

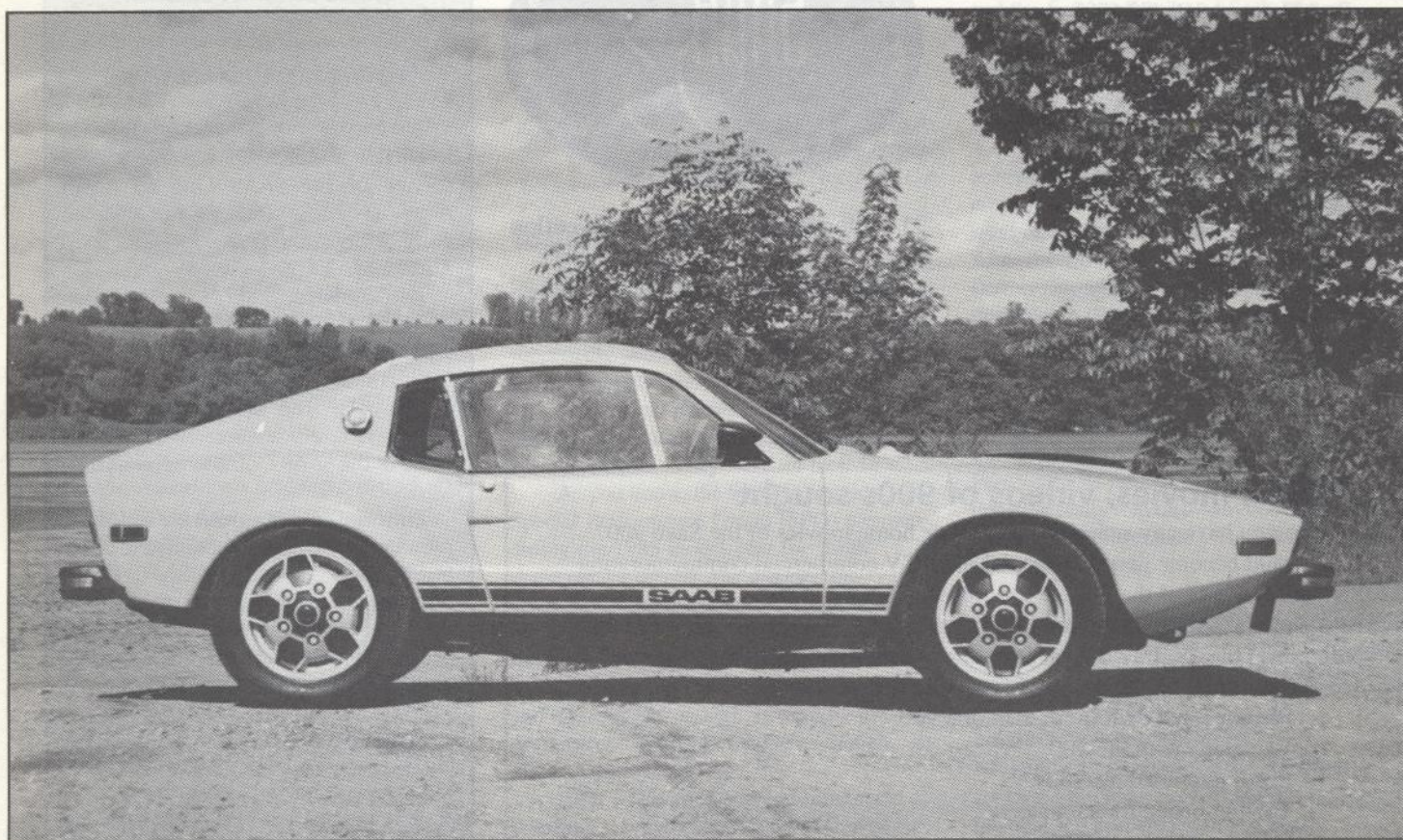


NINES

\$4.95

no. 219

The SAAB Club Magazine



Sonett III photo by Kevin Baumgart, Cottage Grove MN

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Regional Club News

Southern California SAAB Club

Aug. 21 - Bar-B-Que at Big Bear Lake. From 11am on. Bring videos, Saabs and friends. SASE for map and more info. Paul Florance, 310-493-6707.

Great Lakes, Milwaukee and Minnesota SAAB Clubs

Aug. 27-29 - Ojibwe Forest SCCA PRO Rally, Bemidji, MN.

Oct. 22-24 - Press On Regardless SCCA PRO Rally, Houghton, MI.

Minnesota SAAB Club

Aug. 14 - Svenska Klassik Rally. Dean Nelson, 612/636-3771.



'93 National Saab Owners Convention

Aug 6-8 - Carthage College, Kenosha, WI. For details, see pages 23-25.

Photos, movies, videos of 900s sought

Do you have any snapshots, videos or home movies of the Saab 900? They could become part of a special Saab TV commercial commemorating the past 15 years of the 900, to be aired this fall.

We're especially interested in film and video (Beta and High 8 formats preferably) that portray the car from the owner's perspective:

- Family poses, arrivals and farewells with the 900.
- Families that own more than one 900.
- Vacations with the 900.
- Loading/unloading 900s.
- Towing boats, trailers, etc.
- 900's in heavy snow.
- Maintaining and washing the 900.
- The 900 at club meetings, auto shows, etc.
- Customized 900's.
- Rallying with the 900.
- Saab or 900-related items: vanity plates, t-shirts, bumper stickers, etc.

If you have materials you'd like to share with us, please send them by July 30th to our advertising agency: Angotti, Thomas, Hedge, Inc., 119 Fifth Avenue, New York, NY 10003, ATTN: Project 900. The agency will send them back to you by return mail (so be sure to include a return address).

A modest honorarium is planned for the owners whose materials appear in 900 advertising this fall.

Thanks in advance for helping us document the life of one of the most beloved Saabs of all time.

Dan Chasins
Director of Marketing
Saab Cars USA

SAAB Club of North America

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NINES is published bimonthly as a service of the SAAB Club of North America. The SAAB Club is not affiliated with Saab Cars USA, Inc. or Saab Automobile AB.

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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 5" or 3" IBM-formatted disks, please convert to ASCII text files (<filename>.TXT). Please include a printed hard copy, and a SASE if you want the disk returned.

Photos: Preferred format for photos is black-and-white, in 5"x7" or 8"x10". Good contrast color photos can usually be accommodated, no smaller than 3"x5", please. Photos used on the cover will be rewarded with a one year subscription to NINES.

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

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

Letters to NINES

Incentive price protection

I read your issue of NINES (No. 218) with great pleasure, and it was particularly nice to see our new 900 gracing its cover. All of us at Saab are quite excited about the new 900, and the worldwide response to our "teaser" photo has been unanimous—it has been recognized as a true Saab.

Of some surprise, however, was Jim Lauerman's letter concerning his interest in a 1993 900.

As your readers are well aware, Saab recently restructured its U.S. operations and relocated to Norcross, Georgia. Our mission in doing so was to create a lean, entrepreneurial organization where greater decision-making responsibility was passed further down into the company. The strategy here was to reduce management bureaucracy, for more effective and proactive resolution of issues and concerns.

Mr. Lauerman's statement that "Kelly has yet to even acknowledge the problem, but has delegated the matter to one of his customer representatives" is somewhat contradictory. In the best interest of addressing Mr. Lauerman's questions, his inquiries were acknowledged by our Customer Assistance Center since again, they are now empowered to resolve such issues directly, and with expedience.

Concerning the specific issue at hand—price protection for Saab incentive programs—unfortunately, a mechanism does not exist to offer such flexibility. Saab market support programs are created around very specific timeliness, taking into account a rather complicated number of factors including dealer inventory and travel rate, along with the inventory that's in the pipeline from Sweden—what's on the water and what's scheduled for production.

We maintain very strict control of the parameters of these programs to ensure that all prospects are handled equitably. Marketing such a small volume of cars throughout such a large geographic area is, of course, a challenge in itself, but of great concern in such promotional matters is avoiding the perception of what is considered a "bait-and-switch" tactic. We, therefore, hold fast to ensure that only cars delivered from dealer stock qualify for these special programs.

I'm sorry that Mr. Lauerman considers this a "go to hell" attitude. In reality, our intention is just the opposite—we're doing our best to treat as many Saab prospects as fairly as possible within today's legal constraints.

In closing, let me also state that if I am unavailable, your readers always have the opportunity to contact Steven Rossi directly, our Director of Industry, Government and Public Relations. He, of course, has direct access to my office and is on a first name basis with many of your readers.

Otherwise, keep up the good work! Your interest and enthusiasm is appreciated.

William S. Kelly
President and Chief Executive Officer
Saab Cars USA, Inc., Norcross, GA

16-inch wheels on 900s

I couldn't help notice Robert DiGregorio's letter in your last issue of NINES concerning the 16-inch SPG wheel, supposedly shown in the 1990 Saab 900 sales brochure. Though three years after the fact, let me clear up the confusion. No, the SPG in the photo "probably" didn't have 15-inch wheels. They were, in fact, 16's.

As you know, the 900 Turbo with Special Performance Group (SPG) premiered during the 1985 model year for "high-performance drivers, the engineering aficionados and the admirers of applied intelligence," according to our introductory literature. At the time, this was the fastest and best-handling car that Saab has ever sold and interestingly enough, it went by the designation "Aero" in Sweden—though that's another story.

After a few good years of tuning and tweaking, a small group of us in Orange, Connecticut were becoming a bit perturbed over the diminishing sales results of this "stealth" Saab. After all, it was our performance flagship—Saab's answer to the M3, if you will—though admittedly, competition in this extremely limited segment was becoming intense. Witness the arrival of the previously mentioned BMW M3, along with the 190 2.3-16 Mercedes.

We therefore decided to pull out all the stops in a last ditch effort to pump some new life into this very special 900. The feasibility of the 16-inch wheel ultimately led to what was perhaps one of the greatest controversies within Saab history during the recent past.

To make a long story short, no, the 16-inch won't fit a Saab 900 but we almost got it to—however, with a special 195/50 VR 16

Pirelli P700 tire, not the 9000's 205/50 ZR 16. But that was the easy part. To get it beneath the rear wheel housing required the installation of accessory bumpstops and more significantly, relocating the rear axle 12mm forward. This fix would eliminate rear wheelhousing interference when fully laden.

The package was also to include revised wheel lip moldings and such niceties as a 140 mph speedometer and sport exhaust, not to mention 0.40 bar basic Turbo pressure and the first application of Saab Direct Ignition. At least the Turbo made it, as I recall. The photo that appeared in the 1990 sales brochure should give you an idea of how close we came to pulling it off.

Unfortunately, trying to get all this accomplished in such a short period was just not feasible if we were going to ensure the level of quality that we were striving for. After the 1991, the 900 Turbo with Special Performance Group was no more, and the importation dwindled to a mere 250 or so.

Those members who own a 900 Turbo SPG should therefore consider themselves lucky, since they possess a real piece of Saab heritage, which went on to inspire such Saab milestones as today's impressive 9000 Aero. Personally, as far as I'm concerned, only one question really remains—anyone have a Beryl Green '91 SPG for sale? No doubt, it's the rarest of the rare!

Steven Rossi
Director, Industry, Government and
Public Relations
Saab Cars, Inc., Norcross, GA

Dear Saab Klinik:

In the #217 NINES issue you kindly answered my letter concerning the 1/2 inch low rear left suspension of my Saab.

I followed your reply and contacted Ms. Christin MacDonald at Saab's Customer Relations Dept. Through her help and that of the local dealer the problem (Case #19088) has been completely and harmoniously corrected. I'm most grateful to Ms. MacDonald and most particularly to Mr. Howard Stetson, Stetson Auto Sales, Warren, Maine, for his persistent, efficient and harmonious effort in resolving the problem.

This is my first Saab. Because of this superb service and a fine automobile, my next car will be a Saab purchased and serviced by Stetson Motors.

Thank you for your advice.

Robert S. Ehmman
Owls Head ME

Correction on photo

For the sake of accuracy, the photo on page 18 of NINES #218 with the Saab Friction Tester and the Saab 340 was taken at the LeBourget Airport, France.

Recently, I saw Saab 9000CD's available for rent by Avis in Vienna, Austria. An Avis U.S. reservations operator erroneously identified an "E" class car in Austria as typified by the Audi 80 and Saab 9000 while, in fact, the Saab was in a higher rate class.

I recently had a warranty repair for a non-extinguishing brake light on a 900 done by Gerteis Motors, an independent shop in Shreveport, Louisiana. This area no longer has a Saab dealer in the area after the local BMW-Acura dealer dropped the Saab franchise. If warranty repairs would continue to be reimbursed in the future, it's a possibility that I would, as a remotely located owner, buy a new Saab in the future. However, I doubt that drivers of other marques would consider Saab's even with the possibility of warranty service.

I might note that Saab informed me that if a newly installed part was defective they

would replace it under warranty but that labor charged by an independent garage would not be covered for second or subsequent installation of the warranted replacement part.

David Yee
Shreveport, LA

Of models and headlamps

I have noticed in the few issues of NINES I have received so far that a lot of owners like collecting Saab miniatures, so I keep an eye out when I visit German toy stores. Just the other day I found a particularly nice 1993 900T convertible that isn't listed in issue #217. It is Saab red with the black convertible top down, "turbo" stickers (possibly painted on), and a chrome grill. The scale is 1:43 and it is hand-built by Tin Wizard. It is a very sharp replica. The cost is DM198, (about \$130 presently), and I would be glad to pick one up for any other collectors. Call or write.

Like other Saab lovers, I am anxiously awaiting the debut of the '94 900 at the Frankfurt Auto Show in September. Come hell or high water (not too high since I have

a lowering kit on my 900T!), my Saab and I will be there. I'll try to get some pictures and do some amateur journalism for the magazine. If anyone's planning on attending the Frankfurt Show, let me know if you need logistics help in Deutschland.

Also, I have a question about the legality of a certain type of Saab headlights (on an '84 900T) in the US. I have the type that look almost like the newer 900 headlights, flush with the grill and about 9" long, but with a halogen bulb that is replaced through the back of the headlight casing. The actual bulb looks like a 3-inch Christmas tree twinkle light. I don't know whether they are European headlights or if they are part of a turbo or sport package. I would like to know which states they are legal in (if any). I bought my car used, but I think the rest of it is American specs.

Carl Estenik
B Co. 1st MI BN (AE)
CMR 430 Box 1419
APO AE 09096

Int'l straight dial: (0149) 611-718835

It sounds as though you have the European spec headlamps, which makes sense because most European countries frown on the U.S. spec "sealed beam" lamps. The bulb is dual-filament and designated "H-4". Though the European spec lamps are technically illegal in the U.S. because they are not "sealed", very few owners have been challenged in recent years due to the proliferation of aerodynamic headlamps on virtually all cars.

By the way, I had the Euro spec lamps on my '85 900 Turbo, but wasn't happy with the way they projected light. I switched back to the U.S. spec headlamp doors and surrounds, but with rectangular European lamps that take H-4 bulbs. I am much happier with the light pattern now.

Tim

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NINES worth \$\$\$

Enclosed you will find my subscription for NINES. I got my sample copy last weekend and proceeded to save nearly 500 dollars on my rebuilding project. I am rebuilding a 1972 99E, 1.85FI, red two door. The only pistons I could find were \$160 each and up. In your newsletter I found a parts house that had some in stock on a factory close out, OEM with rings for \$35 each.

Needless to say, your newsletter is worth it. It was also enjoyable to read.

Jamie Swanson
LeSueur, MN

Saab reliability on upswing

If you were in the market for a new or used car a few years ago and you entered that market without any preferences, you were unlikely to purchase a Saab.

Rumors of the company's impending demise were making the rounds at the rumor mill, and an article in *The Wall Street Journal* quoted an analyst who suggested that Saab drop its automobile division entirely because of mounting financial losses.

Consumer Reports, The Bible that so many Americans turn to before making a major purchase, also frowned on the quirky carmaker from Trollhattan. The magazine's April 1990 issue contended that Saab owners would report more problems than a hypothetical average car, in April 1991, the magazine said of the 900, "Older models have been troublesome".

Those reports probably helped to scare away many consumers, particularly the great majority of them who were unfamiliar with Saab. Those knowledgeable about the marque were aware that most of the problems Saab has had over the years have been relatively minor electrical gremlins.

Company officials dispute the perception that Saab suffered reliability problems during the late 1980s, but they say the quality of the 1993 cars is significantly better. That can be dismissed as mere public relations talk, but even *Consumer Reports*, which long has been partial to Japanese cars, is saying good things about Saab these days.

The magazine's April 1992 issue now says the 900 is a "very old design, but (it) still performs well". In addition, it recommends 1990 and 1991 900 models as a Best Bet in a used car. Three years ago, the magazine warned it readers to avoid 1987 and 1988 Saabs.

Consumer Reports continues to suggest people avoid 1988 and 1989 9000 models, but it issues no such warning for 9000s manufactured since then.

And, in what may be the best sign yet that Saab quality is improving, data from the readers of *Consumer Reports* suggests that 900s are more reliable than the Volvo 240, Subaru Loyale, Mazda 323 and the new BMW 325, which has been winning raves from the automotive press. Overall, the magazine says 900s are 20 percent better than that moving target known as the average car.

The consulting firm J. D. Power and Associates, whose ratings are touted by a number of manufacturers, also has recorded improvements in Saab reliability. The company didn't

return this reporter's telephone call, even after promising to do so, but Jeff Klomp, a Saab salesman for Zimbrick Inc. in Madison, WI, said Saab in 1991 and 1992 moved up into the top half of Power's initial quality survey.

Klomp conceded that Saab had some quality-control problems during the late 1980s that coincided with the rumors of the company's demise. Some of their problems were the result of poor-quality parts supplied by Saab's subcontractors.

"When you're buying in very small quantities, you have to be cost-conscious. They (Saab) pay more for less. Having GM as a base for ordering gets them an economy of scale. That makes them a strong candidate to get reliable parts," Klomp said.

He said some of the quality problems Saab had during that period, such as noisy fan motors, were the fault of subcontractors.

But Saab also caused some of its own troubles, Klomp said, arguing that the small company stretched itself to the breaking point with the addition of the 9000 in 1986.

"When they introduced the 9000, they spread themselves a bit thin," said Klomp, adding that a source within Saab told him the company allowed new employees to train on the assembly line in order to meet production quotas.

"Part of what we were wrestling with was that Saab had a large sales boom in the late 1980s," said Steve Rossi, spokesman for Saab Cars USA in Atlanta. "The problem was that we were stretching production capacity."

Rossi denies that Saab had reliability problems during that period, calling such a term an "overstatement". But he says the quality of the company's products has improved dramatically over the last several years.

"At this point, we are building the best cars we've ever built," said Rossi, who recently took the redesigned 1994 Saab 900 for a spin. "We've had some good gains."

Everyone agrees that Saab's basic design has been reliable through the years, but those who say there have been quality-control problems recently, like Klomp, attribute the problem to production techniques.

It's no secret that Saab was the tortoise of the industry when it came to getting a finished product off the assembly line. And that appears to have been part of their problem. Rossi said Saab has reduced the time it takes them to build a car from 120 hours to just 48, and they expect continued improvements this year.

That improvement reflects Saab's intention to "build it right the first time and get it out the door," Rossi said, explaining that such an effort is bound to improve quality because fewer hands will be meddling with the product. That, in turn, should limit the chances for a mistake to be made.

Saab sales have been improving during the last two years, despite a persistent worldwide recession and the "luxury" tax on cars priced over \$30,000. But it's difficult to know if that's the result of real or perceived quality differences or the result of aggressive pricing, which made the cars a terrific value.

Nevertheless, if *Consumer Reports*, J. D. Power and other independent monitors continue to report improvements in the products being put on the boat at Trollhattan, the next few years should be good ones for Saab.

Stephen J. Siegel

Saab News Briefs

Saab is the **most improved nameplate** in the '93 J.D. Power New Car Sales Satisfaction Index (SSI)...**John Kramer** has been named the vice president of sales and marketing for Saab Cars USA, Inc. He replaces Jan Jonsson, who has returned to Sweden to oversee the launch of the new 900...Gaston Andrey of Framingham, Inc., Framingham, Mass., and Lighthouse Motors in Brewster, New York were recently honored as **35 year Saab dealerships**...The **top-selling Saab dealership** in the U.S. for the eighth consecutive year was Ramsey Saab in Ramsey, New Jersey. Ramsey retailed 561 new Saabs in 1992...Charles River Saab in Watertown, Massachusetts, was the **parts and accessory sales leader** in 1992 for the seventh consecutive year...**Robert J. Sinclair**, former president of Saab Cars USA, Inc., recently joined the board of ASHA Corp., a group of automotive professionals dedicated to developing new products for the automotive industry...The **1994 Saab 900 Convertibles**, both Turbo and S models, are now being sold in the United States. They are little changed from the 1993 models...**Smaller Saab?** Plans for a Saab larger than the 9000 have been dropped, said Keith Butler-Wheelhouse, president of Saab Automobile AB, and the company is looking into the possibility of a new model priced *below* the 900, as well as station wagons and diesel power...The National Highway Traffic Safety Administration (NHTSA) has approved the use of **daytime running lights**, a feature that Saab introduced in 1968.

Doktor Nio's Saab Klinik

There is an annoying "clicking" sound coming from the APC solenoid valve located above the radiator on my **1987 900 Convertible**. One dealer replaced the APC solenoid, but the problem did not subside.

The strange thing is that when I step on the brake pedal the noise will stop, and as soon as I let go of the pedal it begins again.

Scott Thomas
Orono ME

The APC solenoid should click only when called upon by the processor to bleed off boost pressure. My past experience tells me the pressure transducer, located with the relay panel above the pedals is the culprit. The reason it stops when the brake is depressed is because the system locks into basic boost during braking.

The transducer is the small metal can with one vacuum hose on one end and two wires connected at the other. The shop manual shows a procedure to test this device by applying pressure through the hose fitting and reading the resistance values at the terminals. The manual also advises tapping on the transducer when the pressure is released while monitoring the electrical value change. In real life, there's no one under the dash tapping on the transducer after a full boost run and occasionally the report to the APC processor remains at high boost even though the car is idling. Tapping on the unit while in the car may stop the clicking for that moment. A better solution, outside of replacing it, is to mount it firmly to the engine so it is shaken into behaving properly. Before the newer solid-state transducer came out, the Barber Saab teams mounted the units to the block because of their problems with sticking.

My '89 **900 SPG** has 106,000 miles on it and has it's share of niggling problems, but overall I think it is an excellent car.

The car idles up around 1,200 rpm instead of the 850 recommended by Saab. The AIC valve was checked and seemed fine, a burr in the throttle cable was filed down. Mechanics at French's Foreign Cars

checked it three times and could not find a problem. A mechanic at the dealer in Arlington, TX told me that disconnecting the valve that recirculates emissions and plugging the line would drop the idle to 850 rpm. The dealer suggests replacing the ECU at around \$600. Is there a cheaper solution?

Lane Bayliss
Shreveport LA

The problem could be found within the throttle housing. First and foremost, insure there are no vacuum leaks, cracked or split hoses, or loose bolts holding the throttle body to the manifold. Isolate the power brake booster, too.

Loosen the throttle switch and back off the throttle plate stop. Open the throttle and clean the throat and the plate. Close the throttle and loosen the throttle plate screws enough to free the plate then slam the throttle closed to center the plate in the bore. Place a dab of lock-tight on each screw and retighten with the plate centered in the throat. Now adjust the throttle stop to act only as a limit so the plate doesn't jam in the throat. Turn the stop screw to contact the plate arm and turn only 1/8 to 1/4 turn more. Now set the throttle switch and idle as per factory instructions.

Be sure to check ignition timing for variation as we have found a few instances of the crankshaft pick-up allowing the timing to bounce around or hang up. If these remedies do not solve the high idle, replace the AIC valve with a known good one. Then, if all else fails, replace the ECU.

The odometer broke on my **1987 Saab 900 Turbo** at 31,000 miles. The dealer replaced the unit with Saab part #9120551. There was a ticking noise and the speedometer needle fluctuated, a year ago the speedometer started giving higher readings. (Tire size hasn't changed). My Saab parts list indicates that the speedometer installed is a 1988 part. Are there any differences between the 1987, 1988, and 1989 speedometers? The parts catalog has different parts numbers (85 89 343 (1987), 91 20 551

(1988), and 95 66 084 (1989)). This information suggests that an incorrect part was installed. If this assumption is not correct, what can I do in order to get accurate speed readings?

Rodney G. Orr
Arlington, TX.

The speedometers in late '80s Saabs were notoriously inaccurate. Any good speedometer shop can add an inexpensive reduction gear at the cable drive to recalibrate your speed readings.

I bought my first Saab, a **1968 Sonett V4**, one year ago. I bought it because I wanted to drive a limited production auto that delivered good gas mileage. I have gone through the cooling system, and had the engine/electrical gone through. I have worked through the multitudes of small items, but have been relatively happy overall. Now the trans is slipping out of gear. I am looking at a rebuild and plan to pull and replace the unit myself to keep cost down.

Can I expect this car to stabilize, or am I in for many marathon, gotta-get-the-car-fixed-by-Monday weekend repair jobs? Put another way, can this car be used successfully as a daily commuter or should it only be considered an historic relic to be broken out for club events?

David & Lori Shaw
Colton CA

Your Sonett is 25 years old. Yes, you can anticipate more items in need of replacement. Brake hoses, wheel bearings, various seals, etc. Many of the problems you have already discovered may be a result of the car sitting, unused for a long period of time.

Slipping out of gear could just be a result of a sticky free-wheel clutch. Try flushing the trans with ATF and even a little kerosene to cut through the gunk and free up the hub.

Be patient, you could have done worse, like an old MG or Healey with Lucas equipment.

The '83 900S I have been driving and servicing for the last five years has had a few problems I have not been able to resolve.

1. The car has a 5-speed. The reverse lock out has never functioned and the reverse lights will not energize unless the shift lever is pressed to the right.

2. How long should the vacuum reserve bottle hold a vacuum and what is the best way to troubleshoot?

3. The temperature control knob on the dash has an annoying vibration that seems to originate from where the heater hose crosses the alternator arm. This hose has failed at the point where it crosses the brace. Is this a common problem and is there a repair?

4. I have attempted to install a front sway bar on this car, but have not been able to move the sway bar ends into position on the A-arms. There does not seem to be room to pivot the bars downward and once there, how would the bushing be located in the sub frame?

Mark Moe
Bloomington, MN.

1. Check and adjust the length of the plunger at the end of the shifter so it blocks the reverse gate unless the ring is lifted. Remove the shifter and pull the out the wire spring clip below the pivot ball. Try lengthening, (unscrewing) the rod at the end of the shifter, a little bit at a time, until it catches the gate in the console.

The reverse lamp switch may have a spacer washer under it. Remove the washer to increase the depth it screws into the housing. The switch could be worn enough that it still won't make full contact. In this case, replace it.

2. I don't know of any criteria for the vacuum bottle. I've sat in 900s that after two days still had enough vacuum left to move the vent servos once.

3. I seem to recall a service bulletin regarding the buzzing heater control knob which advises placing a larger section of hose over the heater hose that chafes the bracket. A wire tie may be used to assist in pulling the hose away from vibrating engine parts.

4. Sorry, this one is just logic. It is possible to snake the bar through to meet the lower a-arms. If you are using a Saab factory bar, there should be instructions available for mounting the inner bushings. I think you may have to drill a couple mounting holes for the brackets.

I am currently running an '87 900S (4 door, 5-speed) and a '90 900 base (3 door, auto). A few simple questions:

1. Exactly how much fuel do they hold? Are they the same capacity tanks? How much is in the "reserve" or when exactly does the fuel light illuminate?

2. In the '87 the driver's side seat heater doesn't work, only on occasion does the passenger side come on. Give me a detailed list where to begin and what might be involved. Do I start with the rheostat, the heating elements, or the thermostat?

3. What is the difference between the black and the blue Mann oil filters?

4. Is there an easy way to remove an oil filter without spilling it? I pull the pin out of the oil dipstick to move it out of my way (it makes a little difference) also I have tried slipping a plastic bag over the filter but when the slightest bit of oil seeps into the bag it becomes too slippery to handle and I end up with a mess.

Jim Kubus
Greensburg PA

1. The '87 holds 16.5 gallons and the '90, approximately 18 gallons. The low fuel lamp will remain on at the point when 1.5 gallons remain.

2. Testing the seat heaters requires a multi-meter. Check for continuity where the tail comes out of the seat. If the circuit is not complete, lift the seat cover and test the thermostat by cooling it. Then test the rest of the circuit. A break in the grid can be soldered to complete the circuit.

3. As far as I am concerned, the only difference between the blue "OE" filters and the black Mann W920/26 filters is the color.

4. I don't think it is a matter of speed. A little bit of oil will always spill over even if you keep the canister upright. There are worse oil filter mounting designs out there, believe me!

I own a high mileage '77 99. I have two questions:

1. I had a rebuilt 4-speed chain-drive transmission installed, however from the beginning the unit howls between 45 and 60 mph in 3rd or 4th gear. After 60 mph it is not as noisy, perhaps because of wind and muffler noise. The mechanic assures me that all the bearings (including the pinion shaft support collar and bearing) were replaced. Also, any worn gears etc. Is it possible that a drive shaft bearing can cause this noise or an incorrect pinion adjustment? Will I damage the transmission by driving it with

this condition? The unit performs perfectly except for the noise. I changed the oil at 2,000 miles and there was no noticeable excess filings in the oil. I now have 4,000 miles on it with no increase in the noise level.

2. I purchased new rear shocks (Monroe 31069) however the bushings supplied are 1/4 the width of the original ones. Can I use these bushings with good results or can I install the original Saab bushings (new ones) on these shocks?

J. Smith
Ayers Cliff, Quebec

The sound you are hearing is probably final drive noise. The ring and pinion gears are run and matched for the quietest pinion depth and are marked accordingly. Once they are worn in, it is best to measure the pinion depth before removing the shaft and using this value on reassembly. The noise may lessen as the gears wear in.

There's nothing wrong with using the Monroe bushings, in fact, the damping will be more direct with the thinner bushings.

I own a 1980 900 Turbo with 137,000 miles. Recently, the passenger compartment has developed a gasoline odor after sitting approximately 24 hours. The odor appears to be originating from the rear hatch area. The odor disappears after 4-5 minutes when the outdoor temperature is below 40 degrees F, but lingers when the outdoor temperature is warmer. I have also observed that the fuel tank pressurizes only slightly after driving when the outdoor temperature is warm but does not pressurize when the outdoor temperature is cold. The odor gets worse when making a hard left turn. I inspected the fuel fill hoses and vacuum hoses for cracks, replaced the gas cap, and tightened all clamps but the persists.

Joseph Lucca
Massopequa Park NY

It is very possible the filler neck assembly is cracked. This seems to be the most common leakage point in the earlier 900s. You should also take up all the trunk floor boards and remove the side panel and wait for a good hot, sunny day. There are several methods that can assist you in finding the vapor leak. The best tool is an exhaust gas analyzer to sniff out the vapors while the tank is still under pressure. The next best method is good ole' soapy water. Be sure to test not only the filler neck but also the fuel pump and sender, and the pipes into the tank.

I have a problem with turbo boost in my 1985 900 Turbo, equipped with APC. I am unable to get more than the basic, unmodulated boost pressure out of the system. The boost needle is barely into the orange with no movement like I'm used to. The symptom is the same with the solenoid connected or disconnected.

I have checked the APC system in accordance with the shop manual. At 2000 rpm, with approximately 3-5 psi applied to the pressure transducer line, the solenoid starts to "chatter". At 10 psi the engine quits, so the pressure transducer seems all right. The dealership replaced the knock sensor, and suspects the APC box. Two different APC boxes give the same static check described above. I've checked the vacuum solenoid and it reacts to battery voltage OK. The solenoid and hoses are passing pressure OK. If I disconnect the hose to the wastegate actuator, the boost will climb right through the roof when the throttle is depressed. Also checked the vacuum switch on the cruise control. It seems OK, opening under vacuum.

Bob Shively
Springfield VA

You mention checking the pressure transducer and the vacuum solenoid. The

pressure transducer, (see related letter above) reports the boost pressure to the control box. It does not shut off the fuel pump. Check the transducer by measuring its resistance under pressure. You mention the solenoid begins to chatter at 3-5 psi. I may be wrong but that sounds a little low. Try by-passing the cruise/APC cut-off valve if all else fails.

Not more than once a month a sound comes from the rear of my '85 900 Turbo, 3-door 5-speed, after turning off the car. It sounds as if the fuel pump is still running. Only starting the car and shutting it off will stop the noise. If left alone it will drain the battery in under an hour. My experience makes me point to a fuel pump relay, but I have only seen this problem on earlier Saabs, never an LH system.

Lewis Eig
Monsey NY

We are seeing some LH fuel pump relays with badly burned or melted contacts. It is very possible your pump is drawing so much current that the points are welding themselves together. You could expose the relays and continue using the car until it happens again and quickly unplug the fuel pump relay to confirm the fault.

What is your opinion of using Castrol Synthetic engine oil in a 1990 900 Turbo? I have a 1982 900 Turbo with 160,000 miles. This car has a whisper quiet engine from starting up cold through all operation. The 1990 900 with 40,000 miles is excessively noisy at cold start up but quiets down after a few minutes. With the water cooled turbo on the '90 I would like to put synthetic oil in this Saab. I have the Red Line oil in both transmissions. I can really tell the difference in shelf temperature.

Allen A. Workman
Brandenburg KY

As long as your motor oil, whether it be synthetic or mineral based, meets API and SAE ratings recommended by Saab, it should be fine to use. The secret to longevity is not so much the brand of oil you use but how often it is changed.

The reason your 1990 16-valve is noisy on initial start is the hydraulic valve lifters need a moment to "pump up" and rid themselves of any air. Be sure to use no heavier viscosity than 10W-30 for a better cold flow rate.

I own a '91 9000 Turbo and my question is simply whether its a good idea to put the new teflon bonding oil treatment in my engine at the next oil change.

Steve Giesecke
Merced CA

I don't know how much research Saab has done, (or any other manufacturers for that matter) involving the use of teflon additives. I have not had any first hand experience. I do know for a fact that an H engine, with oil change intervals no greater than 3,000 miles will run strong in excess of 200,000 miles. I say this because I'm using one right now that has over 248,000 miles and still has it's original turbo unit!

Cold starting is the greatest wear factor in any engine. Light, fresh oil and gentle starting, (not revving the engine so it explodes to life) will prolong bearing life.

I have a problem with my 9000, driver headroom. I'm less than six feet tall, but long waisted such that my head brushes against the edge of the sunroof opening in a 9000. Do you have a solution to offer? I only need about 1/2 inch. Power and manual seats seem to offer the same clearance.

Will Mack
Sudbury MA

You failed to mention what year your 9000 is. The later cars, '89 and up, have a higher seating position which I suspect has something to do with the airbag system. Sitting in an '86 with the seat in the lowest position feels like you're in a submarine. Unfortunately, I can't offer any advice as to further lowering of your seat.

I am the proud owner of a 1991 900 Turbo Convertible and have been searching for yellow/amber replacement lenses for my fog lights. Do you know of any sources for these?

Donald Ludwig
Arlington Hts MA

The fog lights are made by Bosch. Try one of the vendors here in "NINES" for a Bosch source for the yellow fogs. I'm almost certain they can be obtained.

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Professional Perspective

Illegal modifications

Once upon a time I was a young man infatuated with horsepower and speed. Of course the cars I bought then weren't the cars I was going to drive. In those days, the sound, power and looks were altered at will. Once purchased, at least a 4-barrel carburetor and dual exhaust would be installed, if not three 2-barrels or two 4-barrel carbs. A cam anyone? Did you know cars didn't run without custom wheels and grilles?

I thought I had put some of that behind me until I went to Brainerd International Raceway to crew for the Winker 99 SCCA car. The sound of those engines winding makes a person's adrenaline flow. The difficulty was that Tim still drives this 99 on the street so it has a header and a very quiet street legal muffler (79db). We were prepared to dig in and make some changes to the exhaust system to cut restriction and get more speed since the allowable sound level is about 105db. But wait, since this car runs on the street, we can hardly touch any of it.

As promised in the last issue, I'll relate what the EPA has been up to the last year. I can't relate to you what is done to prosecute individuals, as my source, *Undercar Digest*, did not give that information. But I can relate to you that shops have been penalized for various infractions. Last year in the 2nd quarter alone, the EPA levied fines totalling \$503,500. In the third quarter it was only \$141,700. That was for 90 violators. Independent muffler shops had 74 violations, general repair and tire shops 40, franchise muffler shops had 23, and auto dealerships 13. All of these were from 18 states. Yours perhaps?

There were seven types of offenses that were tagged:

1. 90 instances where 2-way catalytic convertors were installed in place of 3-way.
2. 43 violations of record keeping: "Failure to record on the service invoice the customer's address, vehicle make, model and mileage and reason for replacement. Also failure to issue the required warranty or properly fill out the warranty info card."
3. Illegal installation of dual exhaust, which included dual exhaust replacement without catalytic convertors and installation

of dual exhaust on a vehicle that was not available with optional duals. (Totally unfair, right?)

4. Four instances of convertors removed and replaced with a straight pipe.

5. Two companies were installing aftermarket convertors on cars less than 5 years old or under 50,000 miles. The fine for this is \$25,000 per incident.

6. Two cases involving tampering with emissions equipment, such as oxygen sensors and air pumps.

7. One engine shop was cited for installing an engine in a car without proper emissions equipment. (The general rule is you can install newer, cleaner equipment on an older car, but not the other way around.)

The point of all this is that your favorite technician has many liabilities. He doesn't, nor can he afford to do something he'd like to do that is against the law. George's boys were lurking last year waiting for errors to be made, and Willie's boys are just as diligent! Don't ask for illegal acts to be done. Nowadays performance can be had without tampering with emissions.

On the other hand, send your cards and letters to Tim Winker at NINES. Petition him to take his fun racer off the street so we can have at it legally. "Off road use only," that is.

Power Steering Flush

Oh yes, and there is that great Saginaw power steering rack that Saab has been buying from GM since 1979. What a wonder it is. Since it appeared on the 900, it has had numerous problems. These included leaking, morning sickness and jerking.

For years the solution to most of the problems was to replace the steering rack. Most consumers find it incredible that a car built to go high miles would need a power steering rack replacement at low miles and ages. Some of the racks seem to escape the more serious problems but in our area, virtually all have or will have morning sickness (morning sickness being hard steering for the first minute or two up to 15 minutes). There have been additives and conditioners on the market, but the only solution that was foolproof was-you guessed it-replace the rack.

Finally, another solution has arrived. A company called FRP is marketing a machine that flushes the residue from the power steering system. A Wynns product system is used.

The machine is hooked up to the car's

power steering lines. The old fluid is forced out of the system by air pressure. A flush fluid is then installed by the machine, the car is started and steering is operated for ten minutes. The flush fluid is then forced out and a power steering conditioning fluid installed at the same time. It is amazing the volume of junk that is forced out. The process only takes about 30 minutes and does wonders. Almost all (can't say 100%) of the morning sickness is remedied, some of the jerking racks are cured and hardly ever is a leaker worth the effort.

Next time you have a rack problem, look for a shop that can flush your rack before resorting to replacement. Or better yet, look at the color and condition of the fluid in the power steering reservoir. I'll bet it's black. Wouldn't it make good sense to flush it BEFORE you have problems?

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Chuck Andrews
Andrews Inc.
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Notes in the Margin

It never hurts to read the owners manual once in a while. The ACC on my 1991 Turbo had always flashed a "2" for a couple of seconds after starting, and then proceeded to operate normally. I watched this for 11 months. Since the newer models have what Saab calls ACC2, I thought that was what the "2" meant. Imagine my surprise to find in the owner's manual that the "2" is an error code. Having purchased the car at auction three months after a dealer's bankruptcy, the battery was predictably in a state of total discharge. The manual lists a procedure for "calibrating" the ACC, and says it must be done whenever the battery is disconnected. As it is written, so was it done. Surprise! It doesn't flash a "2" on start-up anymore.

900 A-arms cracking at the pivot? In the late '70s, the cracks began appearing near the lower shock mount, a phenomenon which coincided with the fitting of Bilstein "sport" shocks. The solution was a reinforcement of arm in the region of the shock mount. Fatigue failures can be devilishly difficult to predict. Test stand and road test programs seldom duplicate the peculiarities of real-world environments perfectly. Reinforcing the site of fatigue failures frequently shifts the failure to an unreinforced area of the same part. Corrosion can produce initiation sites which are absent in the laboratory. Seemingly insignificant modifications to a proven design or method of manufacture can be the cause for an epidemic of fatigue failures, because a part which has never failed could have a design margin of 1.001 or 11, and you can't tell the difference by testing!

The creaking/squeaking noise made by later model (1990 and up) 9000 door seals can drive you crazy, as it does to Mr. Neumann (Dr. Nio's Klinik, #218). Prior to NINES' publication of PSI bulletin 07/90-0014 I tried everything I had: WD-40, silicone spray, "Super lube" (a grease containing teflon), car wax (applied to the inner door), and Armor-All, with various micro-adjustments of the door stop to control the pressure against the seal. The one thing I found that works, other than Gleitmo 1665-V, is talcum powder. The only down side is the whitish powder on the black felt. I also

find that a Gleitmo treatment works for long periods of time, not just months.

An interesting bit of history floated to the surface: an article printed in the December, 1988, trade journal "Auto Age." Dealers rated their franchiser on factors such as advertising, product quality, and support. SAAB ranked second overall, but well behind Acura, and was close to the top in most individual categories. (Lexus, Saturn, and Infiniti were not yet born.) Interesting was a side bar where dealers were asked to predict whether the value of their franchise would be higher, lower, or the same in five years (1993). In general, the dealers proved to be remarkably good predictors of where the market was heading. Subaru and Oldsmobile were the most pessimistic in the Japanese and American category, respectively. BMW and Yugo tied for last place in the European category. (Note that BMW's current good fortune has followed several years of drought.) SAAB dealers were the most optimistic of all European makes. That sentiment was perhaps unfounded by the sales results of the last five years, but it shows their hearts are in the right place. And SAAB has done less poorly than most European makes, such as Peugeot, Fiat, Jaguar, Alfa Romeo, Renault, VW, and Mercedes. The one glaring error was by the Peugeot dealers, none of whom predicted that the franchises would be less valuable in 1993 than 1988. Of course, maybe they were in fact correct.

Like many readers of NINES, I am interested in general automotive publications as well as those which deal exclusively in Saab. One little known (in the US) and high quality publication is the automobile section of the Toronto Star's Saturday edition. Most large city libraries receive the Saturday Star, as it is called. The columns include new vehicle reviews, retrospective reviews, a reader's help column, a body repair column, and a motorcycle column. The reviews are understandably tilted toward Canadian realities, with a greater emphasis on fuel economy, rustproofing, and heater/defroster performance than in the US based publications. They only review models available in Canada, which are not always the same as in the US. There is considerable grousing about models available in the US but not Canada, but there is no sympathy for the Yanks' inability to buy such models as Jaguar XJ-12s circa 1973-1992, Saabs with European lights and headlight wipers

standard (for as long as I can remember), Ladas and Skodas. Well, maybe we don't need sympathy for being denied Ladas and Skodas.

Speaking of things Canadian, some recent letters to NINES decry the woeful state of SAAB ownership in Canada. Talks with some Club members at the Columbus convention have convinced me that the letters understate the problems by a wide margin. Saturn ads in the Toronto Star show an even dozen Saturn / Saab / Isuzu dealers in Southwestern Ontario, half of them in Metro Toronto. The region covered by these 12 dealers covers an area about half the size of Ohio, with a population which probably exceeds that of Ohio. All the dealers are an hour's drive from the airport (one of the largest in North America), yet members express problems getting parts. The concentration of dealers and population is huge but members report excessive costs. (The Toronto club purchases parts from a U.S. dealer, pays freight and duty, marks up the parts a little for the club treasury, and still undercuts the Canadian Dealer prices by a great deal.) Canada's climate needs no elaboration. The posted price of gas is double that of the U.S., so the fuel economy of a Saab Turbo over cars of similar performance should be attractive, even to those who can afford it. With these advantages and a widespread network of potential dealers, Southwestern Ontario (and Montreal and Vancouver) should be good markets for Saab, but they are not. Why the problem? I believe that the woeful state of Saab in Canada in the face of tremendous potential is due to a shortage of enthusiasm on the part of the dealers and/or those in the front office (North office?). How to cure it? I think Saab Scania AB (the parent joint venture) should send a half dozen of Ontario's Saturn dealers and a like fraction of their Canadian distributor's staff to the Convention. Get a bit of enthusiasm going, and integrating Canada's parts, vehicle distribution, and service school systems into the larger and better established U.S. system might be considered. The success of such a program could solve Canada's parts and service problems. At the same time, some real enthusiasm could translate into more aggressive marketing of the product. Then we can get enough members in the Land of Ice and Snow to have a convention in Toronto!

Stephen Goldberger

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Service Subjects from Saab

Replace Engine Oil Drain Plug

Application: 900 1990 - 1991
PSI 05/93-0327, Sec. 1, p. 30
Supersedes 05/91-0109

Service Directive

During mid-1991 900 production, the engine oil drain plug in the manual gearbox case was changed from 19mm (wrench size) back to one with a 13mm head. This change was made to reduce the possibility of overtightening the drain plug which can crack the gearbox case (Figure 1).

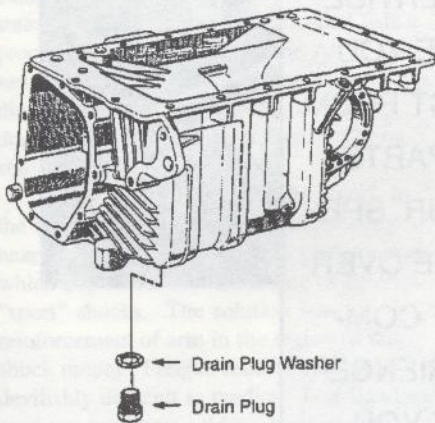


Figure 1. Drain plug location

If not yet done, the 19mm drain plug must be replaced with the 13mm head drain plug. Do so at the next service opportunity, regardless of whether the car is scheduled for an oil change at that time.

NOTE

This PSI is identified as a "Service Directive," meaning that affected cars should be corrected before delivery if possible, or at the next service opportunity, regardless of whether there has been a customer complaint. A "Service Directive" differs slightly from a "Campaign". Owners are not notified to bring their car in for unscheduled service under

Saab Parts and Service Information updates are provided to NINES as a courtesy to Saab owners by Daniel L. David, General Manager, Service and Parts, Saab Cars USA, Inc.

this procedure. This bulletin combines updated original PSI information and the October 1991 Warranty Policies and Procedures Manual update to Service Directive Status.

Cars Affected:

- 1990 - 1991 900 models with the following gearbox serial numbers:
- A07249- (Production ended on gearboxes for line A)
 - B03790-B25931

Parts Required:

- 13mm Drain Plug P/N 87 31 762
Steel Drain Plug Washer P/N 87 28 057

Action:

WARNING

DO NOT OVERTORQUE DRAIN PLUG
Torque Specification: 21-29 ft lb (29-39 Nm)

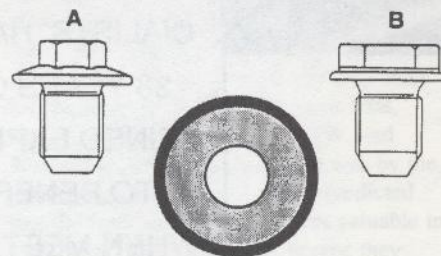


Figure 2. Replace 19mm drain plug (B) with 13mm drain plug (A). Use steel washer shown (do not use old design copper washer).

For installation procedures, refer to Figure 2.

- Replace the 19mm drain plug with the 13mm plug and steel drain plug washer. Torque to specification.

NOTE

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

9000 Clutch Master Cylinder

Application: All 9000 w/manual trans
PSI 05/93-0329, Sec. 4, p. 12

A variety of clutch operating complaints can be caused by problems in the hydraulic portion of the system.

The return port in the master cylinder may be blocked off due to a swollen seal. This will cause a pressure build up in the

system and result in one or more of the following complaints:

- Pedal feels soft, or poor pedal "feel"
 - Pedal goes to the floor
 - Pedal must be depressed almost to the floor before the clutch will disengage
 - Clutch slips during normal cruising speeds
 - Replacement clutch disc begins to slip soon after installation
- A swollen seal may have several causes:
- Smooth rubber supply hose emits a plasticizer similar to mineral oil, which causes seal to swell
 - Seal swells due to effects of heat
 - Mineral oil may have been added to reservoir, contaminating system
- A new master cylinder has been introduced in production from VIN N1048794 to address this problem. Please check the parts list below for correct application on earlier vehicles.

Cars affected:

All 9000 models with manual transmission

Parts Required:

- Supply hose P/N 41 21 562
Master cylinder (-89), Fig. 1 P/N 43 85 001
Master cylinder (90-), Fig. 2 P/N 43 84 079

Action:

On cars suffering from this problem, the master cylinder must be replaced. The customer should be interviewed to discover any past instances of poor clutch pedal operations before making any clutch repairs.

If the supply hose is a smooth type instead of a braided type, it must be replaced. The brake fluid in the reservoir, pressure hose and slave cylinder must be changed. On -M89 vehicles you may need to cut the hose to size. The fluid should be drained at the master cylinder to avoid contaminating the rest of the system, especially the seals in the slave cylinder.

NOTE

On -M89 cars (Figure 1), it is important to ensure that the cylinder is fitted straight relative to the pushrod. If the cylinder is not in alignment with the pushrod, adjust it by placing a 1mm shim between the front mounting lug and the bulkhead. Make sure that the cylinder is sealed against the bulkhead panel after adjustment.

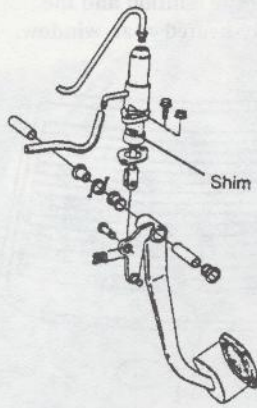


Figure 1. Clutch master cylinder, '89 and earlier.

On M90- cars (Figure 2), be sure to properly lubricate the pedal pivot. Also refer to PSI 07/90-0012 "Clutch Pedal Return" for further information.

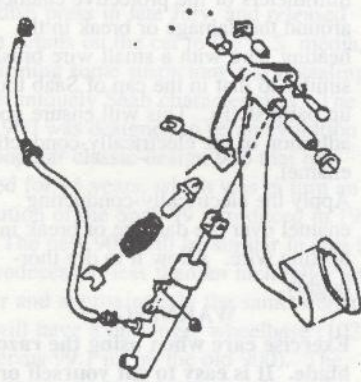


Figure 2. Clutch master cylinder, '90 and later.

Wiper Blade Care

Application: 900 and 9000 models
PSI 05/93-0336, Sec. 3, p. 42

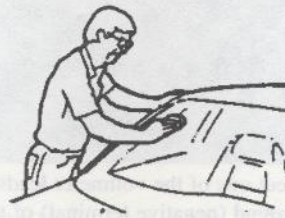
Wiper blades which are not worn out and still serviceable are often changed unnecessarily. In many cases, the blades are being changed due to an accumulation of grease, dirt or wax on the wiper blades and windshield.

Occasional cleaning of the wiper blades and windshield with straight (uncut) windshield solvent or ammonia will extend the life of the blade

NOTE

If you use an automatic car wash or a home car wash product, it may leave a wax buildup on the windshield and wiper blades.

This could cause the wiper blades to chatter and prevent them from cleaning properly.



Wiper blade care.

New cars quite often get a build up of wax and road grime from the transportation process which will leave black streaks on the windshield after the wipers are used a few times. Straight windshield solvent or Bon Ami cleaner can be used to remove this build-up.

Coolant Leak at Water Pump

Application: 9000 with 2.0L engine
PSI 05/93-0343, Sec. 2, p. 33

When attempting to diagnose a water pump leak, it is extremely important to determine where the coolant is leaking before performing any corrective action and/or replacing the pump unnecessarily.

In addition to hose connections, leakage may occur:

- at the shaft seal. This will result in coolant being evident around the weep hole. See Figure 1-3.
- at the connections between the by-pass pipe (see Figure 1-1) and the water pump (see Figure 1-2).

Cars Affected:

9000 models with 2.0L engine up to 1990

Parts Required:

Action A:
Water Pump Kit P/N 93 21 670
(Consists of water pump, gasket and o-ring)

Action B:

O-ring P/N 79 72 698
Gasket P/N 75 66 581

Action:

- A. If leakage can be traced to the shaft seal and this results in low coolant level in the expansion tank, then the water pump should be replaced.
Order Kit P/N 93 21 670.

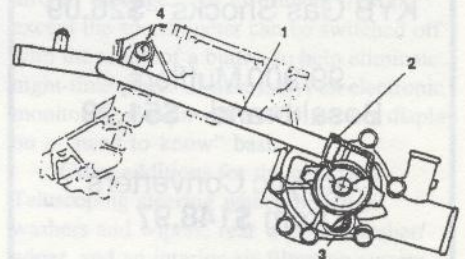


Figure 1. Areas indicating where water pump may leak.

- B. If leakage is found at the connection between the by-pass pipe (Figure 1-1) and the water pump (Figure 1-2), then thoroughly clean the area around these parts:

1. Drain coolant.
2. Remove the water pump.
3. Loosen the bolt (Figure 1-4) for the by-pass pipe.
4. Thoroughly clean the mating surfaces on the by-pass pipe and water pump.
5. Fit a new O-ring (P/N 79 72 698) on the by-pass pipe.
6. Insert the by-pass pipe into the water pump and refit the pump using a new gasket (P/N 75 66 581).
7. Press the by-pass pipe firmly into the water pump and tighten the bolt (Figure 1-4).
8. Refill with coolant.
9. Start the engine, let it run up to temperature and verify that there is no more leakage.

Open Circuit in Electrically-Heated Rear Window and Radio Interference

Application: All 900 and 9000 models
PSI 04/93-0328, Sec. 3, p. 41

Poor reception when the radio is tuned to weak stations may be due to microscopic cracks in the electrically-heated rear window's heating wires. Such microscopic cracks may cause electrical interference when the electrically-heated rear window is turned on, and this may affect radio

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reception. While listening to a weak radio station turn the rear window defogger "on" and "off" several times and see if you can detect a difference in the background noise. If you can, proceed as outlined below.

Cars affected:

All 900 and 9000 models

Parts:

Electrically-conducting paint
(may be obtained from a local vendor,
such as Radio Shack)

Tools:

Voltmeter
Flexible plastic ruler or equivalent substitute
Razor blade

Action:

1. Connect one of the voltmeter leads to the ground (negative terminal) of the electrically-heated rear window (Fig. 1).

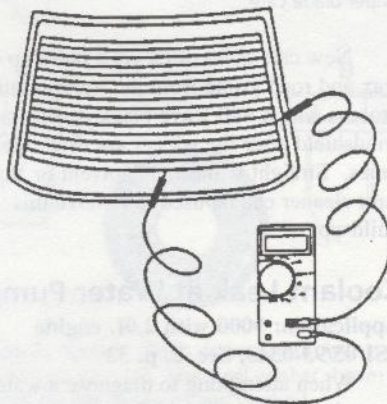


Figure 1. Connect Voltmeter

2. Switch on the ignition and activate the electrically-heated rear window.
3. Start by taking a reading in the center of each heating wire.

The voltage indicated should be half the battery voltage. If the reading obtained differs by more than 3 volts from the battery voltage, there is a crack or other damage in the heating wire tested.

4. Take readings all along the suspect wire. The damage or break in the wire is at the point where the greatest voltage difference occurs (Figure 2). Mark the place on the wire where the damage or break has been found. Test the other wires as described above.

WARNING
Switch off the ignition and the electrically-heated rear window.

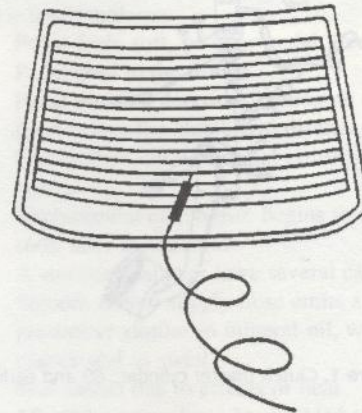


Figure 2. Take readings all along the wire.

5. Clean the area around the damage or break. Carefully remove a few millimeters of the protective enamel around the damage or break in the heating wire with a small wire brush, similar to that in the cap of Saab touch-up paint sticks. This will ensure good adhesion of the electrically-conducting enamel.
6. Apply the electrically-conducting enamel over the damage or break in the heating wire. Allow it to dry thoroughly.

WARNING

Exercise care when using the razor blade. It is easy to cut yourself or damage the heating wire.

7. Carefully cut away surplus electrically-conducting enamel with the razor blade. Use a flexible ruler or the like to help you make a straight cut and avoid damaging the heating wire (Figure 3).

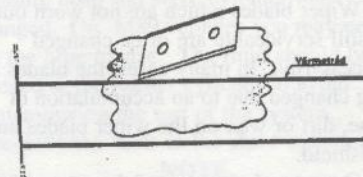


Figure 3. Cut away surplus electrically-conducting enamel.

8. Check the operation of the heating wire (as described in step 3) after completing the repair.



Details released on 900

Saab introduced the new 900 to the Swedish press in late July, and released more details on the car to the U.S. media, confirming some suspicions and revealing some uniquely Saab characteristics. The new 900 was designed to be an evolution of the popular classic-design 900 that has served for 15 years, which was in turn an evolution of the Saab 99 introduced in 1967.

The new 900 will be similar in size to its predecessor, less than an inch taller and wider and approximately the same weight, but will have a bit longer wheelbase (102.4 in. versus 99.1 in. on the old 900). The transverse mounted drivetrain allows for better packaging efficiency, so the new 900 is two inches shorter overall than the old design, yet has more interior room. Suspension is by MacPherson strut up front, and while a solid axle is retained at the rear, the new design is lighter in weight and more compact for better ride comfort.

The new body structure continues Saab's attention to safety, incorporating an integrated safety cage around the passenger compartment. The body itself is 50 percent stronger torsionally than the classic 900. The new body shape also cuts the wind better, with a drag coefficient of 0.30 and 45 percent less lift at the rear.

The new Saab 900 will be the first Saab to come with a V6 engine option. Manufactured by GM Europe in Great Britain, the new engine produces 170 horsepower at 5,900 rpm and 167 ft.-lbs. torque at 4,200 rpm. Saab's Traction Control, with override, is standard with the V6.

The base engine will be the 2.3-liter, 150 Hp powerplant that is standard in the 9000. A 2.0-liter Turbo version of the Saab four-cylinder with balance shafts will be available next Spring, and will include Saab Trionic engine management for maximum horsepower output of 185 and 194 ft.-lbs. of torque at a low 2,100 rpm.

The manual transmission will be a fully synchronized 5-speed unique to the 900. A 4-speed automatic (not available with the 900 Turbo) will feature three electro-hydraulically controlled shift positions: Sport, Normal and Winter driving.

Unique to the Turbo model will be an optional automatic clutch system dubbed Saab Sensonic. The clutch pedal is replaced with an electronically controlled operating module that allows for smoother and faster shifts, similar to Ferrari's semi-automatic.

Saab has always been a leader in safety and the new 900 continues that tradition. Anti-lock brakes (ABS) and air bags for both driver and front passenger will be fitted as

standard equipment. A new rear seat assembly called "Safeseat" allows three rear seat passengers to be secured with 3-point belts. The Safeseat is split to fold down in a 40/100 configuration for extra carrying capacity. Optional is a new dual child booster seat incorporated into the Safeseat assembly.

A new night-driving safety innovation is the "Black Panel", adapted from Saab's aircraft heritage. All instrument lighting except the speedometer can be switched off with the touch of a button to help eliminate night-time glare. If necessary, an electronic monitoring system will switch on any display on a "need to know" basis.

Other additions for the new 900: Telescoping steering wheel, headlight washers and wipers, rear window washer/wiper, and an interior air-filtration system like on the 9000.

As in the 9000 series, two trim levels will be available—the 900S and 900SE. Prices have not been finalized, but they are expected to be in line with the price of today's 900 with the additional standard equipment listed above.

As indicated at the Saab Owners Convention in 1991, the key will remain between the front seats, as a safety and security feature.

The response by the Swedish press to the next 900 was more enthusiastic than expected. An automotive program on Swedish TV dedicated 20 minutes to the features of the new car. In the auto evaluation on the TV program, the new 900 generated the highest score ever.

A finished example of the 900 was put on public display in the central square in downtown Trollhattan, and a reported 25,000 to 30,000 people showed up for a glimpse of the new model. A Swedish ice cream manufacturer created a new ice cream flavor called Saab just for the occasion.



Routes - the Beginnings of SAAB in the United States

SAAB began officially importing cars to the United States in late 1956 with the 1957 model, the SAAB 93B. Ralph Turner Millet was the U.S. connection for SAAB, Svenska Aeroplan Aktiebolaget. Millet had a company called Independent Aeronautical Corporation, which did business in the aircraft industry with SAAB and other European companies.

In late 1955, Trygve Holm, then president of SAAB, asked Millet to arrange a tour of several U.S. companies that could provide systems for the SAAB 35 Draken, which was being designed at the time. One of those stops was Minneapolis, where Holm and Millet talked to Honeywell about an automatic pilot system. Over dinner, Holm asked Millet's opinion on the prospect of selling the SAAB cars in the United States, specifically the new model 93 with its three-cylinder two-stroke engine. Millet recalls, "Frankly, I didn't say much at the time. I was a bit pessimistic. Besides, I knew nothing about the automotive business."

Millet returned to his office in New York while Holm continued his business trip. The day Holm was to leave for Sweden, he again met with Millet, this time over lunch. "Suddenly Holm says, 'I'm going to send you some cars. Find out when the next automobile show is.' I said, 'Trygve, you'll never sell any cars in the United States. People won't go for having to mix the oil into the gas, it's unheard of.'"

"He said, 'I'll send you some cars.' He didn't say don't argue with me, but I got the message. Trygve is a tall, very imposing guy, and when he looks at you and says I'm going to do so and so, you might offer a little objection, but when he really starts to look hard, you don't say much more."

Millet found out that the 1st International Automobile Show was to be held the following Easter at the Coliseum in New York. He got the go ahead from SAAB to reserve space.

Millet enlisted the help of an acquaintance, Bruce McWilliams, a British

car fan who had owned an MG and a Triumph. McWilliams helped to arrange some publicity for the cars when they arrived in New York, by having a party on the boat which delivered the cars — four 93s and one of the Sonett Super Sports prototypes. The Swedish Counsel was invited, along with the local news media including a reporter for the *New Yorker* magazine.

Several potential dealers for the cars showed up at the SAAB booth during the auto show, including Louie Strauss from Erie, Pennsylvania; Gaston Andrey from Massachusetts; and Bill Goodale from Storrs, Connecticut. As a result of the interest generated at the New York Auto Show in the spring of 1956, Millet formed a new company, SAAB Motors, Inc., and for the first several months it was a subsidiary of Independent Aeronautical. This was done to separate the automotive business, if there ever was to be any, from the aircraft business. Millet kept a separate checking account for the automotive expenses, including the auto show and public relations. But it was many months before the decision was made to begin selling cars in the U.S. market.

McWilliams P.R. paid off with an article in the September 1956 edition of *Sports Cars Illustrated*, the forerunner of today's *Car and Driver* magazine, about the SAAB 93B. It was followed several months later (November 1956) by a story on the SAAB Sonett Super Sport. It was about that time, August 1956, that SAAB gave the go ahead to import cars to the United States.

Bruce McWilliams was hired as sales manager for the fledgling SAAB Motors Inc. With minimal funds for advertising, Millet and McWilliams figured the best way to get noticed in the United States was through competition activity. SAAB was already doing well at rallying in Europe, so it was arranged for three SAAB 93s to be entered in the Great American Mountain Rallye, a four-day event held over Thanksgiving weekend in the Northeastern part of the United States. Millet hired Bob Wehman, a top-notch East Coast rally driver of the period, to drive one of the three SAABs. Wehman's brother-in-law, Louis Braun, was his navigator. Rolf Melde, Chief Test Engineer and an experienced rally driver, was brought over from Sweden to drive another of the SAAB team cars, with Morrow Mushkin navigating. History doesn't reveal the name of the third team of SAAB drivers.

Wehman and Braun persevered through



Look closely, these are 1960 SAAB 93Fs - doors hinged at the front, but the early style rear end. The car in the foreground is a rare GT 750.

heavy snow and cold to win the 1956 GAMR. Mellde and Mushkin placed sixth, giving SAAB the team trophy as well. Millet was so elated at the success that he ordered another 250 cars from Sweden. Bob Wehman went to work for SAAB Motors USA as service manager, setting up service schools and spare parts distribution for the fledgling company.

The publicity from the GAMR did wonders for SAAB sales. *Road & Track* magazine carried a story on SAAB's success in the GAMR (the story was written by J. Bruce McWilliams) in its March 1957 issue. It was also written up in many other publications, including non-automotive magazines. Suddenly there was a demand for the little cars from Sweden, but there was no established sales network, nor was there a good system for distributing the cars or providing parts. The parts "warehouse" at that time was a closet in the office of Independent Aeronautical.

Millet located space in a surplus shipyard in Hingham, Massachusetts, and arranged for the cars to be delivered there. The first shipment of 200 cars arrived in Boston in December 1956, and had to be driven to Hingham. Millet hired a bunch of college students to do the driving, and it turned out to be a disaster. There were no license plates for the cars, and several of the student drivers were stopped for speeding and recklessness. In addition, the local fire department arrived at the shipyard with sirens screaming after someone saw all the blue smoke from the two-stroke engines pouring out of the hold and assumed the ship was on fire.

In late 1956 and early 1957, Millet, McWilliams and Walter Castro began setting up dealerships for the SAAB cars in New England. The second shipment of 250 cars arrived shortly thereafter. SAAB Motors moved to a new office at 405 Park Avenue in New York City, and John Potter was hired as sales manager. McWilliams and Potter hired several field representatives to work directly with the dealers. One of those, hired in 1958, was Bob Sinclair, who later became president of Saab-Scania of America, Inc.

Early in 1957, Gaston Andrey, who had a reputation as a top-notch race driver, was invited to drive a SAAB at an ice race in Maine. He was amazed at how good the car was on snow and ice, especially after the SAAB won every race he drove it in. Shortly after that, Walter Castro asked Andrey to become a SAAB dealer. Andrey had just purchased a gas station in Watertown,



SAAB Motors management, circa 1960: (from left) Robert J. Sinclair, regional manager; Ralph T. Millet, president; Charles Marks, sales manager.

Massachusetts, and hired Felix Bosshard as a mechanic. Both Andrey and Bosshard had come to the United States from Switzerland and were familiar with the two-strokers from DKW, Skoda and Puch so selling and servicing a two-stroke car did not frighten them. Andrey became one of the first SAAB dealers in the United States in February, 1957. From those humble beginnings operating out of a gas station, Gus Andrey went on to own several auto dealerships, and today runs Gaston Andrey of Framingham, and sells Ferrari and Alfa Romeo as well as Saab from that location. Over the years, Andrey has also been a dealer for BMW, Subaru, Porsche, Rover, Triumph, Morgan, and Borgward. Bosshard now owns and manages the Watertown dealership, called Charles River Saab, and it is considered the oldest continuous Saab dealership in the U.S. Charles River has been an exclusive Saab dealership since 1976.

By the late 1950's, SAAB was doing pretty well in the U.S. market, selling 5,000 cars a year. Then Detroit introduced their small cars — the Chevrolet Corvair, the Ford Falcon, the Plymouth Valiant, the Rambler American and the Studebaker Lark — and the whole imported car market dropped.

By this time, SAAB Motors had three ports where SAAB cars entered the United States. In addition to the depot at Hingham, there were facilities at Carteret, New Jersey, and Jacksonville, Florida. Though Florida was a pretty good market for imported cars, the two-stroke SAAB was not well suited to the hot Florida climate and did not sell well in the south. In an effort to cut costs, the decision was made to close the depots at Carteret and Hingham and the office in New York, and to open a new headquarters facility and warehouse somewhere in

between. The choice was a building on Waterfront Street in New Haven, Connecticut, and a lease was signed in the Fall of 1961. By the following Spring, everything had been consolidated in New Haven.

About that time, Millet and his wife, Elsie, were involved in a serious head-on car accident. Mrs. Millet, a passenger in the SAAB driven by her husband, was killed and Millet was hospitalized for a week, then spent about a month recovering at home. Bruce McWilliams ran the office during Millet's recuperation and made some decisions that he did not discuss with his superior. The most notable was that he arranged with the parent company in Sweden to set up distribution of SAABs to the West Coast. Up until this time, the only SAAB dealers were east of the Mississippi River, and Millet felt that the existing dealerships weren't getting enough support, so it would be foolish to add more sales outlets. McWilliams and Potter were fired as a result, and Sinclair was promoted to sales manager.

A big problem for SAAB at the time was regular failures of the two-stroke engines. According to Gus Andrey, the problem wasn't so much the engines as it was owners who were used to American cars where a lack of preventative maintenance wasn't quite so critical, and were ignorant of the necessity of adding oil to the gasoline in the proper proportions. Either way, SAAB Motors couldn't keep up with the demand for replacement engines. The factory insisted that all engines, new or rebuilt, had to come from Sweden. Millet and Bob Wehman decided that it would be necessary to rebuild the engines in the U.S. if SAAB was to survive here. Despite protests from the parent company, a rebuilding facility was

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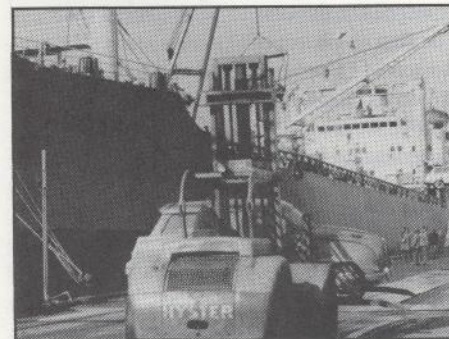
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Above: The warehouse in New Haven, CT.
Below: SAAB 95s being unloaded at New Haven about 1960.



banking business in Sweden before joining Saab, was sent to the U.S. by Saab headquarters in 1961 and became the vice president in charge of administration and finance at the U.S. branch under Millet.

Despite retiring about ten years ago, Millet remains very busy today. In 1985 he bought a small company involved in the export of material to Sweden and Norway, D.F. Lucey and Associates, started by Don Lucey, who had once been in charge of the purchasing office at Saab. After Millet bought the company, he changed the name to DFL, Inc. DFL now imports oil coolers for automotive and other applications where high oil temperatures may be produced. Millet continues his connection with Saab Cars USA as Saab's representative in the Association of International Automobile Manufacturers, an association that Millet founded.

Tim Winker

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set up at the New Haven headquarters, and it became a practice to replace broken engines under warranty at no cost to the car owner, sometimes without the owner even being aware that their engine had been replaced. Later in the 1960s, it was advertised as the Lifetime Engine Warranty.

Wehman also worked with Oilzum to develop a two-stroke oil that would mix easily with gasoline and was easy to pour in cold weather. The result was Hi-M, a very concentrated two-stroke oil which was made by Oilzum and sold only through Saab dealers. After Wehman left Saab in 1966, he formed Intercontinental Lubricants Corporation, where he developed semi-synthetic engine lubricants and marketed them under the Spectro brand name.

Millet's reign as head of Saab in the United States came to an end in 1971. Due to the very poor quality of the 99 at the time, Saab sales were very slow. Millet says, "I had a big fight with the factory in Sweden over the number of cars we were selling. I kept telling Kurt Mileikowsky, who was president at the time, 'We're not going to sell the damn car in the United States until you fix the thing properly.' He said, 'If you can't sell them, I'll get someone who can.' I said, 'Go ahead!'"

Jerry Upham was hired from Chrysler in June of 1971 to replace Millet, and Millet believes he was intent on wiping out Saab in the U.S. "Many dealers were cancelled and all the wonderful silver trophies that we had won vanished." Upham lasted about a year before he was fired and replaced by Jonas Kjellberg. Kjellberg, who had been in the



1993 International SAAB Clubs Meet

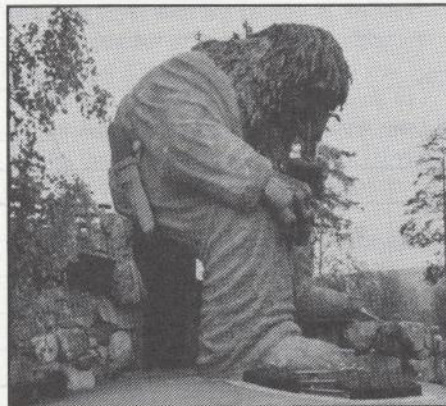
Gammalsaabens Venner is Norwegian for "Friends of the old SAAB" and the name of the Norwegian SAAB club that hosted this year's convention in Lilliehammer, Norway, over our Memorial Day weekend. The Norwegian club, Gammalsaabens Venner or GSV, were gracious hosts to a truly first class international event. I am not sure if it was the spectacular and beautiful scenery that attracted SAAB owners from all over Europe (and the U.S. of A.) or the chance to see the site of the 1994 Winter Olympics. What ever the reasons, over 140 SAABs (and one rented Ford) and their owners representing Sweden, Norway, Finland, Denmark, Netherlands, Belgium, Germany, Switzerland, England and the U.S. of A. descended upon tiny Lilliehammer. The SAABs included pristine 92s, 93s, 750GTs, 93 Sports, Monte Carlo's, original 96s, 2 stroke and V4 Sonetts, 90s, on up to the 99s, 900s and 9000s. As one of the Dutch participants noted, there were so many two-strokes, Lilliehammer will have to clean up again before the Olympics!

With over 140 SAABs, and twice that number of people, the GSV club had to deal with many more cars and people than they had originally anticipated. The logistics of dealing with that large a number of participants took their toll on the facilities, the town and the sleep patterns of the club's organizers. On Friday, the 28th, there was to be an informal gathering of the early arrivals in Hamar, about 58 kilometers south of the main Olympic site, Lilliehammer. We were

to get a tour of the 'Viking Ship' Olympic Arena that will host the speed skating event and then caravan over to the Hamar Olympic Amphitheater that will host the Figure Skating events for another tour.

What was planned for 10-20 cars to meet at the Viking Ship turned out to be over 60 cars! While we toured the facility, the GSV folks quickly had to arrange for a police escort to get us across town, and caravanning all the way to Lilliehammer was definitely out of the question. After taking in the sites around Hamar and the beautiful Lake Mjosa we gradually migrated to the Hunderfossen Family Park, the land of the Trolls, that would be our SAAB-land for the next few days.

Saturday was the official start of the festivities for the SAABiaden '93. The schedule for the next two days was packed



Entrance to the Trollsallen restaurant, where the awards reception was held.

with opportunities to live, breath and talk SAABs. For those that were less than excited by the clouds of two-stroke smoke the area offered much to enjoy. The morning started by lining up the 140-plus SAABs and motoring into the town of Lilliehammer via the local SAAB dealer, Stensgard & Co. As it would turn out, we would see Stensgard & Co. later that night at the dinner. This time they would be playing Norwegian folk music with their *nationally* famous quartet. The SAAB dealership came after they made their money in *music*.

The SAABs rolled into town and into the sports stadium and lined up for public display. Car club events are popular and well advertised. Greeting us as we rolled in was a local high school marching band. Since no one was convinced that my Hertz rent-a-Ford was really the new 900 in disguise, we had to catch a ride in a beautifully restored 93F from the Netherlands. While the public was allowed to view the gaggle of SAABs, we were allowed in public to view Lilliehammer. The town is getting ready for the Olympics, and much to our surprise, there were souvenirs available. The real surprise was that these stores had room to sell anything else because they all looked like official Olympic headquarters. The SAABiaden participants were given free access to the Norwegian Historical Vehicle Museum located near the town center. There were no SAABs represented but they did have a low mileage 1962 Corvair so now you can guess why there is no Norwegian car industry. All kidding aside, the museum did have many nice displays (the Corvair is real) and did show several Norwegian built cars that never quite caught on.

Back at the sports stadium there was a crowd gathering around one particular car. Eric 'On the Roof' Carlsson's Monte Carlo Rallye winning 96 (#283) was on display, but the attraction was Eric himself and his mentor, Greta Molander (look *that* one up SAAB fans). Greta, who is now over 80, started rallying early Model 92s in 1950 with much success in the new Swedish Troll cars. After meeting her, I am convinced that she is still a force to be reckoned with.

The Hunderfossen family park is also known as the Troll park (how appropriate, huh?). The facility contains a Troll theme park, a large camping park with cabins, sites and two restaurants. The park is about a 10 kilometer drive from Lilliehammer but most everyone made it back to stage the cars for the concours. While Eric Carlsson did all of the judging of the cars, we all got busy

swapping SAAB lies and seeing what was being sold out of the back of the cars. Fortunately the universal language for everyone was English so it was easy to meet and learn about the histories and stories of the various SAABs. It was remarkable how this SAAB convention, with all of its international flavors, seemed like any of the U.S. gatherings but with a LOT more nice old SAABs. With all of the two-strokes available, SAAB took the opportunity to demonstrate th Trionic engine management system on the new 9000 Aero and clear the air. A 93 two-stroke exhaust was hooked directly to the intake of the Aero and the gases were measured out of each. Just like the book says, the exhaust on the Aero was cleaned up as if it were inhaling pure Norwegian mountain air.

The dinner that night emphasized the international influences on this event. Because of the crowd on hand we had to have the dinner at one restaurant and then move up to the Trollsallen for the dessert, coffee and awards. The dinner was a Scandinavian specialty of Roasted Reindeer and gratin of potatoes. One difference was that people dressed for dinner. I don't mean black tie, but in folk dress representing their countries or specific community. Remember that local SAAB dealer? Well, he was back with his full quartet playing a sort of polka type Norwegian folk music that caused quite a few to get up and dance. There were speeches, awards presented and one special speech that ended in a couple becoming engaged to be married (those Trolls can cause funny things to happen). Eric Carlsson defined the criteria used for judging all of the winning cars. His vote went to cars that were most original and not just shiny and chrome. He had a very difficult job to decide which specimen was better than the others. The 'Friends of the Old SAAB' in Norway must be doing something right because all the old SAAB 92 - 96 V4 classes were won by Norwegians.

Gayle Mosand, an American now living in Trondheim, Norway, and her family brought three cars. The paint was barely dry on the 93 she drove, but it looked good enough to win the class. Her son, Sten, who did the restoration work on the 93, was driving a Sonett V4 that he had recently purchased in Minnesota on a visit to his grandmother. As nice as his Sonett was, the winner was a gorgeous, restored silver Sonett II two-stroke, and guess what? *It came from Ohio!* Folks, this smuggling of Sonetts has to be stopped!



Top: The CX, a Norwegian-built custom featuring parts from the 99, 900, 9000 and Sonett.
Center: (L to R) Early SAAB rallyist Greta Molander, Saab Clubs factory liason Christian Trommer, and Erik "On the Roof" Carlsson.

Bottom: An ex-96 race car with 7" rims. They actually race these cars with trailer on dirt tracks!





Top: Ian Studley and the Amazing 95 Camper.

Below: Beautifully restored, class winning silver Sonett II imported from Ohio, now in resides in Orebro, Sweden.

Bottom: Best of Show and 92 class winner, this 1952 92 is complete with original tools and accessories.



I am suspicious because the owner of the 92 class winner (a gorgeous car!) is a C-130 pilot for the Norwegian Air Force and those C-130's can carry quite a few Sonetts! The pilot, Arne Magnus Ruud, also received the award for Best of Show, based on popular vote. With all of the logistics to deal with the Norwegian club treated us to a wonderful evening right down to the speeding 93 design on all of the cakes.

Sunday was a day to see the sights. Our SAABiaden 93 badges were good for many sites and museums nearby. The Hunderfossen family park was a great place to take the kids (even the BIG kids) to see the displays of Norwegian energy technology and play with all the toys including miniature 450 SL Mercedes motorized cars. Also nearby was the Norwegian road building museum with displays of technology and techniques

in developing the Norwegian highway system. Prior to the early 60's there was not much of a road system so they have accomplished a lot in a relatively short time. Whatever we were doing we all made it back by 4 PM to go on the tour of the Olympic facilities. We loaded up several Scania buses (No Volvos allowed!) including one restored 1954 bus. The best view was from the top of the 90 meter ski jump looking into the site of the opening ceremonies and overlooking Lilliehammer and Lake Mjosa.

When we returned we all gathered around to see what was cooking. All the smoke indicated either a barbecue or a bad two stroke. The GSV members were cooking food for the barbecue while we were serenaded by several talented musicians. The 'fun' awards were also given out and we, of course, won the 'furthest distance traveled' award. Ian Studley from the Great Britain club travels Scandinavia, camping for many weeks at a time in a very used 95. You have to see it to believe it--it has everything but a shower. Ian won the Best Roof Rack award for best integrating the rust theme throughout the car. Several items were put up for raffle and there were some very nice Norwegian sweaters coveted by all. The winner was the infamous Sonett smuggler and best of show 92 owner Arne Magnus Ruud. I guess it was his lucky weekend!

Just like the U.S., Monday was a holiday in Norway so many people stuck around to say good-bye to all of the new acquaintances. For those that did not have enough fun there was a scheduled drive through the surrounding mountains that I am sure was breathtaking. We had to say good-bye and take our Ford off to see the Fjords in western Norway. The International SAAB convention was a wonderful excuse to see Scandinavia and we took advantage of the time that we had to see as much as we could.

Part of the 2500 kilometers that we drove took us through the SAAB Meccas of Trollhattan and Linköping (airplanes). It is a beautiful part of the world, at least in the summer, and highly recommended even without the SAAB convention.

Next year's International SAAB Clubs meet will be held in the Netherlands and hosted by the very active Dutch club. This is also a very beautiful country and the event should be fun so save those pennies! At least the beer won't be \$5-\$7 per bottle in the Netherlands as it is in Sweden and Norway.

Douglas Morse
Hayward CA

Convention time is here

Plans are proceeding on schedule for the tenth annual Saab Owners Convention to be held this year at Carthage College in Kenosha, Wisconsin. Carthage College has a very attractive campus and is located directly on the shores of Lake Michigan. No other groups will be on the campus and we believe it will be a very comfortable and convenient setting for the convention.

As you can see from the schedule, we have planned a full weekend of activities. We hope convention goers will arrive on Friday afternoon so that we can have an adequate amount of time to register and attend the welcome party on Friday evening. Activities begin early Saturday morning and continue throughout the day. Many interesting and informative tech clinics have been scheduled. For example, Tech Clinic 1 is a two-part clinic on the subject of auto restoration. It will have four different presenters and cover many different aspects of restoration. A complete tech clinic schedule will be sent to you after you pre-register.

The rally is being completed now and the Rallymaster promises some good roads and some interesting area sights. It will end at the location of the Pirelli Autocross, a school parking lot about five minutes from Carthage College. Rally participants can view the autocross or participate if time permits.

The banquet on Saturday evening should be especially interesting this year because Saab will show a slide presentation on the new 900. Sunday morning there will be more tech clinics followed by a panel discussion featuring Saab personnel. If you have any questions on the future of Saab, that would be the time to ask them.

We hope that you will choose to stay on campus "in the center of the action," but if you plan to stay in an area hotel instead, we have a hotel list available that we will send you after you pre-register. We urge you to do this soon, however, before area hotels are full.

This will be the busiest Saab Owners Convention ever. We hope it will also be one of the best and we look forward to seeing you there.

Ian Simpson: 414/426-2873

Pat Greer: 414/744-0996

Co-chairsaabers

Saab 93 - 1993 National Saab Owners Convention

August 6, 7 and 8

Schedule of Events

<u>Time</u>	<u>Activity</u>	<u>Location</u>
Friday		
2-10pm	Registration Open	Lounge
2pm	Car Wash Open	Lower Parking Lot
7:30-11pm	Welcome Party (Beer, Wine, Soda, Snacks)	Woh's Place
Saturday		
7-9am	Breakfast	Cafeteria
7:30am	Car Wash Open	Lower Parking Lot
8am-noon	Registration Open	Lounge
8am-5pm	Swap Meet Open	Rm 128B/Parking Lot
8:30-10am	Tech Clinic 1, part 1	Todd Wehr Center
	Tech Clinic 2	Todd Wehr Center
	Tech Clinic 3	Outdoor Tent
10:00am	Concours Judging	Parking Lot
10:30am-noon	Tech Clinic 1, part 2	Todd Wehr Center
	Tech Clinic 4	Todd Wehr Center
	Tech Clinic 5	Outdoor Tent
11:30am-1pm	Lunch	Cafeteria
1-2:30pm	Tech Clinic 6	Todd Wehr Center
	Tech Clinic 7	Todd Wehr Center
	Tech Clinic 8	Outdoor Tent
1-2pm	Pirelli Autocross Driver's Meeting	
2:30pm	Rally Meeting	
2pm	Transit to Pirelli Autocross	Gateway Tech
3pm	Rally (First Car Out)	Lower Parking Lot
6pm	Group Photo	Parking Lot
6:30-7:30pm	Cash Bar	Woh's Place
7:30pm	Banquet	Rm 144
Sunday		
7-9am	Breakfast	Cafeteria
8am-1pm	Swap Meet Open	Rm 128B/Parking Lot
8am-2pm	Check Out	Dorm
8:30-10am	Tech Clinic 9	Todd Wehr Center
	Tech Clinic 10	Todd Wehr Center
	Tech Clinic 11	Outdoor Tent
10:30am-noon	Saab Panel Discussion	Rm 144
1pm	Local Club Organizational Meeting	Rm 128c

(Times, activities and locations may change. Please check final schedule when you register on arrival.)

PPG and Andrews to offer paint seminars at Saab Convention

PPG Industries, manufacturer of paint, glass and other products for the automotive industry, has announced that it will be sending five representatives to the 1993 National Saab Owners Convention in Kenosha, Wisconsin. PPG, assisted by Andrews Inc., will be presenting two tech sessions covering paint spraying and product safety procedures, environmental concerns, computer technology and product qualities.

The PPG group is headed up by Michael Dorendorf, Instructor/Technical Specialist. He is the regional instructor based in Minneapolis, and serves as the instructor for Minnesota, North and South Dakota, Nebraska, northern Iowa, western Wisconsin, and the upper peninsula of Michigan. Prior to joining PPG Industries in 1988, Mike was the Lead Instructor in charge of Autobody Technology and Welding at Northeast Metro Technical College in White Bear Lake, Minnesota, for 17 years.

Craig Haven lives in Green Bay, Wisconsin and covers northeast Wisconsin. He has spent five years with PPG and prior

to that worked for Sherwin-Williams. Haven also spent ten years in the wholesale automotive business in Fargo, North Dakota.

Joe Rubino lives in Woodstock, Illinois and covers northeast Illinois and southeast Wisconsin. He has been with PPG since the first of 1993 and prior to that spent three years with Schlegel, a company specializing in buffing systems and paint related items, in their OEM division. He also spent time managing a wholesale paint distributor.

Dean Sandin lives in St. Cloud, Minnesota, and is the PPG technical representative covering central Minnesota. He has spent eighteen years with PPG, starting at the distribution center in Minneapolis. He began his sales career with PPG in 1980 in Duluth, Minnesota, and moved to St. Cloud in 1988. Sandin has worked with Andrews Inc. for many years on Saab paint formulas and painting systems.

Mike Gonzalez is a PPG access representative. He will be on hand to demo the Prophet system. Prophet takes readings of the color from several places on a car's surface and produces a paint formula that will match. He will also talk on computer generated collision estimates.

PPG will have a booth at the swap

meet, and representatives will be on hand to answer questions all weekend.

Snap On Tools to participate at Saab Convention.

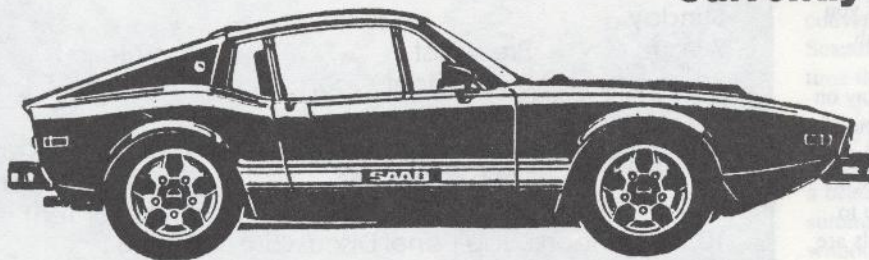
Snap On Tools Corporation--premier developer, manufacturer and distributor of hand and power tools, electronic and shop equipment, and tool storage units for professional tool users--will be participating in the 1993 National Saab Owners Convention. The Saab convention will be held in Kenosha, Wisconsin, where Snap On's corporate headquarters is located.

Les Martin, Equipment and Sales manager for the Milwaukee region, will be manning a booth of Snap On and Snap On/Sun Electric equipment. Snap On Corporation acquired Sun Electric late in 1992.

Technical specialist Wayne Brunner, and Mike Meeker, an engineer in the electrical test equipment department, will be demonstrating anti-freeze recycling, a four-gas analyzer, and an engine analyzing scope. Bill Garner, a Snap On independent franchise dealer will also be on hand with his fully stocked van.

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SAAB 93

Registration Form

Please fill out the form below and total up the registration fees.

We are asking for this information to make it easier to create name tags for all attendees, plan parking, coordinate activities, and allocate space.

Name _____

Address _____

City _____ State/Province _____ Zip/Post Code _____

Evening Phone (incl area code) _____

Other adults in your party _____

Children's names (if attending) _____ Ages _____

Total Number of adults _____ @ \$125.00* = _____

***Pre-registrations must be in by July 17, 1993 (\$140 at the door!)**

Total number of children _____ @ \$95.00 each (separate bed) = _____

_____ @ \$40 over age 4 in your room = _____

Total Number of adults for _____ @ \$65 each = _____

Convention only _____ (Check here for hotel list) _____

Single Occupancy _____ @ \$10 each = _____

(Rooms are double occupancy. If you wish to share with someone specific, please indicate on the back.)

Total Registration fees. _____

We are planning several activities during the convention, please check off those that you think you would probably participate in:

Autocross _____ \$5 extra fee.

Rally _____ No extra charge

Concours _____ No extra charge

Swap meet _____ \$20 extra fee
space _____

What type of Saab do you think you will be driving to the convention? _____
(We won't hold you to it!) Other drivers should list their cars above, next to their names.

Check here if you would like information on the EAA convention Fly-In. _____

Please make checks out to: Milwaukee Saab Club.
Mail form and check to Milwaukee Saab Club, Convention Registration
P.O. Box 521, Butler, WI 53007

Technical Talk

Replace bulbs in pairs

I would like to add a few additional comments to the letter in issue #218 about Saab tail lights. For the 9000s it is best to replace all the rear tail assembly bulbs at the same time. The solder type tip tends to become flat over time due to heat, resistance, corrosion and tension at the contact point. All of this can cause back feed to other bulbs and related circuits and cause the bulb failure light to come on. Always replace bulbs, headlights also, with the same manufacture brand. If not, this can also cause the bulb failure light to come on in some cases.

On 900s the bulb ends can become flat also. If the turn indicators, one or both, and/or the tail lights glow very dim while pressing the brake pedal, there is a faulty ground contact at the plug-in connector for the rear tail light assembly. At this stage, the ground wire in the connector itself is usually burned beyond repair. You will need to run a separate ground wire. Remove the plastic bulb holder assembly (inside the trunk) from the car, drill a hole in the plastic housing, near the grounding bar. Clean off an area on the grounding bar and solder a separate wire to the clean spot. Make the wire long enough to use the grounding bolt in the spare tire area below the trunk latch. If only one turn indicator is glowing with the brakes pressed, then that side needs the above repair. Other wires on this same connector can become corroded and burned. Inspect them also, clean and re-tension if possible. You may have to bypass each wire at this connector and solder it directly to its respective bar for that bulb. This is usually not very common, the ground will be the main fault. The left side rear connector feeds current to the right side, and you may have to scotch lock the respective left side wires together if the left side is too burned and corroded to be used.

On some 900s you need to remove the

outside colored lens cover to replace any rear bulbs. I can't recall what the difference is between the two 900s, but these are not as prone to the above mentioned problems.

I would like some feedback from owners or technicians about two problems. (1) On some 8-valve engines I find it not uncommon to have to clean the throttle plate and warm-up regulator every 10k to 15k miles for dying and/or stalling on cold start-up or drive away. (2) On 900s turning the wheel all the way and backing up you get that annoying hard clunk. Installing shims beside the wheel bearing did not seem to help. Replacing the front wheel bearing on three different cars, the clunk was not present any more. I don't want to say this is the only fix either. Any comments or opinions?

Bruce White, Technician
P & A Smith Volvo/Saab
Cary NC

Wandering ACC Pt 1 - Cleaning the ducts

I've been remiss in keeping the club up-to-date on how to care for an older Saab 9000. I've been disappointed at how few letters there are on things you can do yourself on a 9000. So to offset the articles on tires, hop up boxes, and more tires, here's my tip.

The automatic climate control system on my 1986 9000, with 118k miles was drifting all over the place. It was clear the brain had some concept of what the inside temperature was, but it differed significantly from mine.

I ran the diagnostics and didn't see a fault code reported. To run the diags, press AUTO and VENT at the same time. Next I took a single ply of tissue paper and held it against the intake sensor to the right of the steering wheel. It is supposed to be drawn against the face of the sensor and mine was not. I figured that when I crashed into 2 killer potholes, the tube that runs from the fan to the sensor was jarred loose.

To get access to the fan, you must remove the glove box. To make room for the tools I had, I removed the additional components: The ACC unit, the fuse/relay panel, and the lower kick-panel under the fuse box.

The fan is easy to locate; just follow the oversized accordion straw to the right side. Now turn on the ignition and make sure the squirrel cage of the fan spins. After passing this test, you need to make sure the fan intake is clear. The first thing to do in this series of operations is push the interior sensor out of the dash board, which will allow the hose to flop into a better position. Next remove the 2 Torx screws that hold the base plate the fan is mounted on to the inside of the dash. One screw is located behind the motor. The other is located above the motor at the top of the base plate.

This preparation work is just to make working on the squirrel cage a lot easier. You now want to remove the hose that feeds into the squirrel cage. There are 2 plastic tabs that may be gently lifted up with your thumb nail. This allows the squirrel cage to split in half. Wiggle the hose out of both halves. Carefully inspect the cage for dust.

I found a huge dust rhino in the center of the cage that blocked the air flow. I also sprayed some compressed air used for cleaning photo equipment to clear any remaining dust out of the cage. When you reassemble the hose into the cage be sure to get the flange of the hose into the narrow slot. If you fail to do this insertion properly, the flange will prevent the squirrel cage from turning. After you think you have the flange installed and the cage reassembled, try turning the cage with your finger. It should turn freely and you should hear no clicking sound..

Before reassembling everything, make sure the fuse/relay panel is not shorted against anything. Turn the ignition on and repeat the tissue paper test. It should be drawn to the sensor intake. This repair took me 2.5 hours.

David Gabbé
Brookline MA

Pt 2 - Fan motor replacement

I thought an update was in order on my ACC repair because it only held for three weeks before the problem returned. The real problem was the fan motor died. The fan motor in my 9000 had always made a funny clicking noise, but I think this was a sign the bearing was going all along.

I ordered a new fan assembly (p/n 96 26

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

052) from Armand Verdone Saab, a NINES advertiser, for about \$200. It arrived and I looked at the part to see if I figure out how to remove the old one. On the back of the motor are two small screw holes. Oh, no! This usually means that some major disassembly of the dash is required. This has been my experience on my 9000.

Before getting into the motor replacement, a few miscellaneous notes are in order. The 1986 9000 is unlike the later 9000s in terms of parts. Most 9000 owners have already found the '86 alloy rims are different from the later ABS models. The fan assembly is also unique to the '86 model. For those who have later cars, I can't tell you what to expect inside the dash. The parts guys at Verdone were really helpful getting the right thing. My mechanic has replaced about six of the fans, but the dealers I have spoken with have not replaced any. I would say the life of the fan is dependent on the hours of operation and the temperature extremes. I drive about 20K miles annually in New England.

On to the actual fan replacement: To get access to the fan, follow the disassembly instructions in my previous letter. In addition, I would remove the top of the dash. To make a long story short, I don't have the interior dash manuals and the mounting plate for the motor is a major subassembly that seemed to defy removal. I know better than to mess with these kinds of things.

I did the following: I removed the fan motor by removing the four tabs that hold the plastic halves together. Look on your new motor to see them. This leaves the one half of the shell attached to the mounting plate. Take a pair of wire cutters and snip out the ridge located in the shell on-third from the left side. Also remove the hose from the dash sensor. It is easier to do this by pushing the sensor out first.

In the '60s it was baling wire, in the '70s it was chewing gum, in the '80s it was Crazy Glue, and in the '90s it is a nylon wire tie. Yup, you just take the new motor and tie it into the shell half in the car. Rotate the new motor for a good fit. After connecting the dash mounted sensor and electrical connection to the motor, turn on the ignition and check the fan for suction.

Before putting the dash top on, take a small Philips screwdriver and tighten the screws on the mounting plate for damper controls. These screws are on the vertical part of the plate located near the top. Mine were loose.

And a tip for getting the squeaks and

rattles out. The next time you change the oil, try tightening the four bolts that hold the heat shield section above the catalytic converter. Now for the rear hatch. Take a socket with a universal joint and tightened all the nuts on the speaker shelves. The lower corners on the interior hatch cover were loose. It's another one of those dumb Saab designs. I drilled through and installed cupped washers under sheet metal screws.

David Gabbé
Brookline MA

Movin' On Up

After a year of serious shopping, I purchased a silver/blue '90 9000 Turbo 5-door - my fifth used SAAB. As was the case with each of its predecessors, the latest is much quieter, faster, has more bells and whistles, was more expensive and had more miles on it.

The '90 was originally purchased in Europe and came with some nice options: 16" cross-spoke alloy wheels with Pirelli P-700Z 205/50ZR16 tires (a \$2230 option!). Even with these ultra-high-performance tires (\$175 each wholesale), it is quieter and rides better and handles far better than my '87 with P-500 205/60HR15's. It also came equipped with the "red box" Tuning Kit computer and Sport Exhaust. My '87 also has a red box, so the real surprise was the Sport Exhaust. It has a nice sound, dual chrome exhaust tips and seems to be noticeably more powerful than the stock exhaust. It also came with the optional Gislaved snow tires and plastic wheel covers, rear decor panel and a sunroof visor.

This new-to-me '90 is the best yet and my wife likes it a lot, even if the Anti-Theft System did strand her in the supermarket parking lot the first time she drove it. However, the dealer has a red '93 Aero on the floor. I plan to know where it will be a couple of years from now.

Whenever I buy a used car, even one less than three years old, I immediately do or have done a major service. Change every fluid (engine, transmission, coolant, power steering, and brake/clutch) and every filter (air, oil, gas and power steering), ignition (spark plugs, distributor cap, rotor and plug wires, if it has them), a front end alignment and balance the wheels/tires. Do not believe the previous owner or any paperwork he might show regarding services performed. Do the service yourself (\$100 for parts and fluids) or have a shop do it (\$400-\$500) and then you will have a more reliable car, a

realistic assessment of what you have and what it will need in the future. Remember this car cost \$35,000 a couple of years ago - don't skimp on the maintenance!

On each of my five Saabs, I have had to do a clutch and/or brake hydraulic system rebuild due to water being absorbed into the brake fluid. Have the system completely flushed every two years, minimum. On my test drive of this 1990, the clutch pedal exhibited different levels of engagement from cold start to operating temperature. Sure enough, the clutch master cylinder was full of crud and so badly pitted as to require replacement (\$112 plus labor). In any case, rebuild kits do not seem to exist for ABS-equipped Saabs. Most parts houses list the same clutch master cylinder kit for '86-'93 but I guarantee it won't work for the '89-on ABS cars.

Double-check spark plugs installed in the Direct Ignition engines. A tiny easily overlooked decal underneath the system reminds "use only resistor spark plugs." My usually reliable parts house sold me regular Bosch Super F7DC plugs and the system missed under full load. Re-installing the used but still perfect-appearing NGK BCPR7ES resistor plugs cured the miss.

Beware of the Jacobs Ignition Systems!!! I rarely buy anything sold by telemarketing, but I was swayed by their seemingly well-documented performance claims and guaranteed refund policies. I tried one on my '87 and sent it back - still cost me \$30 in fees and shipping, but better than the \$330 it would have cost to keep it. The "Universal Kit" should have been my first danger signal. It comes with wires a mile long, takes a half-day to find a place for the Jacobs coil and LARGE black box and you still have to keep all of the stock ignition stuff. Having two coils and all that extra wire right up front looks messy when installed, and careful testing did not show any substantial increase in MPG or mid-range torque. Instead, every 50k mi or three years, buy new Bougicord plug wires, a Bosch distributor cap, rotor and plugs and you will have done everything that is cost-effective for your ignition system.

Finally, a money saving hint: Get the cargo net which is standard in the trunk of every Ford Taurus or Mercury Sable, add snap hooks to the corners and it connects perfectly to the D-rings in the corners of the 9000 trunk. Great to keep things from sliding around back there.

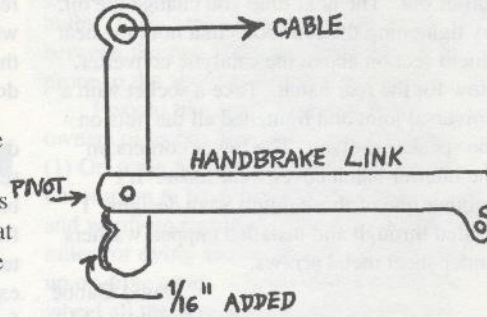
Jack Vines
Spokane WA

95/96 Rear Brakes:

If one has not yet rebuilt the entire brake system then it's high time it were done. I had rebuilt or replaced nearly everything except handbrake links. These either rust solid at their pivots or wear at their brakeshoe contacts. When one wears enough then even a new cable pulls on it at an angle, losing the mechanical advantage that a right angle gives.

I found that a very worn handbrake link, combined with the brake drum turned to its maximum inside diameter (on page 129 of Haynes Manual), and worn shoes, combined with improper adjustment of the adjustor nut, caused a piston to pop out with resultant loss of fluid pressure! There was too much freewheel within the drum when the handbrake had been adjusted to take up the slack; the adjustor nut should always be done first!

These rear brake cylinders were replaced, not rebuilt. I had once ignored Peter McLaughlin's good advice in the #124 (March '84) *Saab Club Newsletter* (p.2) where he said "with the rear cylinders, replace them, don't rebuild them." After a rebuilt one failed, I replaced both sides with new as I should have done. I



fully agree with and recommend his good advice for safety!

After some thinking, measuring and calculating I concluded that not only did the handbrake links need fixing but that longer adjustor wedges (I use the terminology used in the Haynes manual, page 132, for clarity), together with the other improvements would eliminate that problem with the hydraulic unit. I figured an tenth of an inch added to each would suffice, and determined to get some spare handbrake links properly fixed as well. Some years ago my sister had the links on her Saab fixed thus with good results.

To make the job easier for a machinist I first cleaned rust off the areas to be fixed, with wirebrush and file. Make sure the pivot stays free to rotate. After a few false starts I found a good machinist who could do it, and he welded bits onto the stepped ends (leave the hardened angled ends alone) of the 4 spare adjustor wedges (I think he said he used stainless steel weld) and ground off the excess so that each was 1/10" longer than before but with the same stepped shape. He also did the handbrake links and charged only a bit for the total.

Upon installation I loosened up the handbrake cable first and tried the links for size. One had had too much weld added so I took it to the vise and filed off excess; 1/16" is sufficient (I also had to grind a bit off the back so it would fit into the hole of the brakeshoe). A touch of antiseize to the pivot, the excess wiped off, may be good for the pivot to keep free. The handbrake link should come out the rear at nearly a right angle to the backplate and cable, and the bottom ends of the brakeshoe units must fit will into the ends of the pistons of the hydraulic units. With new brake shoes I found that the lengthened adjustor wedges were just the right length so that

when properly adjusted (always do adjustor nut before the handbrake!), the adjustor nut, instead of being all the way in at the end of its range as previously, was only partly into its useful range as it should be with brand new shoes.

Warning: Never turn the brake drum more than the maximum recommended inside diameter. There are various safety reasons for this, including heat transfer (thanks, P. M.)

Penetrating oil is best if an adjustor nut is stuck. I used a pipe plug socket with a 5/16" square hole (Snap-On Tools, p/n PP410) so as not to round the square end. Then a bit of antiseize compound on threads. A 5/16" wrench will do once loosened.

If the shoe springs are ancient better replace them too. Getting them on can be a strong-arm job, but I put the tops of the shoes outside the adjustor to insert the topspring, then (trying not to let the bottoms pop out!) pull them into place into the adjustment wedges slots. For the bottom spring I use a needle-nosed Vise-Grip pliers (I have four sizes of the real Vise-Grip pliers of different sizes, greatly useful and grab better than some cheap substitutes). Installment of the shoe-steady springs and "hats" can be aided by pliers, fingers holding the rivet-shaped rod behind the backplate, turning the pliers while pushing, a quarter turn.

Anyone who has done this work understands the need for plenty of nice bright afternoon. Check all work and wipe dirt off the axle before installing brake drum; bearings last longer when clean. The Beck/Arnley part number for the rear grease seal is 052-3143. By the way, if one decides to use a brake drum from another 95/96, be forewarned that the axle diameter where the inner bearings go may be larger on the 95 than the 96, although the axles at the outer bearing may be the same. Measure both bearings' axle hole diameters first before switching parts!

Then I adjusted everything as per the manual (adjusting the adjustor nut before doing the handbrake!) and the system works a lot better, and a lot safer, after these little improvements.

Now doesn't anyone else have some more 95/96 hints to share?

Dana M. Morong
Madbury NH

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Tires, Brake Dust, McPherson Struts

Tires: We had the good fortune to obtain a "loaner" from Clews & Strawbridge that was a surprisingly delightful 1991 Saab 900 with automatic transmission. It had the remains of the OE **Pirelli P2000s** at 22,000 miles with about 1/8" of tread left. The tires rode hard (not as hard as Michelin TRXs or Goodyear Eagle GAs, and I may not have been making allowance for steel rather than light alloy wheels), gripped very well even on rain, and felt great, much like TRXs. They gave the car a ballet dancer feel. There was no sign of tread separation or any other failure mode, confirming Rick Corwine's observations (NINES #217, p. 3).

Brake Dust: At 19,000 miles my **1990 9000S** had more than 80 percent of the front brake pads remaining, but heavy dust on the OE alloy wheels. A set of Kleen Wheel dust shields were installed. At 30,000 miles (with far less violent brake use than during the first 19,000 miles) only 20 percent of the pads remained, with some damage to the rotors. The service personnel at Clews & Strawbridge all agreed that the reduction in brake ventilation caused by dust shields is serious. They never recommend shields and have seen other cars with the same heavy wear as mine had. I had new pads installed and the dust shields removed.

McPherson Struts: The original equipment KYBs in the front of our 1990 Voyager failed by tending to stick at the normal ride height position, giving a very hard ride, and they lost all damping in rebound as well by 25,000 miles. Both ends of our 1984 Mazda 626 did the same with OE and also with KYB replacements. A 1986 Hyundai Excel had sticking at the normal ride height and poor damping. An early '90s Taurus had front shocks go rock-hard in jounce. And now at 30,000 miles my **1990 9000S** has the front struts going hard. Bouncing a number of 9000s showed that older ones became too hard and younger ones were much better. Feeling a new OE Sachs strut by pulling and pushing it showed it to be excellent for a sports car. Of course, complaints of strut hardening are treated like rumors of poison in town water, and Saab will not honor such complaints. Following the path I took with our Voyager, I have ordered Monroe front struts from PEP Boys at \$41 each vs. \$192 each for Sachs.

Joel M. Kauffman
Wayne PA

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Audio Radiance

Those who attended the 1992 National Saab Owners' Convention may remember my 3-door 1986 900 (NINES #215). It was noticeable because of the stereo system that occupies much of the trunk area. My hobby is participating in car audio contests and the 900 is my platform. Apparently the judges at the Concours at the Columbus convention liked the way I've set up the car as it won First place among the 900s.

A couple of years ago I wrote about the audio system I had installed in my car (NINES #198, Dec 90). Since last summer I have changed the system, for basically two reasons: 1) to update the system with current equipment, and 2) I now have a national sponsor, Autotek, a company that specializes in car audio amplifiers, equalizers, crossovers, and speakers from 6" to 15". With the old system, I competed in the International Auto Sound Challenge Association's (IASCA) 501-1000 Amateur category, or systems rated at 501 to 1000 watts and essentially home built. The car now competes in the 251-500 Pro category, because of the assistance from Autotek and a lower powered audio system. The previous system cost me about \$2,000; the current system would be valued at \$8,000 to \$10,000 including the labor to install it.

I began by removing the interior, carpeting and all panels from the dashboard



The author's '86 900 competes in IASCA sound quality competitions.

all the way back in order to lay all the wiring out to avoid electrical interference from any of the engine's operating systems. I should point out that this entire project took about six weeks to complete.

The first piece to be replaced was the dash unit, which had a single disc CD player, to make use of a separate CD changer. In the dash I installed a Kenwood KRC-810 AM/FM cassette deck with CD changer controls. It can also be used with a wireless remote. The advantage of this type of system is that it eliminates the need for an FM adaptor which can cause signal loss or poor sound quality. I mounted the changer, a

10 disc Kenwood KDC-300, under the passenger seat by attaching it to a piece of 1/2-inch plywood that I had mounted directly to the seat. This does not interfere with the range of motion of the seat.

There are three Autotek amplifiers used to power the 18 speakers. Two of the amps are Autotek 7054 BTS, each with four channels at 22 watts per channel. Together they power the two Pioneer TS-468 4x6 speakers on the back side panels, the four Kenwood KFC-M105 5-inch midrange speakers in the doors (two each side), the two Kenwood KFC-M104 4-inch midrange speakers in the dash, two pairs of Kenwood KFC-T101 1-inch tweeters mounted on the rear panel and on the forward side of the rear view mirror, and a pair of Pioneer TS-521 1-inch tweeters in the dash. The third amplifier, an Autotek 7300 BTS, has two channels, each producing 150 watts per channel. This powers the four Autotek 412 BTW 12-inch sub-woofers enclosed in the trunk.

The system also contains two equalizers made by Autotek. The first, a five-band unit, is mounted in the center console under the gauge cluster. To hide it, I made a plexiglass door that is hinged to cover it. The second is a 31-band 1/3rd octave equalizer that is mounted in the trunk on the right rear panel. By having this kind of range, I can adjust any or all of the frequencies that are judged in a stereo contest when an audio control is used.

All speakers used in the system were chosen for their frequency response, their sound quality, and their size. The 4x6 Pioneers were used because of their slim features which enabled mounting them in the factory location in the rear. The tweeters



All of the interior had to be removed for installation of wiring and components.

were used in conjunction with the 4x6s to help bring out the high frequency needed for imaging. The speakers are mounted to the stock 4x10 opening using an adapter I made out of 1/4-inch plywood.

In order to mount the Kenwood 5-inch speakers in the doors, I removed the front pockets on each door and fabricated a plywood panel to cover the opening. I then was able to mount the speakers in the door and prevent cutting holes in the factory door panels. The panels were covered in the same fabric as the seat upholstery in an effort to maintain a stock appearance inside the car.

To mount the Kenwood tweeters on the inside rear view mirror, I carefully drilled a 1/2-inch hole on the back (forward facing) side of the mirror and placed the speaker mounting brackets over them. Then at the top center of the mirror, I drilled a 1/4-inch hole, which allowed me to run the speaker wire through the mirror and up to the headliner where it would be hidden from view.

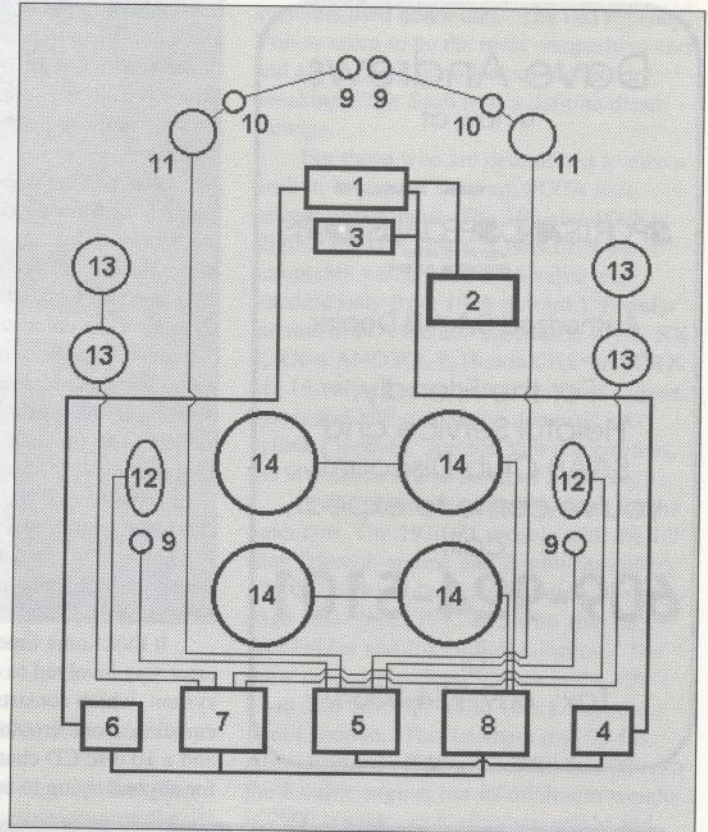
The only change I made to the dash was the installation of a pair of Pioneer TS-521 1-inch tweeters under a second pair of defrost vents. I placed these just behind the real defrost vents. Again, the appearance of "stock" is maintained.

For the four 12-inch sub-woofers, I constructed a two chamber box out of 3/4-inch plywood and 1-inch plexiglass to divide the chambers. The box is elevated one inch off the floor of the car to allow the sound to escape, since one pair of subs face downward. The other pair faces straight up to reflect off the rear window glass. Two 1-inch panes of plexiglass were used to provide viewing into the box. They are held in place with clear silicone. I also installed blue neon lights inside the box and wired it to the trunk latch so it would turn on only when the trunk was opened. The lights are strictly for show as they don't get any extra points in competition, but they do draw spectator interest to the car.

The amplifiers are mounted in the spare tire compartment. In order to do this, I removed the spare tire and cut off the mounting bracket on the floor of the compartment. I then used 1/2-inch plywood to make floor boards and closed the two compartments off for a cleaner appearance. I elevated the floor boards one inch to allow room for the wires to run under them. Both floors are removeable to allow viewing of the wiring. On both sides, I mounted

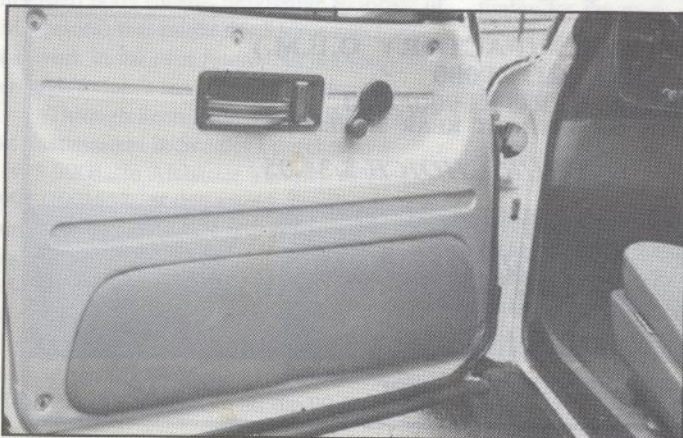
Below left: The door pockets on each side have been replaced with a pair of 5" Kenwood KFC-M105 midrange speakers.

Below right: Two pair of Autotek 412BTW subwoofers are visible in a specially built sound chamber. The Audio Art AEC-200 crossover and fire extinguisher are on the left side, and the Autotek 7006 31-band equalizer is on the right.



Key to diagram

1. Kenwood KRC-810 AM/FM Cassette w/CD changer controls
2. Kenwood KDC-300 10-disc CD changer
3. Autotek 7004P 5-band Equalizer
4. Autotek 7006 31-band 1/3 Octave Equalizer
5. Autotek 7054 BTS 4-Channel Amplifier
6. Audio Art AEC-200 Crossover
7. Autotek 7054 BTS 4-Channel Amplifier
8. Autotek 7300 BTS 2-Channel Amplifier
9. Kenwood KFC-T101 1" Tweeters (Rear side panel & mirror)
10. Pioneer TS-521 1" Tweeters (Dash)
11. Kenwood KFC-M104 4" Midrange Speakers (Dash)
12. Pioneer TS-468 4" x 6" Coaxial Speakers (Rear side panel)
13. Kenwood KFC-M105 5" Midrange Speakers (Doors)
14. Autotek 412 BTW 12" Subwoofers (Trunk)



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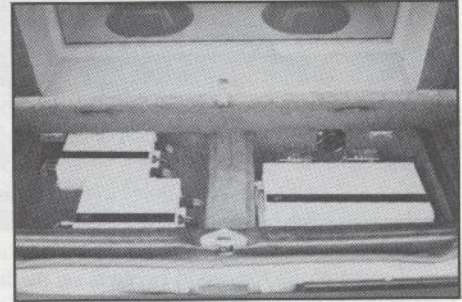
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map lights I found in a local salvage yard and wired them to come on with the opening of the hatch. On the right side, I mounted a 3-inch brushless cooling fan that comes on with the amps to help disperse the heat they generate.

Most of the system is wired with 14 gauge S-14 Monster Cable. The cable from the battery is 4 gauge so there is no power loss. The box for the subs uses 12 gauge Ambiance OFC speaker cable in Hot Pink, chosen for the color which glows under the blue neon. The only other deviation was the use of a standard gauge speaker wire to the tweeters in the mirror so the wiring is better hidden. The standard gauge wire connects to 14 gauge cable behind the headliner.

To handle all the extra power, I had the alternator rebuilt by a local shop to generate 105 amps. This was done in the factory Bosch housing. The battery is an 875 amp AC Delco unit.

It took some time and a lot of trial and error was involved to complete the final system, which consists of 18 speakers, two equalizers, one crossover, three amplifiers and a 10 disc CD changer. One suggestion for anyone trying to upgrade their sound



The amplifiers are hidden in the spare tire well.

system or speakers is to try to use factory holes. Don't cut the interior unless you are absolutely sure of what you want. Saab interiors are not cheap to replace.

One of the things I tried to do in installing this system was to keep some functionality. Though the subwoofer box takes up some room in the trunk, there is still room for luggage. I plan to drive the car to the 1993 National Convention so you'll have a chance to look it over. I'll be happy to answer your questions about installing an audio system in your Saab.

Todd Campisano
Louisville KY

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Winker "Pa Tacket"

About a year and a half ago, just after the finish of the Alcan 5000 Rally, I took advantage of being in Seattle to look for a good used 99 2-door. I had been toying with the thought of getting a 99 to use as a competition car, and the cars in Seattle have far less rust than those in Minnesota. The 99 is a little shorter and lighter than the 900 and, I think, more fun to drive. My goal was to run the car in the Sports Car Club of America's Improved Touring category, and possibly some autocrosses, maybe even a PRO rally or two.

My other 2-door 99, known as the NINE-T9 (Issue #184, Sept 89), has become a boulevard cruiser, fairly comfortable and pretty nice looking after several years of tinkering. It was too nice to turn into a racer, hence the search for another 99.

I wanted something with a decent, unruined body (nearly impossible to locate in Minnesota) that might need some mechanical work in the near future, but not soon enough to leave me stranded in Montana.

Through Sean Tennis and Rob Walden at Saabmasters in Seattle, I purchased a 1979 99GL, in Alabaster Yellow, VIN 99792001557. If this sounds familiar to long time readers of NINES, it should be. It was very familiar to me. The NINE-T9 is also a 1979 99GL in Alabaster Yellow, VIN 99792001245. Both cars were built at the Trollhattan factory in August, 1978. I tried to talk myself out of another yellow '79, but finally decided that with all the 99 2-doors

sold in the U.S. in the 1970s, it must be fate to come up with twins.

Despite having to change the fuel filter four times on the drive across country, the new/used 99, dubbed "The Second Banana", really didn't need much work. About the only immediate needs were shock absorbers, a ball joint, repair of a minor transmission leak and exhaust. I installed a set of new KYB Gas-A-Just shocks, marveling at how easily the fasteners came off thanks to the nearly rust-free environment of Washington state.

The philosophy of Improved Touring is to provide a competition venue for dual-purpose cars, suitable for both racing competition and normal road use, and I intended to stick by that philosophy. I knew there would have to be compromises in comfort for the road and in full competition tuning for the track, but the alternative was to purchase and maintain a towing rig, i.e. truck and trailer. A tow rig was not in the budget, so I daren't damage the car in a race.

Though Jack Baxter of S&J Automotive in Atlanta has done pretty well with his 99 in Improved Touring, particularly in endurance races, the Saab is not the first choice of most IT drivers. The 99 is classed in ITB, which is dominated by Volkswagen Rabbits and Sciroccos, BMW 2002s, and Volvo 142s. In my region, there is a built-to-the-limit Dodge Omni 2.2 that wins quite often. The VWs are popular because there are lots of aftermarket performance pieces and plenty of

available used donor cars. The BMWs and Volkswagens seem to be the most competitive cars, and again, there is no lack of pieces for tweaking. The Saab is at a definite disadvantage.

For those who are determined to race a Saab in Improved Touring, SCCA lists several possibilities. The 16-valve 900S is eligible for ITA. (SCCA lists 1979-86 as acceptable years, but the 16-valve was standard only from 1986 onward.) Popular mounts in ITA include the Mazda RX-2, RX-3, RX-4 AND RX-7, Honda Civic and CRX Si, 16-valve four cylinder cars from Toyota, Acura and VW, and many domestic six-cylinder models. Against that competition, the 900 doesn't have much of a chance.

In ITB there are several options for the Saab fan: The 1970-71 models with the 1.7 liter Triumph engine and Zenith-Stromberg 175 CD carbs fit one classification. Another page lists "99E, 1972-on" with the 1.85 liter engine and Bosch fuel injection. The most reasonable classification is the "99 EMS 2.0, 1973-80" with Bosch Jetronic Fuel Injection. This is where my '79 fits. Also eligible in ITB is the 1979-86 900 with the 8-valve engine, but its minimum weight is 2500 pounds, so it gives up weight and agility to the more nimble 99. Turbocharged cars are not allowed in Improved Touring so none of the Turbo Saabs are eligible.

In sticking by the dual-purpose philosophy, allowable modifications in IT are very limited. Safety equipment is necessary, including a full roll cage, safety harness, fire extinguisher, window net, plus the requisite nomex driver's suit and Snell-approved helmet for the driver. Among the suspension changes allowed are the substitution of springs and shock absorbers and the addition of anti-roll bars. Maximum allowed wheel size for the 99 is 15 x 6 inches. Tires must be DOT approved, but many companies offer special minimum tread/soft compound tires with DOT approval just for IT, Showroom Stock and autocross applications.

Engines are also pretty restricted. Balancing and blueprinting is allowed as is some matching of manifolds to cylinder heads. Headers and open exhaust are acceptable, but the noise level cannot exceed 108 db, so most cars require some kind of muffler. Since the Saab is fuel injected, very few changes are allowed on the intake side.

I tried not to rush into this racing effort. I took the Skip Barber Three-Day Racing School last summer (Issue #214, June 92). I rented an ITC Toyota Starlet for a two-day Regional race weekend last August. Over

the past couple of years I had purchased racing parts for a 99 as the budget allowed—a set of anti-roll bars, a set of springs, a header system, and the various pieces of safety equipment required.

The plan was to begin with safety equipment and suspension. Though the drivetrain had 130,000 miles on it, everything was strong, compression was good and even across all four cylinders, and it ran well, so I decided to save horsepower for later. Too often I've seen potential racers sink their budget into the ultimate engine, only to run out of money before getting around to the rest of the car. And without a decent suspension, all of the engine in the world might as well be a coffee table.

To be on the safe side, even with a stock engine, I took a couple of precautions to reduce the possibility of drivetrain troubles. I replaced the distributor rotor with a rev-limiting unit from a Porsche 914 (Bosch P/N 1 234 332 207). It is supposed to cut out at 6,500 rpm, but the one in my 99 seems to cut out at 6,200. Red Line synthetic lubricants are used in the engine and transmission to reduce friction for quicker revving and smoother shifting.

Work on the car began by removing unnecessary pieces - the rear seat back and

cushion, headliner and carpet. A leather covered steering wheel from a 99 Turbo replaced the stock unit. An EMS/Turbo tachometer also was installed. (See sidebar on installing a factory tach in a stock 99.)

The roll cage was a bolt-in unit from Safety Devices of England. It came from a 1980 PRO Rally/Ice Race 99 purchased from Rick Corwine. Due to some more recent regulations, a door bar and a rear seat brace had to be added. A couple pieces of Chrome Moly tubing in the proper width and wall thickness were secured from Archer Brothers, the Dodge factory-sponsored Trans Am team with headquarters just a couple of miles away, and with the assistance of local Saab Club member Bruce Alexander, the necessary welding was completed. A good used race seat and six-point safety harness were also purchased from Archer Brothers. Fortunately, the seat fit into the 99 with minor modification, and the safety harness also went in with minimal bother.

The only performance addition to the engine was a set of headers from Motor Sport Service. The complete exhaust system includes a couple of bullet-shaped "glass pack" mufflers for street use. The complete system was installed since, in true IT fashion, the intention is to drive the car to

the track.

The suspension pieces—anti-roll bars and springs—were purchased from Swedish Auto Specialties (SAS). Though the installation was pretty straightforward, I turned the job over to Foreign Affairs of Duluth, Inc., bowing to their superior collection of tools, expertise and my lack of spare time. The toughest part of the whole job is removing the old front springs. They used a scissors-type spring compressor for MacPherson struts to remove the front springs and to install the new shorter front springs. The new springs lower the 99 by a couple of inches, more in front than in back. The exhaust had to be disconnected to aid installation of the front anti-roll bar. Though several people who have raced Saabs suggested a rear anti-roll bar only, the front bar was added at the recommendation of Jeff Hofslund at Foreign Affairs. The reasoning is that a rear-only bar will make the naturally understeering 99 more neutral, even leaning toward oversteer, and the lack of a front bar will help to keep the driven front wheels on the pavement during hard cornering, helping to eliminate wheelspin. Once on the track, the car stayed quite flat and neutral through the corners, occasionally lifting a rear wheel slightly. A limited-slip or locked differential would help eliminate the possibility of the inside wheel spinning during cornering, but the LSD for the 99/900 is rare and, even used, pretty expensive.

Since the shock absorbers were fairly new, I decided not to change them just yet. Baxter recommends Koni adjustables at the softest setting. A set of Konis are on the budget for next season.

The only changes to the brake system were the addition of stainless steel braided brake lines from Group 6 Performance, and a flush of the brake system with Castrol LMA brake fluid. The car already had Metal Master brake pads with plenty of use remaining. About the only other changes allowed to the brakes would be removal or venting of the backing plates and the addition of air ducts for better brake cooling.

The wheel of choice was the Inca alloy, the original equipment wheel on Saab 99 Turbos and early 900 Turbos. The Incas are probably the lightest weight OE wheels that came on the 99/900 series, weighing in at about 14-15 pounds apiece. (By contrast, the soccerball EMS wheels are about 17-18 pounds, while the OE 5-inch steel wheel from a '79 99 is over 20 pounds.) They are also probably the softest of the OE alloys, prone to bending after encounters with

VDO/Saab tachometer installation in a 99

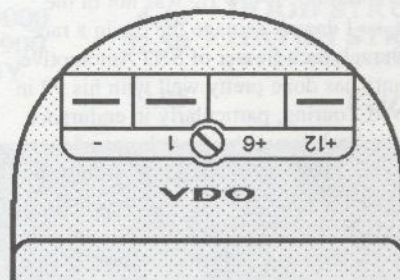
Installation of the factory tach is very easy on most 99s. The instrument panel is the same from 1971 on. The wiring is already behind the dash beginning with 1973 models. The tachometer was standard equipment on the 99EMS and 99 Turbo models through 1978. They have been priced at \$30 to \$50 used in the classifieds.

Remove the pad over the gauge cluster. Remove the gauge cluster by disconnecting the speedometer cable, gauge power plug and wires to the clock. Remove the clock from the right side of the panel. Replace it with the factory VDO tachometer/clock unit. Note: You will need a deep 7mm socket or nut driver to reach one of the hex head screws on the back of the tach.

Locate a brown wire and a yellow wire that are not attached to anything behind the dash (#99 and #86 in the wiring diagram). Connect the #99 brown wire to "+12", the #86 yellow wire to "1", the black wire (ground) from the back of the clock to "-" and the blue wire from the back of the clock to the 12V connector on the back of the small clock unit. Jack Baxter moved the tachometer to the center position of the gauge cluster, replacing the speedometer, since his 99 is strictly for racing. He left the full size clock gauge in place to keep an eye on time during endurance races.

To verify accuracy, check the tachometer's readings against a dwell meter/tachometer. I have found the factory tachs to be off by as much as 300 rpm in either direction.

TW



Connections on back of VDO/Saab 99 tach

potholes and curbs. From the two sets of Inca in my garage, I found six that were straight. None were in very good cosmetic condition, but at speed, who cares? The disadvantage is that they are only 5 inches wide, and 6 inches is allowed. According to Baxter, that half-inch makes a big difference in handling. Wider wheels are on the want list, when the racing budget allows.

Tires are another variable that can subtract or add a few seconds a lap based on manufacturer, tire size, and rubber compound. Among the popular choices are special soft compound tires by BFGoodrich, Goodyear, Yokohama and Hoosier. The Hoosier Street TD is unique in that it is a bias-ply construction, while all of the others are radial-ply tires. Baxter uses the Hoosier tires in a size 225/45x15 and swears by them. I decided to stick with the conservative and chose BFG Comp T/A R1s in size 205/50ZR15. The track where I will be doing most of my racing is Brainerd International Raceway, a wide, flat 3-mile course in central Minnesota. BIR has a very long straightaway, and most IT and Showroom Stock drivers hold the accelerator to the floor for nearly half the track, from Turn 10 to Turn 3. Though a shorter tire might be better for accelerating out of corners, the larger diameter would theoretically give a little more velocity at top engine speed.

The first race weekend for the 99 was to be the Memorial Day Classic at BIR. Saturday was a Driver's School, with an SCCA Regional race on Sunday (practice and qualifying) and Monday (races). In order to get more track time I signed up for the Driver's School, though since I already had a license it wasn't necessary. Several other Duluth area drivers would also be competing, including Mark Strohm from Foreign Affairs in a Toyota Corolla, and Harry Goldfine and David Byrka in a pair of Plymouth Fire Arrows, all in ITB.

Finally, late Friday afternoon of race weekend, the Saab was ready to go racing. There were several items I would have liked to add, such as gauges, but time had run out. Fortunately the car breezed through Tech Inspection with only a couple of minor corrections needed.

Based on the experience of other front-wheel drive racers, I set tire pressures at 36 pounds in front, 28 in the rear. By checking tire pressures and temperatures across the face of the tires after each practice session (with the help of a borrowed pyrometer), I could determine whether the cold pressures needed to be raised or lowered. I took it

easy during the first track session to make sure everything felt okay, then gradually got more daring and faster.

All cars must weigh a minimum as specified by SCCA, and drivers can take their cars to the on site scales prior to racing to make sure they will pass post-race inspection. The minimum weight for the 99 2.0 liter is 2360 pounds without driver. With about a half tank of gas, my Saab tipped the scales at 2445. This was good news. It meant that I could remove sound deadening and undercoating, which I suspect will drop the weight by about 40 pounds, or a couple of percent. On the negative side, it's a very messy job. I'm sure there are a few other pieces under the hood and in the interior which can be removed as well. (I haven't made up my mind about the radio, I kind of like listening to tunes on the road. Maybe a removable unit...)

As expected, most of the other cars in ITB were faster than the 99 on the straightaway. The speedometer read between 105-110, which translates to about 95-100 mph with the shorter diameter tires. A front spoiler is allowed in IT and should help in cutting wind resistance. I have a fiberglass spoiler from SAS, but it was not installed in time for the Memorial Day race. Opening the exhaust a little, possibly remove one of the mufflers, might be good for a few horsepower. A finely tuned race engine would be the ultimate in improving the top speed.

Qualifying took place in the rain, and I was surprised at being able to keep up with and eventually pass Bryan LaPlante in a VW Scirocco that is usually quite competitive. My time of 2:29.776 was good for third in class after the first session! But I was still

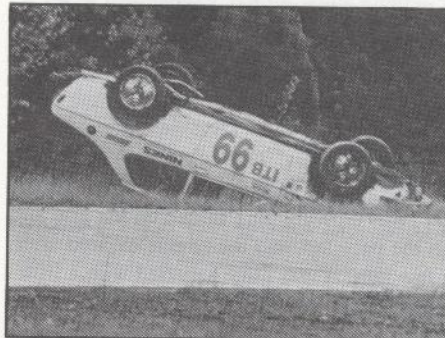
six seconds behind the class leader, the aforementioned Omni. Rain continued during the second qualifying session, and I could see Saab was going to be faster in the twisty parts than most of the rear wheel drive cars. One factor may have well been the BFG Comp T/A tires, a new for 1993 design and compound called series 224, specially designed for road racing applications and rated highest in a track test by *Grassroots Motorsports* magazine in their July/August '93 issue. Many of the other drivers in my class were using last year's tires that still have a race or two left in them, but didn't have the tread and "sticktion" of a set of new BFGs.

Near the end of the session, I decided to try taking turn 7, a 60 degree left hander followed by a similar right hander, at the speed I had been able to take it in the dry, nearly flat out. I don't know if I let up on the brake too soon, or stayed on too long. The rear twitched out to the right, I corrected, maybe a little too much, and it snapped back into a slide and off the course. The car had nearly stopped when it hit the rain-soaked gravel. The tires caught in the oatmeal-like muck and the Second Banana tripped into a slow, light roll ending up on the roof. I reached down (up?) and turned off the ignition, braced myself and released the safety harness, landing in a clump on the ceiling. Since the driver's window was blocked by the required safety net, I crawled out the passenger window, waved to the course workers that I was okay and waited for the end of the session. While I was taken to the track medical facility for observation, the car was delivered to the paddock area.

NINES columnist Chuck Andrews and

Below: T. U. (Tires Up?)!

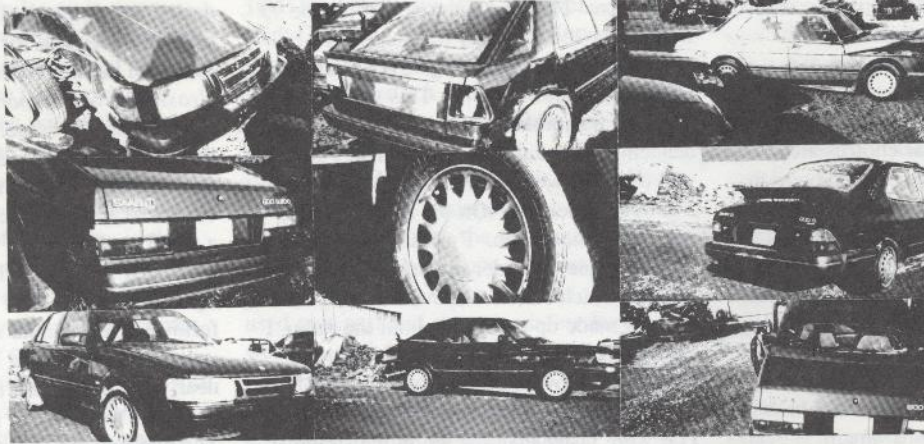
Right: Chuck Andrews concentrates on getting the 99 back on track.





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his son Don, who run Andrews, Inc., had signed on as crew members for the race. After surveying the damage—a couple of dimples in the left side and one in the very front of the hood, and the very forward part of the roof wrinkled, the windshield was not even cracked!—Chuck and Don removed the windshield and began pounding with whatever hammers could be located. In less than an hour, the dents were pretty well pounded out and the windshield was back in.

Then came time to try the engine. It started and ran, but poorly and blowing blue smoke out the tailpipe. With the engine inverted, oil had dribbled down the breather hose in the top of the valve cover and into the intake manifold. The throttle body was removed, the oil mopped up, spark plugs replaced, and the 99 ran just fine.

We checked for any other visible signs of damage but could find none. I took it out on the highway that runs by BIR and it seemed to track straight, so decided I'd give it a try on the racecourse the next day. During morning practice a couple of my competitors followed the Saab to make sure it was tracking and cornering okay while I drove at slower speed on the track. It was

pronounced fit to race.

Despite a weather forecast of "variably cloudy", practice and the race took place in the rain. Much to my advantage. Before the rollover, I had clipped another 1.6 seconds off my time, but three other ITB cars had gone faster in the second qualifying session. I was gridded sixth in class, one half second behind LaPlante's Scirocco, and ahead of all the rear-drive cars.

Since finishing was more important than how many cars I beat, I tried to run a conservative race. I could stay with LaPlante in the turns, but he was faster on the straights. Since the final turn at BIR, turn 10, connects two straights, it wasn't likely that I would be able to catch and pass him at the end of the race, so I backed off a little and held my position. Though the rain stopped and the track began to dry before the race ended, the Saab was a half minute ahead of the nearest ITB competitor, Strohm's Corolla. One of the cars that had qualified ahead of me, a 1.9 liter Ford Escort GT, was blowing blue smoke on the grid and on the pace lap, and the engine expired after a few laps. I was quite satisfied with a fifth place finish. My fastest race lap was

2:26.485, nearly ten seconds slower than the fastest lap of the class winning VW GTI. With drying track conditions, Strohm's fastest lap in the Corolla was 2:26.367.

The 99's fastest lap on the dry track on Saturday was 2:20, but I expect to be able to get it under 2:15, where most of the cars in the class run, with a bit of work. The track record in ITB is 2:06.516, an average speed of 85.364 mph, set by that hot-zoot Dodge Omni a year earlier. It will take a lot of work to get the 99 down to that time. A lighter weight driver would help, too.

Tim Winker

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The Learning Curve

I've been an autocross enthusiast for some time. Autocrosses are usually low speed (60 m.p.h. max.) precision driving competitions held on large parking lots or unused airports. I now am also a "driving school" enthusiast.

I was invited by Marty, a friend of some 28 years to observe a Porsche Club school that was being held at Roebing Roads race track. This outstanding track is found at the edge of a swamp in east central Georgia, about 20 minutes west of Savannah. Marty had been campaigning a 1987 Porsche Targa and now is competing with his 1991 Camaro LT1 (the replacement for the IROC Z Camaro).

I joined with the group of about 85 drivers at their driver's meeting early on one Saturday morning last February. As just an observer/timer; I was content to watch sounds and sights of highly polished, high performance sports cars cornering and sliding by the spiny-edged palmettos and cypress knees was thrilling. Marty and his Camaro are very competitive. With a blue-printed, balanced 305 c.i. fuel injected small block engine, 245/255 BFG racing compound tires, anti-sway bars the size of my forearms, full roll cage, etc. I think his lap times were only bested by a RCR Porsche. By the way, his Camaro is streetable—I don't believe the Porsche is. Sad to say, there were no Saabs entered, but there were several front-wheel driven entries. Most outstanding of these was a race-prepared Eagle Talon sponsored by Yokohama Tires.

Marty was responsible for some of the Porsche clubs allowing other marques to

compete in their events. Maybe the recession helped too? This weekend peaked my interest for this new (to me) form of high performance driving.

I found out that the next school would be held in April by the Porsche Club of Atlanta at a track of national prominence, Road Atlanta. I had about 8 weeks to prepare for my first "driver's school." My 1986 Saab 9000 Turbo would be pushed hard; the engine redlining in second, third, and fourth gears. First gear would only be needed to get onto the track and I didn't think I would need fifth. I had already made several changes and additions to the external side of the engine and to the suspension for my autocross events. I had moved the battery to the right rear corner of the trunk and had removed the A/C compressor for better weight distribution and reduction. A Snell 85 helmet and Hot Shoe driving shoes were ordered. Indexed Champion racing plugs (C63C, 2 to 3 steps colder than stock), Mobil 1 5W30 oil, Repco semi-metallic brake pads, Saab fuel filter, Micro-Dynamics adjustable fuel pressure regulator, Canton/MECCA remote oil filter into the stock seat. A set of magnetized, red-on-white number "9"s and some appropriate magnetized product decals were received from SOLOTIME.

I removed and cleaned the distributor and replaced the 'o' ring on its shaft (it had been leaking oil). I set the timing and adjusted the idle (many thanks to another NINES member, Ivan Watson, who advised and encouraged me over the phone as I struggled to get these things done properly).

I had a detail shop apply a high-gloss wax job (the paint still looks great) to the body so that my Saab could slip through the wind with a little less resistance. Eagle One Tire Cleaner and Tire Dressing were used by me to clean and protect everything in the engine compartment. I drew the line at upgrading the stock wheels and the 205/55ZR-15 Yokohama A008 street tires. (You could probably upgrade these two items and leave everything else stock and do better than I did.)

Driver's school is not like the driver's ed classes that many high schools offer their students. It appears to be similar to time trial practice sessions. Driver's schools are high-speed, high performance events in which you are allowed (encouraged) to drive your properly equipped, empty (no loose flying objects) car as fast as you and your instructor care to go. Yes, if you are a novice, you must have a qualified instructor (provided by the sponsoring club) in the car with you each time you drive the course at speed.

I arrived at Road Atlanta on a Friday evening. This allows the club mechanic to tech or inspect the car. Most clubs also require you to have your car pre-teched (the club provides you with a check-off list) by a certified mechanic before you arrive for the event. I had him flush the brake system and put in fresh DOT 4 fluid. At the track, they check for loose wheel bearings, secure battery, minimum torqued throttle movements, brake lights, proper sized car number, fluid leaks, brake fluid level, and overall readiness of the car. Tires must have at least a tread depth of 3/32" and brakes, a pad thickness of 3/16" or more.

There were about 130 cars entered. Most were Porsches, ranging from a race-prepared 356 (driven by my 20 year old instructor), 914's, 924's, 944's, and a gaggle of 911's. Other marques included three Corvettes, Marty's Camaro, a Mazda RX7, a Hyundai turbo coupe, two Nissan 300 ZX's, a Merkur, and a VW Golf. My 9000T was the only Saab and the only four-door sedan entered. I tried not to worry about how it and I would compare against this array of horsepower, racing compound tires, and more experienced drivers.

Saturday morning started off at 8 a.m. with a driver's meeting for everyone. The rules of conduct and safety were spelled out firmly. There would be five groups of cars divided by the experience of the drivers. There would be no passing except on the straights and only after the driver to be

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passed acknowledged he was aware of the faster car. Then a more detailed meeting was held for the novice drivers where the meaning of the flags, tire pressure, handling, etc. was gone over. Then the novices toured the track in our cars: stopping at each corner, where the chief instructor and all the drivers got out so that the instructor could go over with us the peculiarities of that particular corner and how we should attack it. Then it was back to the grid where we picked up our assigned instructors. Nerves and adrenaline started to go into action now!

If you looked at a sketch of Road Atlanta, you might think it would be an easy course to drive (as I did); not so! The sketch would not show the elevation changes, (the track is located about 40 miles northeast of Atlanta, near the beginning of the Appalachians), rough spots in the pavement (loss of traction), the "dip" in the back straight, and the concrete supports for the two bridges that cross over the track at turns (1) and (11).

Course workers (volunteers) are set up at or near most of the corners. They are equipped with a set up at or near most of the corners. They are equipped with a set of flags and two-way radios and are in constant communication with each other as well as the "officials" in the grid and tower areas. We not only have to be aware of our tachometers, rear view mirrors conditions, but, also we must check for "flags" as the corner workers try and prevent anything ugly from occurring. Wreckers and ambulances are at the track just in case.

The "porkchop" or cone-shaped track has a left side made up mostly of medium to high speed turns (1 through 6), esses, and short straights. Turn (1) is a fast 90 degree right-hand jab that you charge into on the far left side of the track; jab at the brake pedal; turn NOW to the right; touch the apex under the pedestrian bridge; accelerating-drifting to the outside left edge of the track while climbing to turn.(2). As you approach turn

(2), you are guiding on towards the tops of two skinny pine trees that are on the horizon. This line will set you up for a jink to the left for turn (3). Now level and redlining third gear as we rush ("ditto") along this short straight leading to turn (4) and the "esses." Upshifting to fourth gear; coming out of gentle turn (to the right) four, we squeeze the accelerator to the floor. We want to gain and maintain speed through the esses. The rear end becomes a little light as we lift off the accelerator, braking HARD for rough pavement turn (5). We are tight up against the right side of the track approaching turn (5), touching 85 m.p.h.. We dive hard left to turn five's apex where the ripples (?) in the pavement try to break the traction of the Yokohama A008's. Now, accelerating (hopefully, smoothly) from the right side of the track, down the 2,157 feet straight leading us to one of the more "fun" turns, turn (6) at the far end of the track. The far "tip" of the cone is where the 90 degree banked turn (6) leads you to the 105 degree late apex turn (7). After negotiating turn (7), you are accelerating up through the gears on the 5000' back straight. We touched 105 m.p.h. here while more powerful cars (and more daring drivers) were reaching speeds of 125 m.p.h.. Two-thirds of the way down the back straight, you drop down into the well-respected "dip." You line up with the right edge of gentle turn (9) as we set up for THE DIP! Tap the brakes here and turn slightly to the line here or we are going into a very nasty spin. We were getting a little uncomfortable here at 95 m.p.h., as the suspension uses up most of its travel. Now we began climbing up out of the "dip" towards turn eleven. As we approached the turn, all we can see is the large Nissan vehicular bridge looming over the track and blue sky through the "hole" in the bridge—the track disappears! We're tight against the left edge of the track; the left concrete support grows larger in the windshield; speed is scrubbed off to about 85 m.p.h.; stab at the brake pedal; turn (smoothly) to the right as we reach the green turn-in pylon at the side of the track; up onto the sloped curb at the track (oh, for a set of racing compound tires!). We instantly determine if the track is clear; no spun or disabled cars blocking the line, no "caution" flag, and now, accelerating in third gear, the wastegate dumping excess boost at about 18 psi., we begin drifting back to the left side of the track. As the Saab begins accelerating-drifting out from under the bridge, a clear

track and turn (12) comes downward angle for about 100 feet or more (that's why we couldn't see it) as we sweep leftward, touching the outside of the track and on through the turn onto the 1,740 feet front straight. We now get to start another lap as we wind out fourth gear, the Supertrapp's exhaust booming off the grid wall just inches to our left. We see 95 m.p.h. on the front straight just before we tap the brakes for the turn in for turn (1).

Twenty to thirty cars are on the track per group and each group is allowed about 20 minutes. of track time each time they are rotated out onto the track. My times allowed for 8 or 9 laps for each time I was driving. Not very fast for Road Atlanta laps but I was having a ball and staying on the track as well as staying on "the line." Faster drivers were turning lap times of about 1:45. Mine were probably a little over two minutes. At "driver's school" there are no lap times recorded and there are no winners or losers. You must get someone to volunteer to time you if you want to know your times.

There were no crashes (if you come even close to another car, you are black-flagged and must exit the course—do it the second time, and you are removed from the event—no refund!), not even a bent fender, no tow trucks were needed to remove a disabled car (this usually happens at least once per event), and no injuries were sustained. Of course, a few egos were damaged (I remember one red 924 that we passed at the beginning of the back straight...) but overall, it was a safe and exhilarating weekend. This "school" is fun!

Why take these risks? Why spend the time and the money preparing my car? I couldn't help but reflect back on Saab's endeavor at Talledega where they set new records with three Saab 9000T's. No, we didn't go that fast or that far and we certainly didn't set any records at Road Atlanta. My car had 145,000 plus miles on the clock when we arrived at Road Atlanta. It didn't break; it didn't even whimper (the only time I touched a wrench to it that weekend was to add some discs to the Supertrapp muffler). I did it for myself; to improve my driving skills, and maybe, I did it for the car and the company that designed and built it.

Dan Greene

VSRG plans full season of vintage races



The "Victor car" with a new yellow paint job prior to its first race of 1993.

Photo by Randy Cook

The Vintage SAAB Racing Group was represented at the Historic Sportscar Racing Ltd. April 23-25, 16th Annual Walter Mitty Challenge at Road Atlanta by Randy Cook's Sonett III. Earlier this spring Ken Payne had finished rebuilding the "Victor car" engine and was it ready! We refer to it as the "Victor car" after its original owner/driver, Victor Hajj, of Victor Sports Cars, Inc. in Abington, Pennsylvania. With a fresh paint job, the yellow #97 Sonett sparked as Ken qualified it fourth on the grid for the One-hour Rolex Enduro on Saturday.

As he left the grid, Ken had accelerator linkage problems and had to pull on the grass beside the flag station at turn one. After the rest of the forty-two car field had passed, Ken got out of the car, corrected the problem, was back in the car and on the track in time to catch the field as the green flag fell. The other sixteen cars in the Sonett's class were eight Porsche 356s, two Porsche S-90s, two Morgan 4+4s, a Porsche 356 speedster, a Lotus 7, and an Elva Courier. As Ken worked his way up through the field, a management decision was made in the pit not to change drivers during the mandatory five minute pit stop, if he was in a good position. When he brought it in after thirty-five minutes Ken had the Sonett in a solid third place and had been the race leader when the first and second cars made their pit stops. At the checkered flag Ken was closing on the second place Lotus 17 (in another class), and wasn't that far behind the first place Porsche 356B. The Sonett's fastest lap was 1:44.602, the Lotus 7's 1:44.894, and the 356B's 1:43.829. Without the last place start, who knows, but the third overall and second in class was very satisfying.

Randy took the Sonett out for the qualifying and sprint races on Sunday and held his position while enjoying some close racing with a '53 Jaguar XK-140.

The next (planned) outing for the Victor Sonett is at the HSR Savannah Grand Prix on November 12th. Wendell Francis has decided not to enter his 93 or Quantum Formula S in any vintage races until after he retires in June.

The VSRG core consists of Randy Cook's 93, two-stroke Sonett, and Sonett III, along with Wendell Francis' 93 and Formula "S" Quantum. We could expand to be Vintage SAAB Racing Groups if we include all the other SAAB two-stroke powered cars and a couple Sonett IIIs being raced across the country.

On the West Coast, Gene Leasure is still racing his Tanner Special, Edmond Stoops his Quantum Formula S, and Bud Clark is driving a SAAB Phoenix owned by Joe Puckett. SAAB Phoenix? Bud says it is a front-wheel drive mid-engine sports racer originally powered by an outboard motor but converted to a SAAB two-stroke, running backward like in his Quantum sports car.

I understand that a couple of vintage two-stroke Saabs are being raced in the Rocky Mountains, but I don't have any names or details.

The Midwest is represented by Duck Waddle in Hutchinson, Kansas, with his '66 Bobsy SR-3 and Charley Hayes in South Bend, Indiana, with his '59 Jabro Mk-III. Also, Mark School is running his Sonett III out of Appleton, Wisconsin.

If we offend all the die hard rebs and include Virginia in the Northeast, two more Jabro SAABs are represented, one by Pat

O'Rourke in Springfield, VA and the other, a Mk-I, by Steve Morrison in Ithaca, New York. Bill Jacobson will be running his Saab Sonett I again in VSCCA races. Dr. Richard Brown in E. Hampton, Connecticut, ran his Quantum at Mid-Ohio, Lime Rock, and Watkins Glen in 1992, and expects to run it again this year. George Vapaa and Keven Pampaugh in Wilmington, Delaware, are working on their Quantums and hope to have them ready for the VSCCA Fall Festival at Lime Rock Park on Labor Day. Nick Julian is preparing two Quantums in his Mexico, New York shop, also aiming for the Fall Festival. If all goes well, Dr. Brown should have several Quantums to run with in September. I think I will have to take my Quantum to Jake Jacobson's in Wilmington and work on it with George and Keven. I am also helping Mike Romanell, in Ellicott City, Maryland, with a Sonett III he is preparing for vintage hill climbs.

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9000 Aero 5th, 99 2nd at Longest Day

A Saab 9000 Aero drove to a fifth place finish in the Prototype class and seventh overall at the 1993 Longest Day of Nelson, a 24 hour race for SCCA Showroom Stock and Improved Touring cars. The 1993 Saab was virtually stock and ran in the Prototype class, for new cars that have not yet been classified by SCCA. Competition in the Prototype class included the race winning 1994 Consulier Intruder, powered by a modified Corvette LT-1 V8 engine, and three 1994 Oldsmobile Achieva SCXs. Drivers for the Saab Aero, prepared by Reinertsen Motors of New Jersey, included the father and son team of Kjell and Kris Skavnes, former Barber Saab Pro Series Champion Robbie Buhl and Kirk Miller.

So stock was the 9000 Aero that, with the exception of the driver's seat, the full leather interior remained, and it weighed in at 3,200 pounds. But slow it was not. It was as fast as a modified BMW M3 on the straightaway, but lost time in the corners due to the stock street suspension. Team manager Len Schrader was pleased with the 9000 Aero's performance, pointing out that they only replaced front brake pads once in the 24-hour race, and that they had no mechanical problems other than rear rotors that warped due to overheating late in the event. Yokohama provided the tires, model A008RS in size 225/50ZR16, and the Saab used lots of them on the rough surface of the 2-mile Nelson Ledges track.

The only extended pit stop occurred shortly after midnight, when Kjell Skavnes went off the track and bent a control arm, bringing out a full course yellow while the

9000 was removed from the track and hauled to the pits. The Aero lost about half an hour while repairs were made to the suspension.

A 1976 Saab 99EMS entered by Saab Club member Jack Baxter, Jr. of Atlanta qualified in 32nd place out of the 37 entrants for the race, but Baxter knew the long term reliability of the Saab should allow the team—which included Christine Shaw, Pete Ferrara, Helmut Forren, and Tom Horran in addition to Baxter as drivers—to move up through the field. The first serious problem for the FTC Motorsports Saab 99 occurred in the fifth hour, after 8:00pm, when the lower A-arm broke at the shock bracket after the car was hit in the right front by a Mazda RX-7, costing about a half hour in the pits for repairs. The replacement A-arm broke a couple of hours later due to fatigue, but crew chief Dave Wolfe, who had been crew chief for the Saab 900 Turbo that won the first Longest Day race in 1980, saw to it that the original A-arm had been solidly repaired and was able to be pressed back into service. The 99 spent another half hour in the pits for body repairs after being rear-ended by a Fiat Spyder when the Saab slowed for the full course yellow flag brought out when the 9000 Aero went off the track. Overheating caused a late race stop for the 99, but it soldiered on for second in ITB, 89 laps behind the class winning VW Rabbit. There were ten entries in ITB.

Part of the fame of Nelson Ledges is the roughness of the track. Only 23 of the 37 cars that started the Longest Day were classified as finishers. A Honda Prelude sponsored by *Popular Mechanics* and driven by several of the magazine's editors dropped out with a broken half-shaft near the end of the race.

Tim Winker

Aero 3rd in One Lap

A 1993 Saab 9000 Aero took 15th overall and third place in the Luxury Car class at the 1993 version of the Car and Driver One Lap of America. The Saab was driven by Bruce McNaughton of Setauket, New York, and Ed Healey of Fitchburg, Mass. Finishing first and second in the Luxury class were a couple of highly modified BMWs. The Saab was box stock.

The 9000 was originally seeded near the back of the pack as the One Lap organizers weren't sure of the car's potential, but it was moved up to the first run group after finishing near the top in the first track event. "If we'd had time to do a little work on the car before One Lap, such as put on sticky tires, we could have easily finished in the top ten," said McNaughton.

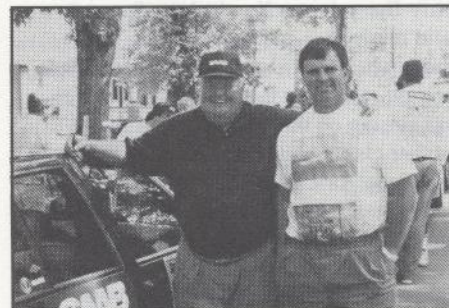
One Lap of America for 1993 started in Detroit and visited race tracks such as Lime Rock, Watkins Glen, Summit Point, Nelson Ledges, Michigan International and New Hampshire Speedway.

The only trouble the team experienced was a balky transmission shifter. A temporary fix by Fiermonti Olds/Saab in Concord, New Hampshire didn't hold and the team had to make another side trip, to Mitchell Automotive in Simsbury, Connecticut.

"The guys at Mitchell were great," said McNaughton. "We called them on the car phone less than an hour before we got there and they were waiting for us when we arrived. It was like watching a Team Penske pit stop. They had us out of there in about 45 minutes and we were able to make it to the event at Lime Rock in plenty of time."

Both McNaughton and Healey praised the comfort of the 9000 Aero. "I ran One Lap in 1987 in an Alfa Romeo Milano," said Healey, "and that was sheer torture compared to this time. The seats in the Aero were more comfortable than the motel beds we slept in that week."

McNaughton added, "I normally can't sleep at all in a car, but in the Aero I slept like a baby."



STORY & PHOTOS BY HEATH WASHBURN III



32nd Monte Carlo Rally

The Carlsson caper turned the event into another Saab story

MOTORING IN EUROPE during the winter is a chancy business at best, even on the main routes, as snow, ice, fog and the dreaded *verglas* make the normal business of A to B rather tiresome. Those who venture into mountain regions do so with a certain amount of trepidation and chains in the trunk. It is a mystery to inhabitants of the hillier parts of this continent why, some time in January when conditions are reckoned to be at their worst, large numbers of strange vehicles suddenly appear and are seen beetling busily down back roads in the dead of night, pausing only to extricate themselves or others from the nearest ditch. The occupants of these cars, when questioned about their mission, mumble something about sharp left at St. Simiane la Montronde and disappear abruptly (sideways) into the darkness.

This mystery can now be cleared up. They all are going to Monte Carlo. Now this in itself is an admirable idea, especially for people who live in Scandinavia or Scotland, as hours of daylight up there during the winter are counted as pearls. Palm trees and all that exercise are a powerful attraction, even if by Californian standards Monte in January suffers from overcoat weather. It is sometimes difficult to find a good reason to get away from the family business, so gradually over the years a phenomenon known as the Monte

Carlo Rallye has grown up. This involved commencing from one or another of several far-flung points like Stockholm or Athens, checking in at predetermined towns en route at some prearranged time, and eventually settling down in front of a bottle of rosé to soak up a bit of sun. Prizes were even given, including a marble hand with pointing finger inscribed "Vers le But." It was all very pleasant and a nice break during the winter.

One day, however, the large automobile factories discovered that many people had heard of this event and, worse still, people got the idea that a machine that had won the Monte might be worth buying. Lots of money was spent building





A Saab checks in at the Col St. Roche special stage control.



Sylvia Osterberg's Volvo on the Col de Turini.

Monte Carlo Rally

rather special equipment that really looked standard and even more money was spent hiring the better drivers. Because increasing numbers of people arrived at Monte "clean," disgruntled at having their destiny decided by some piddling driving test, the Auto Club of Monaco struck back by introducing harder road sections and tighter time schedules.

The drivers and the always-improving winter tires were keeping up so this solution was only temporary; therefore the club reorganized the whole business completely so that the winner would be found definitely on the road. This took the shape of having the runners from various starting points converge at Chambéry, in the French Alps, and then having them undertake a taxing route, including several special sections which were timed to the nearest second. Because Bohringer's Mercedes 220-SE had several liters more to play with than Carlsson's Saab, and thus theoretically would be faster over the Col de Whassisname, a formula taking cylinder capacity and degree of tune into account was contrived; the coefficient thus obtained was multiplied by the number of seconds taken on each special bit and, all other things being equal, would give a pretty clear indication of the best driver-car combination.

After a false start in 1961, this has worked out very well, with the exception that Erik Carlsson and his Saab are sometimes faster over the special stages than anyone else, coefficient or not. This state of affairs is pretty hard to shrug off as far as the other teams are concerned, as he occupies the same position as say, Fangio; you can only wonder how the hell he does it.

In previous years the Monte has been somewhat of a promenade to the experienced and hardened rallyman, largely because the weather has been reasonably kind. The development of good snow tires and tungsten studs has removed 50% of the worry from the road sections, as cars fitted with these (all the serious competitors use them) can get some sort of bite at all times and will not fly willy-nilly

off the road at the first patch of black ice. There are other factors that enter into success or even a decent place in the Monte, however, and it is still very much a gamble. One starting point, chosen from Glasgow, Paris, Stockholm, Warsaw, Monte itself, Lisbon, Frankfurt or Athens, may experience its own particular odd set of weather conditions, which will penalize it alone before Chambéry is even reached. Stockholm is much favored among the professionals, as one starts on snow and comes straight down, without all the dodging about in the tricky Massif Central or Basses-Alpes which is the match of most of the others.

Athens likewise is a straight road drive even if you have to read maps in Yugoslavian. The biggest enemy, though, is fatigue and discomfort over the four days of driving . . . someone once described the Monte as the GP of Constipation . . . when the slightest inattention may take one off the road into something solid. Four days in a car without a proper sleep or meal does things to the concentration, and the worse the weather is the longer the pressure has to be kept up. It takes more than just being brave.

This year there has been a large blob of cold air (especially imported from Siberia at great cost by the AC Monaco) sitting over Europe. What snow that fell, and there was a good deal, simply froze where it lay. The main roads remained reasonably clear because of attention by the *Dept. des Ponts et Chaussées* but up in the mountains and on county highways they were content to pass the snowplow over the frozen ruts from time to time. Those outfits making a reconnaissance before the event spoke in hushed tones about the dreaded Granier and Chamrousse hillclimbs, underlining their point with a goodly number of flattened team cars. Doing 90 mph downhill on glare ice and getting your front wheels caught in the ruts can be dangerous. Nevertheless, everyone looked forward to a "good rally" and a bumper crop of 296 starters took the flag, full of enthusiasm themselves and the boot full of spares, chains, de-ditching gear, brandy and spiked tires.

Practically as soon as the event got going, Jack Frost weighed in with a bang. A blizzard was produced magically in Yugoslavia and all 13 Athens starters, including the strong Citroen team of Gendebien, Trautmann, and Mme. Bouchet, found themselves unable to go any further. In fact, at this writing they are still stuck in a small Yugoslav town.

The Frankfurt contingent, 20 strong, likewise struck heavy snow and blocked roads outside of Schweinfurt and had to do an extra 100 km around by Kassel on the icy autobahn to reach the Bad Dribourg control on time. Seven made it, of which Harper's Sunbeam, Mayer's Porsche, and Felder's Mercedes were clean. The Glasgow entries also experienced difficult conditions on their run south but lost only four of the 59 by the time they got to the Channel where the waiting ferry was ready to batter through the fies to France. The 32 from Monte Carlo (of which one crunched itself against a truck at Villefranche, 10 km away) straightaway struck icy conditions in the Basses-Alpes near Gap but the real fun did not come until the Col (pass) de Lunas between Lodeve and Montauban in the Massif Central. There heavy snow had fallen, been plowed a bit, and had frozen again to a precarious crust with fresh snow on top.

The all-seeing Citroen "umbrella" had warned its pilots about this and Neyret's DS-19, an early number, was fitted with chains around the corner from the *controle* and departed at speed. The others, including the three Ford Falcons entered by the Detroit factory, were not given this information by their service people, and as one or two of the leaders slowed, broke through the crust, and bogged down there was an absolute shambles, with cars strewn all over the hill. By dint of much shoving, pushing and cursing most got going again but at the Montauban control 15 were excluded due to being over time (including Anne Hall's Falcon) and 14 were late to varying degrees . . . only Neyret being clean. There was a great outcry in the irresponsible and chauvinistic

French sporting daily *L'Equipe* about the Falcons causing all this, but as they were at the tail end of the numbers it is hard to see how it could have been true. A protest was even filed by a couple of nonentities, which naturally came to naught. Forty-four out from these starting points and it was only the first night.

There was a bit of snow and a lot of ice and a bit of sleet but, generally speaking, all had a fairly clear run for the next two days' run into Chambéry. Sub-zero temperatures prevailed everywhere, with the resultant verglas, but, even so, many people removed the studded tires, which wear quickly on dry roads and are apt to puncture, and skated busily along. One who suffered from this was Ian Walker's Ford Zodiac; navigator Gerry Burgess, tidying up the back seat, answered "What?" to a half-heard statement and received the answer, "I've lost it!" as they slid into a ditch.

The Datsun Bluebird pulled off a wheel, the slick autobahn in Holland took its toll, Parkes' TVR hit a tree, a Min skied rapidly along on its roof, and as they all gradually came together at Chambéry it was found that there remained 3 from Lisbon, 67 from Paris, 7 from Frankfurt, 50 from Glasgow, 11 from Monte Carlo, 68 from Stockholm (of 84), 9 from Warsaw, and none of course from Athens. This was 215 left out of the 296 starters with the special stages still to come, and of these approximately 175 were clean.

At Chambéry the competitors have a half-hour's grace to change wheels, repair any damage to car or lights, top up the screen washer, get the latest information from service crews, have a bite to eat, and be scared half to death by the latest rumors. Ford International, making the strongest effort in its history, with teams from France, England and the U.S., had already suffered grievously, as the Ljungfeldt and Jopp Falcons were already docked points for lateness, Pat Moss's Anglia had run a rod bearing near Colmar, and Henry Taylor's Cortina was also points down due to disappearing brakes and a swift generator change with some astonished Frenchman near Aurillac.

Renault had also suffered important losses and bothers while Sunbeam, always competitive, was two down with Walter and Lewis, but Procter and Harper carried on. The giant BMC, fighting fire with fire by hiring large quantities of Scandinavians, was in good shape to start the last night, as was Citroen with Neyret, Lucien Bianchi, de Langeneste, Verrier, and ice specialist Toivonen from Finland. Saab had Carlsson, who appeared in his customary smiling calm.

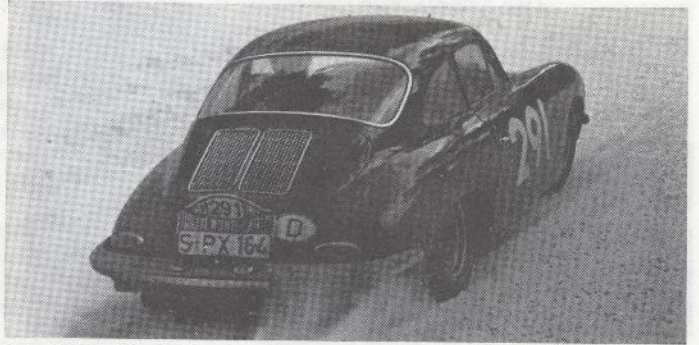
From Chambéry the hard work started immediately, as in the icy black of a January night the first of the Lisbon runners, Ray's Allardette, set forth up the glistening Col de Granier with high hopes of making Monte on time. Alas, this wish was denied him and it is an indication of the severity of the last stage that No. 28, Geoff Mabb's Min, was in fact the first car to arrive at the Principality.

Comprising 775 km in length, approximately, this last section ran along the Chartreuse Massif to near Grenoble, across the Isère valley, up around the Chamrousse lump of granite near Uriage, and then disappeared off on small county roads through more mountains in the general direction of Gap. After striking the main road again, the rally route then dived through a little-used 'guich' via the Col de Perty toward Fontaine de Vaucluse, turning aside just in time to take the competitors over Mont Ventoux. After this, it was endless wiggling up one ridge and down another to the river at Forcalquier, then another long run over the high ground of upper Provence past Quatre Chemins to the Var valley near Nice. Dawn would be just breaking for the early numbers, then, but their labors were not over, as they had to ascend to Levens, run along that gorge, nip up the Col de Turini and come down, up the Col de St. Roche and come down, and then wind their way back up to La Turbie again. Then, and only then, was Monte Carlo in sight.

Embedded in this choice little voyage, a good day's work for anyone but reckoned at just over 15 hours on a winter's



Remind you of a U.S. rally? Confused haste at the control.



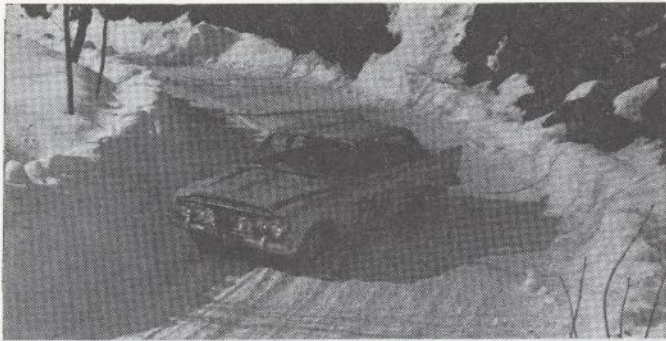
The Walter/Stock Porsche wags its tail on the Col de Turini.

night, were the six special timed sections. With the exception of the short Levens hillclimb and the tortuous St. Roche, they were all covered in ice and/or snow.

The Granier section, of 49 km (30 mi) approx, sported that interesting mixture known as *neige savonneuse* or soapy snow, and as a consequence was very slippery indeed. The Finns and Swedes went to their special Viking snow tires, the English their Weathermasters, the Citroens their Xs with studs, the Triumphs Dunlop SPs with studs, the Germans their Contis and Metzlers, while a very few became alarmed by reports of the road conditions and fitted chains. These are naturally not as fast as all-weather tires and many lost time this way, including 1962 Rally Champion Bohringer's Mercedes 220-SE. Peter Procter, one of the quickest last year in his Sunbeam, had the chains break twice (including one wrapped around the rear axle) and still made a respectable time. As he was already running with two raw eggs in the cooling system to cure a weeping head gasket, he must have thought that this was enough.

But more was yet to come, as his generator failed, to boot. He was not alone in mechanical difficulties, though, as Siegle-Morris's Anglia first ran out of fuel from not having been filled in both tanks and then his brakes welded themselves on because his front disc pads hadn't been changed. Several competitors hit things and found themselves without lights, others got off backward and were stuck, and it must have been an eerie experience to work on a car in the middle of the road, knowing that another hundred competitors are bombing toward you in the blackness trying to make the best time they can.

In all this, Bianchi's Citroen made 43 min 01 sec on the 30 mi Granier run, Hopkirk's Min 45 min 49 sec, the Finn Aaltonen's Min 43 min 19 sec, Mäkinen's Austin-Healey 41 min 49 sec, Harper's Sunbeam 48 min 05 sec to Procter's 47 min 47 sec, Bohringer's 48 min 05 sec, Taylor's Anglia 48 min 06 sec, Andersson's big Volvo 42 min 26 sec, Mme. Osterberg's ditto 44 min 48 sec against Ewy Rosqvist's 47 min 40 sec in the Mercedes, Walter's 2-liter Carrera 44 min 24 sec; Toivonen's Citroen 40 min 54 sec, and Carlsson's Saab



Sliding Fords: Greders' Zodiac on the slick Col de Turini. . .



. . . and Jopp's Falcon V-8 on the Monte Carlo circuit test.

Monte Carlo Rally

41 min 27 sec. And who made the best time? Bo Ljungfeldt's Falcon at 40 min 42 sec. That must have been a ride!

Hard after this came the Chamrousse, a 35.5-km (22 mi) speed hillclimb up and down a granite mountain with rutted ice as the *piece de resistance*. A Giulietta coupe skating downhill on its roof with the front wheels waving feebly, a Lancia stranded on a snowbank with absolutely no traction, a Sunbeam off in one of the few flat bits, navigators and drivers got out of their cars at the end, literally white, stiff, and shaking all over. Meanwhile the pros piled on the pressure, Aaltonen 33 min 55 sec, Makinen 35 min 08 sec, Bianchi 34 min 35 sec, Toivonen 33 min 15 sec, while snaking like an eel downhill, Carlsson 33 min 39 sec bounding from bank to bank using the snow for cushion shots to steady and direct his flight, and Ljungfeldt 32 min 50 sec, the big V-8 scrabbling for grip via its limited-slip differential. Everyone else just wasn't in it.

Now came a long run down toward La Madeleine on packed snow, with the odd frozen bit here and there. Sprinzel in his Triumph Sports Six, motoring hectically along trying to keep one jump ahead of the misbehaving Maxaret brake system, became conscious of a Presence behind; it was Peter Riley's Ford just "watching the traveling accident." Teammate Sutcliffe shot off the road, perhaps for the same reason, and the Thuner/Gretener TR-4 lost its clean sheet by stopping to help.

It began to snow. More and more cars disappeared quietly into snowdrifts, and bridge parapets took an awful beating in small towns. Many other crews just gave up, unable to take the additional strain. Down near Serres, a Mercedes stopped at an intersection, and a Morris 1100 halted behind. Along came a TR-4, imagining with tired eyes that both were still moving. The Morris now has about 4 feet of clearance under the driver's seat.

Now came the snaky run over the Col de Perty. The Rosemary Smith/Sears Sunbeam, moving gently on a hump-

backed icy slope, simply slid off into the ravine. The Felder/Kalkuhl Mercedes, clean from Frankfurt, threw away the rally by stopping to help, taking some time to find one injured girl in the snow and then carrying them both to hospital. It was still snowing, drifts were forming, the temperature was dropping, and dawn was still a long way off. As they all approached Mont Ventoux, a freezing fog appeared, which clouded up windscreens. Windshield washers ran out. The screens froze. Everything was put into them, from antifreeze (Taylor) through gin (Lewis) to brandy (Procter) or neat hospital alcohol (Carlsson). Some, like Peter Riley, drove with their heads out the window until their glasses froze over. Nevertheless, the famous climb had to be tackled in the dark . . . about 2:30 ayem for the first Paris runners. For the 15 km (9.3 mi), Aaltonen took 14 min 22 sec in the works Min, Carlsson 14 min 05 sec, Sylvia Osterberg 15 min 28 sec, Toivonen 13 min 46 sec, and Ljungfeldt 12 min 59 sec. Who says these Yankee V-8s won't climb?

There was still a long way to go and it was still snowing and blowing. And night. And the road twisting and turning. And a fright around every corner. And seeing lights revolve slowly right in front of you, to stop suddenly at a drunken angle. Bump bang rattle squeak with your feet cold and wondering how long the falling flakes will keep reflecting the lights back in your eyes.

The Citroens simply move up another notch on the adjustable suspension but the Mins are planing and give trouble. Logan Morrison's has to fit chains, only to have them break shortly afterward, and lose much time thereby. He follows a TR-4, which acts as a lovely snowplow. But still more snow falls and impedes the vision from tired crews. Nine-legged horses run across the road. Dancing pagodas. Naked ladies carrying haybales. Elephants. But finally the run down to Pont Charles Albert and . . . Glory be . . . the sun.

Only the icy Col de Braus, but the sun is shining. Only the winding Col de Roche, but the sun is shining. Cold, but shining. Carlsson has time to wash his travel-stained car, having driven all the way with just catnaps at controls. His confidence is justified, as in spite of being beaten on absolute time in the special tests by Toivonen and Aaltonen (on two stages) he is, with the 850-cc "improved" Saab, protected from them by the coefficient. But even with this coefficient multiplied in, penalizing him for the big engine, Bo Ljungfeldt posts a better figure than Carlsson. Had it not been for the points lost on the Col de Lunas (and of course forty million other things that might have happened) the big Ford would have won the rally. Wouldn't that have been a hoot?

There remained only the last test around the Monte Carlo GP circuit to consolidate Carlsson's position. He had 10 sec leeway over Toivonen, and the Citroen is not a racing car. Erik, unusually twitchy, made it comfortably. Among the others, there were the usual thrills and spills as refreshed rally drivers were turned loose in tired motor cars. Mabbs forgot the hairpin was there and shot merrily in his Min across Fordman Schlessler's bow. A Volvo broke a brake pipe and rammed the first-aid tent, injuring four people including Ewy Rosqvist, who bravely went out and drove anyway. The Falcons put on a fine display of power, sounding like 50 men tearing 50 telephone books. Makinen, boiling furiously, moved the big Healey up a couple of places. Thuner did likewise. Paddy Hopkirk demonstrated handbrake turns. And poor Sylvia Osterberg, the Coupe de Dames in her pocket, spun at St. Devote on new unscrubbed tires and rammed the wall. Limping around the remaining two laps, she watched the Coupe fall into Rosqvist's (and Mercedes') hands. And after all that snow.

All that snow. Of the 215 starters from Chambéry, only 100 were counted as finishing within the limits at Monaco. The rest simply never got there. And of these, 27 were clean. I reckon that they are all heroes. And stark raving bonkers. Me go next year? Not on your Nelly!

SAAB SWAP

Sonetts For Sale

'73 Sonett III, nice paint, 100% original, fully restored, good motor and transmission, new Pirellis, headers, spare good motor, 3 crates spare parts, ex-California solid car, sacrifice. \$2,600, OBO. Greg 305/565-8876.

'73 Sonett III, yellow, factory air, 6 Saab Aluminum wheels, cross-over exhaust, dealer's manuals, extras, stored 9 years, best offer. Bill Hyland, 26 Irving St., Valley Stream NY. 11580 516/285-5980.

'72 Sonett III, New red paint, no rust CA. car, new tires and brakes, CA. smogged and registered, good orig. condition, factory alum. wheels. \$2,995. Andy Coyle, 2696 Solana Way, Laguna Beach CA 92651. 714/497-6506 Home, 714/551-9218 Work.

'71 Sonett III, red, runs, & '72 Sonett, orange, parts car, glass and bodies good, some rust. \$1,800 for pair. Victor Hajj, 1125-35 Easton Rd, Abington PA 19001. 215/886-8660 Days.

'71 Sonett III, Royal blue on 185/65-15 soccer balls, 65K original miles, excellent condition, garaged 20 years, strong engine, new exhaust, brakes, hoses, pads and master cylinder, interior VGC, needs new transmission. Push, pull, or tow \$1,500. Keith Warzecha, 20952 Pioneer Ridge Terr, Ashburn VA 22011. 703/729-6583.

'70 Sonett III, 5 factory mags, complete spare body, 2 spare engines & trans. 1 good & 1 other, Jamesway exhaust, new radiator, many spares. \$2,750. W. R. Meyerhoeffler, 7937 Rustic Woods Dr, Huber Heights, OH 45424. 513/236-1310.

'69 Sonett V4, Red, 37K miles, second owner, featured in Car Collector 6/91, really nice, extras. \$6,995. Butch Stevens, 610 Pleasant St, Colorado Springs, CO. 719/636-2412.

Selling Collection: Two '69 Sonett V4's, one '71 and one '73 Sonett III, all running, everything works, all good to excellent condition. \$2,950 & up. Photos available. Tom Remedios, 233 Dorn Ave #3, Everett WA 98208. 206/353-5358 Home, 206/353-7552 Work.

'67 Sonett II, #211, two-stroke. Very nice overall, recent red paint, new black velour high-back seats, Jackman alloy wheels, Koni shocks. \$12,000, or will consider interesting trades. Dennis Sweeney, RD 1 Box 410, Ligonier PA 15658. 412/238-0900.

93s, 95s, & 96s For Sale

'68 95 wagon, driven regularly, runs well, some spares. \$850. Tom Foote, 512 S. Sherman, Olympia WA. 98502. 206/357-9925.

'69 V4 95, 30K Mi on engine, 4K M on trans, runs excellent, new water pump and clutch, tires good, body good, needs repaint. \$1,650. B. Bern, 4461 Campus Ave, San Diego CA 92116. 619/295-2611 eve/wkend.

'69 96 V4 Deluxe, white, 65K mi, like new factory interior, Saab air and radio owners manual, all original, runs, drives, needs radiator, \$1,750 firm. Les Sumner, 210 Robbins Dr., New Albany MS. 38652. 601/534-5070.

'68 96 V4 Deluxe, white, 80K mi, most of her life spent in California, no bottom rust, passenger door damaged, spare drivetrain, wood steering wheel, complete and driveable, but needs a little love. \$1,200 OBO. Bob Fortner, P.O. Box 323, New Richmond WI 54017. 715/248-3099

'67 96 850, excellent original condition, except paint, everything works, many spare parts. \$1,500, OBO. Tom Ricker, 1638 N. 25 Pl, Phoenix, AZ 85008. 602/392-0456.

'67 95, 2 stroke, white, 7 passenger, fun car! \$1,200. Fred Howe, 1114 St. Olaf Ave, Northfield MN 55057. 507/645-5786.

'64 Monte Carlo 96, light blue, mint condition, 1990 restored, \$6,000 OBO, need to sell, worth traveling for, J. Cotteleer, 204 Arradia, Vernon Hills IL 60061. 708/680-1353.

'64 GT 850, good condition, complete, recent rebuild of GT engine & triple Solex, runs strong, ready for restoration. Asking \$2,800 or trade for clean 95/96 driver with 1700cc. Vic, 817/685-8076.

2-Stroke & V4 Parts

V4 Cyl. heads. Fully rebt, new guides, seals, triple-angle seats. Early open deck V4 only (red, silver 1500cc engines), \$150 OBO. John Poulton, 8720 Union Grove Ch. Rd, Chapel Hill NC 27516. Eves before 9pm. 919/929-0769.

NEW .04 Pistons and rings for V4, \$325 +shpg. George Briley, 2208 Harrison Ave, Ft. Worth TX. 76110. 817/923-6623 after 7pm C.S.T. or fax 817/926-1989

93, 95, 96, and Sonett Parts, 2 stroke and V4 engines, cars, some NOS parts, racing parts and preparation. Nick Julian, 4252 Mexico Rd, Central Square NY 13036. 315/963-7093.

Interior carpet (over gas tank etc. Sonett '66-'67-S/N 328) \$215 (5 meters/car, from the original supplier). Door window rubberstrips, Sonett \$30/set. Front bumper strip, Sonett II/ V6 \$50. Rear mufflers, Sonett II/V4 \$70.00. Exhaust pipes, Sonett II \$60. 2-stroke pistons (850cc) +0.5, 1.0, 1.5, 2.0 mm OS, \$295/set. Rear fenders for 96, \$380/set inclusive shpg. **Window rubberseals for 93/95/96/97. Motorsport Sweden,** Hacketorp, S-64192 Katrineholm, Sweden Fax/phone +46 150 12904.

Parting out '72 Sonett: Windshield, \$125. Rearwindow, \$125. Good seats, \$75 pr. Front clip, \$200. Rear, \$125. Doors, \$50 ea. Nicholas B. Hayden, 3556 W. Blvd, Cleveland OH 44111 216/941-5759.

'68 96 V4, newly rebuilt engine and trans., monte carlo guages, new dash cover, polished aluminum instrument cluster, cloth seats, all new drivetrain parts, good body parts, new radiator. Chaaarles E. Bruce, 1071 Early Dr. N. W., Palm Bay FL 32907 407/951-8820.

CLASSIFIED AD RATES

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

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

Bumper parts NOS. Overriders 96 LH ft & rr, and LH rear, LR w/ rubber insert, \$20 ea. Center plate 96 \$35. 95 RH new override and center plate \$25. All +shpg. William F. Seely, 3874 Union St, N Chili NY 14514. 716/899-9731.

Cranks: std. rebuilt for 93 and 96, \$250. Sep. lube used, \$100. NOS hood latch, \$5. All +shpg. William F. Seely, 3874 Union St, North Chili NY 14514-9717. 716/889-9731.

NOS 93 rear brake boots, \$5 ea. Gas tank unit, \$25. 95 Gas tank unit, \$25. 96 windshield washer motor, \$20. 96 inner boot, 2/\$15. William F. Seely, 3874 Union St, North Chili NY 14514-9717. 716/889-9731.

Amassing collection of 2 stroke parts, many N.O.S. 93 items, 5 complete V4 parts cars: '69 Sonett, 3 95s, 1 '73 96. Euro headlights & grill, alum, \$300. Sport/Rally 2-bbl carb, manifold, air cleaner, \$500. Large assortment factory manuals & sales lit. Rob Allen, 114 Kimberly Rd, Hamden CT 06518. 203/248-8798.

→ **Weber 28/36DCD carbs.** Used, exc cond. Includes kits, extra floats, air cleaner assy., orig. Weber manuals, \$125 each, \$225 takes all. John Poulton, 8720 Union Grove Ch. Rd, Chapel Hill NC 27516. 919/929-0769 eves before 9pm.

99s & 900s For Sale

'83 900S, Blue, 220K miles, 4dr, 5 speed, sunroof, 4 haka snows, records, good runner, \$1,000 or best offer. Dick Schieffer, 3590 Independence Rd, Maple Plain MN 55359. 612/479-2262 day. 612/479-3112 eve.

'78 99 Turbo, Silver, 185K+ mi. Good body & interior, solid engine, recent transmission, 5 Incas. All service records. Nice running classic or good restoration project. \$2,500 obo. J.S. Martin, Gaithersburg MD. 301/869-7923.

'78 99 Turbo, grey, 115K miles, complete, no rust, needs paint, lots of new parts, Penna car, good for driver or restoration. \$2,450. Stephen Miracle. 802/223-3524.

'78 99 GLE, 5 Dr, Anth. gray, 140K miles, 4 spd, all mtce records, ac, trans rebuilt 11OR, 2nd set soccer wheels, concord stereo, new speedometer, clock-tach. \$1,500. Bernie Kampf, 38 W 770 Northern Ct, St. Charles IL 60175. 708/513-5773

'74 99 PRO Rally car. Strong, reliable, new trans & high compression engine. Limited slip, competition seats, countless spares. \$3,500. Tom Gillespie, Box 2819, Cedar Rapids IA 52406. 319/366-8016 or 362-0815.

'73 99 EMS. Running, good trans, good body, soccerballs, regular driver 'til 4/93. \$400 OBO. Consider parting out. Bob Hall, 207/586-5040.

9000s For Sale

'88 9000 Turbo, black w/tan leather, 87K mi, auto trans replaced at 36K mi, very clean, will maintained, non-smoker. \$7,500 OBO. Mike Maly, 3101 Hillside, Seven Hills OH 44131. 216/447-1279.

99, 900 and 9000 Parts & Accessories

6 BFGoodrich Comp/TA "Plus Zero" sizing for 9000. 205/50 VR 15, good tread left. Best offer. Paul Boghossian, 73 Washington St, Newport RI 02840. 401/846-8607 eves.

'87 5 motor, 26K miles, \$1,000. 3 BBS silver 3pc. RS wheels w/comp TA, \$1,000. Sway bars, \$150. 3 86S alloy whl, \$300. 85T EQ \$50. 87S ECU computer, \$200. Tan leather str. whl, \$75. Dismantling '79 900EMS met blue, not wrecked/rusted. 9000 km/hr speedo, \$75. Rob Allen, 203/248-8798.

900, 9000 parts, turbo, non-turbo, '91 and older engines, trans, doors, nose parts, clips, wheels, suspension, accessories, electrical, glass, radios, seats, dash, headliner, carpets, door panels. Also new parts.

European Car Parts, 57 N Plains Indust Rd, Wallingford CT 06492. 203/284-8989.

Parting out: Forty 99's and Fifty-two 900's, '73-'88. One '86 9000T. 9000 sunroof deflectors (\$39.50). VISA/MC. UPS daily. Rod Beckner, 484 E. Cemetery Rd., Jefferson OR 97352. Telephone: 503/327-1133. Fax: 503/928-6351.

GoFast Stuff: 99/900 Budget Turbo Sport Exhausts, \$99. GoFast APC boxes, \$149/each. 900/9000 16V Turbo Performance Dit, \$249/279. 9000 /front Suspension Tuning Kit, \$69. 900/9000 Front and Rear Polyurethane Bushings-Call. Version 2.0.4 99/900/9000 GoFast tips and techniques, \$30. Call Griffin Motorsports, Box 303, Mount Gretna PA 17064. 717/964-1866. 11-7 EST. Free Catalog.

99/900 parts: Wheels, Inca, \$70 ea. EMS, \$20 ea. Front or rear lens, \$10-\$20. 99 Tach, \$30. 99 Turbo rad. fans, \$50 ea. Electric mirror, \$20. Oil cooler, \$25. '80 Turbo gauges w/tach, \$35. Michael D'Aleo, 23 Hutchins St, Saratoga Springs NY 12866. 518/587-0457.

99, 900 Headliner kit comes with glue, 3 1/2 yds and complete instructions, \$87.50. Other parts available. Trollhattan Motors, Inc. Baltimore MD. 410/682-4668 or 1-800-32-TROLL.

Four '88 SPG alloy wheels, exc cond. \$525/set. Clifford Wong, 18414 Wakecrest Dr, Malibu CA 90265. 310/454-6473.

Parting out: 84 900 3 Dr. and 85 900 4 Dr. some body parts, AC parts, engine parts, wheels, glass and one auto. trans. Bill Sciglia, Danbury CT 06810. 203/743-9957 eves.

900: Hoods, doors, hatches, glass, signals, bumpers, spoilers, etc. 88 9000T: 4 Alloys with P600's, \$375 or \$110 each. Clarion cassette, EQ & amp, \$275. Alex Galyon, 3023 Woodland, Ames IA 50010. 515/292-0852.

B eng cylinder head, fully machined, ready to bolt on, \$200. Turbo for '78-'80, rebuilt, \$200. Set of soccerball wheels for 99, \$80. Dave Marsh, Phoenix AZ. 602/893-9405.

5 99's for parts. 3 Drs, 4 Dr & 5 Dr, 1973-78. One with power steering & auto. 1980 900T straight, no rust, Incas, 5 spd. drive it home \$800. 99 Headers, Saab Sport & Rally, new, \$150. 1983 5-spd gear box, set up for 99, \$600 incl shifter. 1983 "H" motor parts, good head. Dan Morley, 13109 111th St Ct KPN, Gig Harbor WA 98329. 206/857-7626.

Misc. For Sale

Bound copies of NINES and SAAB Club Newsletters from Mar. '91 to present. Best offer. R.P. Smith, 116 Cedar Ln, Oak Ridge TN.37830. 615/482-9482 after 6 pm.

Wanted. All Models

Cross-flow manifold, excluding carbs, and correct distributor for V4. Will purchase outright or will negotiate trade for NEW 8:39 or 9:42 R & P. George Briley, 2208 Harrison Ave, Ft. Worth TX 76110. 817/923-6623 after 7pm CST or Fax 817/926-1989.

99 4dr, prefer '76 or '77. Must have rust free or very clean body & manual steering rack. Mechanical condition not important. Could be brought to National Convention. Pat Greer, Milwaukee WI. 414/744-0996

Chrome grille insert for 84-85 900, VDO Voltmeter for 900 Console, SAAB pillow car (900) by TFA. John J. Paschkewitz, 2 Clark Cir, Hanscom AFB MA 01731-2672. 617/274-0532.

A/C compressor, trunk lid, and SPG side panels for 87 900T conv., leave message. Charlie Hawkins, 900 Sea Ln. #25, Corona Del Mar CA 92625. 714/759-6907.

1981 900 shop and parts manuals, brain for '74 99, '84 thru '88 newsletters. David Potter, 2410 Indian Trail, Austin TX. 78703.

93F factory repair manual, 93F side windows, Sonett II owners manual, BBS 3 piece RS silver alloy whl. for 900, early posters, calendars, sales lit, stashes of 93 parts, early SAAB memorabilia, correspondence from other collectors. Rob Allen, 114 Kimberly Rd, Hamden CT 06518. 203/248-8798.

Seeking mechanic familiar with 96-V4. Prefer someone willing to trade labor for parts and/or professional carpentry work. Husband hates my car. Pat Steed, RD 1 Box 1127D, Bangor PA 18013. 215/588-8018.

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(Use also for Change of Address)

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HOME PHONE _____ WORK PHONE _____

SAABS CURRENTLY OWNED _____

(i.e. '84 900 S 4dr. automatic / '78 99 GLE 5dr. 4-spd / '72 Sonett III / '68 96-V4 Deluxe)

Address change only - old Zip Code _____

Rev. 7/93

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

First Year \$29.00
 Renewal \$25.00

Canadian add \$4.00US
 International add \$8.00US

Please check appropriate box(es)
(Canadian and International - Money order or check payable on a U.S. bank only. Cash OK.)

First year members receive two recent back issues of NINES and two SAAB Club stickers.

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Duluth, Minnesota 55812

Rear View

A couple of letters recently from Saab Automobile AB and Saab Cars USA, Inc., have commented on the use of SAAB as opposed to Saab. In all company correspondence, the company and the cars are referred to as "Saab". But once upon a time, "SAAB" was correct. To further complicate matters, the trademark logo is all upper case.

The original name of the company was Svenska Aeroplan Aktiebolaget--the Swedish Aircraft Company--abbreviated SAAB. (Aktiebolaget or Aktiebolag, abbreviated AB, is the Swedish equivalent of Company or Corporation.) In 1965 the name was officially changed to SAAB Aktiebolag, since the original name was seldom used and it no longer truly described the company's activities. That changed again in 1970 following the merger with heavy truck manufacturer Scania-Vabis AB. The new name, still in use, was SAAB-SCANIA AB.

Though Saab may prefer the upper and lower case spelling, most letters to the SAAB Club use all upper case. The preferred style in NINES is to use "SAAB" for any reference to company or cars prior to 1965, and "Saab" for anything after that. Speaking of style, the preference is to use all upper case in reference to this magazine.

Which brings about another comment on usage. Many letters and callers refer to this publication as "The NINES", or "NINERS", or pronounce it "ny-ness". It is simply, NINES, a plural of the number between eight and ten. The name was chosen because all Saab (and SAAB) models begin with the number nine. Some prefer to think that on a scale of one to ten, Saabs are Nines (and there ain't no tens).

I'm looking forward in particular to several visitors at this year's convention. Ralph Millet is a true part of Saab history in the U.S. and without his business sense and stubbornness, we might not be getting together to celebrate the marque every year. The story in this issue about the early days of SAAB in this country is the result of an interview with Mr. Millet conducted at Saab's offices in Orange, Connecticut in December 1991.

Jon Davis could be called the American Erik Carlsson. Davis began rallying Saabs in the 1960s and took Saab to SCCA PRO Rally Manufacturers Championships in the Production Class in 1980 and 1981 at the wheel of a Saab 99. He and his co-driver, Harry Ward, won the Driver's and Co-Driver's Championships both years as well. Jon is still active in rallying as an organizer of the Press On Regardless PRO Rally in Michigan's Upper Peninsula. He has also put together the course for One Lap of America for the past several years.

Another possible participant this year is Duck Waddle. Waddle was a driver for a Saab dealer racing team in the 1960s, and helped the team to win several long distance races, including a class win at Sebring in 1966. Today he owns a couple of Bobsy sports racers powered by Saab two-stroke engines that he drives in vintage races. He is also an instructor for the Skip Barber Racing School at Road America.

If you plan on driving to the convention from the Northwest, Tom Remedios is trying to set up a Saab caravan starting in Seattle. If you would like to join this 2,000 mile parade, or meet them somewhere along the route, contact Tom at 206/353-7552 days or 206/353-5358 evenings.

One of the prominent figures in the history of Saab in the U.S. passed away recently. Bob Wehman, who won the 1956

Great American Mountain Rallye that launched SAAB's reputation as a great winter car, died on April 25, 1993, after a long battle with kidney disease.

Wehman was the first national service manager for SAAB Motors USA, and helped establish the two-stroke engine rebuilding facility in New Haven. He also helped to develop a concentrated two-stroke engine oil, Hi-M, especially for SAAB.

He founded Intercontinental Lubricants Corporation in 1966 after leaving SAAB, and developed the semi-synthetic oils marketed under the Spectro brand name. Spectro is better known in the motorcycle industry than in the auto industry. Bob enjoyed all forms of motorsports and he, along with his wife Barbara and two daughters, was an avid motorcyclist.

Bob Wehman's contributions to Saab will long be remembered.

It's almost too much to fathom, the first 48-page issue of NINES! It actually holds considerably more information than two 24-page issues since there is only one set of ads and several of the regular features are no larger than usual. The goals I've wanted to see for NINES are happening, though slower than I had hoped.

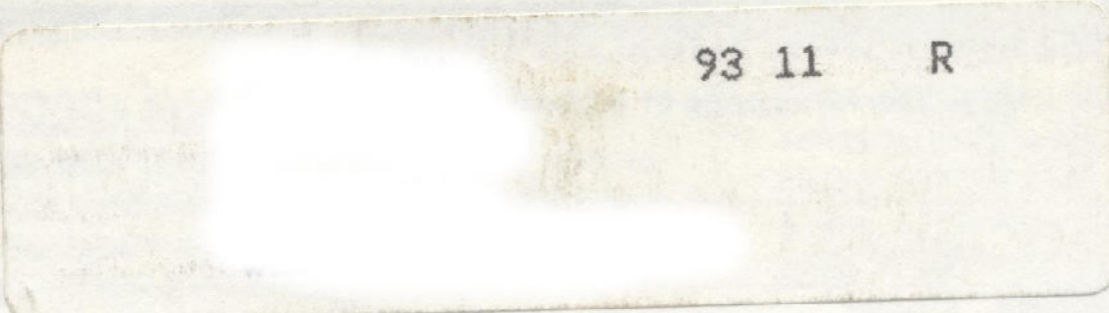
Another goal that I haven't been able to concentrate on recently is continued growth of the membership. It has held at about 4,000 for a couple of years. Despite more promotion lately, there are fewer new members signing up each month than there were a few years back. Help pass the word to other Saab owners. Look for a new membership flyer in an upcoming issue of NINES. Or make copies of the membership form at the top of this page. The more people who participate by contributing to NINES, the better the magazine and the SAAB Club will be.

Tim Winker

NINES

The SAAB Club Magazine

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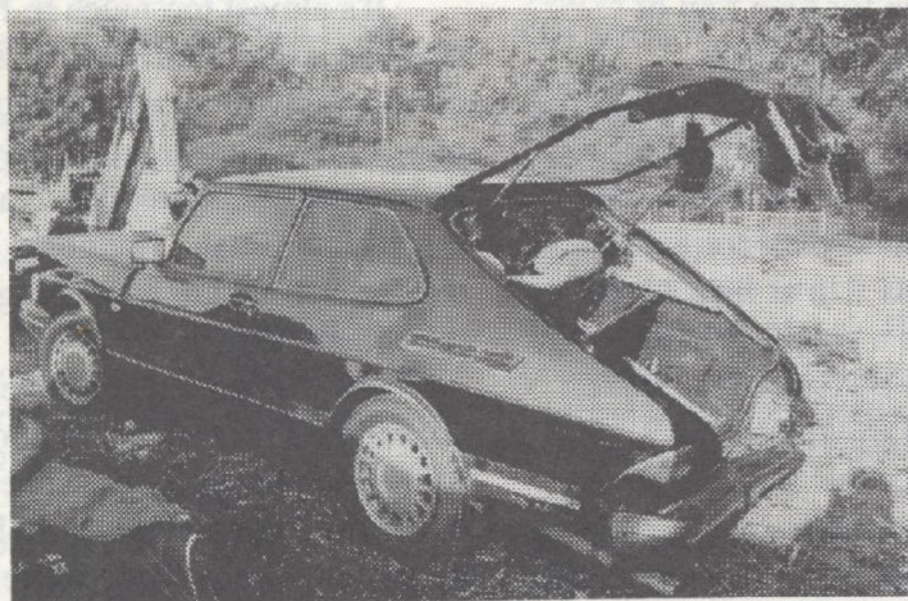
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