



COMPACT  
FRONTWHEEL  
DRIVE CLUB  
of AMERICA

#102

MAR 1982

DEDICATED TO SMALL-  
ENGINED SMALL CARS &  
ENERGY CONSERVATION

Saab Clubs of North America

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**MEMBERSHIP/SUBSCRIPTION**

Newsletter #88, our 71st multipaged monthly. Dues for membership/subscription are \$10 for the first year, including two back copies, 12+ tech sheets and emblem. Renewal dues: \$8.00. 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 non-profit organization.

Or: a three-ringed binder with a collection of back articles and tech sheets is available for \$6.00 postpaid. Or, 30¢ one issue.

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

**SAAB CLUB NATIONAL CAPITAL AREA**--will next meet on April 7, 8 pm at the Silver Spring Public Library, 8901 Colesville Rd., Silver Spring, MD. The Spring Tech Demo will be April 24 at Scandinavian Import Service Center in Rockville from 10 am to 2 pm. For more information, Contact Bruce Williams 301-891-2812.

**DELAWARE VALLEY SAAB CLUB's** first meeting on Feb. 28 turned out to be a big success with over 100 Saab owners showing up. The general consensus was that meetings should be held quarterly. For more info on joining or future meetings, contact John Bolehala, 215-277-1297 after 6 pm.

**CHICAGO SAAB CLUB**--will have a meeting on April 1st, at 7:30 pm at Paul Niedringhaus'. Saab Club Editor Jeff Delahorne will attend and has promised to not give a speech. For more information, contact Paul at 312-446-4271.

**MINNESOTA SAAB CLUB**--will have their next meeting on April 1, Thursday, 8 pm, at the usual location, the Shakey's at Snelling and Larpentuer.

**NEW ENGLAND SONETT CLUB**--held their first quarterly meeting of '82 on March 7, on the campus of the University of New Hampshire in Durham. For more information on the next meeting, contact Carol Gallant 4 Greenock Lane, Nashua, NH 03062.

**ANCHORAGE, ALASKA SAAB CLUB**--Anyone interested in forming an Anchorage Saab Club, please call Chris Jones, 248-3042.

**WESTERN PENNSYLVANIA SAAB CLUB**--The annual Christmas Party of the unofficially organized Western PA Saab Drivers Club and friends of Richie Simpson met on Feb. 6 in Lawrenceville. Our loosely structured club is open to anyone who likes and/or drives a Saab. There are no dues and notification is by word of mouth. Summer picnic is scheduled at Sweeneys farm near Ligonier for Sunday June 27. Fishing and swimming, Kids welcome, beer tolerated, NO DOGS except Sweeneys. Send for a map, Dennis Sweeney, 207 E. Church St., Ligonier, PA 15658

**CICH WINS ICE RACING SERIES IN SONETT;  
SAAB-SCANIA CONTRIBUTES CONTINGENCY AWARDS**

Saab Club member Ken Cich, Duluth, MN, piloted his two-stroke Sonett to a second consecutive International Ice Racing Association overall series title.

Proving that reliability and consistency count as much as raw speed, Cich piled up a huge points lead by steady top five overall placings, added to his sweep of all the year's B Class victories. Cich also won the Minnesota Cup Race in Duluth in January, the oldest continuous long-distance ice race.

IIRA ice races are held on frozen lakes with winding road-race style courses of 1.5 to 3 miles plowed in the snow. Each event has two races, one for four classes of modified cars, and one for Showroom Stock cars.

Cich's Sonett is a '68 model with the stock V-4 exchanged for a 3 cylinder two-stroke engine bored to 940 cc to qualify for Class B, the smallest displacement class.

New excitement was added to the Showroom Stock series with contingency awards by both Saab and Renault. Saab-Scania's contingency plan gave \$75 for the best placing Saab, \$50 for the second best, and \$25 for the third best placing Saab. This year in addition to the two Sonett's that have raced in the past, there were also two 96's and one 99. The 99, carrying Saab Club colors, proved to be one of the fastest cars, as well as extremely rugged on the sometimes rough tracks, but requires extra skill in handling compared to the smaller VW Scirocco's, Rabbit's, and LeCars.



Ken Cich sets up his two-stroke Sonett for a corner at the Forest Lake, MN ice race in February. (Phil Berg photo)

## NGK BP6-EV SPARK PLUGS BETTER THAN ES'S

After discovering NGK's and using them, I knew that was the end of my search for a better spark plug (compared to Champion's). But in '79 I tried NGK BP6-EV plugs which have a precious metal, thin center electrode. I've had a set on my 900 for over 14,000 miles without a misfire, and when I removed them for inspection, they weren't even dirty. I got the EV's from Time Machines, Inc., Brooklyn, NY. They come in both resistor and non-resistor models. I'm using the non-resistive and have noticed no more static in the radio than usual.

Josie Maymon, Nashville, TN

## SONETT AIR FILTERS & ELEC. RADIATOR FAN

J.C. Whitney is now listing an air-cleaner part number for '69-73 Sonett, starting with catalog #401B p 171. I'm going to order a couple and try them.

I installed an electric radiator cooling fan (J.C. Whitney p/n 73-2889W, \$69.95) on the front of the radiator and took off the belt driven fan and put on a shorter belt. Works great.

I also installed a Delta "TEN B" capacitive discharge ignition system (Time Machines, 13 Neptune Ave., Brooklyn, NY 11235). The system installs quickly and easily and is very much worth it in performance improvement.

Although V-4's need leaded fuel, they don't need as much as is in regular gas. I mix 50/50 regular/gasohol and experience an improvement in performance, lower noise and vibration. Just remember when you use gasohol, it cleans everything that was dirty in the fuel system, so the filter should be changed, and the carb may need adjusting.

Phil Colprit, Laconia, NH

## MEMBER WANTS POWER STEERING FOR '77 EMS

My wife and I are both finding the steering on our '77 EMS is much too difficult, but we want to keep driving the car. Will the Saab power steering adapt to my EMS, and are any major changes necessary? Will you end up with too much of a compromise in handling? Where might I obtain the necessary rack, pump, hoses and brackets without having to sell my car to convert it?

Blaine Hanks, Pendleton, OR

*Ed. NOTE: As far as I know, the power steering unit available as an option on 99's from 1974 on should fit your car. You would need the PS rack, pump and hoses, which you might be able to find from a wreck. You will of course lose some "feel of the road" with power steering, but not having much experience with the 99 units, I can't say how much. The power steering on my '82 900 has quite a bit of road feel to it, and isn't too numb at all.*

Jeff Delahorne

## WIDER FAN BELT HELPS V-4 FAN BEARING LIFE

To eliminate water pump and fan bearing problems I use an American 7/16" wide fan belt. It is slightly wider than stock and can be adjusted for less bearing load without belt squeal. The wider belt fits the pulley better and increases bearing life to 50,000 miles.

Mike Tucker, Matthews, NC

## 99 ADJUSTABLE RADIATOR FAN SWITCH UPDATE

An adjustable thermostat switch for the 99 radiator fan appeared in the Jan. '81 Newsletter with an update in the Feb. '81 issue. Now Toby Turpin of the Saab Club National Capital Area has produced detailed instructions for constructing this device, including a parts list. Toby has also included parts numbers from Radio Shack so just about anyone who wants to build the switch should be able to get the necessary parts.

One change from the Jan. '81 diagram is that pin 4 of the operational amplifier should be grounded. Also the Radio Shack p/n for the operational amplifier is 276-007.

I am condensing Toby's instructions into a two-page tech' sheet which I will send to anyone who wants one. Just send me a SASE and two 20¢ stamps to help defray xeroxing costs. I also thank Toby for going to the trouble of producing detailed instructions which anyone should be able to follow.

Jeff Delahorne, editor

## 900 HEATER FAN FIX WITH SILICONE FAILS

My earlier fix on the squeaky heater fan motor in a Saab 900 (May '81 p. 4 & June '81 p. 9) may have been easy but not too smart. The motor ceased working recently, leaving me no choice but to remove the entire upper dashboard to get at it. The commutator and brushes were badly worn--perhaps due to excessive arcing caused by the presence of the injected silicone lube. It was possible to have it rebuilt for \$25 (\$163 new).

With properly oiled bearings it is now quiet and functional. In disassembling the dash I discovered that the dealer had not installed the radio rear support bracket; the radio was free to bounce up and down on the air distribution control switch. A friend had his switch broken due to the radio bouncing. The dealer claimed that they do not normally install the rear support bracket--beware!

Bob Swinehart, St. Paul, MN

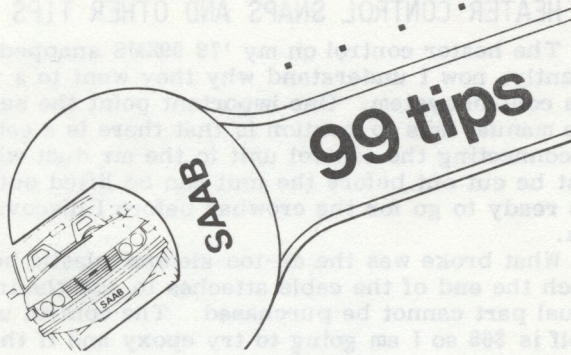
## DICK G. USES GASOHOL WITH GOOD RESULTS

It is now over two years that I have been using Gasohol (corn product, ethanol) and the past year I have used it 95% of the tank fill-ups, using regular only in an emergency. There is NO sign of water accumulation. No sign of "dirt" in the carburetor. I've had no hard starts, even when the car has been standing in 0° temperatures for several days. I have not changed the gas line filter for four years, and until nine months ago I had bad ignition points, yet the engine started immediately. My '71 95 now has about 69,000 miles, yet has no measureable oil loss.

Dick Grossman, Chicago, IL

## SAAB-SCANIA SERVICE TIPS

CIS Warm-up Regulator--It is extremely important that the cooling system be drained BELOW the level of the thermostat housing before attempting to change the thermostat. If the thermostat cover is removed with too high a coolant level, coolant may run into the Warm-up Regulator vent as it spills down the side of the housing. There is no drain in the bottom of the Warm-Up Regulator. Entrance of coolant can lead to corrosion in the Regulator and possible malfunction.



## 99 CYLINDER HEAD PROBLEMS AND REMEDIES

Failure of the cylinder head is a problem that is distressingly common on older two liter Saab 99 engines. Electrolytic action between dissimilar metals is the cause of the deterioration of the aluminum head, which is bolted to the cast iron block. If you read this article no further, please read the following few sentences. This advice applies to all 99 and 900 engines. Regardless of any other recommendations or how many miles per year you drive, change your coolant mixture at least once a year, and more often if you put lots of miles on your car. Use a high quality ethylene glycol anti-freeze, like Prestone II, with proven anti-corrosion agents. Mix the coolant solution with distilled water and maintain a solution that is at least 50% anti-freeze, no matter what the climate. Flush the cooling and heating system thoroughly before adding the new coolant mixture. Make this change a ritual and think of it as cheap insurance for your expensive engine.

When the typical cylinder head failure occurs, you will know it. White smoke billows forth from your exhaust pipe. Collant is finding its way into a cylinder through a hole (often a tiny pinhole) in the deteriorated head. By grounding the coil wire, cranking the engine with the starter, and removing the spark plugs one by one, you may discover the source of your woes. Coolant will spray out of the affected cylinder. Do not rely on a compression test, since compression in the affected cylinder will still be good if the pinhole is in a valve port.



Bob "Sven" Hansen coaxes the "Svenska Motor-home II" through a tight corner at the Ft. Frances, Ontario ice race in February. (Phil Berg photo)

Assuming you are not going to junk your Saab when the cylinder head fails, there are three options to consider to correct the problem:

1. Fix or rebuild the shot cylinder head.
2. Replace the shot head with a new head.
3. Replace the engine.

To fix or rebuild the cylinder head costs \$350 to \$500 and I do not recommend it. Take off the thermostat housing (the entire housing) and look at the coolant passages in the head. Most will be cratered and pitted from the electrolytic action that is the cause of the problem. Trying to remanufacture deteriorated heads may lead to problems appearing elsewhere very soon.

The second option is to replace your damaged head with a new one. With many cylinder head failures being reported, Saab in 1980 reduced the price of a new cylinder head from \$600 to \$400. An additional \$25 kit with new exhaust manifold bolts and a gasket is also required. The valve train from the shot head must be fitted to the new head. New valves and machine shop work may be required. Even if you remove and replace the head yourself, the cost will be \$500 to \$600. This option is tempting because the cylinder head replacement can be done with the engine in the car.

The main drawback of putting a new head on an old engine, is that the rest of the engine is still old. The bottom end may be strong but high mileage engines may need other work, such as replacing the timing chain, a job that requires removing the engine from the car.

Option three, replacing the engine is the one I chose as the wisest and most cost effective for my car. Since the cost of a new Saab engine is prohibitive, what is needed is a used engine with relatively low mileage. Such engines are not always easy to find, but patience and some luck should yield a serviceable engine with less than 50,000 miles. In 1980, after two weeks of waiting, my local salvage yard received a rolled and totalled '78 99 with 31,000 miles. I agreed to buy the wreck's '78 engine for under \$700 plus my old engine. With about \$50 in new parts I put the '78 engine in my '74 99LE, which had 125,000 miles on it at the time. Thus for little more than the cost of replacing only the cylinder head itself, I acquired an engine with 94,000 fewer miles on it than the one I replaced.

In the future, I'll write an article on how to adapt a '78 engine to a '74 99. A competent owner-mechanic can do this job, but it is not easy to do in one weekend and a helper is required for some operations.

Vic Koivumaki, Cambridge, MA



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## V-4 TRANS. MOUNT CAUSES LOSS OF GEARS, AND COMMENTS ON EDITOR'S COLD WEATHER ADVICE

Your cold weather car advice was very good, although stating that physical size is all that counts when buying a battery can be misleading. What does count is the number and size of plates inside the battery. A cheap battery could have small plates inside a large case. (I once saw a 17 transistor pocket radio that only had two transistors hooked up!) The best indicators are the ratings for ampere-hours and cold cranking amps with the higher the number the better.

I recently purchased a '72 96 very cheaply because the owner thought it needed an expensive transmission overhaul as it would not shift into first second or reverse. I towed the car to an approved Saab repair facility (i.e. my garage) and discovered that the bolts holding the rear motor mount had worked loose and fallen out, leaving the shift linkage to support the weight of the transmission.

I purchased a complete gasket set and fan bearing from the local Ford industrial dealer. The gasket set was approximately half the price Saab wanted but the bearing ended up being \$5 more expensive! Live and learn. The valve stem seals didn't look right so I talked to the local dealer and found that Saab has changed from the black rubber seal to an identically shaped seal made of teflon for longer life. The new seals are cream colored and very hard. Does anyone know if there are any serious objections to using an industrial gasket set in an automotive engine?

The distributor need disassembly and cleaning because the centrifugal advance was gummed up and would not work. After removing the bottom gear, I could not remove the small wire circlip under the rotor. I tried using two small screwdriver and prying it off as suggested in a prior newsletter. The easiest method is to lever up on the breaker cam with two screwdrivers inserted in with the advance weights. Point the shaft into a rag to keep from chasing the circlip across the garage.

To reinstall the clip, buy a length of 1/4" ID brass tubing from a hobby shop and position the circlip squarely on top of the shaft and press it down with the tubing.

Jeff Schille, So. St. Paul, MN



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1973 Sonett, 88,000 mi., Weber carb, MSS exhaust, Jensen R-420 am-fm cassette with Jensen 6x9 Triax II's, factory new trans. at 67,000 mi., excel. cond. throughout: \$4500. Bates McLain, SR 1, Box 8, Earlysville, VA 22936, 804-973-7347.

## 99 HEATER CONTROL SNAPS AND OTHER TIPS

The heater control on my '78 99EMS snapped recently, now I understand why they went to a vacuum control system. One important point the service manual fails to mention is that there is a cable tie connecting the control unit to the air duct which must be cut out before the unit can be lifted out. I was ready to go for the crowbar before I discovered this.

What broke was the all-too-slender plastic post which the end of the cable attaches to and the individual part cannot be purchased. The control unit itself is \$65 so I am going to try epoxy and if that doesn't work, tap a hole and try to hold it down with a screw. To be continued....

A small success story concerns an annoying rattle which turned out to be the roll-over valve located in the right rear pillar. Wrapping it with tape and tightening well has solved both the rattle and a gasoline fume problem.

Advancing the timing to 23° (Canadian spec.) and an occasional gallon or two of super unleaded has boosted my mileage over 30 on the highway and subjectively seems to have provided a bit more power.

Richard Dreher, Sacramento, CA

## LOOSE SPARK PLUG NUTS CAUSE ROUGH RUNNING

About 4,000 to 5,000 miles after a tune-up and spark plug replacement in our '77 99GL, it would start running rough. We were told to "de-ice" to get rid of water in the gas lines. This would help on some occasions, however, we also found that as soon as we put new spark plugs in we were fine to another 4,000 or 5,000 miles.

This fall we were on a trip and developed the roughness just after filling up with gas (another coincidence). The de-icer did nothing. We then picked up another set of spark plugs. In the process of putting them in we found one wire loose, and one wire off the current spark plug. The "nut" on the top had worked loose. As soon as we tightened them and put the wires back on, the car was as smooth as ever. We had the same experience again this weekend. Only one of the nuts came loose and we have not figured out how it happened, but the nut and wire were all the way off the plug.

Philip H. Ward, Jr., Sterling, IL

## 99 FUEL PUMP NEEDS GAS FOR LUBRICATION

Last weekend the fuel pump on my '78 99 GL quit. I had it replaced at Tor's in Lompoc, CA. Tor, Jr. told me that since the fuel pump is located at the bottom of the fuel tank, and relies on the fuel for its lubrication, one should fill the tank when it gets to the quarter full level. This was news to me. We regularly drove the car until the fuel was quite low before filling up again. Perhaps we were lucky the fuel pump lasted the three years it did.

Barry R. Toms, Hercules, CA

## VICTOR SAAB

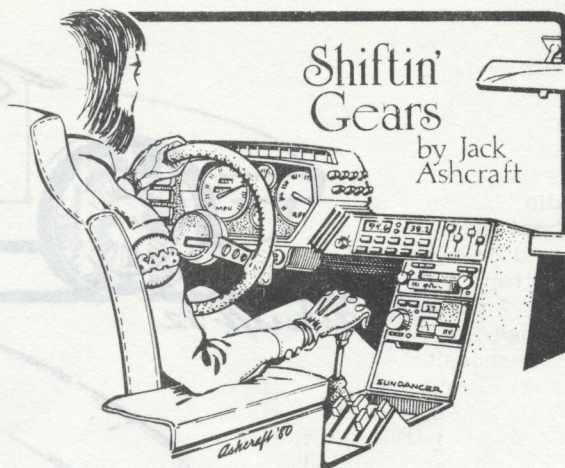
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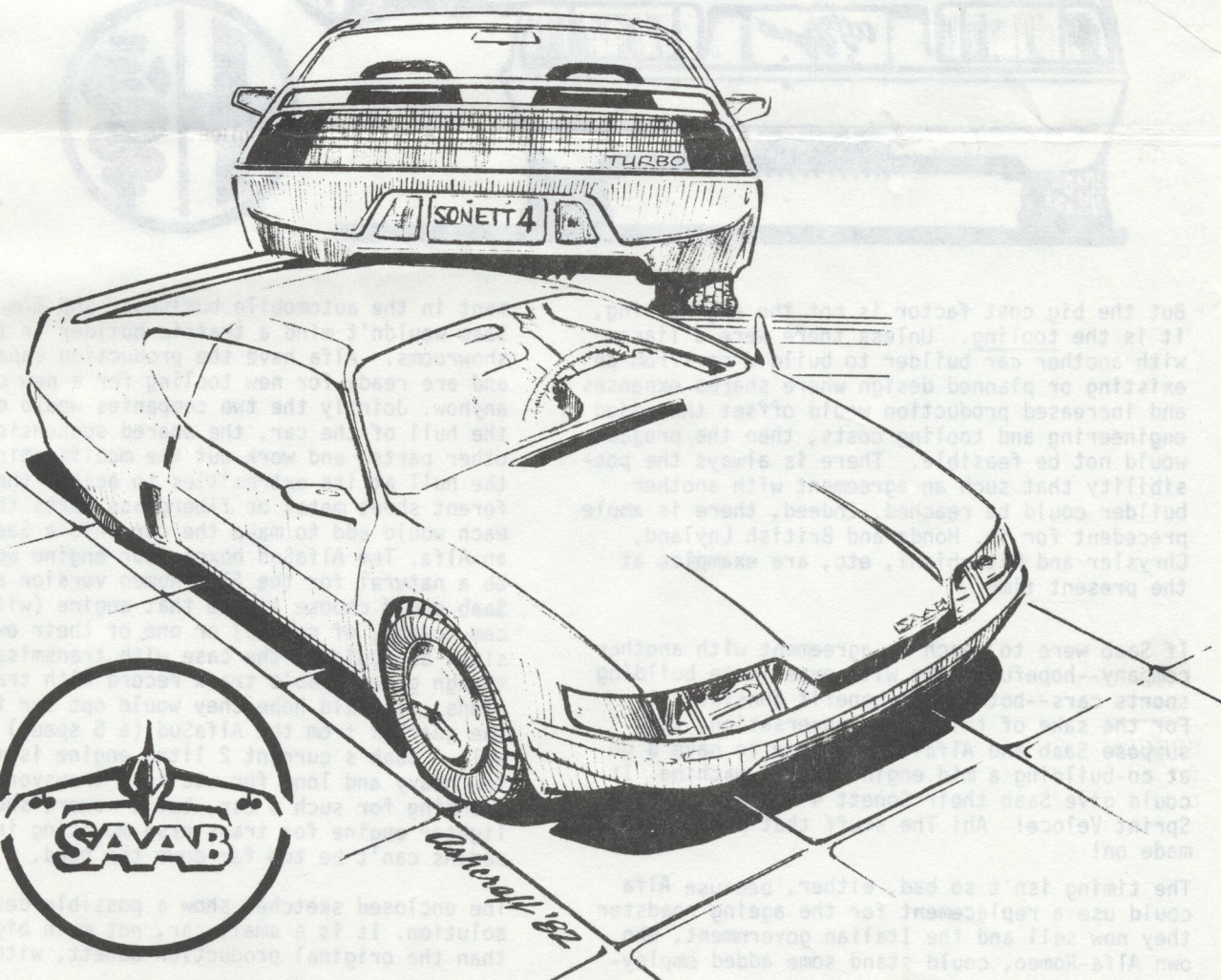
Recently, a sketch of a mid-engined Sonett appeared in the newsletter, along with a plea to Saab for a successor to the Sonett. Such stuff is great for beer conversation but unfortunately has little connection with reality in this day and age given the world economic situation. The cost of tooling alone could bankrupt a small company like Saab, even if they sold every "Sonett Four" they produced at something like \$20,000 the copy--probably about what they would have to sell for in order to show a profit for the builder.

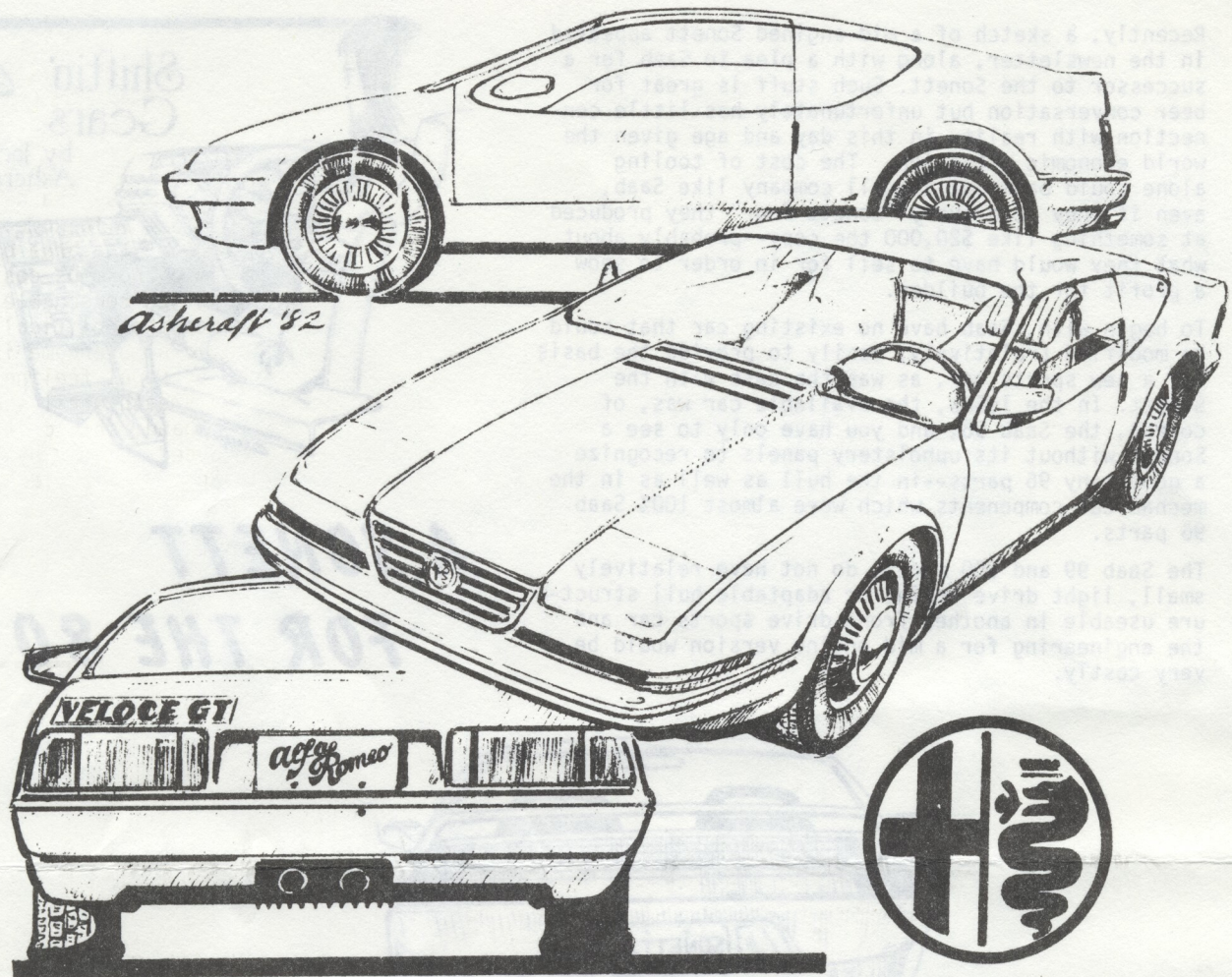
To begin with, Saab have no existing car that could be modified (relatively) easily to provide the basis for a new sports car, as was the case with the Sonett. In the 1960s, the available car was, of course, the Saab 96, and you have only to see a Sonett without its upholstery panels to recognize a good many 96 parts--in the hull as well as in the mechanical components which were almost 100% Saab 96 parts.

The Saab 99 and 900 models do not have relatively small, light drive trains or adaptable hull structure useable in another front drive sports car and the engineering for a mid engine version would be very costly.



## A SONETT FOR THE 80'S?





But the big cost factor is not the engineering, it is the tooling. Unless there were a liaison with another car builder to build a car from an existing or planned design where shared expenses and increased production would offset the added engineering and tooling costs, then the project would not be feasible. There is always the possibility that such an agreement with another builder could be reached. Indeed, there is ample precedent for it. Honda and British Leyland, Chrysler and Mitsubishi, etc, are examples at the present time.

If Saab were to reach an agreement with another company--hopefully one with experience building sports cars--both might benefit considerably. For the sake of this beer conversation, let's suppose Saab and Alfa-Romeo chose to have a go at co-building a mid engine sports machine. It could give Saab their Sonett 4 and Alfa another Sprint Veloce! Ah! The stuff that dreams are made on!

The timing isn't so bad, either, because Alfa could use a replacement for the ageing roadster they now sell and the Italian government, who own Alfa-Romeo, could stand some added employ-

ment in the automobile business, and I'm sure Saab wouldn't mind a traffic builder in their showrooms. Alfa have the production capacity, and are ready for new tooling for a new car anyhow. Jointly the two companies would design the hull of the car, the shared suspension and other parts, and work out the modifications to the hull at its extremities to accept the different sheet metal or fiberglass parts that each would add to make the car into a Saab or an Alfa. The AlfaSud boxer four engine would be a natural for the Alfa-Romeo version and Saab could choose to use that engine (with Saab cam covers, of course) or one of their own design, as would be the case with transmissions, though given Saab's track record with transmissions, we could hope they would opt for the gearbox from the AlfaSud (a 5 speed) as well. Saab's current 2 litre engine is much too heavy and long for use in a transverse mounting for such a car, but a newer, shorter, lighter engine for transverse mounting in Saab sedans can't be too far down the road.

The enclosed sketches show a possible design solution. It is a small car, not much bigger than the original production Sonett, with a

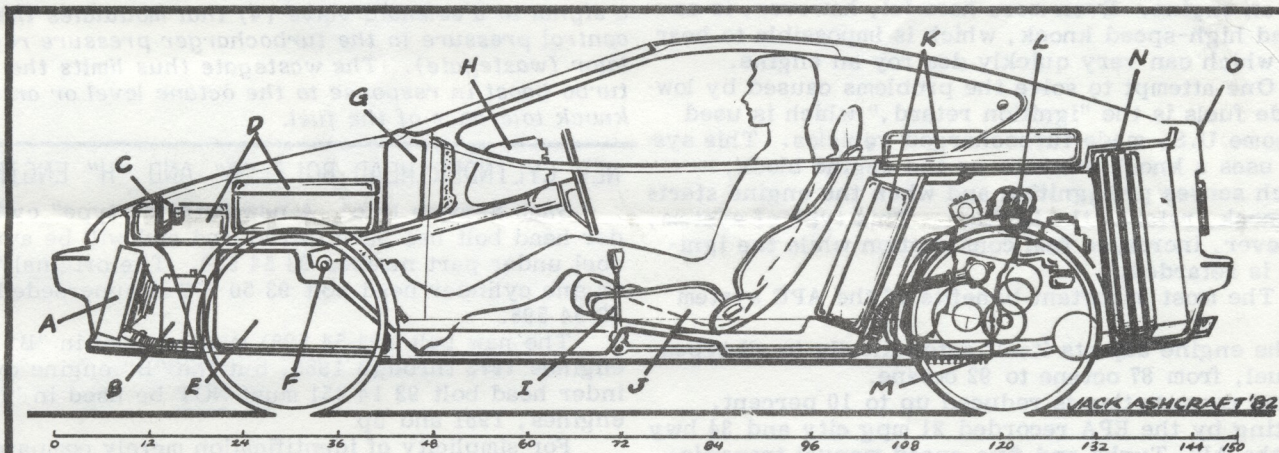
large hatch at the back for mechanical access. The high tailed fastback body and flat floor panel help insure a low coefficient of drag.

Ample luggage space is provided, although it is distributed in several location throughout the car. The Italian version is shown with small, roll-down panels in the otherwise fixed door glass area while the Swedish version has conventional, roll-down windows. Pop-up headlights are found on the Alfa while fixed lights with glass covers are shown on the Saab. Each car has it's own unique front and rear though the Saab version shows a high concentration of aerodynamic devices and aids including full rear skirts, wheel "spats" ahead of and behind each road wheel, and a wind correcting wing on the rear deck. Interiors would be completely unique to each car and would, I'm sure, reflect each builder's individuality. Given the size of the vehicles and the state of the art of building cars, neither should weigh over 1700 pounds dry.

Even with modest horsepower (up to 100 bhp), they should perform very well indeed and give excellent fuel economy.

There is little doubt that such a pair of vehicles could be designed and built, even by such a diverse pair of companies as Saab and Alfa-Romeo. I see no insurmountable problems in the area of design and engineering. Even the enormous cost of tooling could be absorbed, given reasonable production figures. But whether the political and bureaucratic obstacles could be overcome is entirely another question. My personal feeling is that you best not hold your breath until such a thing happens. On the other hand, should it ever happen--a sports car produced jointly by two firms like Saab and Alfa-Romeo--it could be a machine that your wildest dreams, and legends, were built on.

Happy Beer Drinking! Skol!



INSIDE THE "ALFA-SAAB"

This scale package drawing shows the main components for the cars, many of which would be common to both versions. Doors that open several inches into the roof are common, as is all glass panels on the car except the door glass. The manikin shown is a 95%-tile male. Tires are 195/60SR13 for both cars as standard fitment. The engine shown is a new DOHC four though room exists for the AlfaSud flat four as well. The following key lists other items in the scale package drawing.

- A--Radiator with thermostatically controlled electric fan.
- B--Battery
- C--Headlamps--Alfa version shown.

- D--Fitted front luggage.
- E--18 gallon fuel tank.
- F--Rack & pinion steering.
- G--Heater, defroster, & windshield wiper area.
- H--Instrument module--Alfa version.
- I--Shifter for 5 speed gearbox.
- J--Individual bucket seats with a number of adjustments.
- K--Rear fitted luggage.
- L--Drive train unit.
- M--Headers & exhaust system.
- N--Spare tire--Saab space saver shown.
- O--Unique rear end cap--Alfa shown.

## NEW SAAB "APC" TURBO MAKES U.S. DEBUT

Saab Press Info: Automatic Performance Control (APC), a system that improves both fuel economy and performance of turbocharged engines and adjusts itself to the quality of the fuel being used, is now available on Saab 900 Turbo models sold through U.S. Saab dealers.

Several years of intensive research have gone in to this new system that can offer a fuel saving of up to 10 percent while still increasing acceleration considerably.

"Saab was one of the very first cars to offer turbocharging. It is now only logical that Saab is the very first car make to offer 'the second generation Turbo,'" said Robert J. Sinclair, president of Saab-Scania of America.

Besides its immediate benefits in fuel economy and performance, a major feature of the Saab-patented APC system is that it allows a car engine to be run on fuel of different octane ratings without special adjustments, without risk of damage to the engine.

The most common problem that occurs when a car is run at high load on low quality fuel is "knocking," which happens when the fuel pre-ignites. Generally, knock is quite audible both inside and outside the car, and persistent knock can seriously damage an engine. Even more harmful, however, is so-called high-speed knock, which is impossible to hear but which can very quickly destroy an engine.

One attempt to solve the problems caused by low-grade fuels is the "ignition retard," which is used on some U.S.-made turbocharged vehicles. This system uses a knock detector on the engine block, which senses pre-ignition and when the engine starts to knock, retards the ignition. This type of system, however, increases fuel consumption while the ignition is retarded.

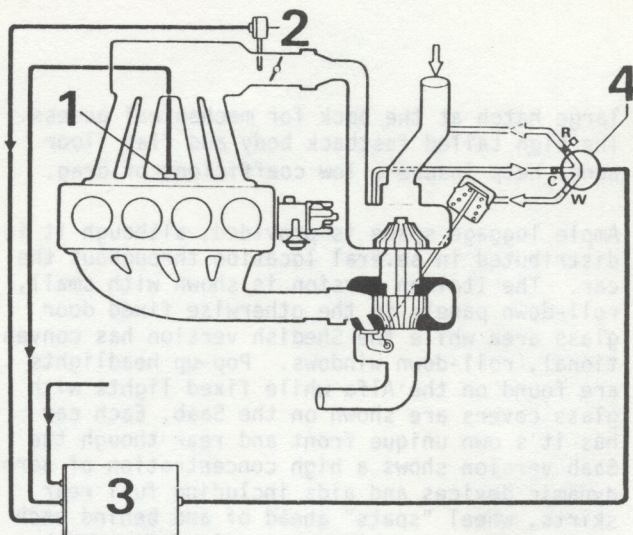
The most important benefits of the APC system are:

- The engine adjusts itself automatically to all types of fuel, from 87 octane to 92 octane.
- Fuel consumption is reduced up to 10 percent. Testing by the EPA recorded 21 mpg city and 34 hwy for the APC Turbo and five-speed manual transmission, compared to 19 and 31 for the non-APC Saab Turbo. For automatic transmission cars, the figures are 21 city and 29 highway, compared to 20 and 27 for the earlier Turbo.
- Passing performance is increased considerably.
- The engine is more responsive at low speeds.

The APC system is based on simple electronic components, is insensitive to damage, and is easy to service. The knock detector sends signals to an electronic control unit which gives the necessary instructions to a solenoid valve next to the wastegate valve controlling the boost pressure developed by the turbocharger. The control unit is also in contact with a pressure transducer on the intake manifold and can balance the turbo boost so that it is always correct, regardless of the condition of the fuel or engine load.

APC ensures that the fuel will always be fully utilized. This improves engine efficiency, which together with an increase in the compression ratio to 8.5:1 (compared to 7.2:1 for non-APC Turbo) substantially reduce fuel consumption.

The increased compression also offers vastly improved throttle response and thus avoids a common complaint with turbo engines: turbo lag at low-speed driving and acceleration.



APC SYSTEM--A knock detector (1) on the engine block senses the onset of and degree of engine knock and sends a signal to the control unit (3), which also gets messages from the inlet manifold transducer (2) and from the ignition system (engine rpm). The data is processed by the control unit which transmits a signal to a solenoid valve (4) that modulates the control pressure to the turbocharger pressure regulator (wastegate). The wastegate thus limits the turbo boost in response to the octane level or anti-knock tolerance of the fuel.

## NEW CYLINDER HEAD BOLT "B" AND "H" ENGINES

Saab Service Info: A new "stretch type" cylinder head bolt has been introduced and will be available under part number 93 54 598. The original "H" engine cylinder head bolt 93 50 877 is superseded to 93 54 598.

The new bolt (93 54 598) may be used in "B" engines 1973 through 1980, but the "B" engine cylinder head bolt 93 14 451 must NOT be used in "H" engines, 1981 and up.

For simplicity of identification merely compare the hex size of the bolt heads: "B" engine bolt (pn 93 14 451) 17mm; "H" engine (93 54 598) 15mm. In this way the bolt can be identified as to type without removal from the engine.

Note: when present supplies of 93 14 451 are exhausted, 93 54 598 will be the only head bolt available.

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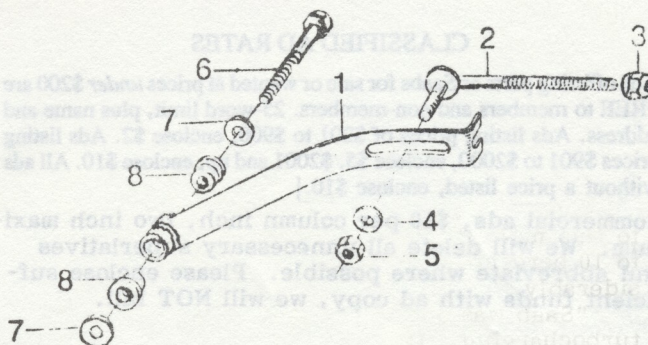
# SAAB

## Service Information

### NEW ALTERNATOR ADJUSTING LINK, '81-'82 900s

Saab Service Info: A new link with an adjusting bolt has been introduced on 1982 models. This arrangement makes it easier to adjust the tension of the alternator/water pump V-belt. NOTE: Proper belt tension is important to prevent belt slippage which can reduce alternator output under load. In cases where "undercharging" has been a problem on 1981 cars this new link should be retrofitted by installing the following parts(\*).

Pos.	Description	Part No.	Quantity
1	Adjusting link	93 54 283	1*
2	Bolt	93 46 818	1*
3	Adjustment link	79 71 922	1*
4	Washer	80 29 985	1**
5	Nut	80 74 106	1*
6	Bolt	93 54 960	1*
7	Washer	73 11 772	2**
8	Bushing (with sleeve)	93 54 770	2**



\*New from M82 (order for M81 car)

\*\*Same as M81

#### Installation Procedure (1981 Model):

1. Remove the old adjusting link.
2. Insert the rubber bushings (8) in the new link (1) and mount the lower end to the engine using the bolt (6) and washers (7). Tighten to 25 ft. lbs. (35 Nm).
3. Install the adjustment bolt (2) and tension the belt using the nut (3) so that a 13 lb. (60 Nm) force will deflect the belt no more than 0.2" (5 mm) at a point halfway between the alternator and water pump.
4. Lock the adjustment with nut (5) and washer (4).

### OVERLOADING OF IGNITION RELAY, '79-80 900s

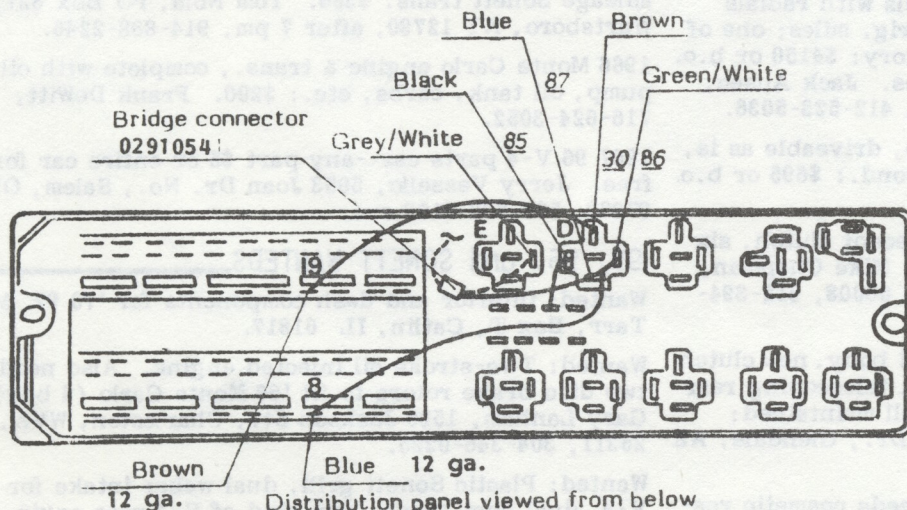
Occasional overloading of the ignition lock relay has been encountered when many large electrical consuming accessories are operated simultaneously during hot weather. To avoid this problem an additional relay installed in parallel will increase the load capacity and provide ample insurance against overloading.

To install the additional relay (pn 85 33 176):

1. Disconnect battery.
2. Unfasten and lift relay panel out of its box.
3. Select a location for the extra relay. Any vacant relay outlet in the panel may be used. If all outlets are in use then a 4 pole connector (pn 85 03 484) should be used to mount the relay alongside the panel (the upper rear wall of the panel box is a convenient location). NOTE: most US variants will require external mounting of the relay using the 4 pole connector.
4. Run two 10 gauge and two 16 gauge wires from

the relay panel through the grommet in the bottom of the relay box (when using an externally mounted relay) to the location of the #2 relay. If available use wires of the colors indicated in the diagram below.

5. Connect a ground (16 gauge wire) from terminal 85 to a ground spade in the relay panel.
6. Connect the other 16 gauge wire (use bridge connector 02 91 054) from the grey/white wire of the original relay to terminal 86 of the new relay.
7. Connect one of the 10 gauge wires from fuse terminal 19 on the buss bar to terminal 30 of the new relay.
8. Connect the remaining 10 gauge wire to terminal 8 on the buss bar and terminal 87 on the relay.
9. Install relay 85 33 176 in the 4 pole connector and reassemble the relay panel in its box.
10. Reconnect battery and check operation of all circuits.



### THANKS TO SAAB-SCANIA

Thanks to Mr. Daniel L. David, Manager of the Technical Services at Saab-Scania, and to Mr. Robert J. Sinclair, President of Saab-Scania of America, for making Saab Service Information bulletins available to the Saab Club.

Also thanks to Mr. Lennart Lonnegren, Manager of Public Relations at Saab-Scania, for sending his PR releases to the Club.

## 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.

## SONETTS FOR SALE

1968 Sonett V-4, red, #707, interior good, fiberglass good, new front & rear window, pan rusted. Extra tires & wheels & springs: \$750 or best offer. Ed Oshaben, 15009 Lucknow Ave., Cleveland, OH 44110 216-285-9215.

1973 Sonett III, good condition: \$3250. Bill Miller, 111 Metropolitan Ave., Cranston, RI 02920, 401-944-6648.

1973 Sonett III, 84,000 miles, new clutch, exc. cond. \$3800 or best offer. E.A. Law, Huntington Beach, CA 714-846-3737

1974 Sonett, hi-perf. cam & carb, free-flow exhaust, reupholstered interior, green paint good, 90,000 mi. runs great: \$3200 best offer. Kevin Greatens, 724 Linden Dr., Green Bay, WI 54301, 414-468-6292.

## 95's and 96's FOR SALE

1967 two-stroke 96; 108,000 miles, completely rebuilt engine at 80,000 mi., trans. rebuilt at 70,000; rear quarter dent, some rust: \$825. Coleman Bynum, 9 Grand St., Cornwall, NY 12518, 914-534-7843.

1968 96 Delux, southern car, no rust, Michelins, Cibies, Konis, fresh engine, trans., hydraulics overhauled, silicone fluid, ported heads, rally exhaust: \$2295 Dennis Sweeney, Ligonier, PA 412-238-2163.

1968 96, 100,000 mi., minor rust, excellent mechanical shape: \$1200. Mike Tucker, 2324 Davis Dr., Matthews, NC 28105, 704-847-2282.

1969 96 V-4, white w/ red & gray interior, showroom cond., never in snow; Sonett wheels with radials plus orig. tires & wheels; 24,000 orig. miles; one of finest 96's in the US, complete history: \$4150 or b.o. color picture sent on serious replies. Jack Ausec, 3 Park Place, Jeannette, PA 15644, 412-523-5036.

1970 96 V-4, some rear end damage, driveable as is, extra parts car, runs good, o.k. cond.: \$695 or b.o. Gary Simon, 312-496-0047.

1970 96, mechanically very good, recent clutch, six wheels and tires, some rust: \$800. Mike Chapman, 2611 South St, Rolling Meadows, IL 60008, 312-394-0656.

1971 95, fresh engine rebuild, good body, new clutch and brake hydraulics, good trans., telescoping rear shocks, many spare parts; very well maintained: \$1865. John S. Fog, 9713 N. 56th Dr., Glendale, AZ 85302, 602-937-9128.

1971 96, 47,000 miles, rust free, needs cosmetic restoration only, new turn signal lenses on car: \$900 Bill Cook, Grand Rapids, MI 616-784-6497.

1971 96, 94,000 mi., new trans, clutch, valve seals, front brakes & rotors, rear brakes incl. cyl's & lines alloy wheels, front spoiler, radio; interior perfect, body perfect: \$2600. Joe Caparosa, 412-285-9340 9-5, 412-287-0047 eve's.

## 95, 96, and SONETT PARTS FOR SALE

Sonett III Parts: pass. door, '71: \$200; 1 rear bumper strut, '73: \$15; 1 '73 fuel/temp gauge: \$20; Sun visors '73: \$10; Heater box & core: \$20; one turn signal switch cover: \$5. Bibb T. Gault, Wilson K-213 SHSU, Huntsville, TX 77341, call 11 pm or later, student, 713-294-4488.

Part out: '68 Sonett, roof & tail section: \$375; nose: \$275; chassis: \$250 or package: these & rest of Sonett parts: \$900. Wayne Sexton, 1320 Taft St., Escondido, CA 92026, 714-745-9935.

Dismantling '68 Sonett V-4, complete fiberglass body make offer; solex carb: \$35; '68 distributor: \$35; good seats, \$50 pair; CV's: \$50 each; wheels: \$9 ea. Mike Tucker, 2324 Davis Dr., Matthews, NC 28105 704-847-2282.

1966 Monte Carlo engine, complete: \$175; Solex triple carbs: \$20; 96 trunk basket: \$5; all plus shipping. M. Tarr, Box T, Catlin, IL 61817.

1966 Monte Carlo spares: front drive cups, needle bearings, oil injector can, and rear & side light lens. Gerald D'Sena, Rancho Palos Verdes, CA, 213-541-3276.

Parting out '70 96, V-4 engine, trans, glass, complete das, etc. Mike Chapman, 2611 South St., Rolling Meadows, IL 60008, 312-394-0656.

95 Trans., '71, 80,000 miles, very good cond.: \$325 plus freight; also two-stroke parts, carbs, starters, generators, distributors, oiler setup: \$100. Dennis Sweeney, 207 E. Church St., Ligonier, PA 15658, 412-238-2163.

1970 Fomoco carb: \$150 or b.o.; manifold, air cleaner fuel pump; '69 speedometer: \$40; fuel gauge: \$20; switches, other interior, electrical & some body parts write. Sue Thompson, 1317 13th Ave. So., Seattle, WA 98144, 206-324-6612.

'72 V-4 Trans., excellent: \$250; also have '72 low mileage Sonett trans. \$350. Tom Nola, PO Box 627, Wurtsboro, NY 12790, after 7 pm, 914-888-2246.

1966 Monte Carlo engine & trans., complete with oil pump, oil tank, carbs, etc.: \$200. Frank DeWitt, 716-624-3052.

1967 96 V-4 parts car--any part \$5 or entire car for free. Jerry Vessello, 5053 Joan Dr. No., Salem, OR 97303, 503-393-8109 eve.

## 95, 96, and SONETT WANTEDS

Wanted: interior and dash components for '73 97. M. Tarr, Box T, Catlin, IL 61817.

Wanted: Two-stroke oil injected engine. Also need two disc brake rotors to fit '66 Monte Carlo (4 bolt). Gary Lanham, 1520 Jackson St., Charleston, WVA, 25311, 304-346-0225.

Wanted: Plastic Sonett grill, dual weber intake for V-4, dual port heads, any kind of V-4 race equip. Bibb T. Gault, Wilson K-213, Huntsville, TX 77541, 713-294-4488.

## 99's and 900's FOR SALE

1977 99 GL, 5 door, 60,600 mi., exc. running cond. new radial studded snows, needs left rear door, left rear clip, hatch, but not glass: \$1800 or b.o. T. Reanier, Rt. 1, Box 105D, Port Townsend, WA 98368 206-385-0398.

1978 99, good cond., 44,000 mi., new paint, hi-perf. exhaust, EMS wheels & spare, XVS tires: \$4000 or b.o. Al Bowers, Pittsburgh, PA 412-782-7506.

1978 99GLE, 4 spd, anthracite, AC, sunroof, cruise control, mags, remote elec. mirrors, etc. 56,000 mi. asking \$5700, must sell. Jeff Zinkin, 914-636-1808.

1978 Turbo, black, AC, Blaupunkt am/fm cassette w/ equalizer, Altec Lansing spker sys., new Pirelli P-8's, 38,000 miles, very good cond. Shelly Gitelman 914-359-2697 (Rockland County, NY)

1981 900 Turbo 3 dr., white, 5 spd, Hella H-4's, Blaupunkt 5001 & Jensen triaxials, Saab cruise control, Saab sun louvers, mud flaps, and 3 year, unlimited mileage warranty. best offer. Dr. Allen C. White, Cupertino, CA, 408-252-7761, leave message.

## 99 and 900 PARTS FOR SALE

Set of front and rear red/black fibre mats for 99, exc. cond.: \$25 plus ship. M. Tarr, Box T, Catlin, IL 61817.

'76 99 engine, complete, with 39,000 miles: \$550. can deliver. Tom Nola, PO Box 627, Wurtsboro, NY 12790, 914-888-2246 after 7 pm

99 head assembly, 2.0 liter, completely reconditioned valves adjusted: \$325 plus shipping and your complete head exchange. Many body parts and 1.85 l. engine. Dennis Sweeney, 207 E. Church St., Ligonier, PA 15658, 412-238-2163.

Siren Alarm kit, new in box, w/hardware: \$35; R-4 A/C compressor for 900, used: \$55; Bilstein shocks set from 900, used but not leaking: \$45. Price includes UPS shipping. Josie Maymon, 615-297-3864.

One Semperit M401 165SR15 radial tire, new: \$60 plus shipping. Trailer hitch for '78 99L sedan: \$45 plus shipping. Harry Lewis, 11859 Marigold St. NW, Coon Rapids, MN 55433, 612-427-5116.

Saab "Bra" black, full front coverage, used one year very good cond.: \$50 shipped. Dave Nichols, 3017 Oxbow Rd, Evergreen, CO 80439, 303-674-0159 or 2875.

1977 2 liter engine, disassembled, spun bearing, 50,000 mi., includes metering unit, no starter or alt. \$100 plus ship. Trailer hitch for '79-'80 900: \$60.

Fog/driving light mounts for 900: \$10 plus ship. Shop manual for '76-77 99s, in binder: \$25 plus ship. 215-353-1621. David West, Newtown Square. Ordered 4/2/82 UPS COD

1974 99EMS, parting out, car hit on right door and rear panel, five mags avail.: \$60 each: air cond.: \$125. Most all parts avail. in good cond. Lowell Eckart, 4273 Granger Rd., Akron, OH 44313, 216-666-7065.

Addco sway bars for '75-on 99, front & rear incl. all bushings & brackets, new, never used; ea. \$70, both \$130 incl. ship., 99 wheels, \$20 ea., '76 style: \$30 ea.; Tires, all 165SR15, 2 Gislaved Snows: \$20 ea; 3 Metzeler Alpines: \$20 ea.; 4 Michelin ZX's: \$30 ea. plus ship. Al Bowers, 412-362-0887 eve's.

## 99 and 900 PARTS FOR SALE, continued

From 1981 Turbo, 4 TRX tires, 180/65x390 on original alloy rims, 6,000 miles, very good cond.: \$500 plus shipping. Jack Cohen, Montreal, Quebec, 514-384-7710 days, 514-620-7242 eves. Call 4/2.

1976 Wagonback rear door, unblemished: \$150; 2.0 engine with CIS: \$350; other good body, mechanical parts. 1974 Body, good cond. \$450; 1.7 engine: \$200. Jeff Burkes, Rt. 1, Box 294C, Pittsboro, NC 27312, 919-542-5730.

99 air conditioning, working perfectly when removed from '77 EMS: \$100 FOB. Steve Cohen, 13 Century Rd, Nashua, NH 03060, days, 884-6797, eves 889-7688.

One Pirelli CN36 tire, 175/70, new: \$58. Ed Faulk, 204 Parkwyn Dr., Elizabeth, PA 15037, 412-751-8975

Four 1980 Turbo TRX wheels and tires, 180HR390, tires have 1/8" tread left, wheels are complete with nuts and caps and are in good shape. \$125 each wheel/tire or \$400 for set. Dave Gardner, PO Box 2024, Lake Oswego, OR 97034, 503-635-4579 days, 503-639-9321 eves & weekends.

1972 99E bought as a wreck and am only keeping the engine; also air conditioning unit, complete. Kraig Yaseen, 196 Hermosa Dr., Durango, CO 81301, 303-259-4396 eve's.

## 99 and 900 WANTEDS

Wanted: two '79 wheels (triangular vents) \$50+ship; also one or two hubcaps for above wheels: \$7.50 + ship. Ed Oshaben, 15009 Lucknow Ave, Cleveland, OH 44110, 216-285-9215.

Wanted: 1976 99GL 2 dr., coral white w/cinnamon int. 4 spd., low miles, with orig. paint, no rust, body or interior damage, good engine; preferably one owner with all records and no A/C. May also consider Topaz yellow ext.; Will pay whatever it takes. Peter Freihofer, 231 Easy St., #6, Mountain View, CA 94043, 415-968-4689, 408-742-7788.

Wanted: two standard wheels for '79 99 GL. Glen Rhoades, 41 Marshall St., Leonardo, NJ 07737, 201-872-9324.

Wanted: two wheel covers for '79 GLE. Joe Moore, 1420 PA. Ave., Berwyn, PA 19312, 215-644-0961

Wanted: for '79 99, rear rubber bumper cover, with chrome; mini-lite wheels, seat covers, gray or blue. Dave Fichter, 100 Glendale, Hinsdale, IL 60521, 312-887-0692.

Wanted: upholstery or seats for '73 99 2 dr. (yellow ext.) olive green color. Need driver's seat and rear back rest, but will consider complete set if avail. K. Luszczynski, 7010 Maryland Ave., St. Louis, MO 63130, 314-727-5911.

Wanted: Saab Hatchback model, will pay cash. Kenneth Wyle, 251 W. State St, Waverly, IL 62692, 217-435-9777 eve's.

Wanted: Hood for '76 99; '73-78 should fit. Joe Schumacher, 716-672-2007.

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### SAAB PRICES RISE 1.8%, MORE STANDARD EQUIP.

Saab Press Info: Saab-Scania of America has announced a wide range of additional equipment that is now standard on the 1982 line of Saab cars, effective with cars being delivered to dealers on March 1. At the same time the base price of the Saab line has been increased an average of 1.8 percent, exclusive of added product content. The last time base prices for the Saab 900 line were increased was almost one and one-half years ago when the 1981 models were introduced.

All 900S models now include factory installed air conditioning and electrically controlled outside rear view mirrors, while four-door models of the 900S also

feature electrically operated front side windows. Base models of the 900 series maintain the same equipment levels as earlier 1982 production.

#### 1982 Saab Prices (as of March 1, 1982)

900 Series:	
Three-Door Hatchback	\$10,650
Four-Door Sedan	\$10,950
900S:	
Three-Door Hatchback	\$12,800
Four-Door Sedan	\$13,500
900 Turbo:	
Three-Door Hatchback	\$16,200
Four-Door Sedan	\$16,860

### NEWSLETTER GOES BULK RATE ON TRIAL BASIS

As promised last month, I am mailing the Newsletter via a different class than the usual first class. Second class mail turned out to be too much of a hassle, plus a long wait for a permit, so I decided to try third class, bulk rate on a trial basis. If the added delay is not worth the savings in postage costs (10.9¢ vs 20¢) we'll go back to first class, but probably at \$9.00 annual dues.

Please drop us a card to let us know what day you got your Newsletter. We mail them on two or three different days so we will know how long it took.

This issue closed on 11 March. Last month we mailed 3200 Newsletters including 75 new ones to the Saab Owners' Club of Canada (Toronto) who will distribute them locally. Welcome aboard.

Jeff Delahorne, editor