

# Blowout of the Super Swedes

## Turbo Saab vs. Turbo Volvo: Who'll wear the crown?



"Oh Lord, deliver us from the fury of the Norsemen."

That prayer was sent aloft all across western Europe a whole bunch of times during the 9th, 10th and 11th centuries. But in truth, the Vikings were usually just as busy fighting each other. Like many of the North American Indian tribes, they were divided into innumerable small bands, all armed to the teeth, all irascible. And, as often as not, this

by Tony Swan

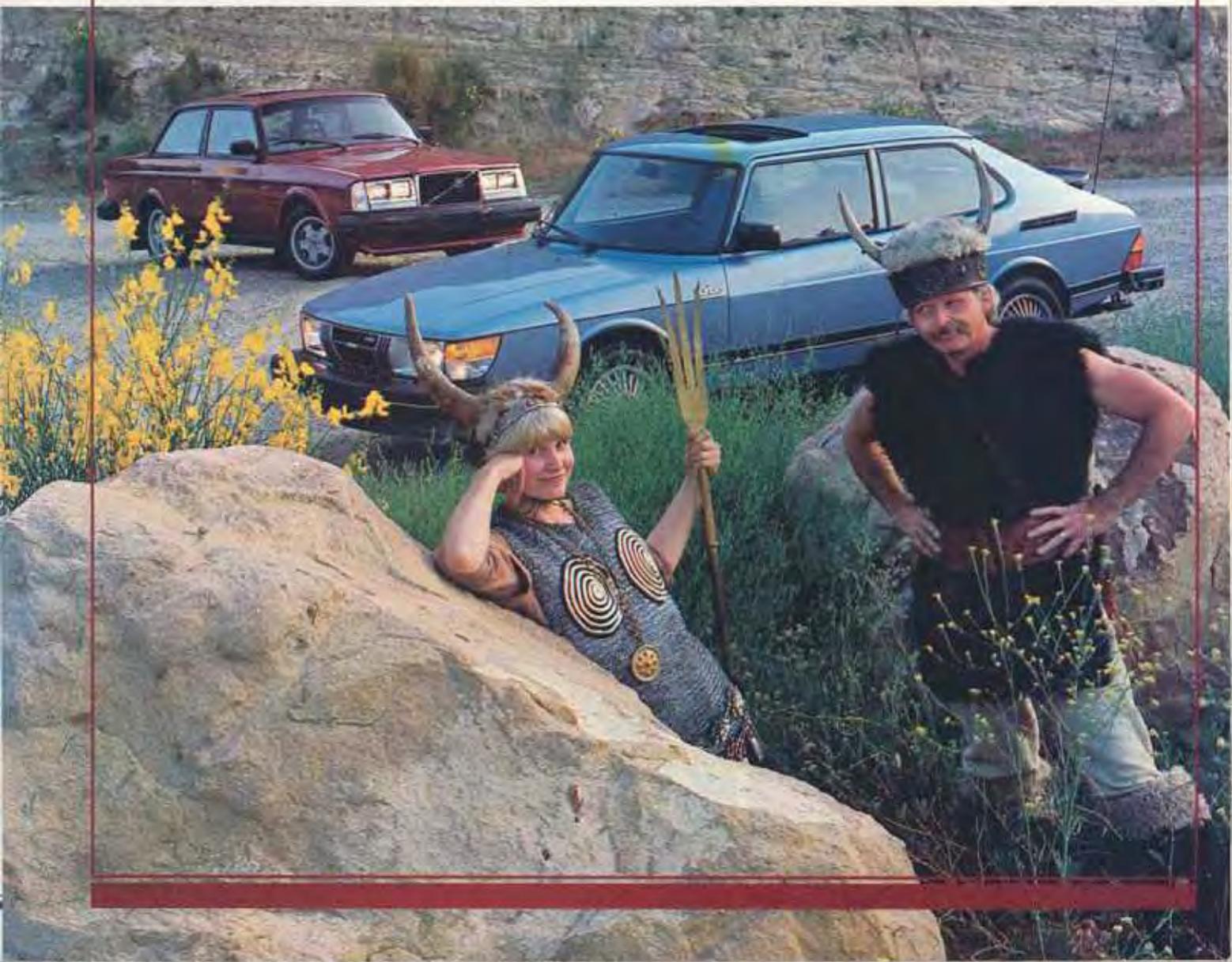
PHOTOGRAPHY BY BOB D'OLIVO

kept them from what seemed to be their true calling—boosting the ceremonial silver, chopping up monks and a variety of other misanthropic mischief.

So, at first glance, what we seem to have here is a return to those merry days of Nordic fraternal warfare. The leanest, meanest and keenest of the turboSwedes. (Also, the *only* turboSwedes.)

When the Saab 900 Turbo came along three years ago, it was generally regarded as just another escalation of that obscure Viking primal urge that drove men to hurl themselves through the Arctic murk in midwinter and somehow emerge thinking they'd had a good time. Like the very first Saab, there was no strictly rational way of accounting for it, and men who had loved Saabs from the beginning loved this one even more.

But when Volvo introduced the GLT Turbo late last year, the game took on a



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distinctly historic overtone. Suddenly, it seemed to be a hot wind from the bad old days, blowing hard from the north. Visions of long ships and guys running around with battle axes. Sweden's only automobile manufacturers locked into traditional fratricide.

To which we say *lëfse*. Yah shoor, these two whistlers are competing in the same general price bracket. And they're certainly comparable in terms of performance—in fact, you're in for some surprises. But the idea of these two cars fighting to the death for the entire Swedish pie encompasses only a small percentage of what's going on here. And, like the Vikings of old, they're fully capable of closing ranks against some outside foe. The identity of that foe should become apparent as this saga progresses.

## Saab 900 Turbo High Panjandrum of the Cult

The first Saab made just about enough horsepower—25—with its 2-cylinder, 2-stroke engine to avoid being mistaken for a doorstop—but not much more. Which didn't seem to dampen the enthusiasm of Swedish rallyists, who promptly began disfiguring the local woods with race-prepped Saab 92s. The new car wasn't exactly eyeball-flattening in the acceleration department, but it went around corners pretty well and its streamlined shape (a throwback to Saab's aircraft heritage) seemed to carom off tree trunks with exceptional facility.

A legend, reinforced by conspicuous success on the rally circuit, was quickly established: Saab, the rally weapon. Saab, the woods car. Saab, the performance car for discerning individuals with a taste for the bizarre.

It's a legend that persists, and it doesn't bring as much joy to Saab marketing as you might think. Rather than having their car perceived as a peculiar piece of engineering genius that's beyond the ken of all but the true cognoscenti, the Saab brain trust would rather have their product seen for what it is: a high-quality all-seasons European sedan with sporting character.

But noooooo. Guys go out and buy Saabs and, by golly, first thing you know they're talking about Eric Carlsson and Stig Blomqvist and reading stories about Press On Regardless and the Safari. They just seem to get a little nuts, Sven.

Bob Sinclair, a former Volvo of America exec who now heads Saab Scania of America, is no stranger to cultism: His taste for Norton motorcycles persists in the face of all Japanese superbike superiority. But even he is amazed by the faith of Saab faithful.

"We get stacks of mail, and they all say pretty much the same thing," he says. "That there's absolutely no other car in the world they can live with."

"Carl Ally, the president of our advertising agency (Ally and Gargano), says nothing makes him madder than when another Saab owner flashes his headlights at him. He says, 'This is an automobile; this is *not* a love affair; this is a car!'"

"It's because he wants to expand our market, and he figures if you've got a car that makes people want to flash their headlights you're only going to sell about 10,000 to 15,000 of them a year."

Which is precisely what Saab is moving—about 15,000 per annum. Against a backdrop of steadily mounting costs—not a promising climate for expansion.

Len Lonnegren, the Saab PR director, sums it up very tidily: "It's becoming a cult car that's just for the people who can afford to buy it again. The old car, the 90 series car, was a cult car for people who could barely afford anything."

Cult car or otherwise, though, this Saab is very much in the mold of the other 900 series machines we've come to know and respect over the years: taut, refined and supremely comfortable. The ignition key is still on the floor and is likely to remain there. The front seats still have built-in warmers. The rear seatbacks still fold for-



Saab 900 Turbo



The power-assisted rack-and-pinion steering doesn't offer quite the feel and precision of the Saab, but the Volvo does possess a commendably small curb-to-curb turning circle—just over 32 feet—making it remarkably maneuverable for a car its size.

Our test car didn't reflect Volvo's usual attention to quality control. An annoying vibration cropped up in the left rear quarter during the test, the sunroof crank

wouldn't stay mated to the crank drive splines, and the sunroof leaked during the car wash test. We suspect the silver velour upholstery material isn't going to weather very well, particularly insofar as stains are concerned, but only time will tell on this score.

But the truly distinguishing feature of this car is its new turbo motor, which offers 20 more horsepower than the standard version: 127 at 5,400 rpm. Volvo

achieves these gains without incurring substantial engine retooling costs; the Bosch K-Jetronic-injected 2.1-liter OHC turbo four is identical to the normally aspirated version in every respect save its 7.5:1 compression ratio (normal is 9.3:1). To get proper airflow, the Volvo engineers cleverly mated the air metering unit from the V-6 engine's injection system, with two fuel jets shut off. Beyond that, it was just a matter of plumbing in the Gar-

## ROAD TEST DATA

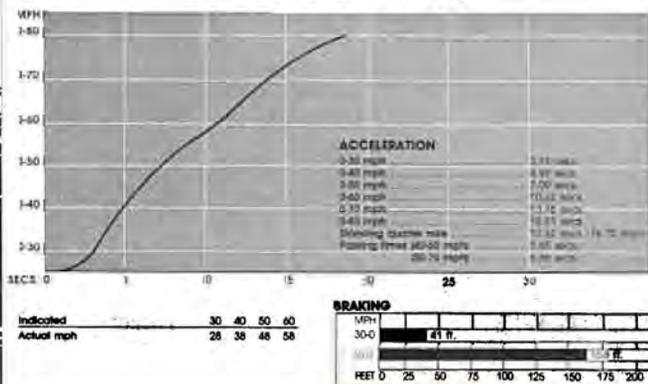


### Saab 900 Turbo

#### SPECIFICATIONS

<b>GENERAL</b>		Ground clearance	6.0 in.
Vehicle type	front-engine, front-drive, 5-pass., hatchback coupe	Max. load length w/rear seats folded down	72.2 in.
Base price	\$15,600	Curb weight	2,814 lb.
Options on test car	All equipment standard	Weight distribution, F/R	58/42%
Price as tested	\$16,600	<b>CAPACITIES</b>	
<b>ENGINE</b>		Fuel	16.6 gal.
Type	inline four, turbocharged, cast iron block, aluminum head, 5 main bearings	Crankcase	4.0 qts.
Block & stroke	3.54 x 3.07 in. (90 x 78 mm)	Cooling system	10.8 qts.
Displacement	121 cu. in. (1,985 cc)	Trunk	14.9 cu. ft.
Compression ratio	7.2:1	<b>SUSPENSION</b>	
Fuel system	Bosch K-Jetronic injection, Garrett TCD3 turbocharger	Front	tr A springs, gas shocks
Recommended fuel	91 unleaded	Rear	beam axle, coil springs, gas shocks, Panhard rod
Ignition source	Lambda Sond catalyst	<b>STEERING</b>	
Valve gear	SOHC	Type	Rack and pinion, power assist
Horsepower (SAE net)	135 at 4,800 rpm	Turns lock-to-lock	3.66
Torque (ft.-lb., SAE net)	160 at 3,500 rpm	Tuning circle, curb-to-curb	33.8 ft.
Power lockweight ratio	20.8 lb./hp	<b>BRAKES</b>	
<b>DRIVETRAIN</b>		Front	11.0-in. disc, power assist
Transmission	4-speed manual	Rear	10.6-in. disc
Final drive ratio	3.99:1	<b>WHEELS AND TIRES</b>	
<b>DIMENSIONS</b>		Wheel size	135TR x 390mm
Wheelbase	99.4 in.	Wheel type	Cast aluminum
Track, F/R	55.9/56.3 in.	Tire make and size	Michelin TRX, 180/65 HR30Q
Length	187.4 in.	Tire type	SI <small>all-terrain radial</small>
Width	66.5 in.	Recommended pressure (psi), F/R	30/30
Height	55.9 in.		

#### TEST RESULTS

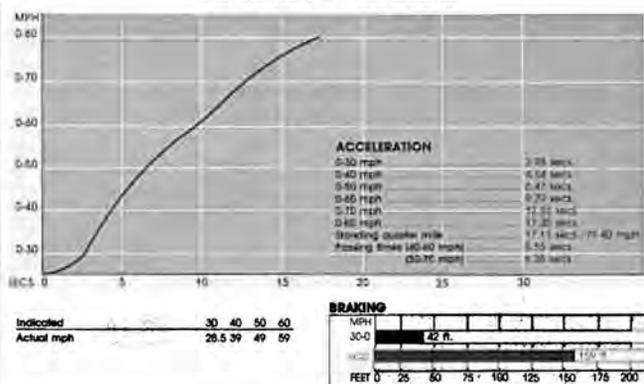


### Volvo GLT Turbo

#### SPECIFICATIONS

<b>GENERAL</b>		Length	192.5 in.
Vehicle type	front-engine, rear-drive, 5-pass., 2-door coupe	Width	67.3 in.
Base price	\$13,970	Height	53.9 in.
Options on test car	AM/FM cassette stereo	Ground clearance	4.3 in.
Price as tested	\$14,441	Curb weight	3,066 lb.
<b>ENGINE</b>		Weight distribution, F/R	53/47%
Type	inline four, cooled, cast iron block, aluminum head, 5 main bearings	<b>CAPACITIES</b>	
Block & stroke	3.68 x 3.2 in. (92 x 80 mm)	Fuel	15.8 gal.
Displacement	130 cu. in. (2,127 cc)	Crankcase	4.7 qts.
Compression ratio	7.5:1	Cooling system	11.5 qts.
Fuel system	Bosch K-Jetronic turbocharger	Trunk	13.7 cu. ft.
Recommended fuel	91 unleaded	<b>SUSPENSION</b>	
Emission control	Lambda Sond catalyst	Front	MacPherson struts, coil springs, anti-roll bar
Valve gear	SOHC	Rear	4-link live axle, Panhard rod, coil springs, anti-roll bar
Horsepower (SAE net)	127 at 5,400 rpm	<b>STEERING</b>	
Torque (ft.-lb., SAE net)	150 at 3,750 rpm	Type	R power assist
Power lockweight ratio	24.1 lb./hp	Turns lock-to-lock	3.5
<b>DRIVETRAIN</b>		Tuning circle, curb-to-curb	32 ft. 2 in.
Transmission	4-speed manual w/overdrive	<b>BRAKES</b>	
Final drive ratio	3.73:1	Front	10.3-in. vented discs
<b>DIMENSIONS</b>		Rear	11.0-in. solid discs
Wheelbase	104.3 in.	<b>WHEELS AND TIRES</b>	
Track, F/R	56.3/53.5 in.	Wheel size	6 x 15 in.
		Wheel type	Alloy
		Tire make and size	Pirelli P6, 195/60 HR15
		Tire type	Street built radial
		Recommended pressure (psi), F/R	30/30

#### TEST RESULTS



vo's stodgy image. The intramural performance junta is extensive and goes all the way up to Dan Webin, Volvo's vice president for product planning. While there isn't much chance of Volvo returning to production of a sports car, such as the late lamented 1800E, there is a substantial chance we'll be seeing more machines such as this one; Volvos that can do something besides make you feel pious.

The difference between this GLT and

the unblown edition lies primarily beneath the hood. There's some restrained black exterior trim, a little chin spoiler to reinforce the performance feeling, and Pirelli P6 radials to help put the performance onto the asphalt. But about the only other clue that this Volvo is something out of the ordinary is the little "Turbo" badge on the back.

Like the Saab, the Volvo is a pretty good-sized car, with plenty of room for

four adult passengers inside. Comfort is high, although we prefer the Saab seats to the Volvo's lumbar-supported numbers primarily because the Saab units offer better lateral support. There's also a bit more leg room in the Saab's back seat.

Although the Volvo's suspension—MacPherson struts front, live rear axle—is a bit dated, it nevertheless represents a successful blend of spring and damping rates for a very pleasant highway ride.

## The Whistler's Father

### Living proof that Saabs are actually designed, rather than organically grown

**H**is favorite car is the 1963 Ferrari 250 GT Lusso, followed closely by the original Alfa Sprint Veloce and the 1967 Camaro. He accepts the creations of Pininfarina—save for those so-called "heavy" Ferraris penned during Michelotti's residency—chapter and verse. He has an unexpectedly wacky sense of humor and a shrewd way of regressing into "yah shoors" and umlauts when the questions bore into territory he regards as proprietary.

So, if you were playing "What's My Line?" how would you add up this column of attributes? Wrong, Miss Kilgallen. This gentleman is Bjorn Envall, and since 1969 he's been head of the Saab design center, the only man ever to hold the title. The father of the Kombi. The shepherd of the current turbocars.

If the very existence of a Saab design center strikes you as a surprise—if you are among the vast majority of car lovers who think of Saabs as efficient weirdness that has nothing to do with style—then you are among those who daily test Envall's patience. It's a test he passes with high marks.

"People have a way of thinking that everything that's different is somehow weird," he says, with just enough *Svenska* singsong so you don't forget who you're talking to. "But, it is so often a question of environment. If, for example, you were to see a Citroën in New York, it would stand out. No question. It would seem weird. But if you saw it in Paris you wouldn't give it a second glance.

"We have a Buick just now, studying the power steering system, and we've been driving it a lot in Denmark. Let me tell you, in Denmark, that Buick is a very weird car.

"Maybe it's like looking at a woman. You might meet a woman and initially call her weird. But then after two or three days or so you may discover other attractive qualities and suddenly she is not so weird after all."

Okay, then, if weird is a bit strong, surely we can say that Saabs are unique. That Saabs are Saabs and nothing else.

"Well, that's fine, as far as it goes," says Envall. "But we would like people to understand that Saabs are Saabs because of what Saab stands for. It's really difficult to get people to under-



BOB D'OLIVO

stand about Saabs if they haven't actually been in the car."

The problem of Saab's perceived weirdness isn't something that Envall created; it came with the territory. Founded as an aircraft firm in 1937 (Svenska Aeroplan AB, hence SAAB), the company didn't begin producing automobiles until December, 1949. That first Saab, the 92, was co-fa-

thered by Chief Engineer Gunnar Ljungstrom and independent designer Sixten Sason before Envall had even passed his boards for the Swedish Royal College of Art. The 92 positively oozed weirdness.

But we can't let Envall off the hook entirely, because it was the 92 that attracted him to a career in autodom. He took his first job with Sason Design, in Stockholm, in 1956, cleaning up the studios, doing odd jobs and learning everything he could. Envall graduated from college in 1965 and set up heavier housekeeping at Sason. In 1967, he left to join Opel, in Germany, where he toiled with GM design chief Chuck Jordan, and in 1969 Saab summoned him to set up its first in-house design facilities. He was allotted a staff of one.

"They finally saw that they had to have their own design department," he recalls. "Since then, we've built it up; at least, we've got a brand-new design building and studios."

The cast of characters at the center now numbers 14, including a couple of Americans (one of them, Mark Ashcroft, is a recent graduate of the Art Center College of Design). It's a truly international group, with more than enough talent to sustain the wonders of Saabness.

But talent isn't the problem. As usual, it's cash. Saab is a solidly profitable car company, but not a company in a position to finance extensive model changes every three or four years. Envall sums up the importance of cost engineering at Saab with a recollection about the genesis of the current 900 series cars: "We found a way to use the same doors as the 90 series.

"It's one of the considerations we face always; you have to think in long terms. You look at a car like the 900—it's planned to go 10 or 15 years. So you have to figure out how the hell you get people to keep buying it. If you get

*continued on page 78*

ward to offer cavernous cargo space. There are twin remote-control mirrors, a sunroof, power window lifts and a new Sony XR-70 AM/FM stereo cassette player, all standard items in an exceptionally well-equipped car.

The Sony stereo is a new item in this year's inventory of Saab goodies, and an exceptionally good one. Just how good was made plain to us one night near the end of our communion with the 3-door Turbo when some night-stalking mouth-breathers smashed a window *and* the dashboard to extract the stereo gear.

Suspension on this Super Swede continues to be a strong suit: independent up front, with a beam axle at the rear, contributing to superb highway manners and exceptional agility for a car this size. The turbo Saabs are riding on Michelin TRX radials this year, a change that, perforce, includes Michelin TRX wheels. While the TRX Michelins have always earned

good marks in this journal, and the accompanying wheels are certainly cosmetically acceptable, we miss the wheels that went with the previously standard Pirelli P6 radials. Lonnegren calls them the "Star War Wheels," and they're just the sort of equipment that helps to maintain cult camaraderie. Do you suppose Carl Ally had anything to do with their departure?

The Saab's lion-hearted 2-liter OHC turbomotor has had some update attention as well, enough to merit a new series designation: the H Engine. It's 25 pounds lighter, but more important, it's been tweaked for better low-end response, thanks in part to a redesigned integral wastegate in the Garrett TC03 turbocharger. Tweaked, but not cured.

The transaxle is Saab's excellent new 5-speed, which in our opinion is the only way to fly with one of these cars, even though turbocars seem to do exceptionally well with automatics. All the internal ratios in the gearbox have gone a trifle taller, which, predictably, has two effects: improved fuel economy and diminished acceleration.

There's hardly a trace of torque wind-up in the drive unit, which is due in part to the upgraded power-assisted rack-and-pinion steering. The latter does a fine job of damping out torque steer, eliminating the steering effort that would otherwise be present with a 58/42 static front weight bias—all this while still delivering very good road feel.

In short, here's a road car that continues its engaging—and distinctive—flirt-

ation with greatness. But can it withstand the onslaught from Goteborg? That, of course, is the question.

## Volvo GLT Turbo Goteborg Blows Away the Stodgies

**T**he name Volvo traditionally conjures up plenty of favorable images, but fun isn't one of them. This condition isn't helped much by the official line from headquarters, which insists that Volvos are responsible cars of high quality. It's like sensible shoes; they may make your feet comfortable, but they don't make them glad.

With its marketing strategy hammering away monotonously at safety and reliability, the Volvo has contrived to become the automotive equivalent of Crest toothpaste, or plain yogurt. Good for you, but not much fun.

All of which makes the Volvo GLT Turbo an especially pleasurable experience in the art of the ambush. Startled Z-car drivers gape as you whoosh away from the light, then, jaws clenched, find out it's for real when you do it again on the next green. Guys in 528s can't believe what they're seeing—you can tell by watching them in your mirrors—and even Saab Turbo pilots are mildly astonished. A quick Volvo? Not possible!

*Au contraire.* Not only is it possible, but it's here, thanks to the efforts of a small band of enthusiast dissidents within the Volvo corporate structure who are dedicated to dusting the cobwebs off Vol-



Volvo GLT Turbo



# Blowout of the Super Swedes

rett TB03 turbocharger—which, like the Saab's TC03, also features an integral wastegate—and changing the lowest cog in the 4-speed electric overdrive gearbox.

This last may seem a small thing, but it's the key to the success of the car. Changing 1st gear from 3.71:1 down to a stump-pulling 4.03:1 gets the engine into useful boost range—useful boost coming on with a gratifying surge just under 3,000 rpm—in a big hurry. Which is why the GLT Turbo is able to play Q ship against such opponents as the Datsun ZX, BMWs of virtually any description, Toyota Supras and—you knew we were coming to this—even Saab Turbos.

## The Tale of the Tape

You've probably sneaked a look at the data panels already, so it comes as less of a surprise to learn that the Volvo consistently and repeatedly dusts the Saab off the line. And we're talking half-second differences in the quarter-mile, which is considerably more than a mere academic distinction. By contemporary standards, this Volvo is classifiable as quick, which is a very heartening change in the Goteborg status quo.

The key, again, is that low 1st gear, which gets the turbine wheels twirling faster earlier. In fact, awaiting the onset of boost is the one truly irritating flaw in the Saab's otherwise distinguished sporting credentials. Unless you're prepared to use lots of rpm, clutch and wheelspin, you're not going to be in the ballpark for stoplight warfare. So the Volvo takes this aspect of the contest hands-down, although the Saab's greater horsepower quickly asserts itself in highway roll-ons from about 50 mph or so.

Equipped with disc brakes all around, both cars are very good at stopping without excessive drama and with no discernible fade; there is little to pick between them here.

In the always-critical realm of fuel economy, the Volvo's body shape is costly, although both cars exceed their EPA projections and represent good examples of the efficiency of turbomotors. The Volvo's rather boxy 14-year-old design,

with its safety car-inspired frontal area, was reflected in the car's highway mileage, which was actually lower than the figure achieved on the *Motor Trend* 73-mile test loop.



### Volvo GLT Turbo

EPA City .....	18	Driving range	
EPA Highway .....	28	(steady-state	
MT Test Loop .....	30	55 mph x fuel	
Steady-state 55 mph ...	28.3	capacity) .....	447 miles

### Saab 900 Turbo 3-Door

EPA City .....	19	Driving range	
EPA Highway .....	30	(steady-state	
MT Test Loop .....	34	55 mph x fuel	
Steady-state 55 mph ...	36	capacity) .....	598 miles

When it comes to handling, Volvo still has a ways to go to match the Saab. There's nothing really magic about front-wheel drive compared to conventional layouts, but the Saab's suspension provides greater roll stiffness and, as a result,

a much more secure and businesslike way of going around corners. Both cars understeer, the Volvo somewhat less than the Saab. But the Volvo is softer—not to the point of wallow and pitch, but nevertheless not so tautly drawn as its opponent.

A distressing phenomenon of the Volvo drivetrain is its long two-piece drive-shaft. This turns in rubber bushings, to damp vibrations, and there's enough flex in the system to allow substantial driveline lash when you're using that low 1st gear to the max.

Conclusions: In the narrow sense of the Blowout, the Volvo takes the checkers. It's clearly the quicker of the two out of the blocks and through the quarter-mile, although beyond that the Saab begins to reel it in.

In the Volvo tradition, the new GLT Turbo provides all-day comfort on the open road, and both turbocars are wonderfully flexible in light-to-moderate freeway traffic, sorting the herd efficiently and subliminally (if any Saab can be said to be subliminal).

But when it gets to the twisties, the Saab definitely begins to assert itself. The 5-speed does a nice job of keeping the turbo on useful boost levels at any speed over 20 mph, and the car simply gets around corners faster than the Volvo.

So what we have here is a split decision. If your driving is going to involve a lot of urban work, or heavy traffic, the Volvo gets the job done with far less frustration. And for about \$1,000 less.

If you're going to be doing a lot of long hauls, or a lot of hurry-up work on back roads (do you suppose there are *aquavit* moonshiners in Sweden?), or any combination of the two that doesn't involve much stop-and-go, the Saab's your car.

But we told you at the top that we didn't believe this to be a true intra-Swede confrontation. As far as the strategic planners for both sides (Bjorn and Sven and Knut and Arne and Nils and Stig and all the others) are concerned, turbo Saab and turbo Volvo only serve as a nice basis for comparison against the *real* target. And that distinction belongs to BMW. 

## The Whistler's Father

continued from page 76

it right at the beginning, if it's clean, you should be able to accomplish this without sticking a lot of pieces on the car later on. But the planning is very important.

"I think this is definitely becoming more important to the bigger manufacturers, too. You look at GM; they made a big investment in the J-cars. It has to be a long-term investment."

But Saab is nevertheless faced with the problem of increasing costs and the willingness of the Saab faithful to

bear them. Which has a powerful ring of limited expansion potential to the guys in Saab marketing.

"The question for us is how do we get to the next step," says Envall. "How do we get to the mainstream, beyond the enthusiast?"

"I would say we are hitting BMW very hard right now, especially in their international markets. And we think we do it because we have the right concept—the right combination of image and performance.

"We are trying to adjust our image a bit, because we find a lot of people still don't really understand what

Saabs are. There are still people who think that Saab is a 2-stroke."

We couldn't let Envall go without asking for a quickie contrast of the Volvo and the Saab. His response was as slippery as a fresh batch of *lutefisk*.

"Volvo is looking perhaps more toward the Mercedes type of buyer. We are trying to be sportier, like BMW. But as far as that goes, both Mercedes and BMW represent a different type of character than Saab and Volvo.

"So it's all a matter of trying to get people to understand why our car is looking like that. And we don't have the answers to everything." —T.S.