



NINES

THE SAAB CLUB NEWSLETTER

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July/August
1991
no. 205



The Mellow Yellow 99, see page 2. - photo by Tom LeTourneau

Rumors: Spy photo of the next 9000
Big Saab to be dropped? page 7

Sonett door delamination page 12

Tech Talk
900 armrest & Water-cooled turbo kit page 14

Book Review:
The Machine the Changed the World page 16

Project Car Update



Winter Beater Mk. II page 8

Regional Club News

New Clubs

Central States SAAB Club

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

SAAB Club of New England

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

Calendar of Events

SAAB Owner's National Convention
August 2 - 4, Crystal Mountain Resort,
Washington State.
Skip Schott, 206/486-1351.

SAAB Club National Capital Area

August meeting moved to the
David Library in Bethesda, MD.
Meeting date: August 15.
Toby Turpin, 301/384-6732.

Southern California SAAB Club

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

Milwaukee SAAB Club

Aug 18 - Lime Kiln Park Picnic
Karl Buschhaus, 608/575-8091.

SAAB Club of North America

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

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

NINES Editor & Publisher:

Tim Winker

Editorial Ass't / Membership

Joan Oswald

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

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

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

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

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

Clubs & Contacts

Appalachian SAAB Club

Ken Edwards
296 Brethren Church Rd
Jonesborough TN 37659
615/ 753-3153

SAAB Club of Arizona

Meets: 2nd Saturday
P.O. Box 573
Scottsdale AZ 85252
Steve Bolander, 602/ 946-1865.

Central Penn SAAB Club

Meets: 1st Tuesday, Bube's Brewery,
Mt Joy, PA. Social hour at 6:30pm,
Meeting at 8:00pm.
George Basehore
477 E. Main St.
Middletown PA 17057
717/ 944-2915.

Central New York SAAB Club

Eileen Kolynch
102 Armstrong Road
Lansing NY 14882
607/ 533-4073.

Delaware Valley SAAB Club

Meets: 2nd Thursday, 7:30pm
Pat Bolmeyer
1407 Oak Hill Road
Wilmington DE 19805
302/ 695-3125 or
302/ 994-6357

Great Lakes SAAB Club

(Western Michigan)
Jim Laman
617 Beechwood
Holland MI 49423
616/ 335-5215.

Milwaukee SAAB Club

Meets: 4th Monday, 7:30pm
Ian Simpson
3046 N. 48th St.
Milwaukee WI 53210
414/ 873-0816

Minnesota SAAB Club

Meets: 1st Thur, 8pm, Professors,
HarMar Mall, Roseville, MN.
Dean Nelson
1420 15 Terrace NW
New Brighton MN 55112
612/ 636-3771.

Montreal SAAB Club

E. Peter McLoughlin
c/o Dormer Laboratories
6600 Trans Canada Hwy
Pointe Claire, Quebec H9R 4S2
514/ 451-5165.

New England Sonett Club

Meets: 1st weekend in March, June,
Sept. & Dec.
P.O. Box 4362
Manchester, NH 03108.

New Jersey SAAB Club

David Starbuck
28 Union Ave.
Warren NJ 07059
201/ 647-7549

Northern Illinois SAAB Club

24 hour Events Hotline:
312/ 763-4752.
Jon Petersen, 708/ 675-6540

Northwest SAAB Owners

Rich Roberts, 206/ 771-7100 days
Skip Schott, 206/ 486-1351.

SAAB Club National Capital Area

Meets: at Bethesda Regional Library,
Bethesda, MD.
Toby Turpin
14901 Peach Orchard Rd.
Silver Spring MD 20904
301/ 384-6732.

SAAB Clubs of Georgia

Meets: 1st Monday.
Chris McPherson
4877 Pine Shadows Dr
Stone Mountain GA 30088
404/ 469-SAAB

SAAB Owners Club of Canada, Inc.

P.O. Box 578
Bradford, Ontario L3Z 2B1
Chris Teixeira, 416/ 737-5827.

Southern California SAAB Club

Paul Florance
126-1/2 Main St.
Seal Beach CA 90740
213/ 493-6707.

Tulsa SAAB Club

Ray Kurr
405 W. Miami
Broken Arrow OK 74011
918/ 451-2899.

West Mountain SAAB Club

(New England/New York)
David Sullivan
314 Union Ave.
Framingham MA 01701-6319
508/ 879-8288 after 6pm.

Western Pennsylvania SAAB Club

Andy Bittenbinder
9433 Katherine Dr.
Allison Park PA 15101
412/ 364-4780.

COVER CAR: The "Mellow Yellow Mobile" - a 1979 99GL in Alabaster Yellow, with color-matched European ground effects kit and Saab/Carroll Shelby wheels. Built by Saab in Connecticut in 1986. This beauty is for sale, call 401-333-5953 for details.

Letters to NINES

Practically perfect

Car problems, especially persistent ones, have a way of testing a person's mental fortitude. In your May 1991 issue, a member wrote of his difficulties with his 1989 9000 Turbo and the less than satisfactory service he had endured.

My wife and I purchased a new Saab 900 Turbo in 1984. The 900 was, for the most part, a good, dependable car, free from irritating problems. Well, except for the radio that couldn't tune in AM stations, and a few rattles and squeaks. After almost 7 years and 85,000 miles of daily highway and city commuting, our faithful Saab insisted on a new ignition control unit and a new water pump. The pump sprung a leak the day after we had new belts installed. The dealer accepted blame for the pump failure, admitting that the bearings might have been damaged by belts that were over tightened. All in all, we thoroughly enjoyed the versatility of our Saab and overall, its reliability.

Our relationship with our Saab dealership took on a somewhat adversarial role after learning, quite by coincidence, that the company that backed our extended 5 year "premium" warranty the dealer had sold us, had gone belly up. Three years after we purchased it! We were never notified. According to the dealership, only a "limited quantity" of policies were sold, but they no longer had the records of who the policy holders were. Right.

About six months ago, my wife and I traded our 900 for a 1991, five door 9000 Turbo. What a car! It brings fun and driving together again! Before, our only source of driving "fun" came from our 1963 Porsche 356. Folks, everything NINES, *AutoWeek*, *Road & Track*, *Car and Driver*, *Stopwatcher* and *MotorWeek* has said about this car is true! (Yes, they love it too!) We share their enthusiasm for Saab's new 2.3 liter, 200 bhp, high-tech, silky smooth engine and the exquisite package it is wrapped up in. Driving the car is a real pleasure. The level of excitement continues to be high, undiminished since the day we drove it off the dealer's lot. It's a station wagon, luxury touring sedan, and Indy Pace

Car all rolled up into one extremely well built, solid, super safe car. We opted for the manual, and we're glad to report that it's now a pleasure shifting those Saab gears, with ease, and with fine "fluidity".

Porsche is reportedly working on a new 911 for "more than two people", i.e., a four door. It seems Saab beat them to the punch with the five door 9000 Turbo!

After 10K miles, the car is free of rattles, everything works the way it should, we're averaging 26 MPG city/highway, and my wife and I still flip for who gets to play chauffeur.

Many of the questions and concerns expressed in [Dr.] Giacomuzzi's letter have been addressed by Saab in the 1991 9000 Turbo. This car is truly a "practical" enthusiast's car!

Bruce R. Tarsia
Columbia MD

Not so perfect

I bought a new 1989 Saab 900 Turbo exactly one year ago. Apart from the annoying automatic seat belt and the awkward gear shifter, I have generally enjoyed driving this car. However, during the 23,000 miles I put on in the past year I have had to have many items replaced under warranty. These include the clock, the speedometer, the speedometer cable, the tachometer (twice), the motor for the driver's side mirror (twice), the recirculate air switch on the dashboard, the left door panel, the driver's seat cover, the sunroof headliner, the driver's side window, the left glove box hinge, the seal for the hatchback, the hatchback positioner on the left side, the driver's door seal (twice), the distributor, the APC control unit, the blower fan motor, both headlights, and the transmission oil filler tube. All were promptly fixed by the dealer. The only problem that remains unsolved is the alignment of the driver's side door. This has been off from the day I picked up the car and I think is the cause of a persistent wind noise when I drive over 50 mph. After repeated attempts I think that the dealer has given up on solving the problem. Also, in cold weather the dashboard has a number of very annoying squeaks, rattles and buzzing noises that also have yet to be fixed.

This is the third Saab that I have purchased new. I had a 1973 99EMS that I sold after six years, and a 1978 99EMS that is still going strong with over 140,000 miles (doesn't burn any oil between 2,500 mile oil

changes). If my 1989 900 Turbo is representative of the kind of cars Saab is building these days, it is not surprising that Saab lost so many millions of dollars last year. My previous two Saabs were relatively trouble free, so this drop in quality is very surprising to me. I hope Saab can turn things around before they become just another division of General Motors.

Glenn L. Ball
Meriden CT

PS: I have been a member of the Saab Club since 1975 and appreciate that the newsletter continues to improve year after year.

Darn fine

Being a sales rep, I have had many opportunities to drive and enjoy the Saab 9000T purchased new in May of '87. I am not mechanically inclined so maybe I can contribute by relating my long term experience with the car, which has recently turned 119,000 miles.

It has been a joy and yes, I would buy another. If a Saab is a good performer, fuel efficient, safe, sturdy, and dependable, the 9000 is certainly a Saab. I particularly enjoy the interior room and comfort during my frequent 4 to 6 hour trips. Negatives would include QC at the manufacturing plant and a few too many rattles for a \$30,000 auto.

My experience has not been without mechanical problems [with approximate mileages]:

- Sunroof motor, 30,000.
- A/C compressor, 70,000.
- Crank pulley, 70,000.
- Timing chain tensioner, 75,000.
- Water pump & valve cover gskt, 105k.
- ACC control unit, 118,000.

I have never put this kind of mileage on a car, but these problems don't seem unreasonable for this kind of mileage. I've had no problems with engine, transmission (automatic), or turbo. I change oil every 3,000 miles and observe the cool-down period. I am on my third set of Pirelli tires and have enjoyed excellent wear and service.

All in all, the 9000 is a great car, although expensive to repair. Repair expense, however, pales in comparison to my last BMW. It is sad that more people buying 300 Mercs, 5 Series BMWs and the latest luxu-sport sedans from Japan don't consider this fine auto.

John Calfee
Marietta GA

GM influence, past & future

When I was a teenager, my father owned several Vauxhall cars, from 1953 to about 1960. These were Velox models, with six-cylinder engines, and were produced in England by General Motors, who gave Vauxhall, so it appeared, considerable autonomy. Any owner or interested party could subscribe to *The Vauxhall Motorist*, a lovely publication of around 64 pages, and sent out from England. It was in full colour, and professionally done. (This is not to demean your magazine, but to describe the other.)

Articles were about the marque, its successes in rallies, usually in England, in hillclimbs and "trials" or running through farmlands with specially modified models. At that time, such motorsport was unknown in Canada, and we had to read outside publications. Also of interest were articles on specific models, on Motor Shows in Europe, on maintenance, sources of accessories, and spares. Personal articles concerning people having to do with the automobile and its past were also featured.

I like the approach that NINES takes. I enjoy the articles on the men who have made the Saab automobile what it is. On

those who have driven it in competitions. Perhaps you could include profiles on those involved in its maintenance, those who were long-time mechanics, sales people, and worked for the importers or with the factory.

Looking back, I note that the English have just about thrown in the towel in the fight to keep their own automobile industry viable. For some time, English cars were widely sold, but they did not keep up with the times, and the Japanese have taken over their markets, and even a chunk of the market in England itself. I think the English are to blame for this as they did not adapt, did not change, and their marketing strategies never changed. As witness the motorcycle market, once almost totally English; now even the British drive Japanese bikes.

I mention this as Saab has just come under foreign ownership. Will its distinctiveness disappear, and will the qualities we have come to expect become watered-down? It seems that the auto industry is about to undergo some major restructuring. Many manufacturers will have to give up production unless governments step in to keep the factories alive. Like the clothing industry which we have given to the Asians,

will the auto industry soon become theirs?

The small dealer that sold Saabs before GM took over the Canadian distributorship is no more. But, since GM has begun to handle Saab, I have received mailings from three Passport dealers [GM's Canadian distributor for Saab, Suzuki, and Isuzu models]. I have received two letters from GM asking me to contact one of these dealers for any service, and was given an 800 number for information. I think GM will sell more Saab automobiles in the Canadian market than Saab could have on its own. The product is good, and, if Saab can keep up with the efficient manufacturing techniques of the Orientals, their success is assured.

Regarding making [the SAAB Club] mailing list available to others, I see no reason not to. I feel that I can keep or throw out any mailings I do not want. I, over the years, have had many interesting, if unsolicited catalogues sent to me. Getting some mail related to Saabs would not be undesirable. Too, you could make a few bucks on selling the list.

Keep up the good work

Morton M. Jacobs
Ville Mont-Royal, QUE

Orders Only \$25.00 Minimum 1-800-999-1820 MC/Visa/Amex		IMPORT MOTOR PARTS 110 WEST 12TH ST., PUEBLO, CO 81003 ** Same Day Shipping **		Information & Technical Help 1-719-542-7025	
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AL69X	85-86 900T,86 9000 Turbo	40032	76-80 99,900 Calif cars	7541071	Radiator 79on 900 Tbo
AL95X	67-74 95,96,Sonett	40051	78-80 All Tbos.	8358491	Pump 75-76 99 12 Cog
AL96X	74-4/78 99	40084	81-83 900 & Tbos.	8367674	Pump 77-80 99,900 (Kit)
AL112X	79-80 900 Non Turbo	40136	84-86 900 & Tbos.	8389058	Pump 69-76 99 (Kit)
AL128X	84-85 900 Non Turbo			8389751	Radiator 69-76 99s
BOSCH FUEL PUMPS		BOSCH FILTERS		8814591	Pump 67-74 95,96,Sonett
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GFP213	75-81 99,900,& Turbo	05021	Fuel 78-79 99,900 & Tbos	8817900	Pump 81-88 900 8 Valves
GFP270	69-74 99E,99 EMS	05401	Fuel 80-4/85 900,Turbo	9382649	Radiator 86on 9000 5sp
GFP288	1985 900 Turbo 16V	05601	Fuel 5/85-86 900,16V,&Tbo	MUFFLERS	
GFP294	86 900 16v,9000 Turbo	72101	Oil 67-88 Saab All	7282007	67-73 95,96 V4s
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SR32X	85-87 900,9000 & Turbos	BOSCH IGNITION PARTS		8838005	67-73 95,96 V4s
SR77X	70-74 99	00044	12 Volt Universal	9326463	81-83 900 Turbos
SR78X	75-84 99,900 & Turbos	03010	Dist Cap - Most Saabs	9349143	86on 900 NonT 16V
SR79X	69-73 95,96&71-74Sonett	04038	Rotor 78-80 99,900 Tbo.	9349176	1986 900
SR80X	67-68 95,96&68-70Sonett	04125	Rotor 1981 900,Turbo	9349192	84on 900 Turbos
IGNITION CONTROL UNITS		04144	Rotor 82-85 900T;82-87 900	9361817	1979 900 exc CA
00014	99,900 78-81	04168	Rotor 1985 900	9365511	78-80 99 Turbo
00139	900 82-84	09105	Wires 72-80 All 99s,900s	POWER STEERING RACKS	
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01051	77-86 1 Wire	BOSCH MISCELLANEOUS ITEMS		26 1980	79&on 900s (Long Rack)
03006	86 900 16V	Non Resistor Spark Plugs	1.32	REPCO METALMASTER PADS	
03009	84-4/85 900 Turbo 16V	Resistor Super Spark Plugs	1.50	111M	76&on 99,900s (Rear)
03028	5/85-on All Turbo 16V	Platinum Resistor Spark Plugs	2.48	226M	99,900 Front Brake Pads
BOSCH IDLE SPEED REGULATORS		MicroEdgell Wiper Blade 10"-16"	4.84	KYB GAS-A-JUST SHOCKS	
40502	85-86 16V	MicroEdgell Wiper Blade 17"-20"	6.19	Lifetime Warranty for most Import and American cars including Saab	
BOSCH FUEL INJECTORS		MicroEdgell Refills	4.78	KONI SHOCKS	
50045	71-74 99 All 1.7,2.0	TIMING BELTS & PIECES		Adjustable Shock (most Saabs)	
02004	75-80 99,900 Exc 78 99T	7500697	Chain 85on 16Vs	21.95 ea	
02012	81-86 900 All 8 Valve	7871403	Chain 73-80 99,900	BILSTEIN SHOCKS	
BOSCH COLD START VALVES		8346785	Crank Gear 73-80 99,900	HD Setting for 900 8 valves	
70401	75-80 All	8346793	Idler Gear 73-80 99,900	MISCELLANEOUS ITEMS	
70406	81-86 All 8 Valve	8346801	Cam Gear 73-80 99,900	0260257	Wind Deflector 900s
CONSTANT VELOCITY JOINTS		8347874	Tensioner 73-80 99,900	8307498	Clutch Disc 99,900 4sp NT
8921728	75-80 99,900 Outer Jnt	8817405	Tensioner 81-88 900 8V	8704116	Clutch Cover 99,900 NonT
8942633	81-85 900 Outer Joint	9359779	Chain 81-88 900 8V	8722209	Clutch Slave Cyl 76-85
8945735	69-84 All Inner Tripod	COUNTERSHAFT		8904575	Brake Disc 69-74 99 F&R
		8358509	73-80 99/79-80 900 2.0	8939589	Front Caliper 75-85 All
				8941981	Frt Brake Rotor 81on 900
				8944977	Clutch Master Cyl 79-85
				8948127	Master Cyl 75-85 All
				8985384	Ball Joints 99,900
				9746322	900 Heater Control Valve

Doktor Nio's SAAB Klinik

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

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

I just purchased a **1980 900 Turbo** 4 door 5 speed with only 82,622 miles, and I have some general questions. Is it normal for the turbo gauge needle to swing up and stay at the beginning of the orange area when the engine is shut off? It otherwise fluctuates normally.

Though I would never do this myself, if the motor is shut off before the usual 30 second "winding down" period, is it okay to quickly start the motor again to let oil pump into the turbo?

After warming up and driving for about 20 minutes, the "oil/blank spot/brake fluid" lights all come on? When travelling at 70 mph the alternator light will occasionally come on for two to three seconds and the tachometer stops working. Then the light goes off and everything works fine. Belt condition and tension look fine.

J. Scott Kobasa
Troy NY

The turbo boost gauge displays vacuum (white area), positive pressure (orange area), and over boost (red area). When turning the engine off, the needle goes from moderate vacuum to atmospheric pressure. Since there is no boost pressure the needle ends up at the threshold of "artificial aspiration".

If you absentmindedly forget to allow the turbo to rest before shut-down, an immediate restart to restore oil flow certainly makes sense as long as you do not rev it up when the engine fires.

I think what is happening is the ignition lock relay is overloaded, gets too hot and opens. Consult SAAB Service Information Supplement #3, issue #10/81-511. The description of installing a second relay in parallel to increase load capacity is found.

I am the original owner of a **1985 900 Turbo** with 70,000 miles. I have been using Tufoil additive in the crankcase and transmission. It seems to work well in the crankcase, but I have recently switched to Red Line 75-90 in the transmission with tremendous results. Much smoother shifting and improved shifting to first gear from idle.

My question concerns the rattles I am

experiencing from, what appears to be, the sunroof. The problem is evident over any bumps and occurs when the roof is closed. Any suggestions?

Tom Tielens
Novato CA

For the sunroof rattles, consult SAAB Service Information 10/86-898 where you will find the factory service fix consisting of new guide clips and rubber damping pieces.

Guide clip assembly P/N 69-37-429

Guide clip assembly P/N 69-37-452

Rubber damper P/N 69-37-759

These should be replaced in pairs.

I have a **1983 900** sedan. The front brake pads were replaced approximately six months ago and now they squeak.. Is there anything to be done short of replacing the pad or applying an awkward amount of foot pressure on the brake pedal? Any insight would be helpful.

Bentley Taylor
Colorado Springs CO

The brake pad composition has a lot to do with the noise level when braking. Were the rotors resurfaced? What brand pad was used. See Group 6 ad in the May issue. They offer an anti-squeal shim that may be a remedy.

I have always wondered how SAAB determines the torque and horsepower ratings of their engines.

1. What are the conditions in the lab when the engine ratings are determined?
2. Is there any forced air flow through the intercooler on turbo engines?
3. Are these ratings peak or steady state?
4. What kind of fuel is used and its rating?
5. What viscosity of engine oil is used?
6. What are the torque and power ratings of all SAAB engines on regular unleaded (87 octane) and premium unleaded (92 octane) fuels?

J. S. Filutowski
Gig Harbor WA

For this one, I am going to consult my handy Bosch-SAE Automotive Handbook.

"Net power: This is the power delivered at the crankshaft or corresponding component on a test bench at the engine speed specified by the manufacturer, the engine being provided with the standard equipment required for its intended application. The equipment necessary for determining the net power is detailed in DIN 70020 Sheet 4.

Gross power: The definition is similar to that for net power; however, standard equipment is not required, test bench equipment also being permissible.

Standard atmosphere: For the determination of engine power temperature T=298K (= +25°C).

Total atmospheric pressure p=1000 mbar.

Relative humidity is neglected.

SAE horsepower ratings - hp SAE

The different test conditions in individual countries mean that it is frequently difficult to satisfactorily compare the performance data (power) of motor vehicle engines. Thus, in the USA the power rating laid down by the SAE (Society of Automotive Engineers) is 10-25% above the net power as defined by DIN (German Industrial Norm)".

For example:

1985 16v Turbo APC (900):

Engine rating, DIN: 160 hp @ 5300 rpm
Max. torque, DIN: 177 Lbs/ft @ 3000 rpm
Fuel octane number: RON 87 - 92

1986 16v Turbo APC (9000):

Rating DIN: 160 hp @ 5500 rpm
Max. torque DIN: 190 Lbs/ft @ 3000 rpm
Fuel octane number: RON 92 - 98

I would like to think the reason power ratings are no longer listed in the owner's manual is because of the variances due to different fuel octane ratings and markets. California Saabs differ from the rest of the USA, which differ from other English speaking markets.

Best wishes to Bob Sinclair in his retirement and thanks for the years of service to Saab owners. Good luck to Sten Helling and Hans Hallbach in their new positions.

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SERVICE SUBJECTS



FROM SAAB

Roof Seal Squeaks

Application: Certain 9000 models

In July 1990, PSI bulletin 07/90-0014 was issued to provide information on a new roof seal (Figure 1) that was introduced into production to reduce wind noise and keep water from dripping into the car. This bulletin also included a factory procedure for treating the new roof seals with a lubricant because they may squeak, and

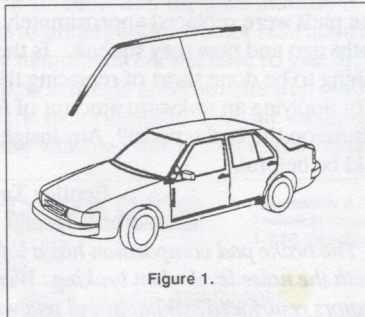


Figure 1.

instructions for treating roof seals on cars in dealer inventories or cars that have been sold. Since then, two more generations of the seals have been introduced, as further improvements to the seal have been implemented to reduce the squeaking noise. The factory has also continued to treat these new seals on the assembly line with the lubricant.

The lubricant finish, Gleitmo 1665-V, is a Teflon-based lubricant and is the only treatment that should be used on roof seals. Do not use silicone lubricant of other treatments as they may discolor the seal or aggravate a squeaking problem.

Due to new car cleaning requirements at the ports-of-entry, the effectiveness of the factory-applied lubricant finish could be somewhat diminished on 1991 models. Should any door squeaking be noted at the PDI test drive, the lubricant finish treatment, Gleitmo 1665-V, should be added to prevent any possible future customer complaints.

As noted in the previous bulletin, any car between VIN's L1015557-L1022540 and L2011206-L2015930 should have Gleitmo 1665-V applied to the roof seals. These cars were produced with the new style seal but before the treatment was added in production. In the case of owner complaints regarding squeaks, test drive the car to confirm the roof seal as the source of the complaint.

NOTE

Spare parts supplies of all the generations of roof seals, P/N's 40 88 969, 40 88 951, 43 03 210, 43 03 202, 43 03 848 and 43 03 830 have NOT been treated with Gleitmo 1665-V. These seals must be treated prior to installation on a car.

Parts Required:

Gleitmo 1665-V (500ml can) P/N 30 19 981
One 500 ml can of Gleitmo 1665-V is sufficient to treat at least 25 cars.

Roof Seal Lubricant Finish Application

1. Before applying the Gleitmo 1665-V, the seal must be clean and dry. Blow off any dust with compressed air. If silicone or any other lubricant has previously been applied, then the silicone (or other lubricant) must first be removed with prep solvent and a lint-free cloth.
2. Shake the lubricant can vigorously, then using a soft paint brush, apply a thin coating along the full length (front to back) of the seal in the area between the arrows as shown in Figure 2.
3. The lubricant dries to a tacky finish in approximately five minutes, but allow at least 30 minutes for it to cure. All the doors on the car should remain open during drying and curing.

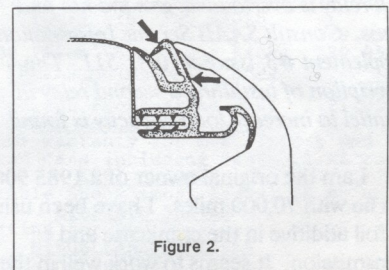
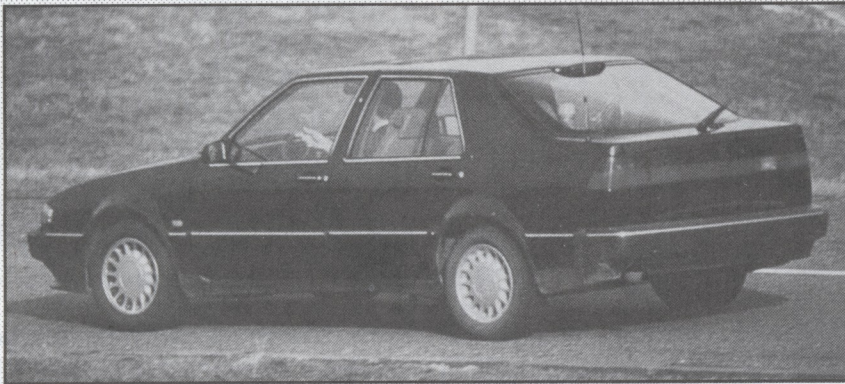


Figure 2.

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

SAAB NEWS

1992 9000?



Automotive News published the above photo in their June 24th issue. According to the caption, this is the 1992 Saab 9000.

"Changes include a more sloping hood with narrower grille and headlights," says *Automotive News*, "while the rear treatment includes wraparound taillights."

A 9000 coupe is also rumored to be in the works for next year, and maybe a V-6 engine from the Opel Vectra.

No Big Saab?

Future Saabs will be front-wheel drive, as plans for a \$50,000 top-of-the-line rear-wheel drive model have been dropped, according to a front page article in the July 8th edition of *Automotive News*. The proposed third Saab model, code-named Project 108, would compete with the big BMW and Mercedes sedans.

Saab management has not made any official statement on the cancellation, other than to say "the original goals [stated when General Motors purchased half of the Saab Car Division] have not changed."

According to *Automotive News*' European correspondent Richard Johnson, the decision to concentrate on successors to the current 900 and 9000 models is an indication of Saab's desire to remain independent of GM. One Saab engineer is said to have described the decision as a matter of choosing "new technology over old technology".

David Herman, president of Saab Automobile AB, recently said, "There is no single subject on which more time is spent at this company. All these things about manufacturing and sales are important, but there is nothing more important to our future than our brand character."

Plans for the 900 replacement, code-named Project 104, are on schedule and the new model should appear in 1993. With the rumored cancellation of Project 108, which was due to reach the market in 1995, Project 106, the next 9000, has been moved up to 1996. Both 104 and 106 will carry on Saab's front-wheel drive tradition.

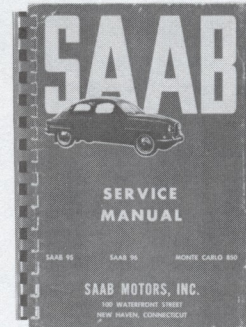
GM still figures in both new models, particularly in component sourcing such as steering and brakes. Though the Saab four-cylinder engine will be the primary engine in both cars, the latest from *Automotive News* indicates the future 900 may also offer a 2.7-liter version of GM's new V-6, with the 9000 replacement to get a 3.2-liter derivative of the same powerplant.

The *Automotive News* article also says that 22 percent of the components for Project 104 will be carried over from the current 900 (including, possibly, the much maligned floor-mounted ignition switch), with 28 percent from the Opel Vectra/Vauxhall Cavalier and 50 percent completely new.

Both 104 and 106 are being designed by Saab's own staff under the guidance of styling head Bjorn Envall.

There was no indication of how the possible cancellation of Project 108 would affect plans to have that model replace the Opel Senator as GM's high-priced model in Europe.

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Winter Beater Mk. II

About time for an extended report on the Recycled Turbo (a.k.a. Winter Beater Mk. II), doncha think?

Previous articles (April and May 1990 issues) dealt with some early impressions of my 1985 900 Turbo, and how it had been rebuilt from a wreck. After eighteen months and 40,000 miles, I am mightily impressed!

Repairs have been limited pretty much to regular maintenance items. Oil and filter get changed every 2,500 to 3,000 miles. Brake pads were replaced with Repeco Metal Masters when they were getting close to minimum. The shock absorbers were replaced with KYB Gas-A-Just shocks when their time came.

There have been very few serious trouble spots - a torn left outer axle boot, a worn right inner axle driver, air conditioning expansion valve, and a leak at the fuel tank.

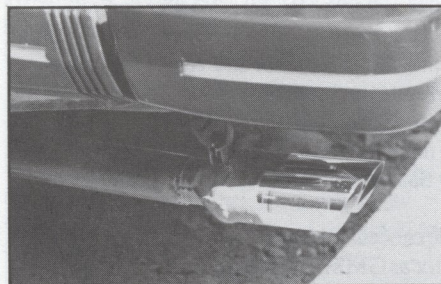
The most recent problem was a stuck right front caliper, caused by a seized parking brake pivot. The replacement part is less than \$10, and it can be done by a backyard mechanic. Make sure, however, that you don't let the caliper piston come out or you will need to rebuild the entire caliper. If you let this problem go, the caliper will eventually need to be replaced. Rebuilt calipers are about \$100 a side, new ones are over \$200.

Wind deflector - WB Mk. II, as a test bed for aftermarket products, has been the recipient of several accessories. One of the easiest and cheapest to add was a sunroof wind deflector, in brown to complement the

metallic gold (Saab 9000 Bronze Metallic) finish of the car. These things really work! Wind buffeting dropped considerably; the only noticeable wind showing up in about the last inch of opening the roof. The tinted plexiglass of the deflector is also helpful as a sun screen, and since the deflector covers the first few inches of the sunroof, I can leave the roof open an inch or two while parked on hot days to keep the interior cooler (this works fine in Duluth, but I wouldn't try it in New York City or any other high crime metropolis). It can also be removed for cleaning or for waxing the car.

Air outlet covers - Another inexpensive addition which I considered would be helpful here in snow country. These plastic pieces (Saab p/n 02 71 155, \$42.00) fit over the air outlets at the rear (C-pillar) of 99 and 900 hatchbacks to keep out snow, dust, moisture, etc.

Exhaust - The muffler went bad at about 75,000 miles and was replaced initially with a stock system, later with the sport exhaust from Group 6 Performance in Tucson, Arizona (602/749-1809). The Group 6 system is made of 14-gauge



aluminized steel tubing, powder-coated in black for rust resistance. With less restriction than the stock exhaust, the Group 6 system gives more power, plus a pleasant, throaty tone from the dual chrome tips.

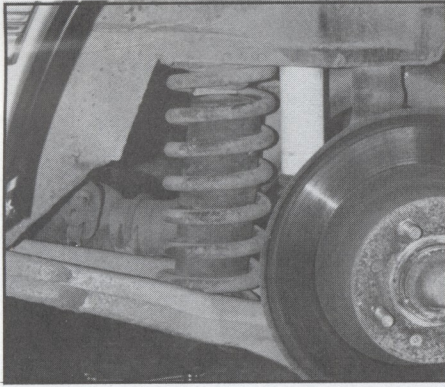
Wheels and tires - One of the first things done to personalize a car is to replace the wheels. I was fortunate to pick up a set of the Saab/Carroll Shelby Goldvane wheels at last year's National Convention. Saab's parts warehouse wanted to clear out some older merchandise and the 8-spoke Minilite-style wheels were part of that clearance. The gold finish of the spokes is slightly darker than the car, making for a good match. Though they have been on the car less than a year and were removed during the winter months, the clear lacquer coating has begun to crack and peel.

The tires are Kleber C4Ts (size 185/65 TR15) that had been on the NINE-T9. They're not great tires, perfectly adequate in fact, just not very exciting - not too good as performance tires, acceptable in wet conditions, with the potential for high mileage.

With the number of miles I seem to pile up, I should have probably signed up for Pirelli's tire testing program (arranged through several of the local Saab clubs), but they were looking for someone to keep the test tires on the car all year long. In the winter I switch to Hakkapeliitta NR-09s, size 185SR15, mounted on modified, white painted 99 EMS wheels. Yes that's 185, not 185/65. They stand about an inch taller in diameter, so there is a little more ground clearance for those really snowy days. There was a little under-fender rubbing when the car was heavily loaded or if there was considerable ice buildup in the fenders, but the tires performed admirably under most conditions. I don't believe there is a better winter tire, except the newer Hakka-10.

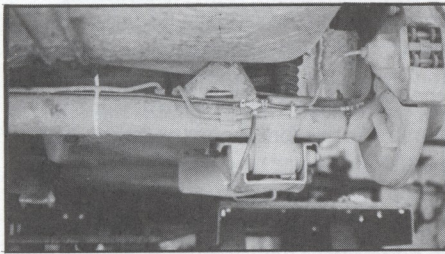
Towing - It is recommended that you do not tow heavy loads with a turbocharged car. However, I wanted something for occasional towing up to 4,000 lbs (a trailer with a car on it) and didn't particularly want to keep a van or pickup around for a few hauling trips a year. Several accessories were added to the 900 with towing in mind.

First was the Polyair Spring Air Adjustable Suspension Aid by Air Lift - a pair of air bags that fit inside the rear springs for extra support when needed. Installation was turned over to Jeff Hofslund at Swedish Express, Inc., here in Duluth, as I didn't have the tools or the



Above: Polyair Springs fit inside the rear coils to support heavy loads.

Below: Plastic air hose is tie-wrapped to the rear axle.



time. Jeff installed the air bladders at the same time as he was replacing the rear shocks. With the shocks out, he removed the bolts holding the rear axle locating arms to the body and removed the springs. The bags can also be installed with the shocks and springs in place. Raise the rear of the body on jacks stands so the axle is hanging with the springs extended. The styrofoam spacers will slip between the spring coils, and the bag can be rolled and pushed up through the bottom spring perch. Jeff tie-wrapped the air lines to the rear axle, and the inflation nozzle was put inside the car in the trunk. Recommended pressures are 4 to 25 psi. The Polyair Springs are also helpful when carrying a heavy load in the trunk, such as 600 lbs. of newsletters once a month. With that much weight in the rear, the standard weight bias makes the 900 understeer. The Polyair system doesn't cure the understeer, but it is considerably better. The Polyair Spring kit for the rear of 99s and 900s is #60756, and has a list price of \$87.95. (Air Lift Company, Lansing, Michigan, 517-322-2144 or 1-800-248-0892 for a dealer near you.)

You can't do any towing without a trailer hitch, and I opted for the heaviest duty hitch available for the 900, Da'Lan model TH-SB3HD, rated for 2,500 pounds,

with a removable drawbar (suggested retail, \$170). The kit includes all the hardware you need for installation, and can be accomplished in under an hour. The toughest part is drilling the four 1/2-inch holes through the floor pan. The hitch uses existing holes for the bumper mount and the three holes on the fuel tank skid pan.

For those who wish to tow lighter loads, a Class I trailer hitch (1,000 lbs. towing capacity, 100 lb. tongue weight) is available. Installation requires no drilling (it uses existing holes), and it sells for about \$100.

Once the hitch is in place, you need to install a wiring harness to attach to the trailer. Most trailers use a four-prong connector - taillights, left and right turn signal/brake lights, and ground. Saab, like many other cars today, has separate circuits for the brake and turn signals, so you'll need a converter, usually referred to as "for cars with amber turn signals". The converters sell for less than \$20. You'll need a test light to find the proper wires; a wiring diagram would also help, but isn't always reliable.

Water-cooled Turbocharger - Another recent addition which should help in towing is a water-cooled turbocharger from Swedish Refinements (1-800-726-7740). The instructions recommend that if you are not secure in your mechanical ability, the job should be left to a technician. I wasn't, so I did - Reagan Green at Andrews, Inc., in Princeton, Minnesota, did the work while I took photos.

Instead of ordering the pre-assembled turbocharger kit, I opted for the cartridge, the least expensive alternative. In watching



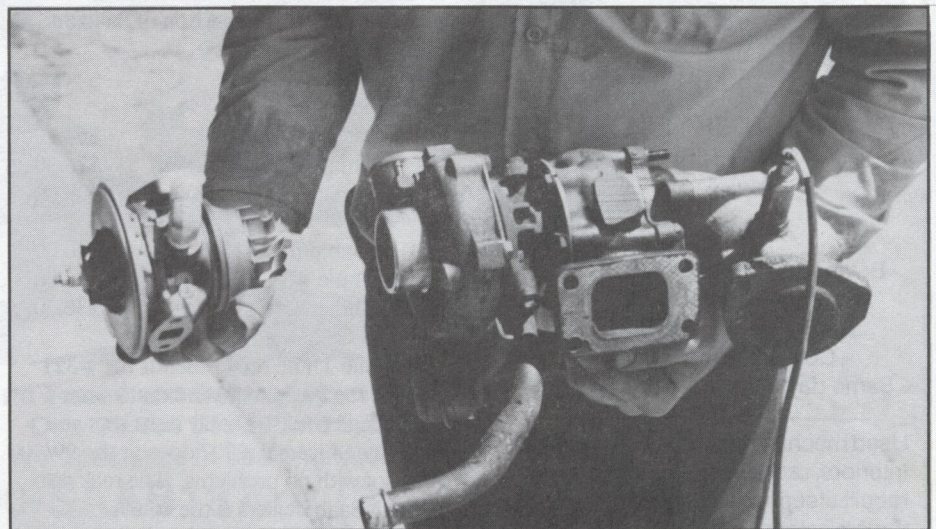
Trailer hitch installed on 900

Reagan make the exchange, I'm glad I chose to let him do the work. His experience allowed the task to take considerably less time than if I had done the job myself. Fortunately the Swedish Refinement kit includes everything necessary for the exchange except a jug of anti-freeze, making the job possible for the do-it-yourselfer. The old turbo was not bad, but the new turbo, probably in combination with the Group 6 exhaust, has made for a little more acceleration.

The new turbocharger is a bit noisier than the previous one, but isn't particularly annoying.

(For more details on installation, see Jack Vines' article in this issue.)

The first towing experience with the WB Mk. II was at the maximum load - an '80 99 2-door on a trailer. It didn't feel any harder on the Saab than a Chevy Suburban might have pulling an Airstream. The turbo needle rode a little higher on the gauge while cruising down the freeway, and under acceleration it stayed in the yellow longer than without the extra load, so it must have been generating more heat. I babied it up



The new cartridge with fittings for water-cooling (left) and the old turbocharger.

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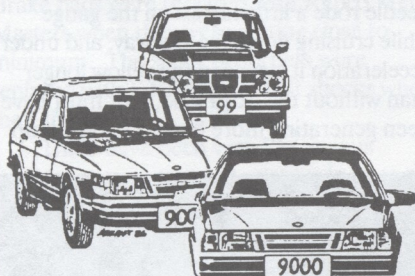
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The Winter Beater Mk. II takes on a new task - Locomotive.

hills, dropping it down a gear even if it didn't feel like it was lugging. So far, it has worked well. I wouldn't want to tow cross country, but a few hundred miles seems okay.

On the subject of heat, though there is an oil temperature gauge in my Turbo, the sensor is in the bottom of the oil sump. I had hoped to find a sensor that could be installed in the oil return tube from the turbo, where the oil would likely be hottest, and where the change in oil temp due to cooling of the turbo's center bearing by the engine coolant would be most noticed, but I didn't.

Roof rack - Another inexpensive addition was a Thule System roof rack. It's called a *system* because you can add special adapters to meet your needs - for skis, bicycles, canoes, kayaks or sailboards, even a weatherproof Combi Box (in two sizes) for additional carrying capacity. Though I purchased the basic rack used, this is one accessory that is cheaper through the Saab dealer! Here's a comparison of Saab and Thule suggested prices:

99/900	
Saab p/n 0281709	\$64.10
Thule #307 (50" rack)	\$76.00
Thule #321 (99/900 only)	\$109.00
9000	
Saab p/n 0272195	\$110.00
Thule #351	\$126.00
Thule Aero kit, 9000	\$30.00

While Thule recommends the #321 rack for the 99 and 900 and that's what a Thule dealer will probably insist that you need, the universal #307 does fit the 99/900 roof with no problems. The rack sold through Saab dealers is the #307.

The rack for the 9000 sold by Saab is built by Thule but sold only through Saab

dealers, while the Thule rack needs a special Aerobacket kit to properly fit the 9000 roof. An advantage to the Thule/Saab System is that the rack can be installed or removed in a few minutes, so it doesn't have to stay on the car all the time.

The only adapter I have at this time is the Pro Series fork mount bike rack, Thule part #529, to haul my "city" bike. Come winter, a ski rack will be added.

Saab also carries some of the add-ons at lower prices than Thule, but it might be better to compare based on your own needs. Trevor Thomas at Henry Mearig Saab in Lancaster, Pennsylvania (1-800-835-6066), carries both the Saab and Thule Systems and can offer the best prices from either price list.

There are a few more things that are in the works for this project: A Tokico anti-roll bar kit. My Turbo is an '85 model; from 1986 on, the 900 Turbo came with anti-roll bars as standard equipment.

I have a set of IPF driving lights, but haven't quite worked out the mounting brackets. The OE Clarion cassette player has been acting up and will likely be replaced by an Alpine system. Tinted windows are also likely due to that greenhouse effect (due to the large rear window) experienced on sunny days.

The Minnesota Pollution Control Agency recently offered a voluntary emissions test in our area (it isn't required here yet), and the WB Mk. II was well within their standards. The PCA's minimums are 220 parts per million (ppm) for hydrocarbons and 1.2 percent for carbon monoxide at low idle. The 900's results were 20 ppm on HC and 0.02% for CO.

WB Mk. II will be at the Washington convention. Come by and take a look.

Tim Winker

Sensory perception - handling - crashworthiness - form the Saab safety chain

Since 1949, when the very first Saab left the assembly line in Trollhattan, Sweden, Saab has designed and developed its cars to provide carefully calibrated feedback so that the driver can act quickly and correctly in the event of an emergency.

This concentration on active safety has proved that a car does not have to be dull to be safe, and to demonstrate if, Saab has produced the award-winning video, "200 Milliseconds Of Your Life." It shows how the driver's sensory perception, a car's road-holding qualities, and its impact-absorbing properties, combine to form a safety chain.

Saab however, also realizes that the laws of physics dictate how a car behaves, and that there is a limit to driver skill. When such limits are reached, a collision may result. An impact which occurs at 35 mph is over in 2/10ths of a second.

"200 Milliseconds Of Your Life" also corroborates that 2/10ths of a second, or 200 milliseconds, is precious little time that a car has to absorb the kinetic energy of a 35-mph crash, while controlling the severe

stresses to which the occupants are prone. The video illustrates millisecond by millisecond how Saab accomplishes this life preserving challenge.

"200 Milliseconds Of Your Life" was recently honored in the category of Technology and Research at the Swedish Public Relations Society's annual film festival. Public Relations experts praised the video for being "engaging," "informative," and "convincing" in showing the critical stages of a serious collision. The same video also won a Bronze Prize at the International Film and T.V. Festival in New York.

Together with "Saab Suite," it also received honorable mention from the 1991 American Film and Video Association in Philadelphia.

According to Saab safety engineers, due to the frequency of road accidents -- especially ones occurring at approximately 30 mph -- a car must be designed to serve as "a safety net" for its occupants. For this reason, all Saab 9000 and 900 passenger cars have an integrated rigid steel safety cage with energy-absorbing crumple zones, front and rear, fortified windshield pillars and body profiles, and a steering wheel

mounting designed to absorb crash energy. These design features combine to create an exceptional "survival space" for Saab occupants.

Saab dealers throughout the United States have "200 Milliseconds Of Your Life" available at their dealerships for consumer viewing. The public relations department at Saab Cars USA, Inc., has extra copies of the video tape available for showing by clubs. Contact Marie Warner at Saab Cars USA, Inc., P.O. Box 697, Orange, Connecticut 06477 (203/795-7685) to reserve the tape.

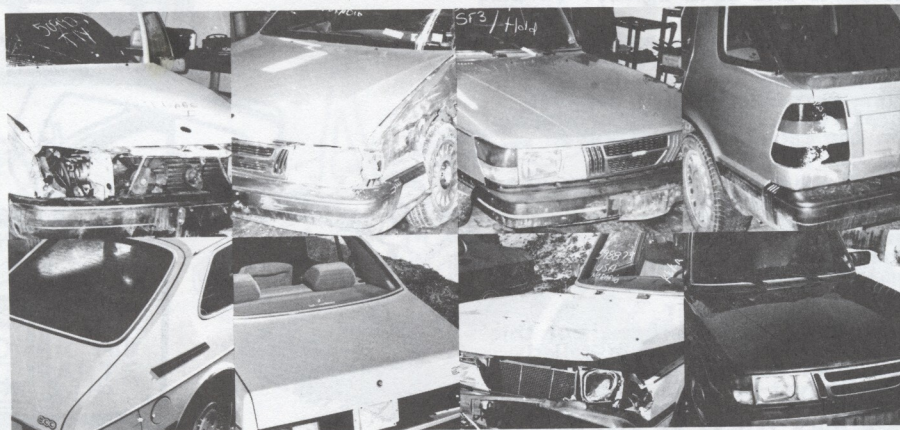
Also from Saab public relations are "The Saab Difference" (20 minutes), a video that shows how Saab's automotive philosophy differs from that of "conventional wisdom"; "A Different Approach" (14 minutes), which details some of Saab's innovative products and manufacturing ideas; and "Saab Suite" (9 minutes), a precision driving exhibition set to classical music. Covering Saab's competition involvement are a pair of video tapes titled "Masters of the Wheel" parts I and II.

A complete list of films and videos that may be borrowed from Saab is available from Marie Warner.



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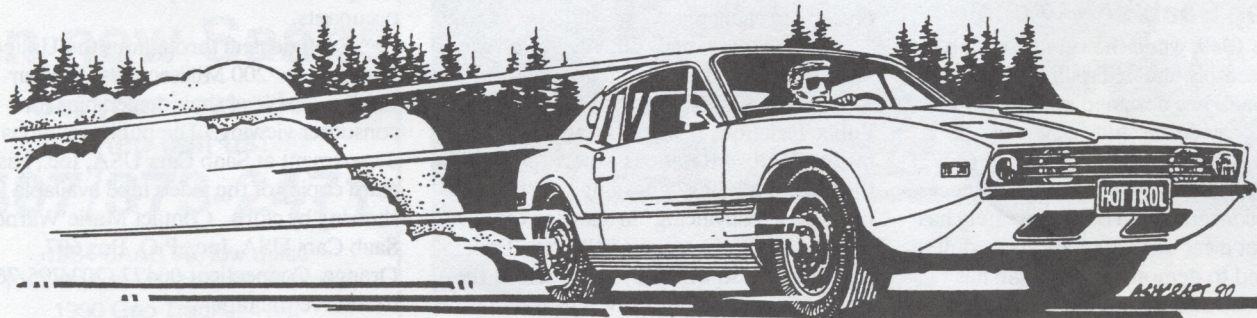
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SHIFTIN' GEARS



by Jack Ashcraft

CURING THE DELAM SYNDROME

Sonett bodies are ordinarily glued together pretty well and when they get otherwise it is usually due to some act of violence against them. The only place I know of where panel-to-panel delamination—and that is what I'm talking about here—can take place is in the doors, and usually only on a Sonett III.

The outer door skin and the fiberglass door ends and bottom are BONDED together, not moulded in one piece. The bonding agent is some sort of polyester resin-based glue which may come un-stuck as a result of an impact longitudinally along the side of the car that will shear the panels apart at the glue line.

The cure is to re-bond the separated parts. To do this at the front of the door you must remove the door from the car. Remove the upholstery (see NINES, Oct '90, p.14), and, using a 15/16" socket, remove the two hinge nuts and remove the door. It's a good idea to have a helper hold the outer end of the door while you do this.

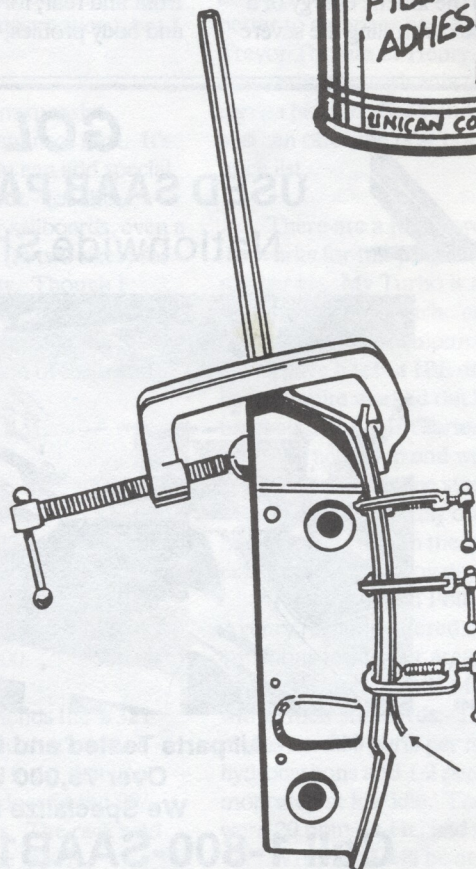
Thoroughly clean the delaminated area of any dirt and grease. Pry the delaminated outer skin out a bit and slip a folded piece of about 80 grit sand paper between the parts and sand lightly. Vacuum thoroughly.

Now for the re-bonding agent. You have several choices. You can use a commercial product such as Korvette Fiberglass Adhesive (shown) and mix methyl ethyl ketone peroxide (MEKP) catalyst with it (common boat resin catalyst) according to the instructions on the can. Mix and apply.

You can also make up your own goop if you like. Get out your polyester boat resin repair kit and get a small amount of finely milled fiberglass from most any boat company. Mix the polyester resin with the milled fiberglass until you get a thick putty. Add the appropriate amount of MEKP catalyst, and stir thoroughly. Apply.

The third possibility is also a home brew but this time made up from an epoxy based resin called Saf-T-Poxy. Once again you mix this with milled fiberglass, but the catalyst-to-resin ratio is 44 parts catalyst to 100 parts resin. Mix in the milled fiberglass to make a thick putty. We who have used this stuff in building experimental aircraft call it "green goop" because it turns sort of a dull Saab 92 green color.

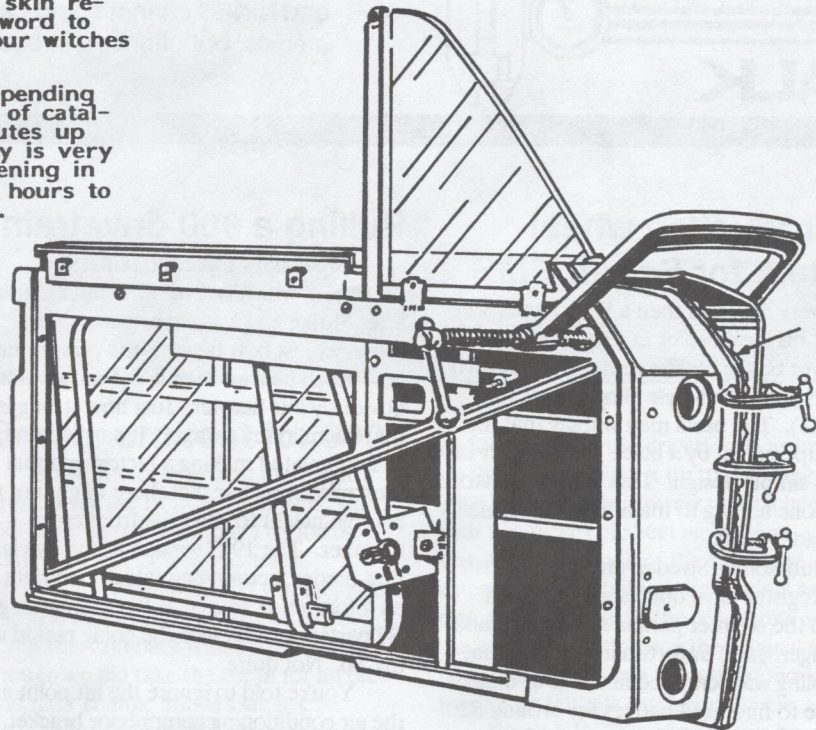
Apply any of the three putties with a putty knife and be fairly liberal about it. Once the goop is in place clamp the halves of the door together as shown. Note that there is a cardboard between the clamps and the paint on the outside of the door.



Now wipe off the excess goop on the outside of the door. Do wear rubber or plastic gloves, please, as either the polyester or the epoxy based resins and their catalysts can cause a rash or skin reaction if you get much of it on you. A word to the wise. Also a good idea to mix up your witches brew putty in a well ventilated area.

Cure times: The polyesters will vary depending on how "hot" you catalyzed them. A lot of catalyst, a short cure time. From a few minutes up to several hours. The 44/100 Saf-T-Poxy is very predictable--about one hour initial hardening in 70°F weather, 24 hours to use cure, 48 hours to final, hard-as-Superman's-kneecap cure.

This is not a critical area so any of these putties will work satisfactorily. For the record, the Saf-T-Poxy is over twice as strong as the Polyesters.



CAUTION!
MEKP catalyst can be VERY damaging to the eyes. Be very careful not to get any of the stuff in you eyes for any reason!

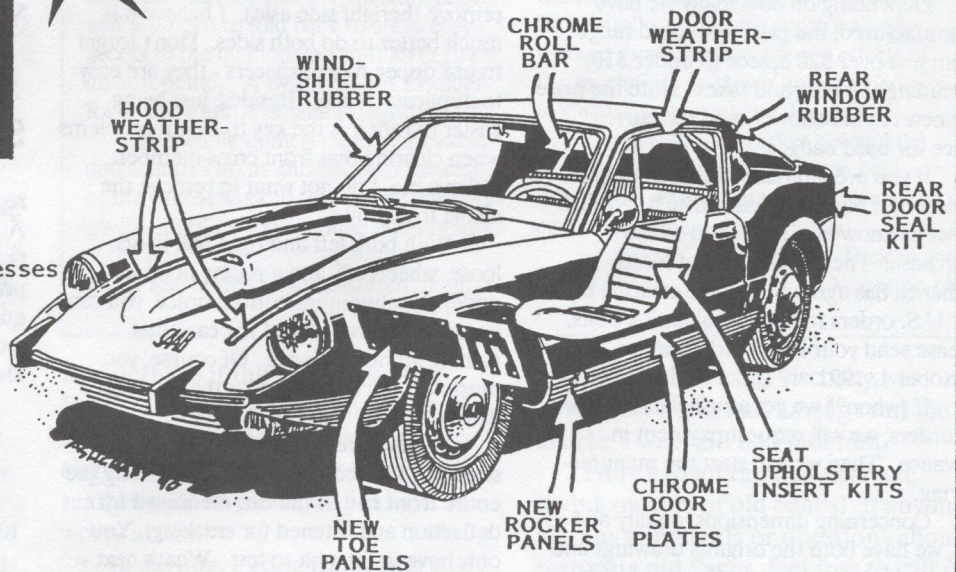
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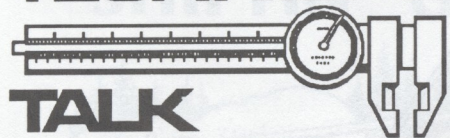
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Reproduction wheel centers for Sonett/EMS

Every now and then a Saab owner will contact his local dealer in search of the blue and silver badge for the center of Sonett III or EMS soccerball-style alloy wheels (p/n 8918823). The parts man will say that it's been superseded by a black plastic cover of a more simple design. That isn't satisfactory for anyone aiming to maintain the originality of his older Saab.

Club Sonett Sweden and the Swedish Saab Register have done some research beyond the counter person's, "not available any longer", and unfortunately found that the tooling was scrapped in 1984. It may be possible to find used badges for around \$20 each, and the price will likely go higher.

This has made our clubs get in contact with manufacturers concerning a small run of badges. But as always, the clubs have a very tight budget with no room for expenses like this.

Depending on how many we have manufactured, the price will could range from just over \$20 apiece to under \$10, excluding shipping and taxes. Note the price for new could be lower than the current price for used badges.

If you are interested in these original-style wheel badges, please write to NINES to let us know how many you would purchase. The SAAB Club of North America has agreed to be the clearing house for U.S. orders to help cut shipping costs. Please send your initial order before October 1, 1991.

If (when?) we get a sufficient number of orders, we will request payment in advance. Then we can start the manufacturing.

Concerning dimensions, quality and so on, we have both the original drawings and sample parts as a gauge. Our manufacturer is a regular supplier to Saab as well as others in the European auto industry.

Hans Jartoft

Pulling a 900 drivetrain

I was finally forced to pull a 900 drivetrain, which is somewhat intimidating after Shrike and V-4 experience. For instance, just how heavy is the power unit, how much heavier than a V-4 motor alone, obviously lots heavier. Just how strong is that beam in my garage? It dawned on me as I completed making a factory manual facsimile lifting bar that there might not be enough height to clear the front cross member. The 1987 version of the five large ring-binder factory manual seemed right as an information source as I'm dismantling an '87 parts car to replace the going pinion in my '86. Not quite.

You're told to ignore the lift point at the air conditioning compressor bracket. Don't! Back in '83, compressors didn't come off brackets as easily. Save the A/C lift point and use it. Don't take the alternator off, don't even try, the long bottom bolt is too long and won't go. The manual tells you to undo the right bottom ball joint only (to remove the right side axle). I believe it is much better to do both sides. Don't forget to use upper A-arm spacers - they are easy to duplicate or buy. Besides, just being easier to refit it is the key to height problems when clearing that front cross member. Believe me, I do not want to remove the whole front end.

With both left and right ball joints loose, wheels off, and a rolling floor jack under the aluminum bottom brace, you can lower the entire front of the car, thus gaining lifting clearance. Of course, you must also roll the car under the suspended drive train

To alleviate the question of beam strength, I tested it at overload by lifting the entire front end of the car, measured for deflection and listened for cracking. You only have to lift a bit to test. What's next - do I shop for a motor crane? Let's hope my van keeps running.

Rob Allen
Hamden CT

Stereo upgrade

I recently installed a new Nakamichi AM/FM cassette player in my 1981 900 Turbo, which came originally with a Sony XR-70 unit.

The Sony connections from the pre-amp/tuner/cassette player to the two power amps under the rear seat are 8-pin DIN connectors. No one uses those connectors anymore. All new style radios - Denon, Nakamichi, Sony, Alpine, Concord, etc. - use phono plugs between the deck and the power amps.

Sony makes an adaptor which allows one to use the same shielded cable to the power amps and connects to the phono plugs on the newer decks. The Sony part number is XA33A; it comprises an 8-pin male DIN to red and white phono jacks and a lead which turns the power amps on. If you have two power amps, two adaptors are required.

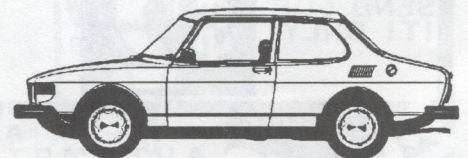
The adaptors can be ordered through Sony's Customer Service at 1-800-222-7669. Sony sent them to me with no charge.

Larry Savage
Issaquah WA

Speaker upgrade

I have another suggestion for speaker replacement in 900s (Dec 1990 issue). Polk Audio makes a 4" speaker that installs perfectly in the forward stock location and produces a dramatic improvement in sound quality and power handling. The Polks are model #1a and sell for around \$100 a pair.

Dan Erlacher
Sebastapol CA



More on V4 gearboxes

I very much enjoyed the V-4 transmission article by Ted Tucker in the May issue. I would like to add a few comments, if I may, to the pool of V-4 transmission lore:

1) Proper lubrication via the correct viscosity gear oil may play an important role in preventing transmission failures due to bearing problems, but among transmissions we have disassembled here at Nordic Motors, those failures account for a relatively small number of total gearbox failures. Far more common mechanical failures such as:

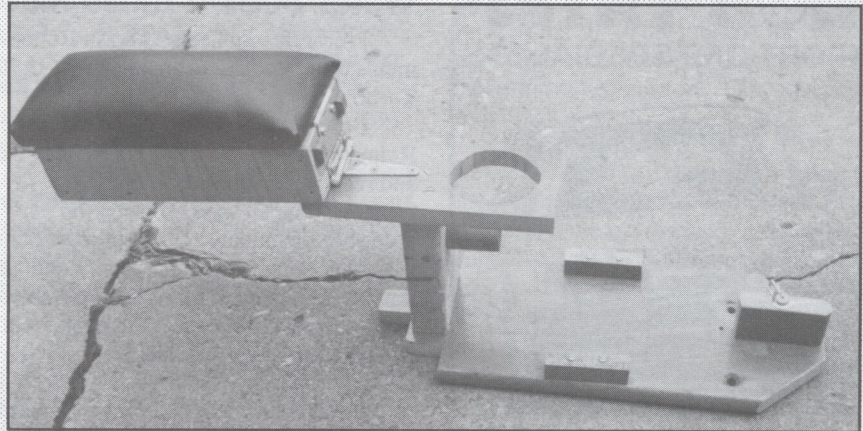
A) severe ring and pinion wear due to the nut on the back of the pinion shaft loosening up. (Our rebuilds have this nut Loctited.)

B) Actual stripped gear teeth due to attempts at shifting with an inoperative clutch hydraulic system.

C) Damage due to incompletely locked out (or in) freewheel units or also from the slamming effect of improper driving with freewheel.

D) The main lubrication problem we often find (surprisingly often) is not due to lack of proper *viscosity* gear lube, but rather a lack of *any* gear lube! Causes for this have varied from leaking input shaft and inner driver seals, leaking top cover and bellhousing seals, to someone's having drained and then forgotten or neglected to refill the transmission. Strange, but true.

2) Perhaps there are what I would consider design compromises in taking what was originally a 3-speed gearbox and trying to fit a 4-speed system into the same space. As evidence for this question I would point to the fact that the 3-speed transmissions are known to be extremely rugged, and very well engineered, especially considering the low horsepower engines they were bolted to. By comparison, the 4-speed set up seems wimpy, especially considering the move to the more powerful V-4 engine. Any V-4 hotrodder who has snapped a hollow countershaft would probably agree. My feeling is



Center armrest for 900

Have you ever wished for a center armrest for the front seats in your Saab? We have, so the other day I cobbled up something out of scrap material.

We have a 900S, 1983 vintage, with 158,000 miles which we just drove to California and back with no problems, though we did take the car in for an oil and filter change in Los Gatos, CA.

As for the armrest, the tongue of the base board fits into the place where I removed the rear seat ash tray which we never use. The other end of the base board fits under the brace rod under the back seat (the car is a four-door). The arm rest incorporates a small storage box and is hinged to fold back to allow easy access to the ignition and shift lever (it's an automatic). A by-product is a holder for a water bottle or small thermos.

The whole thing is easily removable and requires no modification to the rest of the car. It worked fine on the trip and gave both of us considerable additional comfort.

I also added an upholstered, foam-

padded block to the driver's side armrest on the door to bring it up to the same level as the center armrest. I attached it with two pieces of sheet aluminum screwed to the back of the block and extending down behind the original armrest, to be pierced by the rear screw and the center bolt attaching the original armrest. This, again, can be easily removed, leaving no tell-tale marks on the car.

When NINES arrives at our house I usually sit down right away and read it cover-to-cover. Although I don't work on my own engine, Todd Kimberley, who lives a few blocks from us, does some of the necessary repairs. Otherwise I take the car to Meyer Garage in Meyer, Iowa. Incidentally, our cruise control always worked erratically despite the efforts of the mechanics at Meyer and at Friedley's in Cedar Falls, until one day Todd discovered that the bracket holding the sensor near the flywheel was on backwards. He reversed it and ever since the control has operated flawlessly.

Dick Shane
Waterloo IA

that perhaps if the 4-speed was as "beefy" in relation to its engine as the 3-speed was to the early two-stroke engines, then maybe gear oil viscosity really would be all we would have to worry about.

In closing, I hope the reader does not take the above as complaints, but rather as comments culled from our own observations in restoring early Saab cars. Ted Tucker's discussion

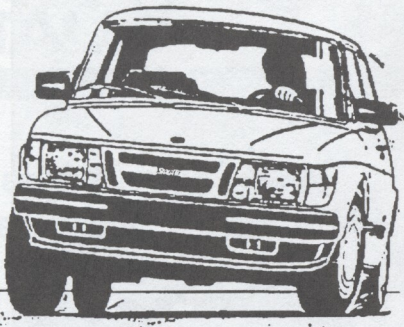
concerning lubricant viscosity was absolutely right, and having read the article, I wished I had met him.

Here's to all the fanatical and loving owners of old Saabs! If anyone has any comments or questions about restoring old Saabs, feel free to call me 9am-3pm Eastern time at Nordic Motors, 617-648-6050.

Steve Bennett
Arlington MA

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Water-cooled turbo kit

I recently installed a Swedish Refinements water-cooled turbo kit on my '85 900 Turbo.

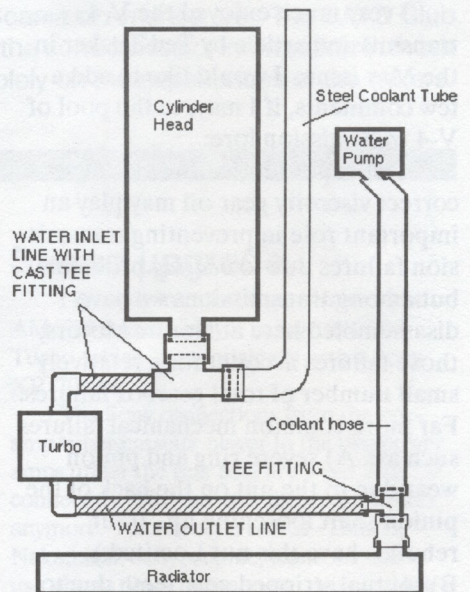
First, Colin Selig, who is Swedish Refinements, is a pleasant, knowledgeable and reliable person with whom to do business. The kit was complete, the hardware top quality and the instructions very clear. It was also a bargain. Colin said that my replacement turbo was assembled using a new center section. The total cost was only \$50 more than the lowest local quote for an air-cooled replacement rebuilt.

Installation was a bit more complicated than R&R on the stock unit. The only problems were that an o-ring gasket for the block-side oil pressure line was not included, and I much prefer a solid steel turbo base gasket to the asbestos composition one provided.

Colin recommends that the oil pressure and oil drainback lines be removed and cleaned, preferably by hot-tanking. This did not appear to be necessary, but I did it anyway. This was probably the biggest difference in the time it took. If you have ever done it, getting the oil lines on and off can be really time consuming. HINT: Get the drainback line in place and the bolts started before tightening the turbo mounting bolts. Also, the two water hoses provided were just a fraction too long. Loosely assemble everything before tightening the various bolts and clamps. This gives an opportunity to find the perfect alignment of the hoses and fittings.

Once assembled and running, I noticed no difference in performance, nor should you expect any. The water temperature gets up to operating range more rapidly, and seems to average 10 to 15 degrees higher in traffic. It also rises more rapidly when using sustained boost. This is proof that the water going through the turbo is taking away heat and maybe prolonging the life of the bearings.

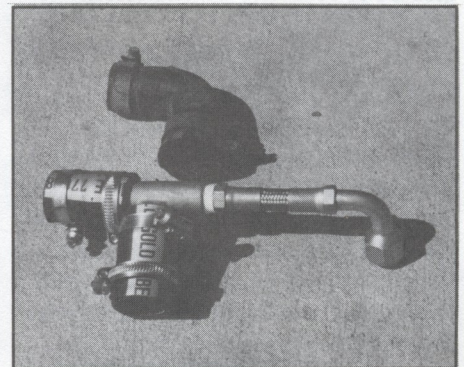
The only disappointment, and one which was also present on two different air-cooled rebuilds, is bearing noise on cold start-up until the oil gets to the turbo, and still noticeable noise for the first minute or so of operation. Conversations with Garrett Airesearch engineers assure me that this can't be happening, but I'm three for three in the noise department, and OEM turbos on the same three cars were quiet when cold.



Water-cooled turbocharger installation
 1985 900 Turbo 16-valve

Other notes - this '85 also had a habit of starting and then immediately dying a couple of times when cold. I noticed that turning the ignition key to ON while I buckled my seat belt and got ready was enough to cure the problem. This gives the fuel pump enough time to get up pressure - probably something wrong with the fuel pressure accumulator, but my fix is good enough for now.

Jack Vines
 Spokane WA



The curved hose at the back of the cylinder head (top) is replaced by a cast tee fitting with a braided line to the turbocharger center bearing.

Some praise, some tips

Since I bought my first Saab (a '76 99GL) in 1983, I've fallen in love with these reliable, safe, fun and intelligent cars. I'm on my second (VIGGEN - an '84 900 Turbo), restoring my third (a 99 Turbo), and in the process of obtaining my fourth (a '91 900 Turbo).

Over the years, I've inspired no less than six people to purchase a total of eight Saabs. Counting mine and three "parts" cars (including an unfortunate 99 Turbo), that makes 14.

I've enjoyed the newsletters immensely. The tech tips are always informative, and I really like the service bulletin info from Saab. Jack Ashcraft has convinced me that there are people out there who care about the older cars. Maybe someone could pick up on Jack's thread, but covering the early 99s and 900s.

Now if only I could get to one of the conventions! I'm afraid the '91 bash is a little bit far for me to drive to, and other events conspired to make me miss the '88 and '90 conventions. Here's hoping that the '92 is a bit closer to me.

Are there any other Saab Club members who subscribe to CompuServe? CompuServe is an on-line service for computer users. It's lots of fun, and you can pick up lots of good advice from people who use computers, and who may even drive the same car you do! My User ID # is 76366,23, and usually use the name Larry West. I hang out in the Macintosh forums, and the Auto Racing forum (GO RACING). Drop me a line if you are signed up. I'd be more than happy to field some questions about my experiences maintaining these wonderful cars.

Saabs have saved friends and family from serious injuries in accidents:

Three days after picking up his 1980 900 Turbo (used), a friend hit a tree head-on in the rain at about 40 mph. His passenger (on whose side the hit occurred) suffered only minor injuries. The car was repaired, needing nearly everything forward of the firewall.

In another car, an '85 900 Turbo, (also bought used), the same friend was clipped in the rear by a Jeep traveling at about 50. The Saab was repaired, the hatch, quarter panel, floor panel, all needing replacing. Again, he was uninjured. This same car had earlier taken a deer, but that's another story.

My sister had an '86 900 which she rolled onto the roof after the car slid off the

road. She was completely unhurt. The insurance company didn't want to repair it, so now she drives a '90 900. My mom was so impressed by this that she went out and got a '90 900S, replacing an 11-year-old Buick Regal. (We still can't convince Dad, though.)

My current car, a white '84 Turbo, has over 120,000 miles on it. I bought it 4 years ago with 61,000 miles. Over the years, I've put sway bars, Koni shocks (the best, in my book), driving lights, Hella cruise control, and lots of fun miles.

I've picked up a few tips, also.

Rancho sells urethane suspension bushings which will fit the 99/900 front shock eyelets, and the 99/900 front/rear "pins" for the shocks (I haven't found the right part for the 900 rear lower mount). These are a *must* when fitting the Konis, as their bushings are only slightly firmer than the seat foam, and highly recommended for any other shocks. Urethane does not make the ride any harsher, and probably saves the shocks and their mountings from the "banging" which can occur with worn rubber bushings.

In a sway-bar equipped car, check the end bushings if you have an unidentified "clunking" from the front suspension. Check this with the car on the ground in the normal driving stance. Lifting the car or one side of the suspension loads the end link, and prevents you from finding any looseness. Reach under and grab the sway-bar near the end link and try to move it.

Also in a sway-bar equipped car, if you change tires, jack up each front side individually instead of lifting the whole front end. Your jack will only need to lift the car a short distance as the sway-bar torsion holds the wheel higher.

An alternative to the Saab tool for keeping the front suspension raised when lifting the front end (tool inserts between the upper control arm and the body -- very important when removing the motor or doing shock work): Two one-pound lead ingots. If you have a friend who casts fishing sinkers or bullets, he can help you out with these. Otherwise a gun shop should be able to help out. Look for ingots with "Lyman" of "RCBS" cast in the top. This is important because others may be the wrong size.

Always keep a 2"-3" piece of heavy (14-12 gauge) wire, with a male 1/4" fast-on connector on each end, in or near the fuse box. It can help get you home is the fuel pump relay quits, or if your engine cooling fan switch quits.

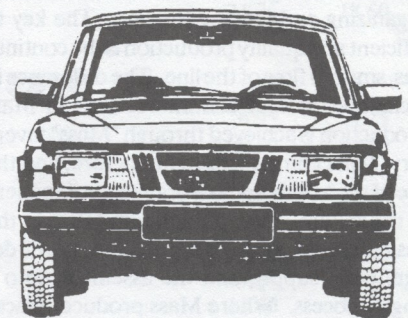
When doing wiring on Saabs, I always try to use the Saab connectors. It lends a professional air to the job, and for the under-the-hood areas, nothing beats the "splashproof" connectors. Expensive, but well worth it.

With the coming of my '91, I'll be setting my mind to a wiring arrangement for the European headlamps. Our wonderful Federal regulators saw fit to use a different connector for the H9004 bulbs which the U.S. spec Saabs now use, which is incompatible with the H4 bulbs of the European (Sport & Rally) headlamps. I sorely wish our government would approve the European H4 headlamp spec. I strongly believe that a few accidents could be avoided.

A thought on the optional (standard in California) Daylight Running Lights. If you have a '91, and your local laws don't still prohibit their use, install the relay and use those lights! They help the car to be seen in the daytime, and thus can help to avoid accidents. Sweden mandates their use, and on a trip there recently, the difference from a pedestrian's standpoint was incredible. You could see the car from a much greater distance.

Larry West
Glen Ridge NJ

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Book Review

The Machine that Changed the World

by James Womack, et al.

From the title, and from the newsletter in which you read this, you may think that the subject of the book is the automobile. This is only indirectly true, for the subject is not so much the automobile as it is the making of the automobile, including design, component manufacture, assembly, market-ing, and sale. In fact, it is Henry Ford's invention of Mass Production which moved the automobile from the category of toy to transportation. The transformation of the automobile industry from "craftsmanship" to Mass Production is the introduction.

But Mass Production is the starting point, and "Lean Production", a phrase coined for the method of production pioneered by Toyota, is the subject. The Machine is the culmination of a 5 year study of the automobile industry by a group at MIT. This project counted virtually every automobile assembler, including Saab, as sponsors. The motivation for the study is the ability of Japanese based automakers to assemble products of higher quality at lower cost, with frequent model changes, and which are more responsive to customers' wants. The result is a way of doing business, called "Lean Production", which is practiced with greater or lesser degrees of "fidelity" by all Japanese, some American, and virtually no European assemblers.

The common link between Mass and Lean production is the moving production line. The divergence occurs in the method of organizing and feeding the line. The key to efficient and quality production is the continuous, smooth flow of the line. The difference in techniques is that continuous flow in Mass production is achieved through "Mass" inventory, Mass component manufacture, and the use of the assembler as a brainless component of the system. Lean Production achieves the desired result through the integration of design, parts supply, and the assembler into a single process. Where Mass producer places emphasis on the continuous operation of the line, with defects corrected at the end, the Lean producer places emphasis on the correctness of assembly, with impediments to continuous operation being designed out of the product and the assembly line in a continuous process. The worker is expected to provide a major input in the latter case, and is paid on the basis of seniority rather than job function.

Of particular interest to me were the

relationships between the assembler and the parts suppliers, and the relationships among the assembler, dealer, and customer. In the case of the Mass producer, components are either detail designed or performance specified by the assembler's engineering staff, and purchased after a period of competitive bidding by the purchasing agent after design work is complete. Components are supplied by the lowest bidder, price is fixed by contract, and the purchasing agent feels his goal is to minimize the supplier's profit margin. Lean producers establish continuing relationships with suppliers. The suppliers is represented from the earliest stages on the design team. The supplier is assisted by the assembler's engineering staff in developing its own manufacturing procedure. Prices are set by mutual discussion, with the purpose of ensuring a fair return on investment by the supplier, and continuously improving quality and price levels for the supplier. In many cases the relationship between supplier and assembler is sealed by each owning some of the other's stock.

In their home market, Japanese dealers maintain a continuous relationship with the customer. Each customer's financial, family, and vehicle situations are monitored, with the results being fed back to the assembler for the purpose of model design and production scheduling. At the same time, production scheduling information is relayed back to the dealer for the purpose of developing timely sales according to the production capacity. The customer is expected to pay a fair price for the vehicle, and the dealer invariably provides free repair of defects over the entire length of the ownership period (except for wear items). The key to the entire process is a nationwide vehicle inspection law which virtually guarantees replacement of each vehicle at the end of its sixth year. Approximately one-third of the "traded-in" cars are refurbished for resale in Japan, one-third are exported (to Russia?), and one-third are scrapped. Note that while legislated scrappage results in wonderful market stimulation and dampens cycles in demand, it can not help but cause a design mentality in the Japanese producers which discourages the manufacture of vehicles with the ruggedness and longevity of a Saab. This will be especially true in the more widely distributed, lower-priced products. The top line Lexus, Acura, etc. models may not suffer as much, but they can hardly escape unscathed.

Obviously the authors have concluded that "Lean Production" will ultimately replace "Mass Production" in the manufacture of au-

tomobiles. Surprisingly, Ford was singled out as a major proponent of the new system, with the better North American Ford efforts being equal or superior to the average Japanese efforts. General Motors is singled out as the North American producer which is slowest to adopt Lean Production, a fact which is disconcerting in view of Saab's current automobile partnership.

The author reserved special scorn for two examples of errant production. In one case, an unnamed German luxury car manufacturer was observed to achieve benchmark quality levels by inspecting and repairing at the end of the production process. In this case, the manufacturer was devoting about as many man-hours to correcting assembly line errors as Toyota devotes to the near-perfect assembly of its Lexus models. The other case was described as the "neocraftsmanship" approach, practiced most extensively by Volvo. The organization of the work process into complete assembly by small teams is the application of 21st century tools to 19th century methods. It virtually guarantees a low-efficiency operation.

As an outside observer, I believe Saab is in an excellent position to adopt "Lean Production." The concentration of manufacturing in Trollhattan, with three models scheduled for a single factory, is more easily accomplished with Lean rather than Mass production. The task of engineering three new models within a 10 year period can be more readily accomplished by the limited Saab engineering staff using the techniques as described. Saab enjoys a core of dedicated repeat customers, as demonstrated by the SAAB Club. This gives Saab a foundation from which to integrate customers into the design and manufacturing process. Saab's business problems are not caused by bad products or uncompetitive pricing, but by excessive costs. Lean production techniques reduce costs and improve build quality at the same time. Finally, Saab produces in small volume, which provided the original motivation for many of the Lean production techniques.

The Machine the Changed the World should be required reading for anyone who makes his living from the automobile industry. It absolutely should be read by anyone who considers automobiles as more than appliances of transportation, and that includes each and every NINES reader.

Stephen Goldberger
North Canton OH



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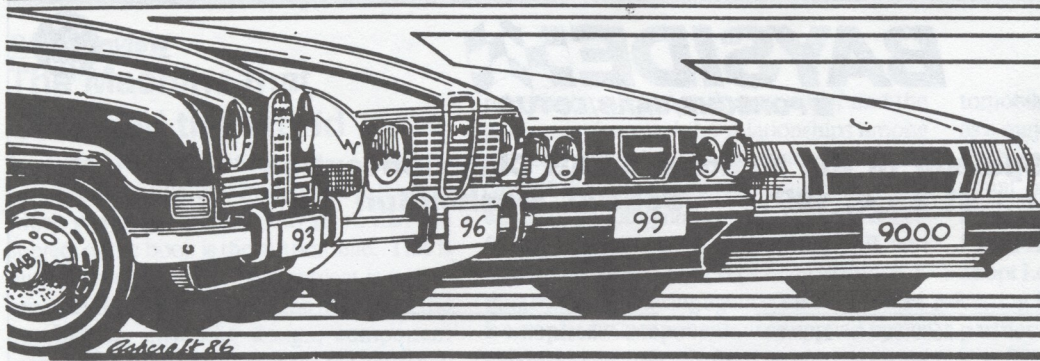
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	Members	Non-members
CARS FOR SALE	\$10.00	\$15.00
PARTS FOR SALE	\$5.00	\$7.50
WANTED ADS.	\$2.00	\$3.00
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EVERY 5 EXTRA WORDS	\$1.00	\$1.50

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.

99s & 900s For Sale

'89 900 Turbo Convertible, Cherry red/ tan leather, 5sp, phone, service records, WARRANTY, 75k mi, showroom condition, must see!! \$18,900. Craig Radey, Manitowoc WI 54220. 414/682-0566. Leave message.

'78 99 Combi (hatchback) with '80 engine. Burgundy, 100k + mi, no rust, needs water pump. \$650.00 obo. Mike Ayers, 2700-3 Bedford Ave, Raleigh NC 27607. 919/829-1508 or 851-5083.

9000s For Sale

'89 9000CD Turbo w/factory performance package. 17k meticulous miles. Silver/black leather/sunroof/graphic EQ/5 sp. Virtually new. \$19,500. John Williams, 7159 Game Lord Dr, Springfield VA 22153. 202/619-4761 weekdays; 703/455-6413 eves and weekends.

99, 900, and 9000

Parts and Accessories

900 Turbo rotors (vented) Exc. Cond. \$50.00 for pair. Mike Tucker, 57 Botany Woods, Hartsville SC 29550. 803/383-5443.

'87 9000 Speedometer and tach, \$75 each, \$135 both, UPS-COD.

Mark Searle, RD#3, 27 Siebrecht Rd, Pleasant Valley, NY 12569. 914/635-1352.

Set of 4 steel wheels with hubcaps for 99, 900, 9000 through '87. Straight, no rust. \$160.00. Can deliver to '91 convention. Tom Carlson, P.O. Box 396, Sweet Home OR 97386. 503/757-7547.

5spd manual transmission, '86 9000 Turbo Type GMT 5301. 30k miles. Includes Saab Service Manual 4:1. \$1050 +shpg, COD. David Webster, 121 E. Main St, Murfreesboro TN 37130. 615/898-1624 days; 890-6153 eves/wknds.

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

Sonetts For Sale

'73 Sonett III, Restored from the ground up; looks and runs like new. All original, including owner's manual, tool kit, and SAAB stereo. This is a find Sonett at a reasonable price. \$6600 obo. Bob Fulmer. 609/234-3853. (Philadelphia area).

'73 Sonett III, 120k mi, new interior, new exhaust, new brakes, Michellins, 2nd owner, no rust, California car, driven daily, everything works, runs great. \$3,300 obo. James Wyatt, 2450 Pecho Valley Rd, Los Osos CA 93401. 805/528-5631.

'72 Sonett III, Orange, 30,500 mi, stereo. Very suitable for restoration. \$1000. Joel Willard, 61 S Herbert Rd, Riverside IL 60546. 708/447-1158.

'71 Sonett III, beautiful red paint, tan interior, Southern rustless chassis new MSS. A steal at \$3800. Mike Tucker, 57 Botany Wood, Hartsville SC 29550. 803/383-5443.

'70 Sonett III, Blue, 70k mi, 500 miles on new clutch. Runs great. Right front recently customized by a Chevrolet, but drivable. Bob Zimmermann, 2101 Morton Rd, Wayzata, MN 55391. 612/473-8360.

93s, 95s, & 96s For Sale

'69 96 V4, 106k mi, Weber, new trans + spare, manuals, looks and runs good, some rust (rockers, fender welting), for parts or restoration, \$500 obo. Kurt Friedburg, 1090 Farmington Ave, W. Hartford CT 06107. 203/521-5507.

'68 96 V4, 169K. 19K on rebuilt 1700cc, Sonett radiator, electric fan, new Boges, 9K on Kleber C1's, '70 99 front seats. Restorable. Extra trans. Asking \$950. Andy Buc, Box 70187, Seattle, WA 98107. 206/ 783-7832 days/wknds.

2-Stroke & V4 Parts

Parting out 4 Sonetts - '71, '72 and two '74s, 1 windshield & 1 rear glass w/hdwe, 5 soccer-ball mags, doors, 20 lug nuts late style, wiper motor. Mark School, 313 E Greenfield St, Appleton WI 54911. 414/731-5289.

97 fiberglass fronts and rears for II & IIIs. Best offer. Parts car Sonett II/V4 and more. Photos & list available. Mike Tucker, 57 Botany Woods, Hartsville SC 29550. 803/383-5443.

Complete '87 tan cloth 3dr 900 interior, 27k \$500, tan eggcrate mats \$50. 4 - '86 S alloys caps nuts MXV \$750, perf. red pass door '87 3dr \$300 minispere \$60 '84 base car automatic drivetrain 68k can demo \$800, 99 European grille & headlights \$300, 9000 km/hr speedo new \$75, misc. Manuals and sales lit older models. Rob Allen. 201/248-8798.

Parting out 86 900s w/ 16 valve w/ only 30,000 mi. Good front end, drivers door, quarters & hatch. Lots of other parts. Rich Aiken, Lake Dr, Beverly, NJ 08010. 609/764-1371.

Parting out: eighteen 99s and twenty-three 900s, 1973 thru 1988; one 1986 9000. New OE sunroof deflectors 9000 only - \$39.00. Quantity discounts. Rod Beckner, 604 East First St, Albany, OR 97321. Tele/Fax 503/928-6351.

2 '82 Saab alloy wheels #8945909. Original takeoffs. Excellent cond. \$150 ea. Shipping additional, John Cuccio, 61 Wilton Rd, Westport CT 06880. 203/454-5585.

"B" Motor, '79 8v Turbo, 110k mi, complete w/turbo, alternator, starter. Gd cond, no smoke, well-maintained, 2500 mi oil chgs, had pre-lube, recent valve-job. \$450 +shpg, negotiable. John Wynn, West Chester PA. 215/692-8784.

Parting out: '80 99 and '78 99 Turbo 3dr. Many parts also, most brand new. Mike Ayers, 2700-3 Bedford Ave, Raleigh NC 27607. 919/829-1508 or 851-5083.

Hella 900 Euro lights, \$180, '87 S alloys, \$280/set, 99 hood, \$20, misc. 99 interior parts - cheap! Jim Laman, Holland MI 616/335-5215.

900 Parts - '80 Fuel injection (complete) \$70; '80 Rear headrests (pair, blue) \$30; Electric (in tank) Fuel pump \$35. Roy Derevyani, 24101 SE 37th Pl, Issaquah, WA 98027. 206/392-4316.

900 Parts - Hella European Headlights \$200/pair; New heater valve (new style) \$55; New front (vented) brake rotors \$100/pair; Dashboard (both pieces) \$100. Roy Derevyani, 24101 SE 37th Pl, Issaquah WA 98027.

99, 900 Headliner kit comes with glue, 3 1/2 yards and complete instructions \$87.50. Other parts available. Trollhattan Motors, Inc. 301/682-4688 or 1-800 32 TROLL evenings and Saturday hours.

S2 - 900 Steel wheels w/ mounted Hakkas. 2k mi, one tire blown \$130.00 plus shipping, Assorted '78-present newsletters 2.50ea or \$50.00 all. Mark Whalen, 299 Elliot St, Newton, MA 02164. 617/964-3660.

'Parting out: '78 99T. Rough interior, mag wheels, also some Sonett & 96 parts. Al Phillips, 2512 Eckman Rd, Jamestown, NY 14701. 716/665-4200 days.

'85 Saab alloy wheel #8987521. New, w/ctr cap. \$150 +shpg. John Cuccio, 61 Wilton Rd, Westport CT 06880. 203/454-5585.

Your SAAB manual transmission rebuilt from \$795.00. Includes replacement or bearings and seals and set to factory specs. Why buy used and not be sure? Call for details. Freight additional. Mastercard, Visa and Amex accepted. Trollhattan Motors, Inc. 1015A Old Easter Avenue, 2nd Floor, Baltimore md 21221. 301.682-4688 or 1-800 32 TROLL evenings and Saturday hours.

Wanted, All Models

'93 trunk door, hyd. brake bits, emblems, interior, 1 bumper overrider, chrome head bolts, rust repair panels etc. 900 Inca & Ronal silverspoke alloys, 16V Turbo parts car 5sp, 3dr, '86 and up. '92 literature, '93/'96 posters, old odd Saab memorabilia, dealers sign. Rob Allen. 203/248-8798.

99 2-dr or 3-dr wanted, prefer 75-'80, need not run. Looking for rust-free, crash-free chassis for project car. Tim Winker, Duluth, MN. 218/724-1336.

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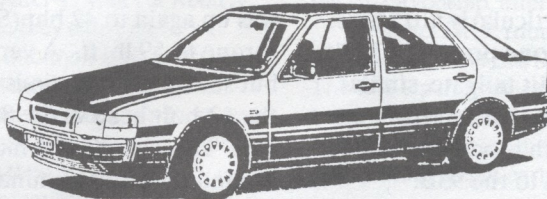
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HISTORY OF THE THREE CYLINDER TWO STROKE

Buck Rogers and the 95

Today, it is hard to imagine that the mere prospect of a Saab station wagon would be the subject of years of speculation and rumour. In part it was the times, as car starved Europe rebuilt after the nastiness of WWII.

When the new Saab 95 was finally introduced in May 1959, it was once again, half a new car. This time it was the back half with the front, doors and much of the interior carried over from the 93B. As one observer wrote, it was an unlikely combination. The soft curved front of the 93B certainly clashed with the angular American-inspired rear. Although the fins made it look like Buck Rogers, it was once again a Sason design. This finny design remained unchanged until the 95 was discontinued in 1978. This meant the world's longest running fin design was still in production when the finned American cars were becoming collectable!

Several of the prototypes were done in a two tone finish, dark blue on the bottom, white above the belt line and tailgate trim strip. There was also at least one prototype done with a medium coloured body and a dark roof. It is unfortunate that none of these were ever offered as an option as the former was particularly attractive. There was at least one prototype built with a vertically split tailgate, similar to a large American van and front hinged doors, which is odd remembering the connection to the 93B.

Here are three (naturally) things you probably didn't know about the 95: When the car was first introduced, the two rearward side windows were non-opening and larger than those on the 95s built after 1961. Unlike all the previous Saab models it was not built in Trollhattan. The body was stamped and assembled in Linkoping, sent to Trollhattan in special rail cars to be painted and returned to Linkoping for



A two-tone 95 prototype, emphasizing the "airy" quality of the upper body

final assembly.

Few people realize the huge cargo capacity of the 95. With just the driver aboard, it will carry over half a ton. Using the third rear facing seat the 95 carries seven passengers.

The incredible exterior, and 'incredible' is the right word, caused many to miss the significant changes under the hood of the 95. The engine had been bored to give 841cc. Power was up again to 42 bhp(SAE) and the torque to 59 lb. ft. A very important but seemingly innocuous change was the 12-bolt head vs the 8-bolt in the 750. This change and more metal around the studs eliminated the failing head gasket problem on the sports engines. Don't go away, there's still more. The 95 also received Saab's first production four speed gearbox, with synchromesh on all forward gears. Lever shocks were used in the rear to provide the huge flat load floor.

Friend and hero, Erik Carlsson drove a 95 in the 1961 Monte Carlo Rally. Why a 95? Erik had competed in the Monte for the first time in 1960

(finishing ninth overall) and had realized that a four speed gearbox was a necessity. The 95 was the only Saab with a four speed gearbox. So a 95 it was to be!

An unexpected complication was the imminent introduction of the 'cheese slicer' air deflector over the rear window. This had been tested in 1959 but the dies to make it had not been available until late in 1960. So it was decided that the car Erik was to drive should be modified to carry this latest marketing feature. The changes were painstakingly made by hand and all was well until two days before the Event. Production wasn't ready after all and the car had to be changed back to its original form. (Erik finished fourth after a sudden change of the Rules slapping a 10% handicap on two strokes) But Erik would be back again in 1962 with far different results!

Next Time: The Saab GTs

Simon Du Stroke

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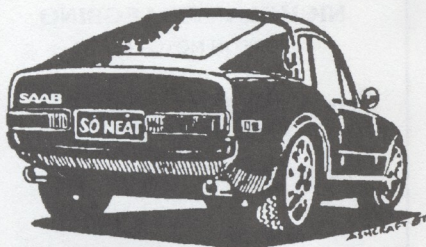
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Rear View

The SAAB Club has published its first book, actually a reprint of the factory service manual for Saab two-strokes, 1961-64. Due to its small size (5½" by 8½", 250 pages) we were able to keep the price fairly low. Our next planned reprint, for later two-stroke, may be closer to \$50 as it is considerably larger (8" by 11½", 500+ pages).

A couple of things I'm looking forward to at this year's convention: Meeting Jack Ashcraft, and having a representative of the Saab factory at our annual meet.

I speak with that famed Sonett Fanatic a couple times a month via phone, but we've never visited face to fuzzy face. We will also witness the public debut of Ashcraft's Sonett 3.5, the evolution of which has been written up in these pages.

The Saab factory must be serious in wanting to preserve the Saab Mystique, as they are sending the vice president for product strategy and planning, David West, to our annual convention. West is part of the General Motors team assigned to help manage Saab Automobile. His previous assignment was strategic planning for GM (Europe). Prior to joining GM (England) in 1960, West worked with Aston Martin.

Saab is in the major auto magazines again. The August issue of *Car and Driver*

takes a look at several convertibles, including the Saab 900S Convertible. The 9000S 5-door is one of eight European sedans priced under \$30,000 compared in the August *Road & Track*. The naturally aspirated 9000 tied for first place with the Mercedes 190E 2.3 in the *R&T* comparison, with the highest marks coming in the areas of driver comfort and luggage space/loading.

The hot 96-V4 that was "Best of Show" at the 1990 National SAAB Owners' Convention in Sturbridge, Mass., is featured in a recent *AutoWeek* "Escape Road" column. The story details some of the Saab Sport & Rally goodies that were once available for the 96, many of which Andy Bittenbinder used in building the car. It is now owned by Len Schrader of New Jersey.

Regarding the seven car comparison test in the July *Car and Driver* where the Saab 9000CD Turbo placed scant points behind the Acura Legend LS, Curt Rich comments in *Curt's Newsletter*: "Between the lines they said [the Saab] was the best car in the test... After Toyota cut *Road & Track* off because they didn't name a Toyota or Lexus into their top ten list, no car magazine will mess with Japan, Inc. Each major Japanese company advertises more than all of the European manufacturers combined, so they have clout."

For those unfamiliar with Curt Rich or his newsletter, Curt is a topnotch salesperson at Star Motor Cars (7000 Katy Road, Houston, Texas 77024), active SCCA rallyist (he won the 100 Acre Tour in St. Louis in a Mercedes 500SL!) and sometime rally writer. You'll find some of his pieces in SCCA's *Sports Car* or in *Rally* magazine. You can subscribe to *Curt's Newsletter* at the above address for only \$25 a year.

Back in the mid-1970s when I was occasionally penning pun-filled stories for Twin City Rally Club's *Downshifts* and/or

the University of Minnesota Sports Car Club's *DNF*, Curt Rich was cranking out *The Rally Rag*. Those newsletters, plus the *Village Idiot* out of Columbus, Ohio, *The Motley Rag* out of Appleton, Wisc., and several others, formed a sort of rally underground press. Some of that effort was channeled into the original *Rallye* magazine that lasted only a bit over a year. (I've saved all my copies of *Rallye*, the only magazine that I have kept through all my moves.)

Yr Hmb! Edtr was another participant at the 100 Acre Tour, part of the SCCA National Touring Rally Championship. The photo on page 8 shows the Winter Beater II fording one of several streams on the route. With Mike Thompson driving, we placed fourth out of seven in the Unequipped class. There were over 40 cars at 100 Acre.

A couple of months later (July 13th), I chaired the Wolf's Nose Tour. There were only seven entrants total. I would rather have been a competitor as the worst I could have finished in class U was third. Gotta keep working on collecting points toward the championship, after all.

I expect I'll be running the Oktoberally Tour in LaCrosse this September, and Thumbs Up in Michigan come November. I also have an offer to participate in the Alcan Rally with Satch Carlson and the Alaska Rally Team early in September.

After years of promises, hopes and many trials, the mailing list has finally been transferred to our 286 computer (Hooray!). Labels were finally printed on July 8th.

It still isn't perfected, we have to get used to the new software, etc., but it should make that monthly task considerably easier. Label printing used to take up to three days on the C-128; it now takes a few hours.

See you at Crystal Mountain!

Tim Winker, Editor

NINES

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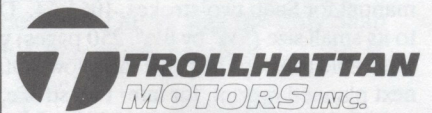
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