider was at the request of David Herman, president of the joint Saab/GM Europe venture known as Saab Automobile AB, who wanted the chairman of Saab Cars USA to be available to him in Sweden.

While this looks to be a positive move for the continuance of Saab over the long term, there will likely be some shakeups beforehand. Expect another series of layoffs at Saab Cars USA, and a trimming of the number of dealers in the U.S. Some of

this will happen through natural attrition, but due to the image Saab is trying to present, the company may make greater demands of its dealers. The competition - Acura, Lexus, Infiniti, et al - require a separate building for sales of their cars. Porsche and BMW have tried similar moves in the past few years and have had success in trimming non-productive dealerships.

Unfortunately some long time Saab dealers may be left out in the cold. When Saab first set up its dealer organization in the late '50s and early '60s, many Saab dealers were set up in small towns. Those that have hung on for thirty years have survived through good service, but have lost new car sales to flashy dealerships in big cities who aren't much interested in seeing you after your taillights are out of sight.

The Saab 9000CD Turbo is one of seven sporty, luxury sedans compared in the July 1991 edition of *Car and Driver* magazine. *CD's* guideline was that they be priced in the \$35,000 range. The other contenders were the Mercedes-Benz 190E 2.6, Volvo 940 Turbo, Alfa Romeo 164L, BMW 525i, Audi 90 Quattro, and Acura Legend LS.

*Car and Driver's* editors ranked the 9000CD second, a scant two points behind the Acura Legend. Saab's 2.3-liter turbo-charged four-cylinder engine was given top points (one scribe went so far as to say it felt like a four-liter V8). The only complaints were minor, with lack of steering wheel adjustment being the biggest. *Car and Driver's* summary of the 9000?: "It's hard to imagine the driver who would not be impressed with this car."

Though the big Acura received a higher ranking, it was to mixed reviews, with some of the magazine's staff suggesting that the Legend lacked the road feel necessary to classify it as a true sporting sedan.

The August 1991 issue of *Collectible Automobile* features the Saab 900 Convertible in the "Future Collectibles" column. The article notes that the first year model, 1986, is the rarest, with only 350 built, all for the U.S. market. The total production has been 25,000 over the five years the Convertible has been built, with 13,565 sold in the United States through the end of April, 1991. By the time the 900's replacement is introduced in 1993 (and a convertible is said to be part of the lineup) the total number of 900 Convertibles sold in the U.S. should be about 20,000.

The "Springtime in Sweden" convertible was not mentioned in the article. In 1988, Saab added the SPG aero kit, SPG wheels and a special dash plaque to 350 Convertibles, one for each American dealer, as part of a dealers' trip to Sweden. Those cars were the inspiration for the recently introduced Special Edition 900 Convertible.

SAAB Club members' cars have recently appeared in the pages of other car magazines.

*Car Collector* has a short piece in the June 1991 issue on the 1969 Sonett V4 owned by Butch and Terri Stevens of Colorado Springs.

Jim Smith's Sonett III is pictured in the Summer 1991 issue of *Sport Compact Car*. Modifications to Jim's car are also given.

The Saab ad on page 93 of July's *Automobile* magazine touts the attributes of being different as regards the Saab 900. Eric Johnson of Northfield, Minnesota points out that the ad says, "Look beneath the hood, and you'll find an engine that's tilted 45° forward." I've heard of wedge engines before, but the mind's eye is having trouble with this one.

Looks like the ad writer got his 900 info mixed up with the 9000's. Who's in charge of proofreading?

*Tim Winker, editor*

# NINES

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