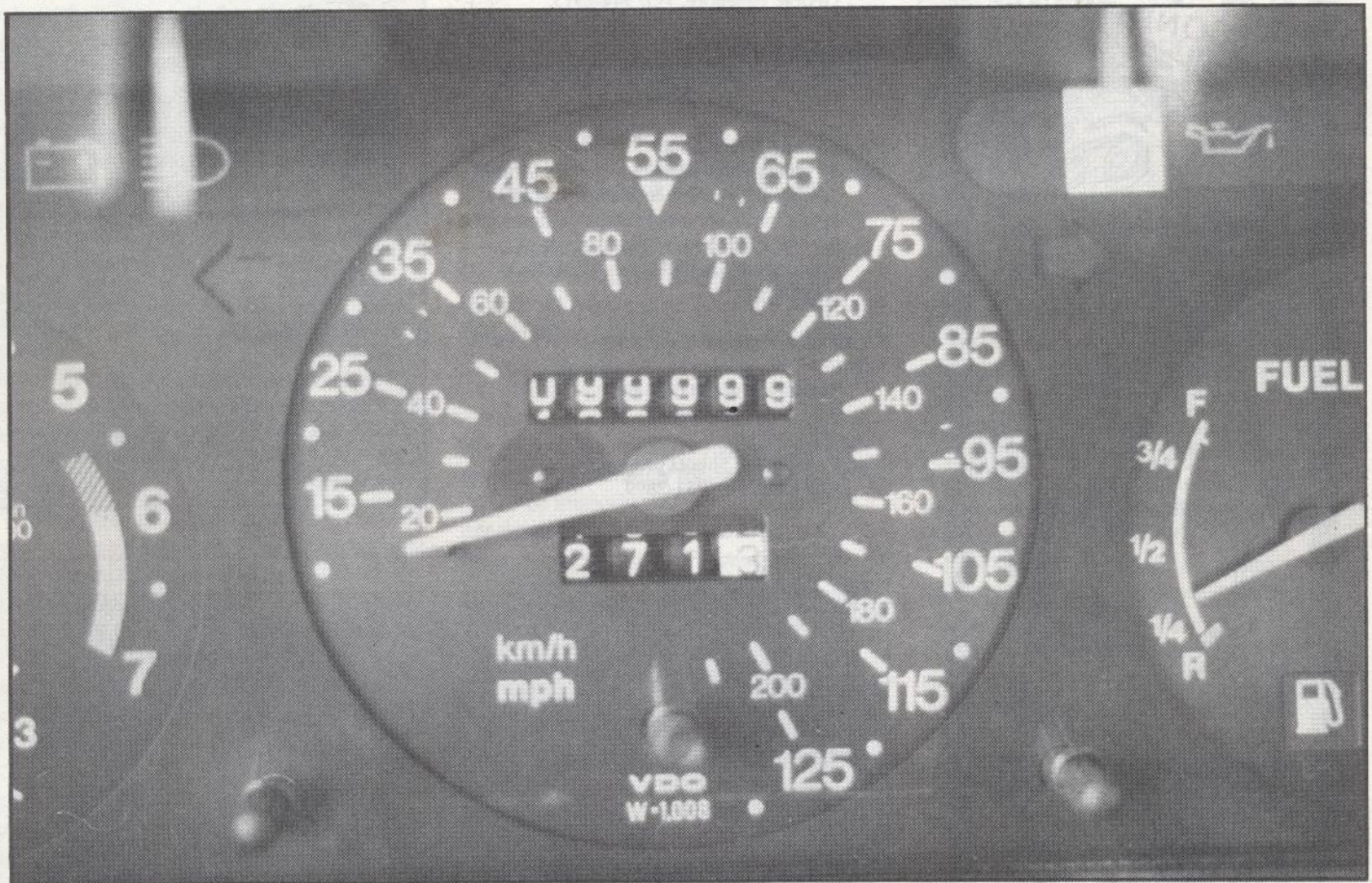




NINES

THE SAAB CLUB NEWSLETTER

\$2.25
February
1990
no. 189



Nines - photo by Seth Bengelsdorf, Norwalk, CT

SAAB NEWS

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V4 HEADS RECONDITIONED

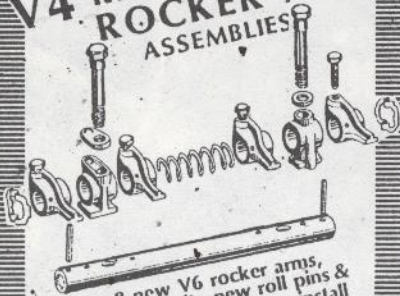


Includes new hard exhaust valves & seats, new intake valves, valve springs & keepers, and new valve guides if required, on 2 Saab V4 heads. Heads OK for unleaded gas.

\$295

Exchange, plus shipping. \$50 core charge per head if your head is not re-buildable.

V4 RECONDITIONED ROCKER ARM ASSEMBLIES



Includes 8 new V6 rocker arms, modified V6 shafts, new roll pins & tension washers. Ready to reinstall on your heads. Don't overlook this important part of a top overhaul!

\$225

Exchange. Send your complete assemblies for rebuild. Shipping and any other parts required are extra cost.

SAVE! SAVE! SAVE!
Do both jobs, only **\$495**

Offer good only thru 30 April 1990.

JACK ASHCRAFT
AUTOMOTIVE DESIGN
2201 WOODLAWN DRIVE
MEDFORD, OR 97504

503-779-0731

Regional Club News

Calendar of Events

1990 National SAAB Owners' Convention
Aug. 3-5 - Sturbridge, Massachusetts. Put on by the West Mountain SAAB Club.

Central Penn SAAB Club
Feb. 17 - Progressive Dinner Party.
George Basehore, 717/944-2915.

Milwaukee SAAB Club
Feb. 18 - Ice Race, Friess Lake, Germantown.
Dave Leer, 414/228-8114.

New England Sonett Club
Mar. 3 - Quarterly meeting. Meet at the Anheuser-Busch brewery in Merrimack, NH at 1pm. Continues at the Hilton in Merrimack for a talk by Ralph Millett, former president of SAAB Motors USA. Ends about 5pm.

SAAB Club National Capital Area
Feb. 17 - Tech Session at Danneman's.
Toby Turpin, 301/384-6732.

Tulsa SAAB Club
Mar. 7 - Meeting: Shhots program
Ray Kurr, 918/451-2899.

SAAB Club of North America
2416 London Road, Unit 900
Duluth, MN 55812-2221

(218) 525-1248, 9am - 6pm Mon. thru Sat.
Fax number: 218/728-6307

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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.

Those wishing to submit articles on 5 1/4" IBM-formatted disks, please convert to ASCII text files (<filename>.TXT). Please include a hard copy, and a SASE if you want the disk returned.



Late 1950's SAAB 93B "dump truck". The front bumper is a 4-inch log, it has chains for added traction, and a custom-designed roof-airfoil to divert unwanted breezes.

photo by "Dave", Southeastern PA

Letters to NINES

Movin' on up

On several occasions, GM has announced their intent to move Saab further "up-scale" to compete in the European market with the likes of Mercedes, Jaguar and BMW. While GM currently builds some very nice cars in Europe, such as the Opel Monza and the Vauxhall Senator or Carlton, they do not have a truly up-scale automobile or "image" in Europe. The fact that the new president of Saab Automobile AB has considerable experience in the European market is further indication of GM's ultimate intent. The reasoning for GM's European strategy is fairly clear. In a recent *U.S. News and World Report* article, citing the profit margin for GM cars sold in the U.S. versus those sold in Europe... "GM is making a razor-thin \$47 profit on each North American vehicle it produces (less than the retail price of a rear-view mirror), it is making buckets of money in Europe's hot market - \$1,219 per vehicle."

Further, it's interesting to note that the new venture will still retain several long time SAABers in such critical areas as "product development" and "automotive production". I think this is significant to avid Saab fans such as myself. For the most part, I don't expect GM (of Detroit) to significantly alter the course that Saab-Scania had been charting for its automotive division. Has GM done anything to change Lotus? ... and they own 100 percent of this British jewel. Any changes to Lotus by GM are certainly transparent to most consumers, while at the same time they have helped to breathe new life into this British exotic.

I do not expect GM Europe to provide new and more aggressive marketing, help lower production costs through GM's "volume buying power", and to financially nurture new products. Will Saab ultimately become "you father's Oldsmobile", or will we soon start seeing "Saab... the heart-beat of America" jingles on TV? I don't think so. I certainly hope not! If there's one lesson to be learned from the recent success of Honda's and Toyota's up-scale models, Acura and Lexus, separation (physically, financially and emotionally) of the parent

company from its up-market divisions is paramount! I'm sure the top brass at GM understand this, and have no intention of blowing a \$700 million investment by closely linking Saab with GM.

If this joint venture between Saab and GM could produce a car with the muscle of a Lotus, the handling characteristics of a Corvette, and the ergonomics, utility and dependability of a Saab... then I'll take it and herald this new joint venture a success!! Good luck, Saab Automobile AB!

Dr. G. M. Metzger
Gaithersburg, MD

A bean-counter barks

As a club member and a C.P.A., I resent your reference in the January issue to "bean-counters" cheapening GM cars.

First, if you took a tally of SAAB owners you would find a large number are accountants; all of us with our own reasons for owning SAABs. I currently own my second. SAAB is the only brand I have bought more than once in over twenty years of car ownership.

Secondly, GM and every other company operating in a free economy is in business for one primary reason - *to make money*. Unfortunately many people believe this to be immoral and have to blame this perceived immorality on something or someone, in your case "bean-counters".

If you don't like GM, don't fault them for their desire to make money or blame the people who work for them. Find a more tangible reason, they have offered many over the years. Personally, I don't like GM products because they don't appeal to my desires and wants and I find their advertising and sales campaigns condescending. So far SAAB has met most of my desires and wants at a reasonable price and not insulted my intelligence.

All impartial articles I have read indicate that GM is going to maximize their investment in Saab by making SAAB cars appeal to the masses. Only time and our loud and constant input will tell what kind of effect GM has on Saab. But remember, Saab is in business to make money, otherwise they wouldn't have sold out to GM.

Julian Rosenberg
Silver Spring, MD

My comment was not directed at accountants, but at the reputation GM has acquired for building cheap cars. Most companies employ accountants as advisors;

GM seems to rely on suggested cost-cutting measures to the point that quality and safety are compromised. I understand that the company is trying to get a maximum return on its investment, but there are two ways to do that - provide a quality product, or provide an inexpensive product. GM is best known for the latter.

General Motors cars are built for the masses, and price is a major reason why they continue to dominate the automotive market. On the other hand, their cars do not appeal to everyone, and that is why we drive SAABs.

"The reports of our demise are greatly exaggerated"

Performance Vehicle Engineering, Inc (PVE) is an automobile engineering company whose primary concerns are the design, development and manufacture of turbo systems for automobile manufacturers and for their own distribution system.

The company is currently completing phase one of a two-part relocation to a new industrial location. At this location PVE houses a full welding and fabrication facility, an automotive service center and an engine assembly unit. The company also supports a full-service automotive machine shop. PVE is also currently engaged in development and installation of an electronic engine management program.

In response to the letter of John Wesley White (NINES, November 89), the modification to the APC module performed by PVE is the result of a development program conducted by PVE. This modification incorporates an APC background information alteration. This alteration allows the APC module to maintain peak manifold pressure longer through the APC taper.

This lengthened boost duration in combination with an increased sensitivity and response to APC inputs allows horsepower and torque outputs to maintain peak longer in the acceleration curve.

Careful review of Performance Vehicle Engineering's phone logs, information inquiry database and answering service message logs indicate that John Wesley White and Group 6 Performance never contacted PVE.

We hope this information clarifies the credibility of PVE. We look forward to serving your performance needs.

Robert J. Bornaschella, President
Performance Vehicle Engineering, Inc.

Not my father's

Your cover comments about "your father's Oldsmobile" in the January issue of NINES has prompted this letter. My 1987 Saab 900 convertible is my, not my father's, Oldsmobile.

In 1979 when I wanted to retire my 1971 Olds 4-4-2 convertible to collector status, the best I could find was a Hurst/Olds with T-tops. It has never been the fun car to drive that the '71 was. By 1987, GM had nothing in its catalog to retire the Hurst. That was what prompted me to buy the Saab. The Turbo convertible, although a totally different car than the '71 4-4-2, is as much, if not more, fun to drive.

GM has always built satisfactory cars for people who need, but don't necessarily like, cars. In the '60s and early '70s, car buffs could spend a few extra dollars and buy one of their products with modifications that made the piece fun to drive. That option was gone with the fuel crisis. In my opinion, that has contributed to GM's fall in the marketplace in recent years.

I think GM has been taking cues from tiny Saab by cloning the Saab engine and calling it the Olds Quad 4. They are even reincarnating the 4-4-2 in 1990 with the Quad 4 in a front driver. Nothing is wrong with that - the Japanese have been using that technique for years.

The deal between GM and Saab sounds good to me. I just hope they don't mess up the 9000 CD before I need to replace my Cadillac with one, and let Saab develop a 9000 Turbo convertible by 1994 so I can retire my 900 Turbo convertible to collector status.

Darrell Weinman
Central Point, OR

SAAB Clubs National Convention Package

- 1 - Golf shirt, 50/50 Cotton/Poly blend
specify S, M, L, XL in Tan, Lt Blue, Yellow, or Grey.
- 1 - Poster featuring the SAAB EV-1
- 1 - Convention Window decal

\$20.00 includes shipping

SAAB Club of Southern Calif.

128½ Main Street
Seal Beach, CA 90740



Dreamin'

Just before Christmas I purchased a copy of Jack Ashcraft's new (and first) book, *Dreams & Details*, and if I may, would like to share some of my thoughts about it with the membership.

After following Ashcraft's drawings and thoughts for so many years in the newsletter, I was thrilled to see much of it come together in this book. Ashcraft's ideas have always been especially interesting and useful to V4 aficionados like myself, but this book goes far beyond what most of us "dream" about. His wonderful drawings and elaborate "concept" cars give us insights not only into Jack's thinking, but also shows the potential evolution of Saab had they been able (or chosen) to continue the 95/96 series. Jack states it well, "... unique design (is a feature) Saab has always enjoyed. Those features must be continued." Jack devotes a full seven pages of detailed drawings of his "960", a serious musing of what the next stage would have been (could be?) if Saab continued this series.

This book is not only enjoyable reading but could also serve as a guide to anyone planning any sort of serious modification. (Purists beware: Ashcraft leaves little to the imagination.) He goes so far as to show a detailed drawing of the working mechanism of the window crank on his "960"!

And he has not forgotten Sonett fans either - readers of the newsletter have seen his Sonett 3.5, in production, recently. I was surprised to learn that for him this is not a

recent idea. The concept and drawings date back to 1969.

I recommend this book to anyone interested not only in Saab, but automotive history in general. Throughout the book Ashcraft reveals to us the thinking of automotive designers from 30 years ago to the present, and shows how Saab used and departed from these ideas. Jack... I look forward to your next book.

David Kronen
Woodland Hills, CA

Likes NINES, not Jack

I'm sure you've heard it before, but it bears repeating. Thank you, your wife (and Security staff) for your efforts throughout the year in publishing the NINES newsletter. Each issue is greatly appreciated because it provides the technical content and camaraderie which we need to keep the Club rolling along.

Secondly, I would like to cast my vote against Mr. Ashcraft's "Designer Corner" use of two exclusive newsletter pages every month. I understand that everyone has a right to their equal time. And some deserve more than an equal share, as long as a significant number of Club members enjoy the content. With all due respect to Jack's creative talent, I believe it's a little idealistic for a car club such as ours.

Rob Pecsar
Encinitas, CA

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
c/o The SAAB Club
2416 London Road, Unit 900
Duluth, MN 55812-2221

I have an '87 9000 Turbo automatic with 17,000 miles. In hot weather (90°) after driving 15 to 20 miles, the engine dies when you put it in reverse. Let it set 15 minutes to cool and it returns to normal operation.

The Saab dealer fixed it once (replaced a relay), but that only lasted two weeks. Any suggestions?

A.G. Simonds
Evansville, IN

The Automatic Idle Control (AIC) system should compensate for any engine load changes regardless of the temperature, gear choice or accessory load. If the problem is evident in hot weather, I would suspect the added load of the A/C compressor switching on and off, with the power steering (backing and turning out of your parking space) and braking (transmission stalling). If indeed a new A/C delay relay (P/N 95-13-219) has been installed and the wiring of the relay socket has been checked, the next step is to check the AIC system and set basic idle. Further investigation should include checking the automatic transmission fluid level and filter, and beyond that, check the power steering fluid level and belt. I have experienced at least one early 9000 with a malfunctioning power steering rack that caused an abnormal load on the engine when doing any turning.

We have a 1984 900S 4-door. The central locking has given up. I have Saab's "Do-It-Yourself" manual for the 900, but don't know where to start looking.

Syd Carr
Camden, ME

The first step in troubleshooting the central locking system is to determine whether the problem is in the door controller or in the control unit inside the car. Go to the driver's side door jamb and find the three-pin connection for the central locks. Disconnect it, and using a grounded wire, alternately touch the yellow and the green/white wires coming from the fuse box. This should cause the locks to work in the car if the problem lies with the door controller or the wiring or

connections in the door. This is the most common problem area for central locking. If you find nothing wrong with the wiring and connections, then you'll need to get a new door controller because you'll have no luck cleaning this sealed unit with contact cleaner.

If the locks don't work then the problem lies with the control unit, mounted on the lower heater duct on the passenger side. First check fuses, power and ground, but the other common problem is an internal heat sensitive fuse that melts a solder connection if the current draw of the lock motors is too great. For further info on the later problem and its solutions, refer to SAAB Service Information issue 10/84-718.

For those with an '82 or '83 900, you may want to check into a service kit (P/N 85-47-259) that moves the central locking control unit into the interior of the car.

I have a 1983 900, naturally aspirated, 5-speed, with about 200,000 miles on it. Recently the fuel shut-off/decel system ceased operation. The car does not stall out, but the decel system is just not working. Normally you can feel the shutoff valve (on the rubber bellows) operate and hear an audible click.

I have been frustrated to the point of trying a new relay and shutoff valve that were working from another '83, but to no avail. When my relay and valve were installed on the other car, the decel system worked fine.

Next I removed the decel relay and performed all the tests listed in the factory service manual at the relay socket. Everything checks okay.

I'm asking for any assistance you can supply.

Tad Gilliam
Grand Rapids, MI

It seems you've checked out most everything to do with the decel system except for the acceleration enrichment time relay. Try replacing it with a known working relay. Also check for pins pushed out of plug sockets, and blocked or cracked hoses.

I am looking to replace the Pirelli P600 tires on my '87 9000 Turbo. I'm interested in a year 'round tire with the same or comparable high-performance and handling characteristics as the P600s. Does such an animal exist?

I have read some good things about the Gislaved 190 and 226 series, and Dunlop Qualifier P-Metric. I don't know anything about their handling characteristics, but according to the "Uniform Tire Grading" report, they have excellent tread wear and wet weather ability.

Ken Charof
New York, NY

Tires are a very touchy subject. We've had great success and happy customers with Avon CR28 tyres. They are a high performance tread pattern with an all-weather rubber compound. Our size of choice is 205/60. There are lots of choices out there including a new design from Yokohama. The decision has to be yours.

The 1970, 1500cc, V4 wagon that I drive runs hotter than it did before I had a total engine rebuild 30,000 miles ago. On a hot summer day and/or a heavy load on the engine, the temp gauge reads in the upper three-quarters of the dial, and I have had to stop to avert a boil-over.

I have put in a new water pump and backing plate and had the radiator rodded out. When the fan bearing wore out, I put in a thermostatically controlled electric fan. None of these changes has had an effect. The coolant is clean and a 50/50 mixture. What else can I check?

Rob Perry
Portland, ME

Past experience would lead me to the radiator as the culprit. Although it has been cleaned, heat transfer from the tubes to the fins may not be as efficient as it once was. Before replacing the core with a new one, check the operating temperature with an accurate thermometer. Meat or candy kitchen ones work just fine!

SERVICE SUBJECTS



FROM SAAB

Poly-V belt inspection

Application: 9000 models with B202 engine

Routine inspections of the multi-groove (Poly-V) belt on 9000 models may reveal cracks in the belt ribs. Such cracks occur under normal wear and tear and do not affect the performance of the belt. These minor cracks should not be considered a problem that requires belt replacement (Figure 1).



Figure 1. Minor cracks in the ribs do not affect the performance of the belt.

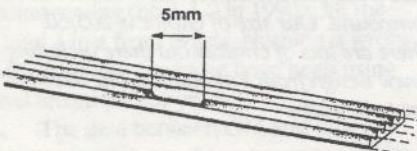


Figure 2. Replace belts if damage or wear exceeds 5 mm along the V groove.

The following guidelines should be observed to avoid the cost of replacing belts unnecessarily.

1. A belt should be replaced if it is damaged, frayed or a worn area exceeds 5mm along the length of the V groove (Figure 2).
2. Belts that slip when correctly tensioned should be replaced.

NOTE: Saab does not recommend the use of a "belt dressing" for the purpose of quieting a squeal. If a belt is properly tensioned and free of contaminants (oil, ATF, etc.) but continues to squeal (slip) then the belt should be replaced.

Belt Tension, Pounds (lbs)

Multi-Groove (Poly-V) Belt	
	Pounds (lbs)
New belt	180 ± 10
Lower limit before resetting	80
Re-tighten to	120 ± 10

Consumer Information - 12/89

New front brake pad service recommendations

Application: 99 models 1975 - 80
900 models 1979 - 87

In S.I. 05/89-1147, a new front brake pad set (4 pad set P/N 40 04 123) was introduced for cases where the Delco/Textar brake pad combination resulted in unacceptable pad life. These new pads are now the primary recommendation for the models specified above. S.I. 05/89-1147 will be reissued to reflect this change in the primary recommendation.

The new pads are a DM121 composition with all four pads chamfered for use on both sides of the caliper and will, under most conditions, provide significant wear advantages over the two-pad combinations. The brake discs will also last longer as the DM121 lining is less abrasive than the Textar lining. However, significant points regarding these alternative pads should be noted:

Because they are chamfered for use on both sides of the caliper, these pads are NOT equivalent to the two-pad set of DM121 brake pads. The two-pad, unchamfered DM121 set is designed ONLY for the outside of the disc, together with the Textar T474 pads on the inboard side.

They must not be used for cars with brake drag complaints. If the car has short handbrake travel when it comes in for service, or has a prior history of brake drag, use the Delco/Textar combination set.

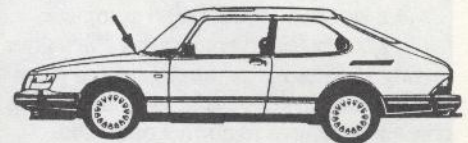
If the DM121 four-pad set is used on 1979-82 models, the dust boots must be updated to the later material quality, and DOT 4 Brake Fluid ONLY must be used.

SRS Precautions

Extreme care should be taken when doing any type of work on an airbag equipped vehicle. As outlined in both the 900 and 9000 service manuals, no splicing of Supplementary Restraint System (SRS) wiring should take place. Also, be very careful not to damage the wiring harness for the front sensors in any way when installing accessories. If a split in the harness occurs, it will set a fault in the diagnostic unit, light the SRS lamp in the dashboard and require the harness to be replaced.

Hood seal - 900

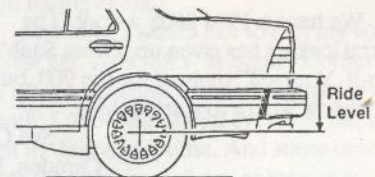
The seal at the rear of the hood on 900 models has been modified as from VIN's L3000319- and L7000586-. To eliminate the possibility of squeaking when the hood rubs against it, the seal is now covered in cloth. This squeaking is hard to locate and sounds as though it comes from the dashboard, particularly on convertibles.



Boge automatic, self-leveling rear shocks

For the 1990 model year, all 9000 Turbos are equipped with the Boge Nivomat system of automatic, self-leveling rear shock absorbers. These shocks were introduced on 1989 CD models. The energy generated by the car body moving up and down on the rear springs drives a built-in oil pump in the shocks which charges a gas-filled accumulator. The pressure is then adjusted automatically by a control valve which maintains the rear of the car at the correct level. Regulation of the ride level in a car equipped with the Boge shocks starts at a load equivalent to two people.

The initial ride level of a car equipped with Boge Nivomat shocks is about 10mm (0.4 in.) lower than a car equipped with standard shocks. When the load is increased to the equivalent of three or four people, the ride level will be higher than that of a car



Saab Service Information updates are provided to NINES as a courtesy to Saab owners by Daniel L. David, Manager of Technical services, and Robert J. Sinclair, President of Saab-Scania of America, Inc.

equipped with standard shocks.

One other important aspect of the Boge system is the rating of the rear springs. They are approximately 30 percent softer than the standard springs to accentuate the pump action required for leveling function. Springs of different ratings should never be mixed!

Shown below is a table comparing the ride level heights of a car equipped with standard springs and shocks compared to one equipped with the Boge Nivomat system.

Load (1 person = 155 lbs.)	Ride Level (mm) with Nivomat Shocks		
	Standard Front	Standard Rear	Boge Nivomat Rear
Curb weight	385	370	360
1 person	377	362	346
2 people	367	355	344
3 people	364	341	335
4 people	360	326	330
5 people	356	314	330
5 people + 220 lbs.	361	272	327

Tolerance for all dimensions: ± 10 mm

Audio system maintenance

Two cleaning procedures should be performed regularly by the owner in order to ensure proper cassette tape operation and optimum radio reception.

1. Clean the tape drive capstan and tape heads after every eight to ten hours of cassette playing time. Use a "cleaning cassette" and fluid designed for this purpose.
2. Wipe the antenna mast clean with a damp cloth. Avoid using any solvents which might affect the black surface finish.

Refer to your Saab/Clarion Audio Equipment Owner's Manual for complete information about audio system care and operating tips.

SAAB NEWS

GM to utilize Finnish plant

GM Europe president Robert J. Eaton has confirmed that the Saab/Valmet plant in Uusikaupunki, Finland, will be used for production of the Opel/Vauxhall Calibra. The plant is currently engaged in the manufacture of 900s, including all 900 convertibles.

The Calibra will go into production at a GM plant in Germany this spring.

The 900 convertible will continue to be built at the Finnish facility, along with the Calibra. All other 900 production will be moved to Sweden. Retooling for the Calibra should take 15 to 18 months.

'89 Saab sales off 22%

Saab's total U.S. car sales during 1989 totaled 31,576 units, 22 percent lower than 1988's 38,490 cars sold. In Canada, Saab's sales total for the first 11 months of '89 was 1,168, down from 1,264 in the same period last year.

Industrywide, sales of cars in the U.S. during 1989 were off by 7 percent, with total car and truck sales the lowest since 1984. Total sales of European makes were off by 19 percent. Volvo was the only European car company to show an increase over 1988 sales.

Saab's share of the U.S. market in 1989 was 0.32 percent.

Saab sales by model

	1989	1988
900	6,071	6,593
900S	7,861	9,982
900 Turbo	8,539	9,331
9000S	2,674	3,596
9000CD	3,109	0
9000 Turbo	3,052	8,262
IDS sales	270	726

Nobile named Media Information/Publications Manager

Karin A. Nobile was recently promoted to media information and publications manager by Saab-Scania of America, Inc.

In her new position, Nobile defines and communicates corporate news to the nation's automotive and general press. She also assists Saab's 363 automobile dealers to plan and execute local media events. She will continue to direct, compose, and publish the company's internal and external publications (*Saab Prospects* and *Saab Soundings*) within the Public Relations Department as she has for the last three years as publications manager.

Nobile began working at Saab-Scania in Orange, Connecticut in 1979. Prior to her role as publications manager, she supervised the Eastern Region Consumer Affairs Division. Nobile is the recent recipient of the "1989 President's Award," a performance award presented each year to one of the company's 480 employees by Robert Sinclair, the U.S. importer's president.

Nobile earned a Bachelor's Degree in English and Communications from Albertus Magnus College, New Haven, Connecticut, where she was named "Who's Who Among Students in American Colleges and Universities" and "Who's Who of American Women." A Guilford, Connecticut resident, Nobile is a member of the International Motor Press Association and the Fairfield Chapter of Women in Communications.

In her spare time, Nobile reads novels and writes book reviews for the Schem Associates publishing group in Guilford. Tennis is another pastime.

Saab releases its ad agency

Saab-Scania of America began the new year by getting rid of its advertising agency, Lord, Einstein, O'Neill & Partners. A Saab spokesperson cited "creative philosophy differences" as the reason for the agency's termination.

Saab became Lord Einstein's first major account after the agency was formed in the spring of 1988. The Saab account billed over \$35 million last year, but the 1990 advertising budget is only \$25 million.

A replacement agency has not been named. Saab is seeking one with similar creative strategy.

BOSCH

69-74 99E, 99EMS All	Fuel Pump	\$141.19
75-81 99 and 900 All	Fuel Pump	\$141.19
82-86 900, Turbo -84	Fuel Pump	\$225.06
78-81 99, 900 Turbo	Fuel Dist	\$238.47
78-81 99, 900 NonTurbo	Fuel Dist	\$215.30
78-80 w/ Turbo 051	Warmup Reg	\$106.22
78-80 w/o Turbo 020	Warmup Reg	\$81.06
81-83 All 0438140084	Warmup Reg	\$153.71
75-80 All 0437502004	Injectors	\$20.81
81-86 All 0437502012	Injectors	\$22.50
77-86 All	Lambda Sensor	\$38.95
75-80 All	Cold Start Valve	\$41.85
69-74 All	Trigger Contacts	\$43.10
74-4/78 NonTurbo	Alternator	\$97.85
5/78-80 99 Turbo	Alternator	\$143.33
79-80 900 NonTurbo	Alternator	\$101.15
75-84 99, 900 All SR78X	Starter	\$93.45

KYB

GAS-A-JUST Shocks for Import & Domestic Cars and Trucks.		
		\$21.95ea
Strut Cartridges		
		\$24.95ea
Gas Strut Cartridges		
		\$29.95ea

BILSTEIN

69-85	99,900	Front Shock	\$66.03ea
8/78-85	99, 900	Rear Shock	\$66.03ea

OEM PARTS

Saab #	Description	Price
75 40 487	Radiator 900 NoTurbo	\$169.95
75 40 503	Radiator 77-80 99 NT	\$169.95
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Saab Automobile AB management team appointed

David J. Herman (44) has been appointed president and chief executive officer of Saab Automobile AB, the new joint venture of Saab-Scania AB and General Motors (Europe) AG, it was announced on January 16, 1990. Since February 1988, Herman has served as executive director of GM's European Parts and Accessories Operations. Prior to that he was chairman and managing director of General Motors Continental, Antwerp, Belgium, where the Opel Vectra and Kadett are built. GM Continental, which employs approximately 10,000 people, had a 1989 production volume of 373,000 units.

Jan-Erik Larsson (53) was appointed vice president and deputy chief executive officer. To date, he had been responsible for the Saab Car Division.

Other management appointments for Saab Automobile AB: Stig-Goran Larsson (47) will continue to be responsible for Saab passenger car product development and Peter Moller (37) continues to head car manufacturing operations. Thomas Enquist (45), currently head of 2.0 liter engine manufacturing operations, will be responsible for powertrain development and production. James P. Crumlish (45), who has been in charge of finance for the GM/Suzuki venture in Canada, was named chief financial officer, with Lars-Arne Lundholm (45) as deputy chief financial officer.

Leif Tennare (45) and Bertil Bjorkman (58) will continue to be responsible for quality and purchasing, respectively. Allan Rothlind (43) has been named to head the personnel area. Appointments in the sales and marketing, and public affairs areas will be announced at a later date.

Freon replacement announced

A new, environmentally-safe air conditioning refrigerant will begin to replace the current R-12 fluid -- commonly referred to as freon -- in Saab passenger cars during 1991, according to Stig-Goran Larsson, director of Saab's Product Development Department in Trollhattan.

The new fluid is a chlorine-free refrigerant known as HFC-134a and is not in the chlorofluorocarbon (CFC) family. CFC's have been found to have a detrimental effect on the earth's ozone layer, which serves to protect the environment from the sun's ultra-violet rays, and have been considered to be a possible factor in global warming. This environmental issue has led to the Montreal Protocol, which many countries have adopted in an effort to phase out the use of R-12 by the year 2005. Sweden has, however, drawn up its own reduction plan to accelerate its phase-down by 1995, and in the United States, Vermont has restricted the use of R-12 in new car air conditioners from 1993.

The air conditioners which are installed in Saab 9000 and 900 models are presently being re-engineered to accept HFC-134a, and to take full advantage of its environmentally-safe properties. The cooling capacity and performance of these systems will not be influenced.

Stig-Goran Larsson stated, "The goal to replace R-12 as soon as feasibly possible is another example of Saab's ongoing concern for environmental welfare. Saab's new air conditioning system marks the latest advance in the Swedish automaker's long list of engineering innovations which have served to improve air quality."

Saab is currently investigating the commercial availability of HFC-134a throughout the world to determine specific market introduction strategies and timetables.

More IDS delivery sites

Picking up a new Saab in Europe under Saab's International and Diplomat Sales program (IDS) is easier thanks to more delivery points. Paris and Venice have been added as delivery sites, to increase travel opportunities and offer greater customer convenience.

Most Saab 9000s or 900s offered in the U.S. can now be delivered in any of 14 major European cities under the IDS plan. The IDS program offers an attractive

car-buying alternative which reduces the purchase price on Saab models; the cost savings can exceed \$3,000.

Renting a car in Europe can cost over \$500 a week.

Saab will arrange European registration and insurance for touring Europe and can coordinate home shipment from any of 28 European locations to any of eight U.S. ports.

Any of Saab's U.S. dealers can handle all the arrangements.

Saab establishes fifth U.S. region New Regional Managers named

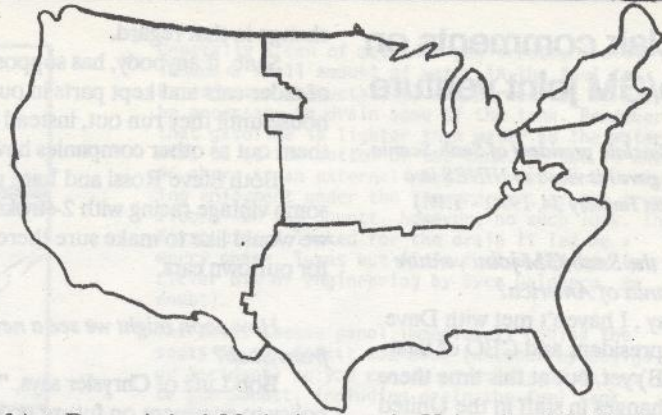
Saab-Scania of America has reorganized its field sales, service, and parts organization by dividing its U.S. regions into five operating units, instead of the previous four.

President Robert J. Sinclair explained, "The addition of a fifth region is meant to increase Saab's effectiveness in support of its 363 U.S. dealers." He added, "Over the years, Saab dealers have come to expect a high degree of professionalism from our company and we will continue to meet such expectations in the extremely competitive market we face today with the realigned regional staff."

Each of Saab's five regions serve as business units offering respective Saab dealers sales, service, and parts support. What was formerly known as Saab's Eastern Region, which spanned Maine through Maryland and part of Virginia, has been divided to establish separate regional units: The Northeast Region, encompassing Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, and upstate New York; and the Mid-Atlantic Region which includes metropolitan New York, New Jersey, Pennsylvania, Maryland, Delaware, and a small portion of Virginia.

Saab's five regional managers report directly to William S. Kelly, national sales manager.

Heading the Northeast Region, which is situated in Saab-Scania of America's Orange, Connecticut headquarters, is Robert E. Stogsdill, who has worked for Saab since 1983 and has served as regional sales operations manager for Saab's Central Region and regional manager for three of Saab's five regions. In addition to his extensive automotive work history, Stogsdill formerly directed the MBA Program for Regis College in Denver, Colorado, for several years. Stogsdill holds a



Bachelor's of Arts Degree in both Marketing and Accounting from the University of Houston in Texas. He also earned a Master's of Business Administration from Sam Houston University, Huntsville, Texas.

Lawrence W. Nay, who heads the newly-created Mid-Atlantic Region, which is also based in Orange, began working for Saab-Scania of America in 1988 as district manager in Massachusetts. Nay's automotive work history reflects extensive retail sales and general management experience, and eight years of wholesale experience as a regional sales manager for Volvo of America Corporation in Rockleigh, New Jersey. He earned a Bachelor's of Science Degree in Business Management from Nathaniel Hawthorne College, Antrim, New Hampshire.

Heading Saab's rapidly growing Southern Region in Marietta, Georgia, is William F. Murray, former vice president of parts and service for the U.S. subsidiary. Murray, who has worked for Saab-Scania of America since 1979, also managed the corporation's parts division for several years prior to being named vice president of parts and service in 1986. He was formerly employed by Volvo for which he filled various capacities in Peru, Canada, Sweden and the United States, primarily within the parts and accessories field. Murray, born in Beijing, China, was educated

at the University of California at San Diego.

Norman E. DeFusco, Central Region Manager in Elk Grove Village, Illinois, has worked for the Saab organization since 1979, most recently as Central Region sales operations manager. He has extensive experience working as a Saab district sales manager during which time he represented Saab dealers in Indiana, Wisconsin, West Virginia, Kentucky, Ohio, and parts of Illinois. DeFusco's overall automotive work history includes both dealership retail and manufacturer's wholesale experience. He holds a Bachelor's of Science Degree in Business Administration from Bryant College, Smithfield, Rhode Island.

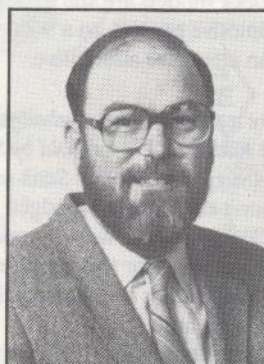
Carmen A. Gautille, Western Region Manager based in Torrance, California, recently joined Saab-Scania of America and has extensive automotive wholesale and retail experience, having co-owned Douglas Chevrolet/Volvo in Egg Harbor, New Jersey, and having formerly filled management positions for Volvo of America Corporation and the Ford Motor Company. He most recently served as general manager of Freehold Toyota in Freehold, New Jersey, a Dah Chong Hong (DCH) Corporation. Gautille earned both Bachelor's and Master's Degrees in Education from State University of New York in Buffalo.



Robert E. Stogsdill
Northeast Region



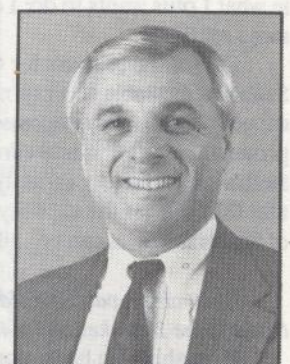
Larry W. Nay
Mid-Atlantic Region



William F. Murray
Southern Region



Norman E. DeFusco
Central Region



Carmen A. Gautille
Western Region

Bob Sinclair comments on the Saab/GM joint venture

(Robert J. Sinclair, president of Saab-Scania of America, Inc., gave his views to NINES in a phone interview on January 24, 1990. - T.W.)

How does the Saab/GM joint venture affect Saab-Scania of America?

As of today, I haven't met with Dave Herman (new president and CEO of Saab Automobile AB) yet, but at this time there should be no changes in staff in the United States. We don't expect to add any GM folks to the Saab-Scania staff here. There will be no effort to blend dealer networks.

The people who were instrumental in developing Saab cars as we know them remain in charge in the new company. Stig-Goran Larsson is still in charge of product development and Peter Moller will continue as head of car manufacturing. It is business as usual with improved resources.

Saab-Scania AB asked GM to nominate candidates for overall manager as Saab felt they needed better management expertise. Dave Herman knows the difference between mass-transportation and a small specialty car company like Saab, so the Saab philosophy will continue.

The deal is between GM Europe and

The deal is between GM Europe and Saab-Scania AB. GM in Detroit is keeping their hands out of this venture.

Saab-Scania AB. GM in Detroit is keeping their hands out of this venture. As you may know, GM previously purchased 100 percent of group Lotus. GM does not meddle in what Lotus wants to do; I expect the same for Saab.

One of the reasons for GM's interest in Saab was available short term production capacity. GM is very impressed with Saab's production facilities, and currently needs Saab's excess factory capacity. We expect that GM will get the capacity it needs and all of Saab's factories can be utilized effectively.

What about parts for older Saabs, particularly the 2-strokes and V4s?

If anything we have more resources to inventory more parts. There should be no

change in that regard.

Saab, if anybody, has supported owners of older cars and kept parts in our warehouse until they run out, instead of throwing them out as other companies have done.

Both Steve Rossi and I are planning on some vintage racing with 2-stroke Saabs, so we would like to make sure there are parts for our own cars.

How soon might we see a new model from Saab?

Bob Lutz of Chrysler says, "It's not our policy to comment on future products," and I follow the same policy.

Development continues on projects

GM recognizes Saab's "soul", and they don't want to tamper with that...

that were being worked on prior to the agreement with General Motors. GM recognizes Saab's "soul", and they don't want to tamper with that as the market for Saab cars is already well established.

There should not be an all new model before four years. Even the Japanese can't develop a new car in any less time than that.

As I've mentioned, Lotus is now owned by GM, and their engineering expertise should also help Saab.

We've seen variations of the 9000, a 2-door, a station wagon and a convertible. Are those still possibilities?

Push and development on the 2-door 9000 displayed at the Geneva auto show came from this office, and it was built in cooperation with a company in the United States. And we must have a 2-door before there can be a convertible.

Two-door models are still strong sellers in the automotive market, so a 9000 version would be an attractive alternative.

Is there a possibility of a rebadged Opel, such as the Kadett or Vectra, sold by Saab-Scania of America as another Saab model?

We won't be selling a rebadged anything. GM is as set as we are against "badge engineering" for this venture. They agree that Saab has its own personality and that should continue.

That doesn't mean we couldn't take an existing chassis and turn it into a Saab, with

a Saab engine, transmission, suspension, etc. That is an excellent way for a small company to save on developing a new car from the ground up.

As an example, although the Saab 9000 shares a chassis design with the Fiat Chroma, the Lancia Thema, and the Alfa Romeo 164, all of the cars have distinctly different personalities from a driver's standpoint. That's because the drivetrains and suspensions were developed by different companies.

What about a V6 engine for Saab?

It has been publicly stated by the management of both GM Europe and Saab-Scania AB that we will be developing a new model above the 9000, and this car will have a V6, developed by GM and Saab. This will not be a present GM engine, but will be an all new design.

How soon might we see the new 2.3-liter 16-valve engine in the U.S.?

Look for the naturally aspirated version in a 9000S at your local Saab dealer sometime this spring.

Does this mean we will also see a Turbo version of the 2.3?

Yes. We don't know when it will be available, but it's not far behind the naturally aspirated version.

Let me add that driving the non-turbo 2.3 9000 is very, very satisfying. Being a "speed freak", I'm not that happy driving a naturally aspirated 9000 2.0 liter, as it doesn't have enough power for me, but I have been very happy with the 2.3.

Bear in mind, the naturally aspirated 2.3-liter engine puts out 150hp. It's only 15 horsepower more to the 165hp of today's Saab Turbo. Compare it also to the 135hp of the original 2.0-liter Saab Turbo of 1978 which helped create the performance image we have today.

What is your overall feeling for the Saab/GM joint venture?

I'm very excited about it. Saab has gained engineering resources from GM Europe's tech centers, and financial resources to continue to develop Saab cars as we know them.

I think the future holds some incredible opportunities for Saab. Our friends in Trollhattan will now have greater resources to do what they do best.



SONETT SUBJECTS
by Jack Ashcraft

SONETTS & SWISS CHEESE PANELS

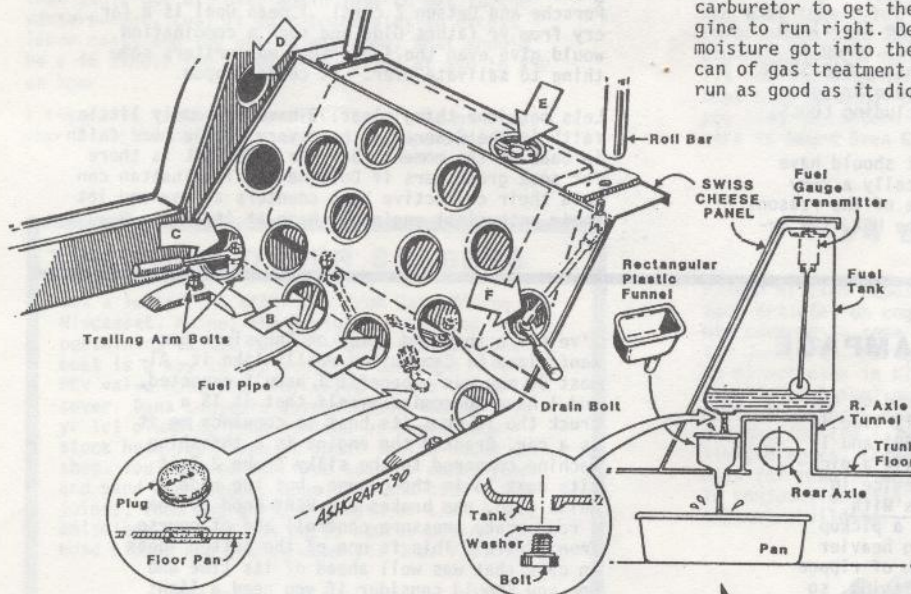
This is the time of year that mysterious things happen to otherwise good-running Saabs. I have had a rash of water-in-the-gas troubles with customers cars, which manifest themselves in hard starting, jerky running or flat refusal to motor forward in any fashion except on the end of a tow truck's hook.

Generally a can of methanol gas treatment will induce a small amount of water in the fuel to be injected (reluctantly) and burned but it may be necessary to drain some of the tank. Remember that gasoline is lighter than water so the water will be at the bottom of the tank. On the 95 and 96 there is an external plug for your tank draining enjoyment under the forward part of the trunk floor. On the Sonett, however, no such luck. The first time I looked for the drain it led me a merry chase. Turns out it is inside the car (a clever bit of engineering by Sven Goldberg, no doubt).

The Swiss Cheese panel immediately behind the seats in the Sonett was made (whether by design or accident) so you can do a variety of things to the Sonett, including drain the fuel tank.

A Reach in here with a 9/16" box end wrench and loosen the bolt under the tank. Take a screwdriver and (if you are British) "prise" out the rubber plug in the floor pan ("pry" it out if you're a Yank). Put in a little rectangular plastic funnel, unscrew the tank drain bolt AND DON'T DROP IT and let enough liquid out that the water goes away. It would be nice if you had a pan under the car to catch the water/gas you drain out. Put the drain bolt back in, remove the funnel, put the plug back in the floor and its done.

Once you get the fuel tank back to holding just gasoline once again, you will probably have to replace the fuel filter and maybe you will still have to lift the top off the carburetor to get the water out and the engine to run right. Depends on how much moisture got into the system. Then add a can of gas treatment and the car should run as good as it did before.



B Reach in here to get to the fuel feed pipe connection. You will have to remove this fitting if you take the tank out for any reason.

C This hole (on each side) allows you to get to the rear nut on the mount for the trailing arm for the rear suspension. You can loosen or tighten it with a socket wrench as shown.

D This hole give you access to the backside of the door striker plate mount. Isn't THAT nice to know!

E This hole gives you access to the fuel gauge transmitter. You may have to change it someday. If you do go messing around here, be SURE to disconnect the battery FIRST. Gasparkers around the fuel tank can be hazardous to your health, big time.

F This portal (on each side) gives access to the bolt that holds the roll bar in place. Some nuts that I know take out the bar and, after selling their first born into slavery, get the bar chrome plated, along with such things as valve covers and the radiator header tank. Anyhow, this is how you get to those bolts.

Fig. 1 The Opel Calibra with a Saab-like nose added. This Probe clone has a .26 drag coefficient!

Designer's Corner

by Jack Ashcraft



JUST DO IT!

Talk about your fake outs! First Ford, then Fiat, then Lancia was going to get Saab...but in a deft sidestep, feint and spinabout, GM danced past the other suitors and snatched up Saab in a surprise move. So now what happens to Saab? Will the new 900 replacement be a Chevette on steroids? A Buick with a Griffin badge?

Could be, I suppose. But OPEL is the most likely machinery to tap for a new 900 and if anybody has a lick of sense at Saab the car they will go after like a hungry wolf is the new Opel Calibra just shown at the Frankfurt auto show. This Probe clone has the worlds lowest C.D. (.26) for a production car and goes 140 mph with Opel's own 150 horse 16 valve engine!

Saab could re-grille the Calibra (see Fig 1) and name it Viggen (Sven for Thunderbolt), drop in its own 2.3 Turbo engine and go hunting BIG STUFF. That car would give the average yuppie bragging rights in a lot of departments, including LOOKS, even.

Face it, the 900 is a dinosaur that should have been replaced 5 years ago. Mechanically a very good machine, it is nonetheless one of the reasons Saab sales are hurting so bad in the USA. The av-

erage buyer in the \$18K+ category is a fickle yuppie who only wants the latest hi-tech gadgets, has no sense of history (automotive or otherwise) and will switch car brands faster than you can say "HICAS" or "16 Valves."

We also have overlooked the fact that the General also controls Lotus. Consider the aforementioned Calibra mitt Saab 2.3 Turbomotor und also mitt der Lotus active suspension! Keep it under 25 grand and you'll even pull buyers away from the Porsche and Datsun Z cars! I mean Opel is a far cry from yr fathrs Olds and such a combination would give even the jaded auto mag writers some thing to salivate over. It could happen.

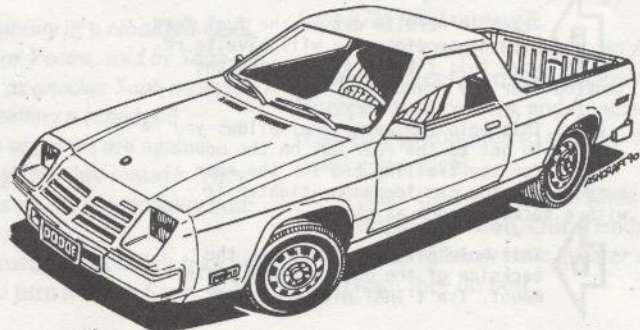
Lets make one thing clear. I have extremely little faith in the General. I have very little more faith in Saab at the moment. But the POTENTIAL is there for some great cars if Cologne and Trollhattan can hold their collective bean counters at bay and let their enthusiast engineers have at it.

ASHCRAFT ON THE RAMPAGE

Saab built a sedan delivery rig based on the 95 wagon (I saw them on the assembly line in Trollhattan when I was there in 1969) and I always figured they should have built a pickup. There is a feature on such a device in my book, *DREAMS & DETAILS, 30 Years With Saabs*. A great many people now use a pickup like a car and seldom haul anything heavier than three garbage cans and a bunch of ripped out rose bushes to the dump in the thing, so why put up with a big pickup, and more importantly, why NOT have front wheel drive?

Without too much trouble I sampled the only FWD pickups available: Subaru Brat (really 4 whl drv), VW and Dodge/Plymouth. ('82-84). In addition to occasional dump runs, I need to tow the odd derelict Sonett home so it had to have some amount of GIT. That ruled out the tippy Subaru and the diesel VWs. Gas VWs have a TON of speed equipment available but the cabin is pretty tight for me. The Dodge Rampage was the day's biggest surprise! It not only was big enough inside, but with Chairman Lee's 2.2 litre engine and only 2240 lbs it GOES and handles very well to boot! I sold my Toyota and bought the Dodge.

I've put a thousand miles on Chryslers non-sanforized El Camino and really like it. Almost 30 mpg was a benefit I hadn't expected, and I have to remind myself that it IS a truck tho it does its best to convince me it is a car. Granted the engine is a thrashing machine compared to the silky Probe 2.2 it sits next to in the garage, but the ride is quite good, the brakes are VERY good (it has a rear brake pressure control) and of course front drive. This is one of the better ideas in cars that was well ahead of its time and one you should consider if you need a light duty pickup. WITH front wheel drive!



IDIOT ENGINEERING & THE SAAB 900

I recently had the dubious experience of rebuilding the 80 amp alternator in an 84 Saab 900 turbo. The alternator rebuild is easy. Getting it OUT of the 900 is another thing altogether.

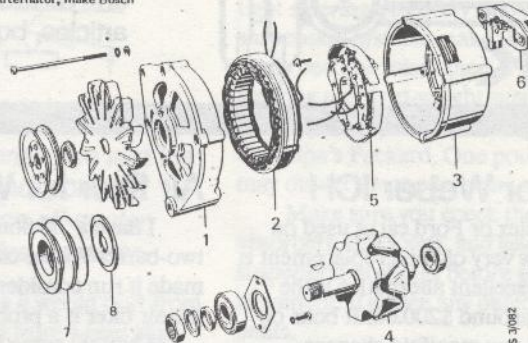
In order to remove the alternator, I had to FIRST remove the throttle cable, the air conditioner pump, the air conditioner pump mount, the oil filter and only then could the alternator be taken out, WITH its mount attached to it. This exercise in lunacy was heightened by having to use 8, 10, 12, 13 and 17mm wrenches and sockets plus a #50 Torx socket and a 6mm Allen socket plus a variety of extensions and universal joints! The idiot engineer that figured out that Rube Goldberg arrangement should be doomed to remove and replace 80 amp Saab 900 Turbo alternators forever. Preferably on hot engines.

I have always felt that it should be international law that before a person can ENGINEER anything he (or she) must first spend a minimum of 5 years as an apprentice mechanic in that particular field. Then perhaps in the case of auto engine accessories, ONE bracket would hold ALL accessories, which could be individually removed without disturbing the others.

If this sounds like demented raving of a wrench who hit his head on something under a Saab, you're right, BUT remember that when the WATER PUMP goes out on YOUR 900 Turbo, because you can take all that stuff out all over again just to get to the vasserpumper, too! It just translates to excess labor costs and YOU get to pay them. What should be a 45 minute job takes 3 hours and at \$40 to \$50 an hour.....

I figure it is the responsibility of the manufacturer to build cars that are easily repaired, in a

Alternator, make Bosch

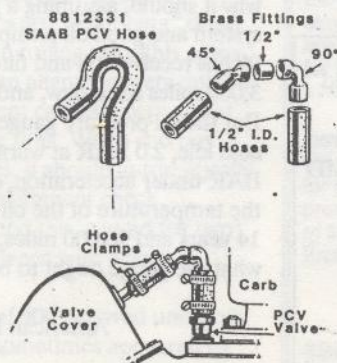


- Alternator, make Bosch
1. Drive bearing assembly
 2. Stator
 3. Slip ring end bracket
 4. Rotor
 5. Rectifier unit
 6. Voltage regulator and carbon brush holder
 7. Twin-groove pulley as from 1984 models.
 8. Large thrust washer, 80 A model only.

minimum amount of time. The good ol' days of fixing a car with a screwdriver and a pair of pliers and some bailing wire are gone forever, and that makes it even more important that cars be built for ease of maintenance. Ultimately it is the owner who is cheated by dumb Rube Goldberg lash-ups that take a lot of time to work around. It is unfortunate that Saab has had its share of dumb engineering--the hood arrangement on the Sonett III and the alternator on the 900 Turbo are two that come to mind--but then I guess that is what you have to contend with when one of your engineers is named Sven Goldberg.

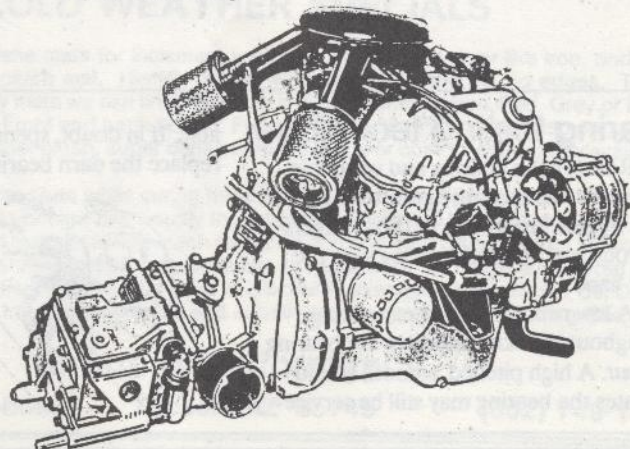
TIPS FROM OTHER SAABERS

Got a letter the other day from Dana Morong of Wiscasset, Maine, who included some good tips pertaining to the Saab 95-96-97 series. The best is a way to replace the "Question Mark" PCV valve hose from PCV valve to the valve cover. Dana suggests using copper tubing from yr lcl plumbing shop instead of buying the stock hose from Saab at about twelve bucks a shot. You have to use fine sand or emory paper and sand the copper, then flux and solder the joints. Then buy a short length of 1/2" I.D. emissions hose at the parts store, put on some hose clamps and you've done it. Good fix, Dana.



V4 ENGINES

Reader William Caporal (NINES Jan 90) would like tech articles on engine rebuilding. The V4 engine was covered in some detail in my articles in NINES for June, '85. Further information can be found in my articles in NINES for Oct '85 (tappets, engine bolts & fuel pumps), Aug '84 (V4 flywheel bolts & cylinder heads), Jan '83 (V4 oil pumps) and May '88 (V4 valve train parts). Because of limited space, these are not step-by-step articles for rebuilding, rather they should be used in conjunction with the Saab Service Manual on engine rebuilding.



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.

Air filter for Weber ICH

The old Solex or Ford carbs used on the V4s are now very old and replacement is expensive. An excellent alternative is the Weber ICH at around \$200.00. It bolts on directly without any manifold changes. Some linkage adjustment is necessary, and in cars with the power brake booster it is necessary to add a couple of plumbing elbows to allow the PCV hose to clear the linkage.

The most recent problem I have had is getting a well fitting air filter that does not require a lot of modification. (The stock filter will fit but the tabs that attach to the valve covers have to be modified or bent.) The large stock filter also blocks easy access to the distributor and all else that it covers.

I have found an air filter assembly that works perfectly. It's a K&N #RA045V, and the box describes it as a "custom air filter W/vent, 2-1/16" ID FLG offset, 6" OD, 2" High, for Solex VW". I paid about \$18.00.

A straight plastic vent tube, found in most discount auto stores, will be required. The existing vent hose cut slightly can be used. Most parts houses do not show an air filter for the ICH, but do show one for the ICT, which is what the K&N filter is for. The ICT appears to be the same with the exception that the fuel line inlet faces away from the radiator.

David Kronen
Woodland Hills, CA

Air filter for Weber 2-bbl

I have a '68 Sonett-V4, and put on a two-barrel Weber carb and manifold which made it run considerably better. Of course the air filter is a problem - no clearance.

I bought some fine wire mesh stainless doorscreen, fairly stiff, then cut that into an approximate shape of the bonnet "bubble", but sitting on top of the carb. Then close the bonnet, compressing the wire on any high spots. Make it as large as possible to increase airflow ability. Make sure the shape and size is correct, then cut a 3-inch hole in the underside (closest to the passenger). Put a 3-inch aluminum tube (an old large Bosch fuel filter, cut up, is great). Then fiberglass around the whole mesh, one layer on top, another on the bottom, making sure to glass in the 3-inch tube as well. Add more layers for strength.

Take a 3-inch dryer hose, attach it to the 3-inch aluminum tube, and route it back beside the heater box in the engine compartment. Attach the hose to any suitable air filter. I mounted a K&N unit right beside the heater box. With a bit of fancy sheet metal and ducting, a cold-or-warm air supply is possible.

This set up works great; there is no noticeable performance change with or without the air box. The cost is very little and doesn't take too long. I certainly think it's worth it to have filtered air, backfire protection and lower noise along with the performance gain of the two-barrel carb.

Mark Hollingsworth
Port Angeles, WA

Brake warning light malfunction

I believe that David Mondecar's problem with his brake warning light (SAAB Klinik, Dec 89) is much simpler than he suspects. The handbrake warning switch, which activates the brake warning light in the dash, is located at the rear of the handbrake below the plastic console. This area is very susceptible to collecting dirt, dust, etc. I suspect that the handbrake warning switch in his 1977 99 EMS has become dirty and ceased to operate properly, either because the terminal for the wire to the warning light is dirty, or because the switch is no longer properly grounded (it grounds through the hold down tab on the side of the switch).

His description of what happens with the warning lights when he starts the car is exactly what should happen, assuming he does not have the handbrake on. His brake warning light is still working through the contact at the master cylinder, but the lamp won't remain lit with the handbrake on after the engine is running because the handbrake warning switch has given up the ghost. He should repair or replace the switch and clean the grounding tab carefully. This is not a lot of fun because of limited space, and works much easier if one removes the driver's seat first.

I also disagree with Doktor Nio's response to Mondecar's questions. I have a 1976 99, it displays neither of the symptoms the goo Doktor describes, and I don't know why it should, assuming a good hydraulic system and good oil pump. Admittedly, my 99 has received oil and filter changes every 3,000 miles since new, and I take care of it. But the oil pressure gauge reads 4.0 BAR at cold idle, 2.0 BAR at warm idle, and 4.0-4.5 BAR under acceleration, depending upon the temperature of the oil and engine. After 14 years and 90,000 miles, this is exactly what the gauge ought to be reading.

David Vanell
American Embassy - Bahrain

Bearing testing technique

Remove the bearing and wash it in solvent, Fit the bearing tightly over one or more fingers. Insert one of those fingers into your ear. Spin the bearing with the other hand.

A low rumbling noise resonating throughout the skull indicates the bearing is *kaput*. A high pitched, smooth sound indicates the bearing may still be service-

able. If in doubt, spend the few bucks and replace the darn bearing.

Steve Verkouteren
Swanton, MD



Align yourself for the 90s

When basic transportation meant horse drawn Conestoga wagons, the issue of wheel alignment had little meaning. For today's transportation, automobile suspensions need to deal with the surface over which they travel.

One of the most neglected items in auto service is wheel alignment. This single topic plays a major role in both the fuel economy and performance handling of a car.

The three adjustments commonly made are camber, caster and toe. The goal of these adjustments is to keep as much tire on the road as possible.

Camber is the inward or outward tilt of the wheels when viewed from the front of the car. SAAB 900s have a slight positive camber, i.e. the top of the wheels lean slightly outward (bowlegged).

Caster is the degree of tilt of the wheel's vertical axis, viewed from the side. Caster configuration assists the steering wheel return after a turn, giving the car good straightline stability. SAAB 900s have a slight positive camber.

Toe is the measurement of the difference between the two front tire center lines. When the distance is greater in front the result is toe-out. When the distance is greater at the rear, toe-in. SAAB 900s have slight toe-in (pigeon toed).

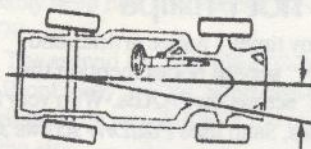
Of all the adjustments, toe is the most critical. The most sensitive area is the effect of overall stability of the chassis, should it change rapidly such as under hard braking. Dramatic toe changes will force a car to "hunt" from side to side, as the toe affects steering. A good pothole, or a hard bump with a curb while parallel parking is all it takes to knock the toe out of adjustment.

Toe and camber affect tire longevity. If your tires wear significantly in 10,000 miles, this could be your problem. If the tire wear is great, your fuel mileage is probably dropping as the tires are "scrubbing" down the road rather than rolling smoothly along.

Tire adapt to an alignment very quickly and any misalignment causes a permanent wear pattern on the tires. When you buy your next set of tires, it should automatically be the time for an alignment check.

Having explained this, a word (or two) on my recent experience with wheel alignment:

My 1983 model 900 behaved unusually on the highway. It sometimes appeared to



The rear thrust angle is the angle formed by the rear thrust line and the vehicle centerline. If not correct, thrust angle can cause off-center steering and excessive tire wear.

have a mind all its own as it would drift from side to side. I had several front wheel alignments/checks/adjustments, and was assured everything was to specification.

While in Milwaukee recently, I had my car checked on Gesch Enterprise's computerized four-wheel alignment machine. WOW! The initial analysis showed the front wheels going rightwards and the back wheels going leftwards. The rear thrust line - a line parallel to the direction of rear-wheel travel - pointed to the left. The front and rear axles were fighting each other as the car rolled on the road!

The front and rear wheels were aligned in about two hours. The rear wheel camber and toe were adjusted by (gulp) bending the rear axle. Do not try this yourself! A new rear axle is over \$650. The front was adjusted by conventional measures (shims).

By having this alignment done, the rear wheels are now perpendicular to the car's direction of travel and the car no longer drifts in its lane. Moreover, my 1983 SAAB now handles and corners like any 1990 you may test drive!

Why four wheels alignment, you ask? Front-wheel-drive cars with unit-body construction, rack-and-pinion steering and inde-

pendent suspension need very accurate alignment. By design, front-wheel-drive is not tolerant of tracking problems because of tight steering geometry. Independent suspension systems make the rear wheels to easily become misaligned. Finally, the quick steering and light-weight suspension systems of today simply are not as rugged as on your Grandpa's Packard. One pothole, one curb, may distort the modern day suspension.

Make sure you check the shock absorbers, ball joints, and associated rubber suspension bushings before scheduling an alignment. Replace any defective components.

The frequency of alignments will vary. Saab suggests every 30,000 miles for a check. Alignment Pros suggest 20,000 miles or once a year.

The only practical way to get a proper four-wheel alignment is to search out a good, knowledgeable mechanic, with modern alignment machinery (FMC, Hunter, etc.) and the expertise to utilize it on a SAAB. The once popular \$20 alignment has gone the way of the 10-cent movie. An all-wheel alignment may cost \$100 to \$150.

A final note on alignment: A couple of years ago, a 1982 SAAB I owned had all its shims removed over six years of alignments. When I wrote to NINES asking why and what next, I got a vanilla response. I have now been informed that some SAAB alignment shops use a custom rig (fitting into the shock towers, combined with a Porta-Power) to push the towers slightly outward, thereby allowing the front end to come back within specifications. Some older SAABs settle with time and miles.

Tad Gilliam
Grand Rapids, MI

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Pozi, not Phillips

Many times I notice articles and "brand-X" service books mention the "phillips" screws on SAABs. With very few exceptions, Saab uses *PoziDriv* screws, on newer (99 and up) SAABs. These look very much like *Phillips*, but are definitely different. A standard Phillips driver will work but not very well, possibly making you wonder why Saab uses such cheap screws that strip so easy.

A Pozi screw has extra smaller "slots" and a Pozi driver fits in almost like an allen screw/wrench combo. Excellent driver sets that include PoziDriv, Torx, Phillips, hex, flat and 1/4" adapter, are available from



Snap-On tools. Set #SSDM230 has magnetic removable tips in a good plastic case. Nothing from Snap-On is cheap (this is news?) so you might check with Mac Tools.

Oil pick-up trouble

I recently found an interesting problem in an H-engine 900. The engine, with 30,000 miles, broke a connecting rod (big-end) bearing in several pieces. I've never heard of one doing this and assumed it was a defective bearing since I couldn't find anything as a cause. I did a thorough overhaul (the crank was completely unmarked!) and sent the customer down the road. The engine ran great, but gradually after 30,000 more miles, the oil pump tended to lose its "prime" after sitting a long time.

I decided to tear the engine down again and find the problem. Much calling around turned up no one that had seen a similar problem. After extensive head scratching, sleeping on it, re-reading the service manual and appealing to various deities, I discovered the source of the trouble.

The oil pick-up tube bracket was slightly bent, so the O-ring seal on the tube wasn't kept tightly against the timing cover/oil pump housing. This allowed the oil to slowly leak out of the oil pump back into the oil pan and lose its prime overnight. Careful readjustment of the pick-up bracket completely solved the problem.

I believe it's a good possibility that the bent bracket was done at the factory, since the original bearing failed.

Mark Hollingsworth
Port Angeles, WA

Check space saver spare

Don't forget to check the pressure in the compact spare tire. If it is less than 40 psi, the tire should be broken off the rim by machine, the rust removed, bead sealer applied on both sides to repel water, and the tire left overnight then checked to make sure it will hold 60 psi.

Our 1981 900S blew a TRX tire, and an AAA ignoramus installed the flat compact spare with the wrong nuts. Tell all family members who use your SAAB that the alloy wheels, at least the early 390mm ones, will be wrecked if the wrong lug nuts are used, and the compact spare may not be centered or tight if the alloy wheel nuts are used with it.

The spare was driven flat, bending the rim. The problem was later found to be rust at the bead of the steel-painted compact rim. Wire-brushing and scraping would not cure the problem, but use of a bead sealer (black glop with some other names such as tire-to-rim sealer) did.

A check of our 1982 900 revealed another flat spare! Same treatment was applied. Obviously I should have been checking the pressure in the spares at least once a year. Not so obviously, bead sealer is needed to fight the moisture. New compact spares, I heard, cost over \$200 from a dealer. It is hard to believe that a runt intended for temporary use costs more than a standard steel wheel and tire! Used compact spares go for \$325 to \$65, but I figured they would suffer from the same problem as our own "used" ones, so I chose repair.

Joel Kauffman
Philadelphia, PA

Cracked headlight lens?

For those with late model SAABs that have flush-mounted headlamps: If you've ever had to replace one because of a crack or pin hole in the glass caused by a rock, I'm sure you've been outraged to find they cost about \$230 per lamp!

As an alternative to replacement (for small holes) I've found that a good silicone/glass sealer will keep water vapor out of the lens and is virtually transparent. Repeated washing of the front lamp will eventually cause a leak, and new sealer will have to be applied, but I've found this much more cost effective than replacing the lamp.

George M. Metzger
Gaithersburg, MD

9000 performance mods

I bought a 1988 9000 Turbo and fell in love with the smoothness and power of the car. The problem was that the car did great in a straight line but was afraid of corners. It did not want to "turn-in" or transition from one corner to another without major understeer at limits (yes, I do like to drive harder than the average bear). When in a hard corner the car would hold but had a tendency to wallow on the gas shocks. A second problem was a lack of power under 3,000 rpm. Some might call it "turbo lag" but it's really a tuning problem and where the power band and boost comes on.

The solution to the power problem was easy and obvious. I bought the SAAB Sport Exhaust, P/N 02-74-597, and the Tune Kit, P/N 02-43-113. I installed the exhaust first and noticed a substantial difference in low end power and where it started (around 2,200 rpm).

Next, I installed the Tuning Kit and had the dealer adjust the boost up to 0.35 BAR (it was at 0.30 BAR). The extra ten horses make a real difference, but the power comes on much sooner and broadens the power band. This makes the power much smoother and improves the overall drivability. It is not the cheapest way to go and if you have to make a choice, go for the sport exhaust. I chose to use genuine SAAB parts for the support and staying in compliance with the warranty.

The handling problem was a bit more complex until the local SAAB rep came to the rescue. I looked for aftermarket springs and shocks as well as tires and wheels (the car came with the awful P600s). I could find some shorter springs but no one could tell me the spring rates and there were no shocks to match the shorter springs. Although I wanted the car to handle better, I did not want to lose too much ride comfort.

Not having enough spec to design my own, I kept talking to Saab for information on the suspension. Eventually a local Saab rep told us about a new "Sports Suspension" kit that Saab was going to release soon for the 9000 series. My dealer managed to get me an early set.

There are two kits that you will need. P/N 138-002-100 will get you the new front struts with springs, etc. (fully assembled) and the rear springs with all the required new nuts and bolts. If you have an older 1987 model or earlier, then you will

probably need new rear shocks, P/N 10-89 68-570.

The second kit, P/N 138-002-209, is a new Front Sway Bar Kit. Saab says the sway bar kit must be installed with the road holding kit.

The springs are slightly shorter all around and all the dimensions are only slightly different from stock, but the difference in handling is TREMENDOUS! Body roll is minimized so the car handles flat and rebound rates on the shocks are much quicker. The car transitions much better and the wallow is gone. This car handles like it should. I believe the ride quality is improved because of the faster rebound rate, but that is personal taste. More could be achieved with the 16-inch rims and decent tires, but I am very pleased with the results thus far.

The cost? Cheap this is NOT. In my opinion these changes were worth every penny and I would gladly have paid for it on the car new. I can't believe every 9000 isn't sold with these kits already on the car. The Sport Exhaust is about \$327.00, the Tune kit is about \$560. The suspension kit and sway bar will set you back about \$950.00. These prices are suggested retail and do not reflect taxes or installation.

The kits are very complete and the instructions are very clear. The most difficult part to install was the front sway bar. It is just awkward to get to all the bolts and getting it in and out. Other than that it would be an afternoon's work for most amateurs.

When you replace the rear springs, be careful of the ABS cable as the instructions don't show you all of the places that it is connected to the trailing link. The front end will need alignment after you are done. Stock spec is okay, but you might want to add a little camber and a dash more toe-in. The exhaust does require some cutting of the lower rear valence, but in typical Saab quality, they give you the template for the cuts and a filler panel for the old cutout.

Douglas Morse
Hayward, CA

Radar detector installation

Here is a tip on installing and connecting a radar detector on a SAAB 9000.

A small unit, such as the Uniden RD-9XL, will just fit above the rear view mirror. In this location it is not only inconspicuous, but also seems to pick up radar from the rear, which bounces off the "black-out" coating at the top of the windshield.

Mounting is easy. Just use a conventional suction cup mount on the windshield, and tape the unit's own slide-in bracket to the bottom of the suction cup mounting plate. In this position you can still adjust your mirror (barely!), and the unit doesn't interfere with either sun visor.

This location also makes hardwiring easy. On the SAAB 9000 with illuminated mirrors in the sun visor, you will find two "hot" spring steel contacts at the visor clip. Just use two male solderless terminals and file them down to that they wedge in on top of the mirror contacts. Your visor mirrors will work just fine, and you can conceal the wire to the detector by pushing it between the windshield and the headliner. Your radar detector will only be live when the ignition is on. I left enough slack in the wire so that I can unplug and remove the detector when I leave the car.

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96 door bottom repair

Bodywork is sort of like a relationship: How much one puts into it often depends upon expected duration value, the value you set upon it, condition, and of course your skill. My SAAB was bought with rusted out door-bottoms, though much of the rest was fairly decent. As my SAAB is a roadcar and is not in a collector class, I favor this functional sheetmetal and rivet method. As I am terrible with painting and as this area gets wear from small stones and much dirt, I have undercoated the bottom 6½ inches as some newer cars do these days. If you have a really good car, though, you may not want to emulate this simple method, but perform a real and proper restoration job instead.

I recommend that all weak rusty spots in structural areas, especially the bottom, be cut out and replaced with new thick metal by welding. Only this can halt rust.

I favor sheetmetal for this job as I have very little experience with fiberglass/resin and am sensitive to fumes. Fiberglass (also body fillers) requires clean (no paint and absolutely no rust) surfaces to bond to; lacking these it will eventually peel off again making an ugly mess.

One of my early mistakes lay in trying to hide the rivet seam with bondo, as large areas tended to crack from the vibrations inherent to doors. (Body filler is brittle, but when properly used is okay for small, non-structural repairs.) I finally settled on simple galvanized steel and undercoating, with water drain plugs to let rainwater out. Rain gets in by the windows, and though Saab originally provided drain holes, they neglected to seal the crimp seam (a bit of undercoat on new metal there probably would have done the job), hence door bottom rust. My theory is to let water out again (by the drain plugs) but not let it get sidetracked into a cozy oxide-manufacturing position!

Materials needed include Galvanized (on both sides) Steel. I used 26-gauge,

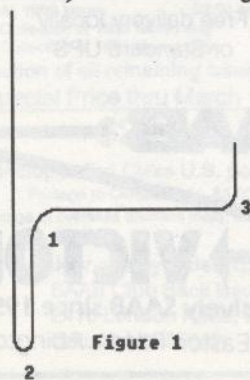


Figure 1

about 10 inches wide and at least 48 inches long, to leave some metal on both ends to fold over and rivet down. I got my steel as clean scrap at a sheetmetal shop and got them to bend it as per my specs on a "brake", a big metal bending device (see Figure 1). I got the specs by measuring a decent 96 door. Remember that both the 1-2 and 1-3 widths usually change from front to rear. Some workers may doubt a complex bend, but it's easy if done in correct order. If enough good metal still remains on the original door in the 1-3 area, you won't have to have them do bend #3, but can bend that yourself with a wide-jaw Visegrip.

Water drain plugs: These are rubber and may be called something different, but they look like this (see Figure 2). They fit into circular holes in floors and let water out but not in. Get four while you can get 'em, enough for both doors. A parts place may

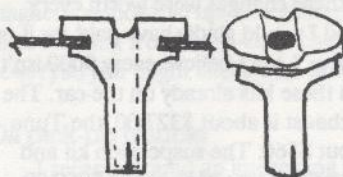


Figure 2. Water drain plugs

not know what you're talking about; try a SAAB dealer and show the diagram and application.

Undercoating: I used two types, one a quality undercoating that dries (I used 3M brand) for the outside. The other doesn't have to dry hard as it's used between metal layers and inside the door. Test it a few weeks before on a piece of scrap left in a box in the car. Some brands emit fumes indefinitely and should not be used for interior applications. If the odor goes away, you'll know you've found an acceptable one. I used the cheap K-Mart brand.

Pop-Rivets: To fit 1/8 inch holes. Mostly short, but a few longer ones, up to 1/2 inch grip, are handy also. Keep extra drill bits on hand in case one breaks. Instead of a 1/8 inch (0.125") bit, I use 0.128", as a slightly larger hole is easier to work with. Don't forget the drill, extension cord, rivet gun, metal shears and sanding disk.

Other materials you might want on hand: Fiberglass/resin, body filler, or whatever you prefer to make the job look neat. Contact cement, masking tape, newspaper, primer spray, sandpaper, and painting materials as needed.

If you have an extra parts door, it can

be put into service temporarily if you need to use your SAAB while the project door is on sawhorses.

You may want to free up the hinge screws weeks prior to the project; a shop may be needed to help here. Also check the metal around the hinges as it causes door-sag when fatigued. If you can raise the rear of the open door over a quarter-inch, you probably have metal fatigue. In this case you will need to get that area straightened, probably by welding.

Once assembling materials, time and good weather, I first removed the interior door panel. Be careful of the door lock button; if you accidentally push it down and then unscrew it you may lose the threaded metal bolt as it springs away unaligned with the hole, making reassembly difficult.

Next, I removed the door, using a big chunk of wood to support it. I prefer to remove the door complete with hinges, though it requires a bit of tricky maneuvering, to avoid later door hang adjustment botheration. The last door I did had hinge screws on so tight, nobody could get 'em off, so I did that door on the car, lying on my back. It is easier up on sawhorses. Either way, be sure to chock the wheels first, in case you happen to knock the car out of gear while removing the interior door panel.

I measured and stuck tape across the door, bottom edge of tape 10 inches from and parallel to the door bottom, so I'd know how far to go once I'd cut off the rusty metal. I cut that metal right back to good metal, also removed the sidetrिम, which tends to catch salty water and thus rust out the sidetrिम holes (you're fortunate if they're not rusty yet). In either case grind off the paint and all rust around the holes to bare metal for body filler to bond to.

Peter McLaughlin in his excellent bodywork article (Oct. and Nov. 1983 issues of the SAAB Club Newsletter) told how he sandblasted off all rust around the holes inside and outside, then patched them from the inside with one-inch squares of fiberglass, then bondo-ed and sanded the outside. I did not think of this at the time I was working on my doors, kind of wish I had. His four-page article should be read and applied.

I started handling and slightly bending the prior-bent sheet metal to fit, cutting off extra metal but leaving some on ends, folding this over around the sides. A few drillholes and temporary unpopped rivets keep position, making sure that the bottom

edge is 10 inches from that tape. I left an inch of metal overlap for riveting, but like to keep the top (showing) edge straight (and bent that edge very slightly in). I also cut a couple circular holes, one in front and one in the rear, in the 1-3 area (see Figure 1) for the rubber water drain plugs.

After everything checked out for fit, I removed the patch panel and sprayed undercoating on its inside surface, then started riveting it on; a gooey job, but sealing the space between the metals (this sealing is absolutely essential). Once started, I drilled and riveted every couple inches, also the backside (inside) seam (near bend #3) as well, and finally folded around the corners. Make sure they're good and tight; one must use experience for the corners. I undercoated all the insides of the door bottom (also those bondo bumps or fiberglass squares, if you used that method) most thoroughly so it won't rust again from the inside. Also undercoated the bottom under the lip and the backside seam. Let it dry somewhat before installing the drain plugs, to keep them from getting clogged.

After rehanging the door, I undercoated the bottom 6½ inches with the quality undercoating that dries. This black strip runs from wheelwell to wheelwell and doesn't look bad on a dark green car.

If you are careful to keep the door the same thickness as before, the original rubber bottom gasket may still fit. Otherwise more gasket material may be needed. The tiny plastic hold-ons are a pain to hitch onto again; I used contact cement instead. Applied liberally on both door and gasket, it sticks good if directions are followed.

By the way, those tarpapers glued inside the door often curl. Cut them and flatten and reglue, as they really do cut down on the noise. The thinner paper overlapping the cutouts on insides of the doors (behind the door interior trim) keeps rainwater from wetting the door interior trim. Be sure to replace these also.

Before replacing the interior panel, I checked the screw (later years) on the back of the door lock and tightened where necessary. They tend to loosen over time. If the lock is sticky, remove and service it by soaking in light oil. I don't know how to keep that plastic insert around the door opening lever from rattling, but if it gets bothersome, I'll think of something.

Dana Morong
Wiscasset, ME

95 rear shocks V4 tranny lube

Awhile back someone wrote asking for a source for rebuilt 95 rear shock absorbers. Apple Hydraulics, Inc., 610 Nostrand Avenue, Uniondale, New York 11553, is such a source. They offer a standard rebuilt lever shock for \$49.95 plus shipping (you send cores) or \$59.95 for heavy duty with a two-year guarantee. The phone numbers are 800-882-7753, toll-free in the U.S., and 516-481-8111 within New York state. I've had the heavy duty shocks on the rear of my wagon more than a year - so far so good.

One more statement regarding V4 transmission lube: 75 wt. works great on double- and triple-digit model SAABs. Especially in cold climates the 75 wt. seems to give you the edge in V4s in shifting during warm-up. But as Monty Tarr states, the operator's treatment of the transmission (and adherence to 12,000-mile lube change intervals) makes more difference than the exact lube viscosity.

Having rebuilt more than two dozen 95/96 transmissions, I've seen just about every type of failure including a few sheared countershafts. In each case when the shaft broke (right behind the front gear), it was nearly zero degrees outside. The owner started the car and immediately took off without slowly warming up the tranny by taking it easy.

With every rebuild I give out instructions: Change fluid every 20,000 miles or 2 years (whichever comes first), and if the temperature is below freezing, always move the shift lever through all five gears twice before taking off. This helps to move fluid around in the tranny before applying the 85 ft.lbs of engine torque to the cold box.

Roger S. Harris
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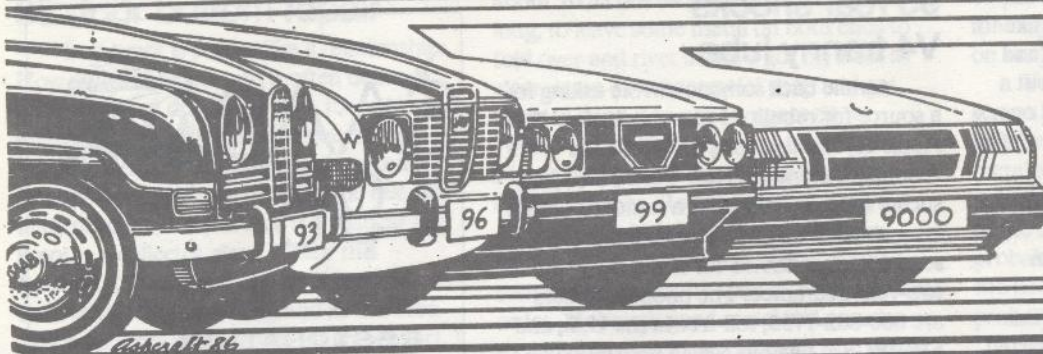
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Ads offering parts or SAABs for sale or wanted are available to members and non-members. Ads are limited to 25 words, plus name address and phone number. Ad copy will be abbreviated and excess words deleted where possible. Enclose sufficient funds with your ad, we do not bill. No ads will be taken by phone. The Classified Ad rate is as follows:

	Members	Non-members
CARS FOR SALE	\$10.00	\$15.00
PARTS FOR SALE	\$5.00	\$7.50
WANTED ADS.	\$2.00	\$3.00
COMMERCIAL ADS (Parts & Services)	\$10.00	\$15.00

DEADLINE: The 15th of each month for the following month's issue, e.g. January 15th for the February issue. Newsletters are mailed the first week of the cover month.

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, 54k mi, new Yellow paint w/black trim, brown leather interior, alloy rims, louvered sunroof. New tires, brakes, calipers. All original, stored, mint. \$4,500. James Horvath, 4849 Grace Rd, Tudor House Condo, Suite 101, North Olmsted, OH 44070. 216/ 777-1537.*

'73 Sonett III, AC, 37k mi, rebuilt transmission, new clutch, new orange paint job, everything original. Have extra parts & receipts for everything. \$4,850 firm. Rob Youree, San Antonio, TX. 512/ 737-4550, or Bob Youree, 713/ 358-5337.

93s, 95s and 96s For Sale

'73 96, Lemon Yellow, 170k mi, relatively clean, body fair. Weber carb, radials, good compression, stainless mufflers, recent work, extra parts car. Drive it home! \$1,000. \$700. Peter Reimuller, PO Box 4, Point Arena, CA 95468. 707/ 882-2001.

'72 95, body good, no rust, trans good, engine needs rebuilding, excellent project car. \$200 obo. Also '75 99EMS, no eng/trans, lots of interior, glass, and body parts. \$100. Eric Aberg, 1510 Cougar Ridge Rd, Buellton, CA 93427. 805/ 688-1027.

'60 93 for parts or restoration, Lt. Blue, underbody rust. '67 96 2-stroke for parts or restoration, cream, rocker panel rust. Not immediately driveable. Extra parts. Best offer. Roger Harris, 65 Buckingham St. Springfield, MA 01109. 413/ 739-1806.

2-Stroke & V4 Parts For Sale

'68 V4 parts, send SASE for list. Includes alternator, regulator, most electrical parts, windshield wiper and washer motors, fuse blocks, wiring harness. Very reasonable. Carl Friedberg, 165 William St. 9, NYC, NY 10038. 212/233-5479 (call early).

Two 850 Monte Carlo engines, new in factory crates. \$450 each or best offer. Monty Tarr, Rt 1 Box 385, Catlin, IL 61817. 217/ 443-7402 days, 217/ 427-5203 eves.

99s and 900s For Sale

'89 900 Turbo, 3-dr, 5-spd, 12k mi, Cherry Red w/tan pique interior. Maintenance log, kept showroom clean. \$17,500. Bill Bartman, 8627 Beekman Place, Unit B, Alexandria, VA 22309. 703/ 799-0537.

'73 99EMS, runs, good 4-spd, alloys, very good body with almost no rust. Lots of extras included. \$500. Ted Graef, 2195 Grant Rd, Quakertown, PA 18951. 215/ 538-7601.

'85 900 SPG, Black, immaculate, stored winters, never smoked in. 46k careful highway miles. Includes car cover & bra. Kenwood stereo and Pirellis. \$10,500. J.L. LaPour, 921 R St., Tekamah, NE 68061. 402/ 374-1750 weekends.

'78 99 Turbo, 3-dr, Maroon. Includes running parts car and many extra parts. Has new water cooled turbo, water pump, front calipers and operable A/C. Needs head gasket. \$2,000 obo. Richard Cavallaro, Basking Ridge, NJ. 212/ 214-1369 days, 201/ 647-8018 eves.

9000s For Sale

'87 9000 Turbo, 28k mi, Black w/Tan leather, original owner, 75k mi transferable warranty, roof rack, excellent condition. Must sell, owner moving to Switzerland. \$18,000. \$17,000! Don Yost, Suite 100, 3901 Hartzdale Dr, Camp Hill, PA 17011. 717/975-0509 8am-5pm.

'87 9000 Turbo, 5-spd, 5-dr, 40k mi, Airflow kit, Black w/Tan leather, rear louvers, remote alarm, tinted windows, alloy wheels w/P-6s, loaded. \$17,000. Phil Surma, 234 Krotiak, Park Forest, IL 60466. 708/ 747-9904.*

99, 900 and 9000

Parts and Accessories

New 900 parts: 5-spd clutch kit, H-type water pump, Ign. lock removal tool, Ign. lock w/2 keys, Ign. switch, turbo gasket set, pedal pads, rear brake pads, distributor caps, Fram oil filters, Purolator air filter, Bosch platinum plugs, plug wire sets, brake tool, mixture tool, clutch bleed tool, P/S o-rings, seat platform w/ springs. Used 900 parts: 3-spoke steering wheel, lug nuts, window cranks, A/C switch, 8572190 relay, elec. window switch, heater switch parts, 85mph speedo, wheel locks, bulbs fuses, shop manuals, books. Boris Galchenko, 4809 Premiere Ave., Long Beach, CA 90808. 213/ 425-2760 days or leave message on machine.

Parting out '77 99EMS. Many new parts including hub caps, clutch, unique European console, etc. Ran when last started, died of rust. John Ransdell, 2024 S. Glenwood, Springfield, IL 62704. 217/ 528-8602.

900 Parts: Electric mirrors, L&R, 1979. Rear window, 3-dr, green #8275257. Turbo 3-spoke steering wheel, Turbo 4-spoke steering wheel, Dash panel assy #9806829. Very good condition, best offer, +shpg. David Adams Jr., 17107 Invermere Rd, Cleveland, OH 44128. 216/751-8109.

B-motors, \$125. B-heads, \$225 & up. H-motor, \$200. H-head, \$275. 99 hood, \$75. 4-spd trans, \$325. Alloy & steel wheels. Also: '79 900 Turbo 5-dr. Theodore Haussner, 422 Lexington Av, Cranford, NJ 07016. 201/276-3319 or 201/615-4495.

Isky street cam for H-engine Turbo, new, \$125. 4 Koni gas adjustable shocks for 900, new in box, \$120. Power steering pump for 79-84 900, \$25. Mark Osterbauer, 2080 Inca Lane, New Brighton, MN 55112. 612/633-5846.

Alternator for '82 900, single belt pulley, \$25. A/C compressor for '81-'84 900, \$25. Valve cover w/distributor for H-eng Turbo, \$25. All prices +shpg. Mark Osterbauer, 2080 Inca Lane, New Brighton, MN 55112. 612/633-5846.

99 parts: 4-speed transmission for '75, '76-'77, and '78-'80, all w/low miles, \$100 ea. Soccer ball stye alloy wheels, \$30 ea. EMS tachs (2), \$20 ea. Mark Osterbauer, 2080 Inca Lane, New Brighton, MN 55112. 612/633-5846.

Parting out '82 Turbo: Engine, wheels, Maroon interior, some trans parts, all cleaned. '89 15-spoke alloy wheels, 5.5"x15", \$550. Joseph, Phoenix, AZ. 602/439-8728.

Parting out: 6 99s & 13 900s, 1973 thru 1985. New OE sunroof deflectors for 99, 900 & 9000, \$45.00. Rod Beckner, 604 E 1st, Albany, OR 97321. 503/928-6351 eves & wknds.

900 parts: Euro headlights, \$95. Addco sway bar kits, \$80. 135mph speedo, \$50. Center console w/VDO gauges, \$130. Saab/Momo leather steering wheel, \$75. Much more. Larry Hunt, 1156 Barksdale, Grissom AFB, IN 46971. 317/689-9473.

'74-'80 "B" head complete with valves & injected cam, 7k mi, new E.C., \$450 obo. '74 99 exhaust manifold, \$75. Peter Sabol, 404 Royal Creek Dr, Roswell, GA 30076. 404/552-7914 home, 404/664-1010 x.82362 work.

Parts Liquidation Sale! New & used, all models. Hundreds of part numbers. Write or call for a free list. French's Foreign Car, 925 Luke Street, Irving, TX 75061. 214/399-1222.

All SAAB parts, new and used. Mechanical service on all models of SAABs. One Stop SAAB, 400 E. Fulton, Columbus, OH 43215. 614/228-7129, 614/228-7222 (228-SAAB).

2 new Webers & MSS manifold for 2-litre engine, \$500. Blue Silver Spoke alloys, \$300. '78 fuel injection, \$40. '80 fuel pump, \$40. '80 power steering pump, \$10. Other 99 & Sonett parts. Ted Graef, 2195 Grant Rd, Quakertown, PA 18951. 215/538-7601.

99, 900 headliner recover kit, comes with glue, 3 1/2 yards of material and complete instructions, \$77.50. Other parts available, Monday - Saturday, 9am-8pm. Trollhattan Motors Inc., 310 George Ave, Baltimore, MD 21221. 301/682-4688 or 301/686-2446.

Overstocked on SAAB parts! All makes and models. Will take best offer. Write or call for list. Noller SAAB 2946 So. Kansas Ave., Topeka, KS 66611. 913/267-2800.

Large Inventory of 99, 900 & 9000 parts, new & used. Engines, 5-spd transmissions, etc. Rebuilt units & installation available. Saab Master Technician on duty. Independent Auto Craft, 6207 Factory Road, Crystal Lake, IL 60014. 815/455-4030.

Parting out: '86 900S 16v, '87 900 16v Turbo, '86 900 SPG, '86 900 base, '85 900 16v Turbo, '84 900, '82 900 Turbo, '79 900. Drivetrains, interiors, body, suspension, wheels, rebuilt transmissions and more. Mike Caro, Wallingford, CT. 203/284-8989.

99, 900 OEM parts wholesale to SAAB Club members. Engines, transmissions, large assortment of used parts, OE parts, aftermarket parts. Installation and service available, Monday - Saturday, 9am to 8pm. Trollhattan Motors Inc., 310 George Ave, Baltimore, MD 21221. 301/682-4688 or 301/686-2446.

Wanted, All Models

Two 4-bolt brake drums in useable condition, from 750GT, 850GT, Sport, etc. Mark Osterbauer, 2080 Inca Lane, New Brighton, MN 55112. 612/633-5846.

"Bo-Bob" child's car seat, sold by Saab dealers. Paul Hawkins, 15311 SE East Ave, Milwaukie, OR 97267. 503/653-7389.*

Two '75 99LE full wheel 8-slot hubcaps in good cond. '83 900T manuals except #s 2:3, 2:4, 5, and 8. Best of Saab Service Tips. Rob Pecsar, 709 Winding Way, Encinitas, CA 92024. 619/943-7172.

Old Newsletter issues, mid-1974 thru late '77. Will pay reasonable price per issue. Good quality copies acceptable. Can trade for copies of later issues you may be missing. David Vanell, American Embassy - Bahrain, FPO, NY 09526.

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Barber Saab cars improved for '90

What goes faster, stops shorter and corners better than ever? The 165 mph Barber Saab Pro Series single seaters. As part of the series' continual development work, Manager Steve Sewell announced a number of engine and chassis improvements made to the cars for the upcoming 1990 season.

"We don't stand still in the off-season," Sewell said. "We've been testing in Florida since October and have made some significant changes to the car that improves our already excellent reliability as well as the 'feel' of the car."

One improvement is to the braking system. "We've gone to a smaller-bore master cylinder. With increased line pressure, the drivers will have a much better feel for the brakes, allowing them better modulation to take advantage of the cars' strong braking ability," Sewell said.

Another change is to the front sway bar. "A thinner wall-thickness 'softens' the bar. The driver now has a much greater range of adjustment so that he can dial in the set-up he prefers, from understeer to neutral to oversteer," he said.

"And to take this chassis balancing even further, we are going to use lower spring rates front and rear. The softer springs will improve cornering feel considerably," Sewell added.

A small change to the front wing results in two big improvements: "By increasing the size of the 'Gurney flap', we not only get better front end grip, but we'll see an

increase in straightaway speeds since a driver can reduce the front wing angle and hence, reduce drag," Sewell said.

Finally, new stock Saab Turbo engines have been installed for 1990. "Saab improved ignition timing by utilizing a crank-fired system. We wanted to take advantage of this greater efficiency available at high racing revs," he said. The engines produce 225 horsepower at 6,000 rpm, make 200 lb-ft of torque at 4,000 rpm, and the cars use Goodyear Eagle racing slicks.

The Barber Saab Pro Series begins its fifth year February 25th at the Grand Prix of Miami. In each of the past four years, the IMSA series has run 12 races. This coming season, a 13th road race or an oval track-race will be added once the IMSA and CART schedules are finalized.

Saab-Scania of America has announced their continued support for the series. Saab-Scania's President, Bob Sinclair, stated, "We are committed to making the Barber Saab Pro Series better every year. While the budget constraints that all European auto manufacturers now face will result in a one year cutback of our at-track entertainment program, all other aspects of the series will be stepped up."

Again, as in every year of the series, ESPN will broadcast the bulk of the Barber Saab races. In 1989, 28 separate telecasts of nine Barber Saab races reached an audience of over 25 million viewers. Additionally, highlights of the '90 races will be shown on ESPN's new Saturday night race programming.

The \$100,000 Career Enhancement championship bonus, first awarded in 1989 to series champion Robbie Buhl, continues, as does the \$36,000 per-race purses. An additional points fund is also being negotiated.

Barber Saab Pro Series

1990 Schedule

February 25	Miami, FL
April 1	Road Atlanta, GA
April 22	West Palm Beach, FL
May 6	Topeka, KS
May 28	Lime Rock, CT
June 3	Mid-Ohio, OH
July 1	Watkins Glen, NY
July 29	Portland, OR
August 19	Road America, WI
September 30	Tampa, FL
October 14	Del Mar, CA

12th, and possible 13th, races to be announced.

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(i.e. '84 900 S 4dr. automatic / '78 99 GLE 5dr. 4-spd / '72 Sonett III / '88 96-V4 Deluxe)

Annual Membership fees for the SAAB Club of North America/NINES are as follows:

First Year \$23.00
 Renewal \$20.00

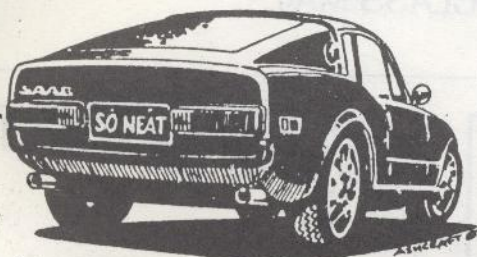
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FROM THE BACKSIDE

Why was Saab-Scania AB in such a hurry to find a "partner" for the Saab Car Division? During the past year they held talks with Mazda, Ford, Fiat/Lancia, and who knows how many other manufacturers, finally tying up in a joint venture with General Motors.

Saab recently opened two new factories -- an engine facility in Sodertalje, and a car production line in Malmo --, both utilizing the latest technology in automotive construction techniques. That has caused problems with cash flow.

The 900 has been on the market for eleven years and sales are slipping. (Most automotive publications now refer to it as "the aging 900".) The 9000 has been around for five years, which is considered a very long time in today's auto market. Saab needs to bring out a new model.

I believe the rush to find a partner is because Saab already has a new model, but due to the weakened cashflow, can't afford the tooling to bring that model to market. If you'll recall, several years ago Saab was talking about a replacement for the 900 in about 1991. You would expect that Saab's engineering department would have begun working on a new model as soon as the 9000

was completed in 1985. With a four- to five-year lead time on bringing a new model to market, the 900 replacement is overdue.

The 1991 model year is only eight months away.

We have been looking at the costs of particular services we offer. We are losing money in a couple of those.

As the package of back issues has grown in number and in size (the number of pages in NINES doubled in May, 1988, and so did the cost of printing each issue), the postage has also gone up. Effective March 1, 1990, the price of the back issue package will increase to \$35.00. This seems like a big jump, but we have unknowingly been losing money on this item. This is still a bargain as very few other marque publications offer back issues at less than the cover price.

Subscriptions outside of the U.S. are also being subsidized. An explanation of those costs will be sent directly to those affected, but as an example, the cost of air mail postage to an overseas address is \$20 per year over the cost of mailing to a U.S. address.

Our attempt at offering SAAB Club T-shirts (the first time in about five years) turned into a problem when the response was much greater than expected. We had to hire someone to help, which cut into our already minimal profit on some of those gift items. We also had to write lots of refund checks after we ran out of the 96, 95 and 3-cylinder engine shirts. I think we have the problems worked out now and we'll try it again. Please let us know if you have any suggestions for improvement.

Speaking of help, Terry Torgerson has been added to the SAAB Club staff, working part-time, primarily handling the "gift shop".

Quite a bit has been written lately about a revival of the two-stroke engine. Both General Motors and Chrysler Motors displayed experimental two-stroke powerplants at the North American International Auto Show in Detroit this past month. Both engines are three-cylinder units made of aluminum.

The Chrysler engine, dubbed the EBDI (external breathing direct ignition), was mounted in a Dodge Shadow. It has two spark plugs per cylinder fired by a distributorless ignition module from a six-cylinder engine. It also has a centrifugal supercharger to aid in exhaust scavenging.

The lower end of the EBDI engine uses wet sump lubrication and bearings like a conventional four-stroke engine. The cylinder liners are cast iron, cast in place.

GM's CDS-2 (computer-controlled, direct ignition, stratified charge) is a naturally aspirated 1.5-liter powerplant producing 110 horsepower. Despite a gear driven balance shaft to reduce vibration, total engine weight is only 165 pounds.

The GM two-stroke utilizes technology licensed from Orbital Engine Co. of Australia. Orbital, under the guidance of company founder Ralph Sarić, has developed a fuel injection system for two-stroke engines that reduces engine emissions. Ford Motor Company also has a licensing agreement with Orbital.

Other auto manufacturers working on two-stroke engines include: Nissan, Toyota, Subaru, Mazda and Peugeot. Toyota has shown a six-cylinder, 24-valve, supercharged two-stroke engine in the 3-liter range. Both gasoline and diesel versions of the Toyota engine are under development. It could reach the market as soon as 1993.

Saab says they are not working on a new two-stroke engine at this time.

Tim Winker, Editor

NINES

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- #901 - \$1.50 ea, 4 for \$5.00, incl. shipping.

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- #101 - 95/96 V4, 1966 - 75 \$12.50
- #102 - 99, 1969 - 80 \$12.50
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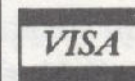
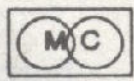
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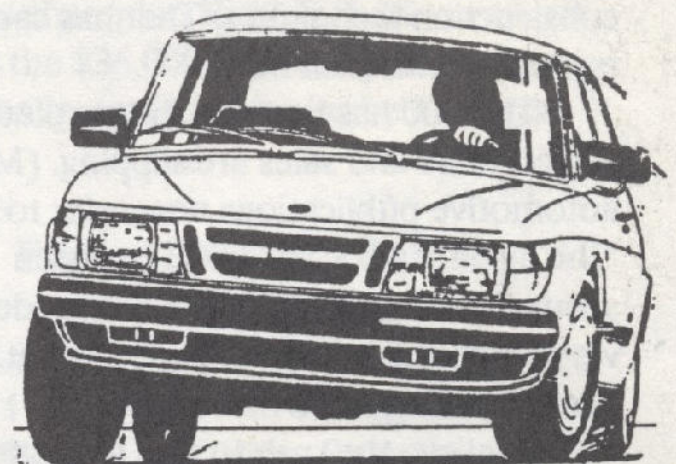
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