



COMPACT
FRONTWHEEL
DRIVE CLUB
of AMERICA

#110 NOV./DEC.'82
DEDICATED TO SMALL-
ENGINEED SMALL CARS &
ENERGY CONSERVATION

Saab Clubs of North America
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(218) 525-3253 9 a.m.-8 p.m. except Sunday
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MEMBERSHIP/SUBSCRIPTION

Dues for membership/subscription are as follows:

First year, third-class mail	\$11.00
First year, first-class	\$12.00
Renewal, third-class	\$ 8.00
Renewal, first-class	\$ 9.00

First-year membership includes two back-issue newsletters, Club tech sheets and emblem. Renewal notification will be stamped on the open rectangle at the top of this page. A treasurer's report will be made three times a year. This is a nonprofit organization.

A collection of 15+ back issues with Club tech sheets punched for your 3-ring binder is available for \$6.00 postpaid.

Always specify: 96, 97, or 99/900 for appropriate tech sheets.

ROCKY MOUNTAIN SAAB CLUB-- will meet Dec. 13, Monday at 7:00 pm at the Used Car Bldg at Deane Buick/Saab, 1080 S. Colo. Blvd, Denver. The program will feature Arsey Miller, Saab Rep. from Chicago, with Saab films. There will also be viewing of an '83 Saab and discussion of new APC features. There will also be a discussion on organization of the club and election of officers for next year. All interested Saab owners are urged to attend. For more information call Barry Nash, 377-9529.

CHICAGO SAAB CLUB-- The Saab open house at Chiller Park scheduled for Dec. 4 has been postponed until sometime in January. For more information, contact Andy Fedorowski, 312-454-4825 day; 312-631-4476 eve.

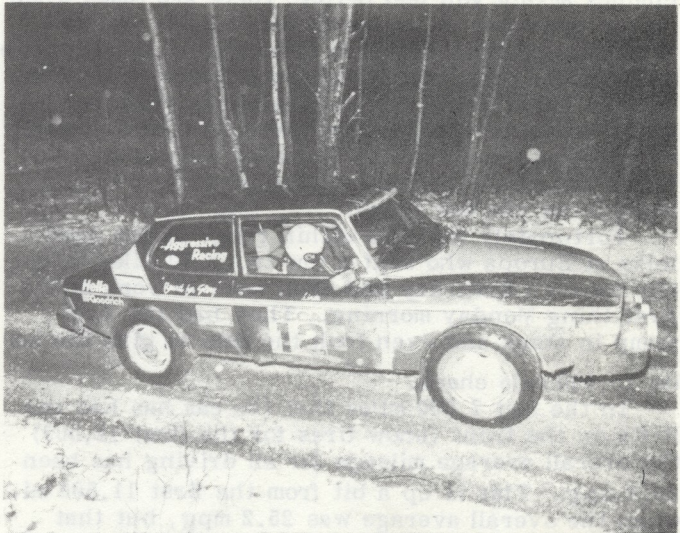
SAAB CLUB OF SOUTHERN CALIFORNIA-- presents an open house at J&B Imports owned by Jay Arruda and Bud Clark. Jay and Bud will answer questions and show interested folks a new place in Orange County for Saab repair. J&B is located at 1547 Struck, Unit L, Orange, CA 92667, 714-771-7570. The date is December 11 at 11 am. For further information contact Paul Florance at 213-438-3257, All models welcome!

NEW ENGLAND SONETT CLUB-- will have their next meeting December 5 at 1 pm. The topic will be a carburetion Clinic by Bill Lee, and the location is Gaston Andrey of Boston, 1280A Beacon St., Brookline, MA. For more infor, write NESCL, Box 4362, Manchester, NH 03103.

SAAB CLUB NATIONAL CAPITAL AREA--next meeting will be Dec. 8th, at 8 pm at the usual site, the Silver Spring Public Library, 8901 Colesville Rd, Silver Spring, MD.

CENTRAL ILLIANA SAAB CLUB--The Oct. 24 meeting was attended by 10 members at Dr. Jim Jensen's office. Jim and Ed McCammack demonstrated by use of a Briggs & Stratton motor, film & talk, the advantages and properties of Slick 50. Additionally, they showed a new type fire extinguisher using Hanon chemicals. The demonstration in which they set fire to Jim's briefcase and then extinguished it, without foam, smell or damage to the case was impressive. The next meeting will be a combined Nov. Dec. meeting on Dec. 5 at 2 pm. Location and exact program can be had by calling Margrit Adler, 217-356-9244. We anticipate having Saab films by then.

DULUTH ICE RACE--Jan. 15-16 in Duluth will be your best chance to see more than one Saab in competition at the same site in a long time. Since the editor is also the Race Chairman, he is in need of Saab Clubbers who would be willing to work as marshalls, etc. We'll have Saab films at the party, racing Sonetts with V-6 engines, two-stroke Sonett racers, 99's, and even an ice-khana to try your hand at the track yourself (one car at a time). And the editor promise's it won't be as cold as last year. Saab Club member/Pro-Rally driver Erik Zenz has said he will try to race. Low cost accomodations are available. Anyone interested, contact Jeff Delahorne, 218-525-3253.



Sandy and Linda Liversidge speed through the Michigan woods on their way to winning the Production Class title at the Press-On-Regardless Pro-Rally Nov. 5 & 6. (photo by Phil Berg)

20,000 MILE UPDATE ON EDITOR'S '82 900

We acquired our 1982 900 base model three-door in November 1981 and it now has 20,000 miles on it one year later. I put 4,000 miles on the car in the first month driving to Boston for the abortive New England Sonett Club meeting which was snowed out. In the first 10,000 miles the oil was changed at 1000, 6,600, and 8,200. At the 6,600 mile change I tried 10W30 oil in the transmission in place of the 10W40 put in at the 1000 mile, in an attempt to ease stiff shifting into second gear at temperatures of -30° and -40° (no effect). Other than the stiff shifting into second when cold, the only other problems were a misaligned passenger door and a dome light which wanted to stay on all the time. The local dealer fixed these, but they are not covered under warranty and they hiked the 7500 mile check to \$57.

10,000 to 20,000 miles--At 11,400 I changed the transmission oil to Amsoil synthetic 10W40 in another attempt to ease the notchy shift up into second gear, again with no discernable difference. The engine oil was changed at 11,400, 15,600, and at 17,700. I have used Castrol GTX except for one change of Motorcraft and one of Phillips (5W30). The engine does not use any noticeable quantity of oil in the change intervals that I have used. At about 10,000 miles the odometer buzz (a sound like a cricket chirping) became intolerable. This occurred while we were on a trip to the Chicago area, and a quick side trip to Europa Motors in McHenry, IL cured the buzz/chirp which turned out to be the EGR maintenance reminder counter which turns on the EGR light every 15,000 miles.

Fuel pump dies at 17,700 miles--On another trip to Chicago the fuel pump began blowing fuses just after the tank was filled up. By disconnecting the power supply to the pump I determined that the problem was in the pump itself (fuses kept blowing) and not the wiring to the pump. At least the 900 quit at a service area off the tollway and not in some more inconvenient place (though at 3:30 am, almost anywhere is inconvenient). To make the non-mechanics among you feel better, there are times when all the expertise in the world won't help. We had the editor of the Saab Club (who should know a little about Saabs anyway), a Showroom Stock Saab racer (who is an ex-Saab service manager/service rep.) and a Volvo service manager along and all we could do once we determined the problem was scratch our heads and push the car into the parking area and leave it for the tow truck.

Fortunately we were within range of the good folks at Europa who sent a tow truck 50 miles to get the car on a Saturday and then went to work on it first thing Monday morning. They had the fuel pump in stock and even took the time to give the car its 15,000 mile check.

In the last 7,000 miles that the car has had the P-8's on the front (snow tires for the first 12,000) the overall average mileage for all driving has been 26.8 mpg. This is up a bit from the first 11,500 mi. when the overall average was 25.2 mpg, but that was all in winter. A recent 600 mile all highway trip turned in an average of 33.3 mpg which I consider good for a car of the 900's size and load carrying ability.

Loose dipstick causes idling troubles--On that

600 mile trip which Carolanne took, she had a service station attendant check the oil level before leaving town and after that the car would not idle, it would just die. Since it ran fine at speed she continued on with no other problems. On her return I tried to think out the problem and all I could hit upon was a vacuum leak. That's when I remembered the service station oil check and sure enough, the dipstick was not firmly seated into its holder, allowing air to enter an obviously sensitive crankcase breather system and upsetting the idle mixture.

The car has had only the one major problem in the 20,000 miles and I consider it reliable and fun to drive. It is down on power compared to most 2.0 l 99's I have driven, but I like the handling better and the power steering alleviates the heavy, slow steering the later 99's have without being "numb." The car does have a few other small problems, like wind noise around the driver's rear view mirror, inconvenient seat back latches, a glove box floor that slants outward, spilling the contents of the box whenever you open it, and a heating control valve that needs constant fiddling to keep an even temperature. The only other problem is the stiff shifting into second gear when the car is cold. From talking to several mechanics, this seems to be a design problem, so I just take it easy until the gear oil is warmed up. Maybe the 1-3-5 shift method will help. These minor problems aside, we plan to keep the 900 for at least 10 years or 200,000 miles.

Jeff Delahorne, editor

LOW FUEL PRESSURE CAUSES HARD STARTING 99

I own a 1978 GLE with A/C and am in desperate need of information on hot starting for the CIS system. My problem is that the fuel pressure drops to zero after the car is shut off for about 45 minutes or longer. The rate at which it drops seems to be a function of temperature because on very hot days hot starting after the car is parked in the sun for as little as 20 minutes is a problem. Having no obvious leaks, I suspected the check valve in the fuel pump but replacing it has not corrected the problem.

Needing a second opinion I reluctantly took the car to the dealer who confirmed the problem, but instead of correcting it they installed the warm start kit as a solution. Now the warm start kit aids in warm starting but it still takes 5 to 10 seconds of cranking while the engine sputters away and finally starts. Once started it continues to sputter for 3 to 5 seconds longer until the fuel pressure is built up.

At the moment I suspect a damaged o-ring in the line pressure regulator but I am having difficulty getting the o-ring at the local dealer so I have not changed it yet. A leak in the warm up regulator return line is unlikely, I think, because it passes through the shut off valve in the line pressure regulator on the return to the tank (since '78) so both the warm up regulator and the shut off valve in the line pressure regulator would have to be faulty. The fuel accumulator is also a possibility but I cannot decide how to go about checking it.

Isolating various parts of the system for pressure testing has been difficult because I was unable to find the necessary fittings to do the testing without buying the respective fuel lines "new" at the dealer and modifying them to fit my needs. Has anyone found a source for these fittings?

Paul Saikowski. Niantic. CT

ISRAELI CLUB MEMBER HAS 2-STROKE, V-4 TIPS

As the only known Saab Club member in Israel I would like to share some of my experiences with my two Saabs: 1966 95 and 1969 96.

I've owned the 95 since 1967 and the car has travelled some 354,000 kilometers (220,000 miles). I have mounted a Monte Carlo exhaust (twin pipe) and I am using Champion UK-16V spark plugs that Bud Clark from the Sonett Club of Southern California gave me, with a Delta Mark 10 capacitive discharge ignition and have no fouling or starting problems. My fuel is 2% Shell Super outboard oil mixed with 91 octane (R.O.N.) gasoline and with moderate driving I average about 25 mpg in city driving. The climate in Israel is approximately that of Southern California.

The 96 V-4 has 240,000 km and I average 30 mpg city, 38 mpg highway. The major repairs which I have done myself were: clutch at 150,000 km; balance shaft bearing at 170,000 km (because of low oil pressure), and at 200,000 km the pinion nut in the transmission came loose, so I opened the transmission and I changed all the bearings. I change the water pump at the average of every 60,000 km.

Some modifications that I made on the V-4:
 °Five years ago I installed a free-flow two-inch stainless steel exhaust.

°I disconnected the radiator fan from the engine drive by using a shorter belt (9.5x888) and connected the fan pulley with a rubber belt to a used 12 V. electric motor. The fan rotates at 1500 rpm and the motor is controlled by a thermostat so that it cuts in at 185°F. The fan works less than 5% of the time.

°I cut the front lower half of the air filter cover to allow a better flow of air into the car. (suggested by Saab for Stage One tuning)

°I installed a rear wiper-washer and defogger which are very helpful.

I use the freewheel 99% of the time and change gears without using the clutch. I lock the freewheel only for long steep descents.

Some Saab history in Israel: In 1962 came the first Saabs and there was a steady import until 1979, and we still have a lot of two-strokers running. At present there is no import of new Saabs because of the high prices. There are only one or two 900 Turbos in Israel. They would cost \$30,000 because of the very high taxes. The biggest Saab garage in Israel is Grossman's (!!) in Tel Aviv. In the fuel contest which takes place here nearly every year the 1500cc 1971 95 V-4 won for three years in a row running at 60 mpg for 250km.

David Namieri, Kiriath Haim, Israel

PCV VALVE CLEARANCE SOLVED ON WEBER CARB

I installed one of the Weber 34 ICH carbs on my '70 V-4 and when I inserted the PCV valve in the intermediate plate, it came right up to the choke lever and obstructed the choke linkage, thus preventing movement from the control on the steering column.

To clear the PCV valve away from the carb, I shopped for two small brass fittings, a short union (connector) and a 45° elbow. These were mounted in the intermediate plate. At the other end of the elbow (directed away from the carb) I now attached the PCV valve. This was followed by attaching the original curved rubber hose to the PCV valve and the valve cover. Everything fits well under the air cleaner.

No there are no oil deposits in the air cleaner as there were when I had the PCV disconnected. Tentative testing indicates about 23-24 mpg in local urban driving.

Len P. Vidger, San Bruno, CA

CLATTERING TWO-STROKE HAS SIMPLE REMEDY

Edward Tonat, editor of the Smoke Signals, the newsletter of the Saab Club National Capital Area, reports that he became concerned when an atypical clatter in front of the engine on his two-stroke was heard. Saab Doctors Dan Woodhead and Dave Baugher were consulted about possible "shot" engine bearings, a loose vibration damper, or damaged outer or inner covers. But despite visions of gloom and doom, Ed found that with hands on (a cold engine) the air pre-heater assembly bolts had worked loose, allowing the upper and lower halves to clatter on the exhaust manifold. Removing the lower shell and tightening the inside nuts on the lower side of the assembly silenced the clatter.

(From the Nov. '82 Smoke Signals)

RESPONSE TO EDITOR'S OCT. SNOW TIRE STORY

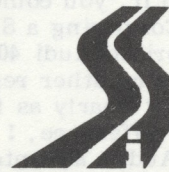
Your snow tire article was great. I "groomed" a guard rail with my '76 99 in a snowstorm when my well-worn back tires lost their grip as I braked on a curve. It cost me \$1100 in body repairs.

Pat Gaffney, Stony Brook, NY



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900 TURBO DIST. ADVANCE RECURVE NOT WISE

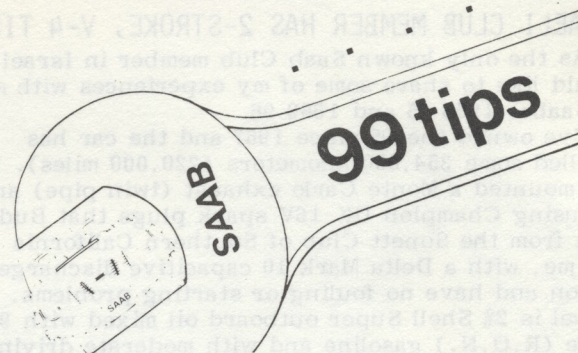
A reply to Phil and Ruth Connaught (Sept. '82, p. 3) whose Turbo isn't quick enough:

A couple of adventuresome types, Ja? Well I am not really the expert, but I am just experienced enough in engine design that I would presume to advise, and my advice would be against any alteration in the advance curve of the distributor for your car (900 Turbo automatic). Some simple things which can be very happy experiments in normally aspirated engines, can become very touchy matters in supercharged engines, and clearly the last thing a supercharged gasoline engine needs is any alteration which might encourage detonation, already the primary limiting factor for charging boost, and hence performance. I am convinced that increasing the spark timing at any engine speed would increase the likelihood of harmful detonation, but most of all during rapid acceleration, as low engine speed, high inlet pressure (as results from fully opening the throttle, and from supercharging) and, to a lesser degree, higher temperature (as results from idling at standstill) are proven to drastically increase detonation.

If you should decide to try such an alteration, I would suggest that you might try retarding the basic (or static) ignition timing by about 5°. Perhaps you'll be able to find some compromise in retarding the basic timing while increasing the rate of advance in some proportion which suits you better. I would also suggest that you should seek the highest octane fuel available for such an experiment. My expectation still, is that you should expect all round poorer performance from this alteration, and that you might risk damaging your engine, with only 8,000 miles on it.

The power plant in the Saab Turbo is really quite highly developed, and there are not too many "ten minute fixes" that are going to make it perform much better. Provided that everything is working correctly (fuel injection regulated properly? turbo-charger providing the correct boost pressure?) a more practical approach toward improving the fleetness of the beast might be to look for places to pare off some weight. In this particular case, the automatic transmission is an obvious target (for it's weight and other performance considerations) but if you really do not want to part with it, you could look other ways to save weight. Comparing a Saab (non-turbo) with a competitively priced Audi 4000, the Saab is mechanically (and in every other regard) a more elegant machine, yet it is not nearly as fast, nor as efficient as the Audi. The difference, I am convinced, lies principally in the Audi's advantage of some 600 pounds.

Greg Faris, Minneapolis, MN



Timing chain wrench

The wrench to use to loosen the clamp bolt for the chain guide is Snap-on p/n FHOM13. It costs \$16.35, but it works. The wrench is called a "12 point, 13mm, flex-head combination" wrench. Tie a string around the end of the wrench so if it falls into the engine it can be retrieved. This information was provided to me by a very helpful mechanic at Loki Automotive in Ruckersville, VA.

Backup light switch

I was having problems with the backup light switch developing a burned contact inside the switch. I solved the problem, finally, by installing a new switch and also installing a relay to switch the load. I put the relay in the "stock" position for the backup light relay in an automatic transmission car. (I have a '79 900GLi with manual trans.).

Lights flash with horn

I connected a relay so when I blow the horn the headlights will "flash" but "dipping" or "flashing" the headlights will have no effect on the horn. Since I generally only blow the horn when it is really urgent I want to attract the maximum amount of attention.

Toby Turpin, Silver Spring, MD

'81-'83 900's MAY HAVE GAS GAUGE PROBLEM

Frank Gibson of Gibson Motors explained to me that there is a very real possibility that on '81's, '82's and '83's the gas gauge can "hang up" and cause owners to think they have either more gas than they do, or are getting fantastic mileage. Actually, the plastic enclosed fuel sensor in the tank itself can become distorted while in use and cause a faulty reading on the dash, when the float hangs up in the tube.

Saab has come through with a metal enclosed float, which will cure this problem. In some models the entire tank and sensor unit is replaced, in others, only the sensor unit is replaced. Check with your dealer and be sure to keep an eye on your mileage periodically. We have had two cases of this in our city.

Margrit Adler, Champaign, IL

GIBSON MOTORS PARTS SALE

Gibson Motors, Perrysville, IN is having a sale of two-stroke, V-4, Sonett and 99 parts at very special reduced prices. A list of these special parts is available, with monthly updates of additional parts. Send a SASE for this list, and then subsequent updated lists will be sent to all who have requested a parts list. Many parts are discontinued items & may not be available new again.

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HI-FI SOUND FOR SAABS WITHOUT GOING BROKE

You can get first-rate sound in your Saab for a moderate amount of money. Notwithstanding the marketing hype surrounding this subject, you can install a good system for under \$300.

Radios--You no longer need to go with Blaupunkt to get a decent radio. Practically all car radios now give good FM stereo reception, and those priced at \$120-\$150 discounted are generally fine. More money might buy improved cassette performance. It may also buy more audio power and more flexible tone control, but you can do even better in these areas with a moderately-priced graphic equalizer.

Speakers--Use 6x9 speakers. There is no need to pay more than \$50/pair at discount. "Triaxial" speakers for car use are a marketing gimmick--coaxial is more than adequate. Front speakers are desirable also, and if your Saab came with them as standard, use them. The good bass will come from the 6x9's.

All Saabs including notchback 99's can take 6x9 speakers on the rear deck. Hatchback installation should include a speaker plug-in arrangement so you can remove the package shelf easily.

In four-speaker setups, watch your impedance. Most audio devices are made to drive not less than 4 ohms, and most car speakers are 4 ohms each. So if you parallel speakers, even through a front-to-back fader, be sure to use series resistors so the total impedance is not below 4 ohms per channel.

Graphic Equalizer/Amplifiers--These are excellent for lovers of classical or rock music. The most mediocre radio can be great when you can tailor the frequency response and have the wattage required to provide good bass. And here again, you do not need to spend much. The best Radio Shack seven-band unit is only \$80, and is frequently on sale. It includes a front-to-back balance control, a must for four-speaker installations. The best use of these devices is to boost the low bass while cutting the upper bass region where Saabs and most other cars resonate. You may find you also want to boost the top end of the spectrum to make up for the high-frequency absorption of the upholstery. If you in-

stall an equalizer, be sure you know exactly what you are doing. Some units can be damaged by common-ground output connections.

Mounting in 900's--If you have your dashboard radio cutout for auxiliary instruments (as I do), you can mount your radio and equalizer in the console the Saab dealers sell as an accessory. Better yet, non-smokers can remove the front ash tray (on 900's) and mount the radio in a home-made underdash pod embedded in the lower dash cover. Make the pod from 1/4" all-birch plywood, and upholster in vinyl. Be sure to remove the lower dash cover to mount this unit, as there is danger of drilling into the heater core if you try to mount it in place.

Steven D. Cohen, Nashua, NH

DIVORCE YOUR WIPERS AND WASHERS ON 900'S

On 900's, the windshield wipers cycle a few times whenever you actuate the washer lever. But this "convenience" can leave you with a scratched windshield if the washers do not squirt immediately. Fortunately, there is an easy solution.

Windshield washers and wipers can be used independently if you remove the two yellow wires from the intermittent-wiper relay while leaving them connected to each other.

Drop the lower dash panel by removing the three bolts--one just above the ash tray, and one through each door jam, from under the hood. Pull straight down. The intermittent relay is on a connector block to your left of the steering column on the 1980 900, and probably on others. Pull the relay out, and insert a pin into the short leg of the T-shaped spade terminal hole, from the relay side, on the connector block where the spade terminal with the two yellow wires is installed. This releases a locking tongue on the terminal, allowing you to pull it out from below. Now tape and store this terminal back on the harness. Reinstall the relay, wet the windshield, and test the system. You should find that all wiper/washer functions are still there, except that you can now use the washer without the wipers running.

Steven D. Cohen, Nashua, NH

CHAIN TENSIONER BREAKAGE--H-ENGINES '81 ON

Saab Service Info: Locking the chain tensioner in the "tension off" position and later releasing it can lead to unnecessary breakage. Breakage can occur when you release the tensioner to reapply tension to the chain, e.g., after servicing the valve train.

When removing the cam sprocket for any reason it is only necessary to pull up enough, with tool 83 93 357 to ease the chain tension (see page 215-2, Sec. 2, 900 Service Manual). Remove the sprocket from the camshaft and lay it and the chain to one side. Release the pressure on the tensioner **BUT DO NOT LOCK IT**. Leave the tool engaged in the tensioner to avoid difficulty in reattaching when the tensioner is relaxed.

NOTE: The chain will not come off the crankshaft sprocket on an H-engine so it can be allowed to lay slack while doing any type of camshaft service.

This information supersedes all previous information on this procedure.



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Used 99 hoods: \$75 to \$150

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1-3-5 DRIVING TECHNIQUE CUTS FUEL USE 10%

Saab Press Info: Saab engineers have conducted a two-year study on how driving techniques can affect fuel consumption. The study has revealed that a fuel saving of up to 10 percent can be achieved if the driver always uses as high a gear as possible, and if he accelerates in high gear. The best way to accomplish this, according to the Swedish study, is to consistently skip the second and fourth gears in a five-speed manual transmission car and only use First, Third, and Fifth Gear--thus, the 1-3-5 method.

"We drivers use far too much fuel mainly due to old misconceptions," explains Olle Granlund, who is responsible for engine testing at Saab in Trollhattan. "Most drivers, for example, believe that the engine consumes less fuel when it is running a low load--in low gear and with little throttle--while accelerating. The traditional way is to ease the car away from rest with light throttle, in order to keep the fuel consumption down."

This method is wrong, according to the Saab study. "The thermal efficiency of the engine is higher--and the fuel consumption thus lower--if the engine is consistently run at low speed but with a heavy load; in other words, with a lot of throttle," they explain.

Shift as soon as possible--It was found that the right technique is to shift up to the next higher gear as soon as possible. After reaching cruising speed, the driver, of course, must ease off the throttle. In actual fact, from purely technical considerations, the driver should go even further by declutching and letting the car coast along almost to a rest before accelerating again. But this type of "roller-coaster" driving is practically impossible in normal traffic.

Instead, the Swedish engine experts recommend that drivers consistently skip some of the gears in order to save fuel. This was proven, they say, by the tests of the 1-3-5 method which were conducted by Saab.

The Saab test included some 30 drivers who during one week of normal driving in mixed traffic conditions carefully checked their fuel consumption. The following week they drove according to the 1-3-5 method, consistently skipping the second and fourth gears.

Lower fuel consumption was recorded by 64 percent of the test drivers when they used the 1-3-5 system. Where there was no reduction in fuel use, the Saab engineers explained, this may have been due to such factors as the driver's normally driving in high gear at low engine speeds, or using the car predominately for long trips. The most marked saving, they said, can be achieved in city driving, where the driver has to shift gears more frequently.

1-3-5 "A Little Dull"--"After the test period, most drivers agreed that the new technique is a little dull," reports Mr. Granlund. "Always changing up as soon as possible and skipping Second and Fourth feels a little strange."

In practice, he explains, the 1-3-5 method involves shifting up to a higher gear at about 1,500 rpm, or at the lowest speed at which the engine can still manage to run. The importance of shifting early is demonstrated by the fact that fuel consumption is reduced by about 6 percent, merely by driving the car on top gear instead of fourth at city speeds of about 30 mph. Using a higher gear on the highway can give even bigger savings. By shifting into fifth at 45 mph instead of continuing in fourth can reduce consumption by a bit less than 11 percent.

And by passing in top instead of third gear--from 45 to 55 mph--you can save 15 percent. Of course, the passing time will increase quite a bit, but, the Saab experts explain, by planning ahead the driver can still follow the rhythm of the traffic.

Savings can also be achieved by using lower gear ratios in the transmission. But, they note, there is a limit to how low you can go. Too low, and the car gets too sluggish and the driver is forced to shift down more often. Some of the gain is immediately lost.

In conducting their tests the Swedish engineers have been using Saab cars, both normally aspirated and turbocharged models, with five-speed manual transmissions.

"The tests have shown," explains Mr. Granlund, "that the two-liter four-cylinder Saab engines are not at all harmed by being run at low engine speeds. Modern auto engines are of such sturdy design that they can be run practically as slowly as the driver desires. Actually, it is much more harmful to run an engine at extremely high speeds."

(Thanks to Mr. Lennart Lonnegren, Public Relations Manager at Saab Scania of America, for providing the Saab Club with Saab Press Information.)

MARGRIT ADLER REPORTS ON 1-3-5 SHIFT STYLE

Do not use this 1-3-5 shifting method on any cars except Saab. Our Honda dealer advised against it because of the different gear ratios and possible clutch and transmission damage.

Do not use the 1-3-5 in traffic conditions. If this is used on entering ramps to expressways or interestates with traffic behind you, and in "merging" areas, the extreme difference in acceleration could result in traffic problems (i.e. use common sense).

I also have my doubts as to its safety in the coming ice and snow conditions. If 1-3-5 is used under safe conditions, I have no doubt that the resulting gas saving would be impressive. We tried 1-3-5 out on a trip in our Honda and yes, we did get better mileage, and YES it was dull driving. We soon gave it up.

Margrit Adler, Champaign, IL

VICTOR SAAB

EXCLUSIVE FOR 1/4 CENTURY

1135 Easton Rd., Abington, PA 19001

We will UPS all parts to any location in USA. We have one of the largest parts inventory on the East Coast. Complete line of 900, 99, and V4 parts and accessories in stock. Also, large inventory on two-cycle parts. We have new and used parts for all model SAABS. Call Dan Stella or Dave Andrews. 215-886-8660

WEBER CARBS FOR V-4'S--Since my announcement two months ago I have been swamped with orders for the Weber 34ICH carbs. They were back ordered for a while, but I now have more. The bad news is the price has gone up to \$110, still including UPS/Parcel Post and ball-socket linkage. To order, send check to the Saab Club, or call for more info.

SAAB 900

SAAB CLUB TECH' SHEET 900 TUNE UP SPEC'S

MODEL	900, 900S	TURBO	900, 900S	TURBO	APC TURBO
YEAR, ENGINE FAMILY	1981 BSA2.OV6FC9	1981 BSA2.OV6FA7	1982 - CSA2.OV6FNT3 1983 - DSA2.OV6FNT4	1982 - CSA2.OV6FTTX	1982 - CSA2.OV6FTA8 1983 - DSA2.OV6FTA9
Emission Controls	Lambda Control and Catalyst + EGR	Lambda Control and Catalyst + EGR (Turbocharged)	Lambda Control and Catalyst + EGR (1982 only)	Lambda Control and Catalyst + EGR (Turbocharged)	Lambda Control and Catalyst (Turbocharged)
Compression Ratio	9.25:1	7.2:1	9.25:1	7.2:1	8.5:1
Fuel, Minimum Octane Rating	Unleaded, 87	Unleaded, 87	Unleaded, 87	Unleaded, 87	Unleaded, 87-92
Ignition Timing ①	20° BTDC @ 2000RPM	20° BTDC @ 2000RPM	20° BTDC @ 2000 RPM	20° BTDC @ 2000 RPM	20° BTDC @ 2000 RPM
Timing Mark Location	Flywheel	Flywheel	Flywheel	Flywheel	Flywheel
Firing Order ②	1-3-4-2	1-3-4-2	1-3-4-2	1-3-4-2	1-3-4-2
Spark Plugs	NGK BP6ES Bosch W175T30	NGK BP6ES Bosch W175T30	NGK BP6ES Champion N9Y Bosch W175T30	NGK BP6ES Bosch W175T30	Normal: NGK BP6ES Hard Use: NGK BP7ES or Champion N7YC
Electrode Gap	.024-.028" .6-.7mm	.024-.028" .6-.7mm	.024-.028" .6-.7mm	.024-.028" .6-.7mm	.024-.028" .6-.7mm
Idle Speed, A/C off	875 ± 50 RPM	875 ± 50 RPM	875 ± 50 RPM (1982) 875 ± 75 RPM (1983)	875 ± 50 RPM	875 ± 50 RPM (1982) 875 ± 75 RPM (1983)
Idle Air/Fuel Mixture	③	③	③ a.	③ a.	③ a.
Decel System	④	④	④ a.	④ a.	④ a.
Maximum Charging Pressure (wastegate setting)	-	6.5-8 psi 0.45-0.55 BAR ⑤	Not applicable	0.50 ± 0.05 bar ⑤ (7.2 ± 0.7 psi)	0.30 ± 0.03 bar ⑤ ⑥ (4.4 ± 0.4 psi)

1). Disconnect vacuum advance line and plug. Check at 2000 rpm. DO NOT ADVANCE TIMING FOR HIGH ALTITUDE OPERATION!

2). Number 1 nearest firewall

3). 1981--Pulse ratio meter modulating between 55-65%. ADJUSTMENT NOT PART OF NORMAL SERVICING.

3a). 1982-83--Pulse Ratio (Duty Cycle) Meter modulation: checking modulation--between 10-90% (warm engine), setting modulation--between 45-55% (warm engine) except for 1982 Automatics with alternate specification of 55-65%.

4). Disconnect vacuum advance line and plug. Adjust plunger to contact throttle level with engine operating at 2500 rpm (normally aspirated), 2200 rpm (Turbocharged).

4a). Automatics (decel dashpot): Disconnect vacuum advance line and plug. (Disconnect EGR on Turbos so equipped.) Adjust plunger to contact throttle lever with engine operating at 2500 rpm (normally aspirated), 2200 rpm (Turbocharged). Manuals (decel fuel shut off): System engages above 1575 rpm and cuts out below 1375 rpm when the throttle is closed against contact. Calibration is fixed by relay 85 74 899.

5). Charging pressure is checked at 3000 rpm, full load (wide open throttle in third gear [Automatic--2nd gear for '81's; 1st gear for '82-'83's] brakes applied to hold rpm). After adjustment, seal regulator with antitampering wire.

6). 0.30 bar is basic boost pressure (safety limit), APC system disconnected. The operating limit, fixed by APC electronic unit, will be maximum 0.60 ± 0.05 bar (0.65 ± 0.05 on 1983 cars) using higher octane fuel.



This Tech' Sheet prepared in November 1982 with information supplied by Saab-Scania of America, Inc. The editor would like to thank Mr. Robert J. Sinclair, president of Saab-Scania, and Mr. Daniel L. David, Manager of Technical Services at Saab-Scania for their continued assistance in making Service Information Bulletins available.

MODEL YEAR ENGINE FAMILY	1978-79			1980	
	BI20PR	BI20CA	BSI20CA	BI20CA	BSI20CA
Emission Controls	EGR and Pulse Air	Lambda Control and Catalyst	Lambda Control and Catalyst (Turbocharged) (11)	Lambda Control and Catalyst	Lambda Control and Catalyst (Turbocharged)
Compression Ratio	9.25:1	8.7:1	7.2:1	9.25:1	7.2:1
Fuel, Minimum Octane Rating (1)	Regular, 94 RON (4)	Unleaded, 91 RON	Unleaded, 91 RON	Unleaded, 87	Unleaded, 87
Ignition Timing (2)	20°BTDC @ 2000RPM	20°BTDC @ 2000RPM	20°BTDC @ 2000RPM	20°BTDC @ 2000RPM	20°BTDC @ 2000RPM
Timing Mark Location	Flywheel	Flywheel	Flywheel	Flywheel	Flywheel
Firing Order (3)	1-3-4-2	1-3-4-2	1-3-4-2	1-3-4-2	1-3-4-2
Spark Plugs	NGK BP6ES Bosch W175T30	NGK BP6ES Bosch W175T30	NGK BP6ES Bosch W175T30	NGK BP6ES Bosch W175T30	NGK BP6ES Bosch W175T30
Electrode Gap	.024-.028 .6-.7mm	.024-.028 .6-.7mm	.024-.028 .6-.7mm	.024-.028" .6-.7mm	.024-.028" .6-.7mm
Idle Speed (A/C off)	875 ± 50 RPM	875 ± 50 RPM	875 ± 50 RPM	875 ± 50 RPM	875 ± 50 RPM
Idle CO Setting %	0.75% ± 0.25% (5)	0.75% + 0.25% - 0.50% (6)	0.75% + 0.25% - 0.50% (6)	0.75% - 1.25% (9)	0.75% - 1.25% (9)
Decel Dashpot	5 ± 1 seconds (7)	5 ± 1 seconds (7)	(8)	(10)	(10)
Charging Pressure				-	0.45-0.60 BAR max. (12)

1). Use higher octane fuel (premium) for tailer tow-ing or other high load driving conditions.

2). Disconnect vacuum advance line and plug. Check at 2000 rpm. On 1977-79 BI20PR, timing may be retarded 2° to prevent ping on 94 RON fuel. DO NOT ADVANCE TIMING FOR HIGH ALTITUDE OPERATION!

3). Number 1 nearest firewall.

4). RON is approximately 4 numbers higher than pump octane rating.

5). Disconnect and plug air injection inlet when ad-justing.

6). Disconnect oxygen sensor lead when adjusting.

7). At high altitude (above 4,000 ft.) set to 3 ± 1 seconds.

8). Solenoid controlled: 1400 rpm ± 50 idle above 19 (+3/-0) mph.

9). Check CO level ahead of catalyst at sample pick-up in exhaust pipe approximately 4 inches below the exhaust manifold. When checking/setting CO, DIS-CONNECT OXYGEN SENSOR PLUG and charcoal canister purge line. Take the reading when the en-gine is warm and stabilized and without the influ-ence of the cooling fan.

10). Disconnect vacuum advance line and plug. Ad-just plunger to contact throttle level with engine operating at 2500 rpm.

11). Charge pressure (maximum boost) should be 0.5 ± 0.05 bar (7.1 ± 0.7 psi) at 3000 rpm, full load.

12). Charging pressure is checked at 3000 rpm, full load (wide open throttle in third gear, brakes ap-plied to hold rpm). Charging pressure should not exceed 0.55 bar for the first 1,000 miles. After ad-justment, seal regulator with antitampering wire.

Valve Clearances - Drive engine warm; let cool 30 minutes before checking.

		Checking Tolerance	Adjustment Range
Normally Aspirated Engine	INTAKE	0.006-0.012" (0.15-0.30mm)	0.008-0.010" (0.20-0.25mm)
	EXHAUST	0.014-0.020" (0.35-0.50mm)	0.016-0.018" (0.40-0.45mm)
Turbocharged Engine	INTAKE	0.006-0.012" (0.15-0.30mm)	0.008-0.010" (0.20-0.25mm)
	EXHAUST	0.016-0.020" (0.40-0.50mm)	0.018-0.020" (0.45-0.50mm)

MORE QUESTIONS ON 1500/1700 V-4 SERIAL #'s

The inquiry by Greg Faris (Aug. '82, p. 4) regarding V-4 engine identification numbers interested me as I have a companion question: How can one tell positively (without opening up the engine) whether it is a 1500 or 1700? I know the color is supposed to clue us, but as these are getting old and people paint them, how can we tell? Since the engines are numbered, this may give us an idea, but is it accurate enough?

For example, after noting the engine numbers of 11 known sizes I concluded that all engines with five digits were 1500 and six digits were 1700. This was until Greg Faris' letter which states his old 1500 had six digits. Just for the record, the earliest (known to me) 1700 engine had a number 174,880 from a 1971. The latest (known to me) 1500 engine number is 70,107. Any other information on this subject would be helpful.

David Kronen, Woodland Hills, CA

99 PROTECTS CLUB DRIVER WEARING SEAT BELTS

I'm sure that many Saab owners take pride in the fact that their cars are so safe. I once enjoyed having a "roll cage" to protect me in case of a crash. On Oct. 22, 1982 I was involved in an accident that caused my car to roll 2 3/4 times, totalling my '71 99E. All that happened to me was a sprained shoulder. But--without my seat belts I surely would have been killed. So don't forget fellow Saab'ers, wear those seat belts, because no matter how safe your vehicle is, it will not help unless you have buckled up!

Kraig Yaseen, Durango, CO

FAULTY OXYGEN SENSOR CAN CAUSE POWER LOSS

A relatively sudden onset of engine power loss and engine miss on Saabs equipped with Lambda-Sond emission control may be due to a malfunctioning oxygen sensor. After checking obvious areas (e.g. spark plugs and wires, distributor cap), if the cause of the problem cannot be found, try disconnecting the wire leading from the oxygen sensor. The sensor is the silver cylinder with one wire which bolts into the exhaust manifold. If the engine immediately runs better, you've successfully diagnosed the problem, and you will be able to drive the car until repairs can be made.

Robert Edelman, MD

Castro Valley, CA

AVON TIRES NOT THE ANSWER TO TRX DILEMMA

I have a set of Avon 190/60x390 tires on my '81 Turbo. They have 7,000 miles on them and I am not satisfied at all. They are a very noisy tire on either wet or dry pavement and have excessive side wall flex. The car came with TRX's and they were more road worthy and predictable. I drive 100 miles a day on mountain roads and got 23,000 miles out of the Michelin's and can't see at this point getting any further on the Avons. The Avon's might have been a little cheaper, but I would not buy them again.

Barney Moran, Santa Rosa, CA



Sandy Liversidge, Production Class winner at the Press-On-Regardless Pro-Rally (photo by the editor)

LIVERSIDGE WINS PRODUCTION CLASS AT P-O-R

Houghton, MI--Using consistent performances on the special stages and making no mistakes, Sandy and Linda Liversidge drove their Saab 99 to an easy Production Class victory and a sixth overall finish at the 34th Press-On-Regardless Pro-Rally, Nov. 5th and 6th, on Michigan's Upper Peninsula.

Despite running under the Production Class rules which call for stock engine and drivetrain, the Liversidge's ran ahead of all but the fastest Open Class cars. Pro-Rallies are designed like the great performance rallies in Europe in that cars compete one at a time, flat out against the clock, on special stages run through narrow forest logging roads closed to other traffic. Thus the lowest aggregate time for all the special stages is the winner.

Sandy's victory at the P-O-R helps him close in on the Production Class points leader, Steve Nowicki, driving a Plymouth Arrow. With two Pro-Rallies left, Sandy is in second place in Production Class chase, a title Saab has won the past two years with Jon Davis driving a 99.

Saab Club members Dick Fitzgerald and Jim Graves of Baton Rouge, LA finished 29th in their Open Class '74 99, while Club members Erik Zenz and Lawson Smith were forced out with mechanical difficulties in their '78 99EMS.

[The editor also had the pleasure to meet other Saab Clubber's at the POR. Rich Kushner and Rick Parr of PA acted as Sandy Liversidge's crew, while Bruce Beauvais of Michigan helped with the course layout team. Also present were David Struyk of Comstock, MI and Don Holcombe of Baraboo, WI.]

COMBINED NOVEMBER/DECEMBER NEWSLETTER

As last year and in year's past, there will not be a separate December issue. This one month off gives me time to catch up on correspondence (where I am behind) and other special projects. The next issue will therefore be in January, with a deadline set for Jan. 8. Starting with that issue I promise to mail the Newsletter around the middle of the month, instead of at the end, so that each month's issue arrives in the mail during the month of the cover date. We did not mail the Oct. issue until the last three days of the month, so if your Newsletter arrived the first or second week of November, that is why.

Jeff Delahorne, editor

SWEDISH EXPRESS

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CLASSIFIED AD RATES

Ads offering parts or Saabs for sale or wanted at prices under \$200 are FREE to members and non-members. 25-word limit, plus name and address. Ads listing prices of \$201 to \$900, enclose \$2. Ads listing prices \$901 to \$2000, enclose \$5. \$2001 and up, enclose \$10. All ads without a price listed, enclose \$10.

Commercial ads, \$10 per column inch, two-inch maximum. We will delete all unnecessary superlatives and abbreviate where possible. Please enclose sufficient funds with ad copy; we will *not* bill.

CLASSIFIED AD DEADLINE

Since this is the combined Nov./Dec. issue, the next issue will be Jan. '83 and the ad deadline will be Jan. 6th. All classified ads should be here at the Club office by that date to guarantee appearance in the January Newsletter.

SONETTS FOR SALE

1969 Sonett V-4, 60,000 mi., orig. owner, a/c, new paint (yellow) and tires, family has outgrown two-seater: \$3200. R.H. Carr, 743 Bradshawe, Monterey Park, CA 91754, 213-288-0673.

1973 Sonett, orange, 85,000 mi., never driven in winter, exc. body, engine, & trans.; Avon tires: \$3250. Gabriel Boenzli, Box 45, RD 1, Newport, PA 17074, 717-567-6445.

1974 Sonett III, yellow w/ black stripe & trim, 77,000 mi., new clutch & brakes, needs exhaust repair: \$200 obo, or trade for late model 99. Roger Rood, 1881 Mechanic Ave, St. Paul, MN 55119, 612-641-4500, weekdays.

1974 Sonett, 73,000 mi., strong engine w/freewheel, custom dual exhaust, rough body & interior, driven regularly: \$2500 obo, Al Walker, 600 N. 18th St., Bismarck, ND 58501, 701-222-8797 wk, 701-258-6726 home.

1974 Sonett III, new paint California burgundy, 60,000 mi., good cond., new exhaust, new Michelins \$3200. Darryl Rosser, 1817 Millbrook, Johnson City TN 37601, 615-282-3258

95's and 96's FOR SALE

1959 93-B, 3-cyl. new exh., brakes, & sunroof; v. good running cond., white, good body & interior, 135,000 mi. (25,000 on reblt eng.), pictures avail.: \$1100 obo. Mary Love, 10735 Cordage Walk, Columbia, MD 21044, 301-596-3148.

1966 96 3-cyl, oil injection, needs restoring, new exh., crankshaft ass'y & other parts. If not sold in 30 days will part out: \$400 obo; ALSO: 1969 95 wagon, California car, little rust, runs good, leaks a little oil: \$1200 or trade for 99 4-dr w/good body. John Stavinga, RR#1, Barrie, Ont, Canada L4M 4Y8

1966 96, 5000 mi. on rblt eng., v.g. body, new brakes, mast. cyl, water pump, battery; runs good but needs transmission work: \$1000 obo. C. Neumann, 4816 Connell Dr., Raleigh, NC 27612, 919-782-5586 (after 4 pm)

1969 96, 1500cc, new red metallic paint & new int.; 165-15 Ceat radials, new clutch, brakes, trans. bearings, sisal floor mats, Calif. car, strong runner \$2300 firm. Paul Florance, 213-438-3257.

95's and 96's FOR SALE, continued

1970 95, good tires, engine, trans. exc. interior, s some body rust, spare parts: \$650. Also '67 V-4 engine and trans. fair: \$50; doors ('67) \$10, trunk & hood: \$25 ea. Adrian Snare, Box 104, Goldsboro, PA 17319, 717-938-5207.

1972 95, 78,000 mi., second owner, well-maintained, good overall cond., asking \$1800. Vaughn Skoog, RD#4 Boyertown, PA 19512, 215-367-0554.

1973 96, exc. cond., am-fm, sheepskin seat covers, 92,000 mi., no rust: \$2650; ALSO 1971 96, exc. cond., am-fm, cruise, radials, rear defrost: \$2650 Jeff Larkin, 612-559-4868 or 612-388-3946

95, 96 and SONETT PARTS FOR SALE

Saab 95 tow hitch by Drawtite, 1 7/8", as supplied by dealers, blasted and painted: \$30 plus ship. A/C unit from '72 95, everything except bent condenser: \$100 plus ship. Also some early Saab sales lit., send needs. Bob Allen, 114 Kimberly Rd., Hamden, CT 06518, 203-248-8798.

Four Sonett III late-style mag wheels, bolt set not complete: \$180. Bob Bondurant, Huntington, NY, 516-575-2214 days.

1500 V-4 engine '69: \$150; '72 trans.: \$250, also body and interior parts from 95. Plus two Sonett wheels \$50 ea. Dennis Sweeney, 207 E. Church St., Ligonier, PA 15658, 412-238-4556.

Solex 32TDID two-barrell carb w/ Amsoil lifetime filter, carb from 69-71 Capri V-4 HC eng. never imported; extra jets & schematics, needs clean out & rebuild: \$65 plus ship. Steve Buckles, 1238 E. Cambridge, Phoenix, AZ 85006

Four Sonett II Alum. wheels with clear coating, incl. lugs: \$225 firm. Also parting out '69 95, offers? Bill Littlefield, 6 Trailsend Dr., Canton, CT 06019, 203-693-4961.

New Parts for '73/74 Sonett: rear axle support brackets, bushing, bolt: \$22; '74 Owner's manual: \$15; Service Manual \$35; Saab points & cond.: \$14 plus other parts, prices plus ship. Alex J. Gentile, 528 Circle Dr., Bridgeville, PA 15017, 412-941-5320.

New V-4 balance shaft bearings: \$20 pair; New cam bearings, \$25 set; 96 wheels: \$10 ea. plus ship. plus numerous used bias-ply tires, 560-15. free, you pay shipping. Fomoco V-4 carb: \$25. Jeff Delahorne, 218-525-3253.

95, 96, and SONETT WANTEDS

Wanted: Saab sales literature, posters, and memorabilia; especially interest in 92 English sales lit., Sonett posters, and Sonett II (2 stroke) owners manual, and Shrike motor phantom view color poster. \$1-5-\$10 or by lots. Bob Allen, 114 Kimberly Rd, Hamden, CT 06518, 203-248-8798.

Wanted: front fenders, left & right for '65 to '68 96; must be rust free: \$40 ea. Also front seat, driver's side, dark green vinyl for '70 to '73. Offer \$30; Thomas Franko, 3512 Mayfair St.; McKeesport, PA 15132.

99's and 900's FOR SALE

1973 99CM with Concord 515, Gislaved's, trailer hitch high mileage, ratty interior and exterior, no rust: \$850; ALSO 1969 99CM, good interior, fair ext.; good trans., engine needs reassembled: \$450. Adrian Snare, Box 104, Goldsboro, PA 17319, 717-938-5207

1974 99L, 2 dr., 4 spd., int. & eng. good, slight body damage, stereo tape, a/c, 82,000 mi.: \$1800. Mitch Sapp, 714-963-5479 eve's, Fountain Valley, CA

1974 99 LE 4 dr., good body, runs well, strong engine, new clutch, master cyl. (brake) recent valve job. Needs headliner; just developed head gasket leak: \$800 obo. David Kronen, 22706 Califa St., Woodland Hills, CA 91367, 213-346-0993.

1976 99EMS wagonback, 4 spd, am-fm-cass. w/Jensen spkrs, Ansa exh., new steel radials, new battery, EMS striping, 70,000 mi., exc. cond.: \$3450. D.H. Fichter, 312-887-0692, Illinois.

1977 99EMS, silver, sun roof, a/c, am-fm-cass, 4 spkrs, 100,000 mi., new: clutch, master & slave, press. plate, tires; exc. cond.: \$5200. Cary Simon 14814 Hazelwood Dr., Chino, CA, hm 714-597-5854, wk. 800-854-3935 ext. 471.

1978 99 Turbo 3 dr., 70,000 mi., dk. maroon, very good cond.; extra wheels & snow tires, shop manual: \$5500. Andy Sewell, 280 Lasalle Heights, Reno, NV 89523, 702-747-4098.

1978 99 Turbo 3 dr., anthracite gray, 4 recent P-6's Marchal airhorns; am-fm cass. w/ 4 spkrs, VDO gauges, new Diehard battery, 4 Cibie headlights, rustproofed. M.L. Frewer, PO Box 648, Huntington IN 46750, 219-468-2509.

1979 900 Turbo, 3 dr., am-fm-cass., sun roof, power steering, 5 spd., a/c, power windows, one-owner well-maintained: \$7695. Duffy's Collectible Cars, 711 Center Point Rd. NE, Cedar Rapids, IA 52402, 319-364-3467 day, 319-363-3440 eve.

99 and 900 PARTS FOR SALE

Headlight covers for 900's, looks like European headlights, easily installed. Set of two: \$29 + \$2 postage Paul L. Dukehart, 81 W. Green St., Westminster, MD 21157, 301-848-7207.

Trailer hitch for 1979 900 GLI: \$85. Doug Turzyo, 526 W. Moorestown Rd., Nazareth, PA 18064, 215-759-0250.

Parting out '73 99 2 dr., complete body in exc. cond \$250; starter, alt., complete wiring, rebilt, distrib., fan motor, almost new mast. cyl, rad., small hub caps, good tires, all 1/3 price. A. Marnier, 3912 Carolyn Ave., Fairfax, VA 22031, 703-273-8963.

Right door for '75 99 2 dr., complete, incl. all hard-



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99's and 900's FOR SALE, continued

ware, window & trim; only a few small "dimples" no rust: \$85 + ship. F. Stodolsky, 340 N. Summit #101 Gaitherburg, MD 20877 301-926-3083 11pm Wed's only

1971 4 spd. trans w/ freewheel hardware, geartrain exc., freewheel marginal, but repairable: \$250 obo Gary Zaidenweber, 1519 Sherburne Ave., St. Paul, MN 55104, 612-644-7396 eve's.

Four 175/70x15 Pirelli CN-36 tires: \$40; two 165x15 Semperit M401 tires mounted on '78 99 steel wheels, good cond.: \$50; Andy Fedorowski, 7264 W. Catalpa Chicago, IL 60656, 312-454-4825 days, 312-631-4476 eve's.

1981 & '82 Turbo instrument cluster ass'y, incl. 85 mph speedo, tach, boost, etc.; 7000 mi. on odo. \$325. Mark Lundquist, 814 Woodland Dr., Rockford, IL 61108, 815-399-6233.

'76 EMS head, complete w/ cam, 10,000 mi. since valve job, new exh. valves: \$200; Also bare head, needs guides: \$50; complete CIS w/o pump: \$150; EMS wheels: \$25-\$75; rear bumper \$100; \$ sp. trans \$350; steering rack: \$300; camshaft: \$80. plus eng. body & suspension parts. Jack MacLachlan, Box 91522, Los Angeles, CA 90009, 213-784-7620

For sale: (from '74 99) metal exh. header gasket: \$5; complete set of under dash trim covers, v.g. shape: \$35 plus ship. Steve Buckles, 1238 E. Cambridge, Phoenix, AZ 85006, 602-277-4280

Cyl. head for '74 99, pin hole repaired & press. test \$125 exchange; 2 liter 99 short block: \$125; body & int. parts for 99 2 dr.; Buy or sell one new Michelin 165x15 ZX: \$55; steel wheel for 900 \$35; chrome lug nuts for 99 steel wheels: \$20 per set; Also Wanted: EMS steering wheel. Dennis Sweeney, 207 E. Church St., Ligonier, PA 15658, 412-238-4556.

Two wrecked 99's, '71 & '72, all parts avail; reasonable offers accepted. Kraig Yaseen, 196 Hermosa Dr Durango, CO 81301, 303-259-4396.

99 and 900 WANTEDS

Wanted: Stainless steel exhaust sys. for '73 99, either new or used. K.J. Strack, 1976 Berkwood Dr. Pittsburgh, PA 15243, 412-221-3252.

Wanted: Four late model EMS mag wheels in exc. cond. John Patterson, Huntington Beach, CA, 714-968-4536 eve's.

Wanted: sunroof wind deflector, sport console: \$25-\$45?; OEM whip antenna: \$10?; trailer hitch for 99; Also information on water injection for '78 Turbo. Rick Weber, PO Box 4323, LaJolla, CA 92037, 619-453-9144 or 213-541-2722 (Dec. 10 to Jan.10 only)

Wanted: four steel wheels for '79-82 900. will negotiate. David Feindel, 617-264-4941 eve's & weekends

Wanted: Shop manual or good reproduction for '81 900. Ray McAllister, 10733 W. Providence Rd., Richmond, VA 23235, 804-276-5647.

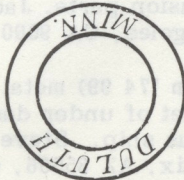
Wanted: Chrome wheel ring for '79-80 99 or 900: \$10? Also need front grill emblem for '70 99: \$10-15? Scott E. Heller, 101 W. 81st St. #624, New York, NY 10024 212-496-8604/9339.

Wanted: Front brake assembly, service manual, roof rack, & head rests fro 1978 99GL. Wickham Allen, 314 W. Nelson St., Midland, MI 48640, 517-835-9288

NOV-DEC
1982

Address Correction Requested

c/o Jeff DeLorme
5805 Oneida Street
Duluth, MN 55804



PERMIT NO. 1909	_____
PAID	_____
U.S. POSTAGE	_____
BULK RATE	_____

FLORIDA CLIMATE HARD ON '71 95 ELECTRICALS

The environment in Florida, or any seaside Saab habitat, does cause problems with electrical connections, or terminal rot as the case may be. Here are two problems I've had recently with my '71 95, and though one turned out to be unrelated to Florida, I threw it in anyway.

The symptoms of the first problem were the headlights do not come on or come on so dim they put off as much light as a cigarette lighter. The dimming relay also chatters like a squirrel. I made individual circuit checks of wires 44a and 44b to the positive lead of the battery lit up the headlights respectively, but they were intermittent.

I found the problem was a rusty terminal of the headlight circuit ground wire (black) which in my car shares a mounting screw with the voltage regulator. The ground wire was long enough to reach the bolt that secures the battery cable to the braided engine grounding strap, so I connected it there.

The second problem was a bit more testy and had the possibility of being financially disastrous, were it not for the fact that I had just paid the rent and could not afford to have someone else look

at my sick car.

The first symptom was the alternator light came on intermittently at high rpm for about a week, then on steady for good, but blinking over bumps. A bench check of the alternator came out "good." I swapped regulators with no effect. The alternator brushes were OK. The shop said my harness was bad, and I believed them, in that a short in the harness could cause the intermittent light.

Eventually, after tearing out the harness and rewinding it (not really a difficult job on these old jewels, but a messy one) and finding no shorts or discontinuities, I tore apart the alternator again, since everything pointed to faulty brushes. Six months ago this same shop rebuilt the alternator and left the wire from the brushes to the diodes disconnected. One generally has to remove the diode plate to discover this. For seven months the wire had lain against the proper terminal, giving all appearances of doing things right. One day it vibrated off. Evidently the bench test provided enough current or the right angle to make the proper connection.

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