

SAAB



The new Saab 9000 Turbo 16



THE SAAB 9000 TURBO 16 IS HERE—A DISTINCTIVE AND DYNAMIC CAR THAT EMBODIES ALL OF THE EXPERIENCE WE HAVE ACQUIRED OVER THE YEARS AND COMBINES IT WITH INNOVATIVE HIGH TECHNOLOGY. THIS IS THE CAR FOR THE DISCERNING MOTORIST WHO DEMANDS SUPERLATIVE PERFORMANCE.



THE THIRD-GENERATION turbocharged engine, superb roadholding, distinctive and daring design, a large and comfortable interior for five adults and the practical flexibility of the seating and load-carrying spaces give the 9000 Turbo 16 a unique status in the automotive world. Its top speed is around 140 mph and

the car accelerates from rest to 60 mph in 8.3 seconds. The 175 turbocharged horsepower give the car resources that are a cut above the excellent.

The 9000 Turbo 16 is a car with distinctive inherent characteristics that offer the driver wide opportunities for using his individual technique and his driving skill. The driver and car are moulded into an exciting, unbeatable combination.

The Saab 9000 Turbo 16 is the beginning of something new—a comfortable and attractive Combi Sedan with breathtaking performance.

SAAB

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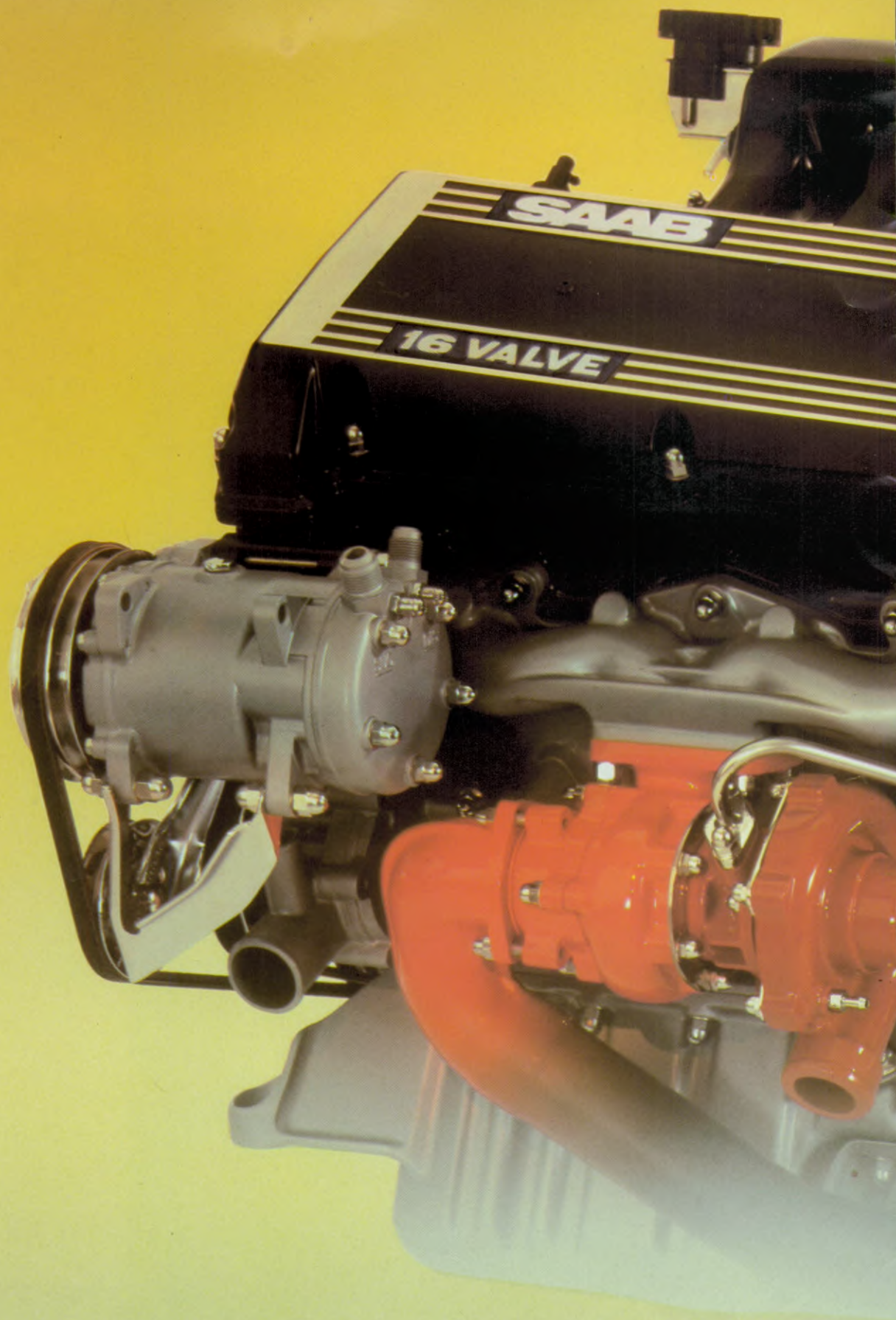
The driver behind the wheel of the Saab 9000 Turbo 16 is an integral part of the car, in an honest and exciting partnership.

THE 9000 IS BUILT from the inside outwards. Since the driver is the hub of all that happens, he has also been the focus of attention in all of the design work. His needs and opportunities in a variety of situations were decisive to the design of the car and the equipment selected for it. The driver's environment is based on very deep analysis of Man's abilities and shortcomings. We have provided him with all the opportunities for achieving his abilities. But we have also done everything to attenuate his shortcomings. We have enabled him to travel at more than 130 mph without fatigue or anxiety. So in addition to making the driver's "cockpit" comfortable and safe, we have also made certain that it performs its vital function of a practical unit in a complete motoring system.

The driver has systems and instruments at his command to give him accurate and fast information. The driver's environment includes a trip computer, pictogram, cruise control, automatic climate control (ACC) with integrated air conditioner, controls that are illuminated from the inside, and central, entirely non-reflecting instruments in his natural field of vision. Progressive power steering, a "natural" arrangement of the pedals and one of the best seats in the automotive world round off the perfection surrounding the driver.

The driver's environment must perform equally well for all drivers. So flexibility was one of the key words, as reflected by the very wide range of adjustments of the driver's seat or the adjustable position of the steering wheel along the steering column.

The 9000 Turbo 16 is built with focus on Man. The driver is an integrated part of a comprehensive, precision system.



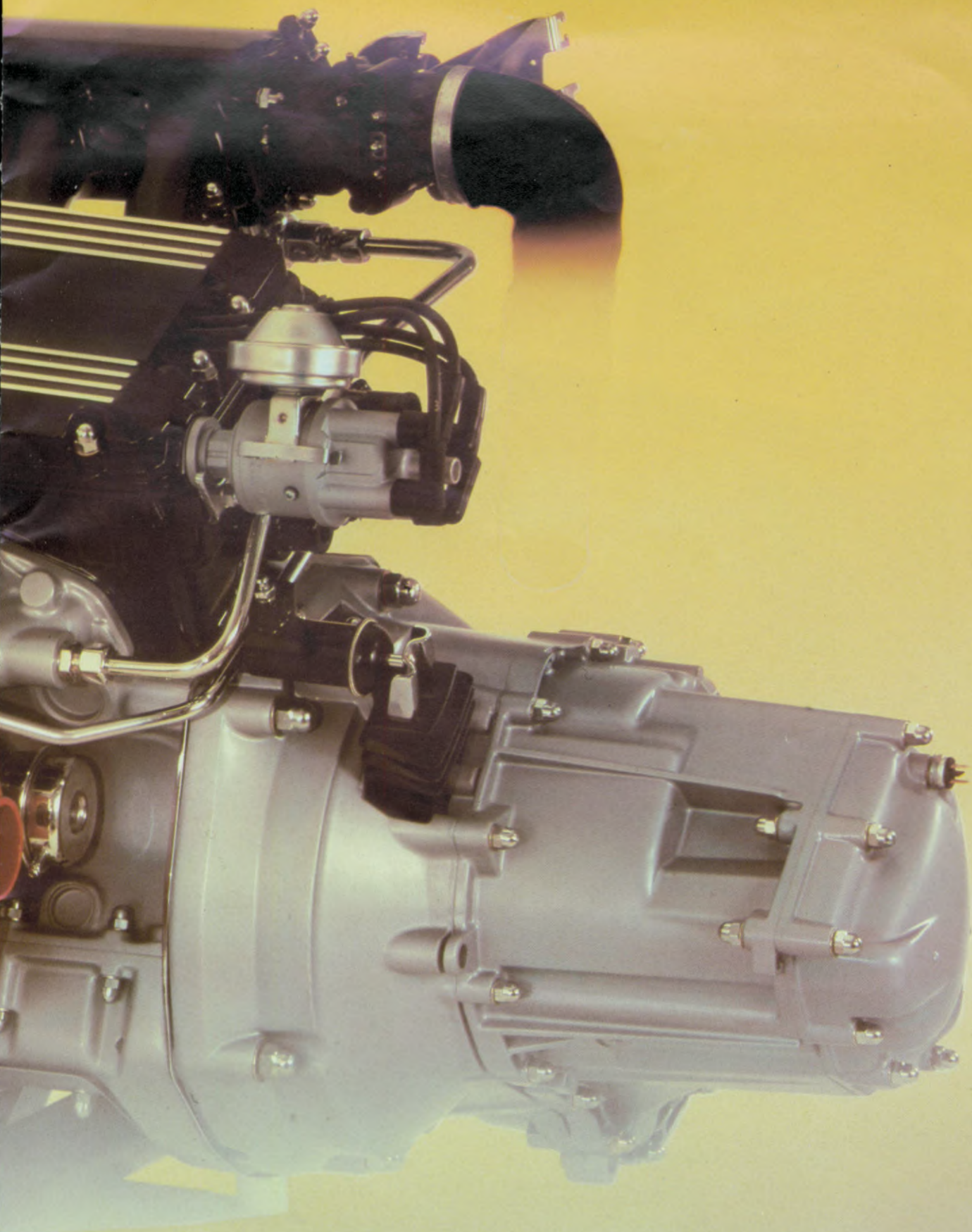
Turbocharging, Automatic Performance Control (APC), intercooler, LH Jetronic fuel injection, double overhead camshafts and four valves per cylinder give the transversely mounted engine of the 9000 Turbo 16 enormous power resources. Power enough for around 140 mph and acceleration from rest to 60 mph in 8.3 seconds.

OUR EARLIER turbocharged engines have made a lasting impression on the motoring world. When Saab became the first car manufacturer to

launch a turbocharged engine for everyday motoring in the mid-1970s, the accolades were resounding. The patented Automatic Performance Control (APC) system that enables the engine to run on fuel of any octane number without the risk of damage was presented a couple of years later on the second-generation turbo engine and was met with equal acclaim. Saab has so far built about 125 000 cars with turbocharged

engines. The third-generation turbo engine demonstrates again the tremendous development potential of the concept.

Today's Saab turbo engine is actually tomorrow's engine. It is based on a well-proven fundamental design, with four cylinders and a swept volume of two litres. The refinements of an intercooler and a 16-valve cylinder head on the third-generation turbo engine have boosted its power to 129 kW (175 hp) DIN and the impressive peak torque of 273 Nm at



a mere 3000 r/min, which is on a par with appreciably larger engines. So the engine has excellent low-speed performance, which cuts out much of the gear-changing work. But in normal motoring, the engine still has the running economy of a conventional four-cylinder fuel injection engine. Even after

the turbocharger has cut in, the engine is still economical on fuel as compared to other engines with equivalent performance.

The third-generation turbo engine is built for high power, low fuel consumption, maximum reliability and minimum service needs. Our turbo engine gives much more than it takes.

Passenger Car Fuel Consumption Energy Act 1976.

Official fuel consumption tests are designed to represent real-life driving situations and to provide a guide to the models most likely to show good fuel economy. The tests do not guarantee the fuel consumption of any particular car and there will inevitably be differences between cars of the same model. Loading, weather, traffic conditions, overall mileage and particularly driving style and standard of maintenance are factors which can affect the achievement of better fuel economy.

Manufacturer/ Model	Transmission	Imperial mpg			Metric l/100 km		
		Urban	56 mph	75 mph	Urban	90 km/h	120 km/h
Saab 9000 T16	M5	25,4	40,9	31,0	11,1	6,9	9,1



The chassis of the Saab 9000 Turbo 16 is of very advanced and completely new design, to provide the best possible directional stability under all motoring conditions. Even in strong cross-winds, the 9000 behaves consistently on all types of roads and on any surface, with a full load or with the driver alone in the car—even though he may accelerate, decelerate or brake in a curve.

The chassis is designed for speeds well in excess of those which its powerful engine can attain. It gives the driver very fast and accurate information on how the car is behaving, so that he can immediately take the appropriate action—often spontaneously. This has been achieved by the chassis being built with focus on Man. The seat, steering wheel, pedals and visibility have all been attuned to keep the driver informed at all times of how his car is behaving.

THE 9000 approaches its break-away limit—the point at which the tyres lose their grip of the road surface—slowly and distinctly. This is due to the rear axle having a certain amount of side force oversteer when the car is driven hard, so that the tyres “slide” laterally as little as possible. The exceptional ability of the human

being to detect certain small movements and changes enables the driver to feel the start of the break-away in ample time.

The chassis has also been designed to provide maximum riding and driving comfort at all speeds. Its function in this respect is to damp out vibrations of various frequencies and eliminate the tiring swaying movement of the occupant's body. Tremendous effort has been devoted on the 9000 to combining good roadholding characteristics with high driving and riding comfort.

The solid rear axle is torsionally very stiff and is firmly located, which eliminates undesirable steering effects. This, together with the short overhangs of the car, gives fast and distinct response. The rear



axle is secured to the body by two leading and two trailing links. Due to the length of these links, soft suspension springs with a long travel can be used. This provides excellent road-holding and high comfort. The rear axle is fitted with an anti-roll bar and a low-level Panhard rod, to minimise the lateral swaying movements. The well-matched rubber bushes effectively absorb vibrations. The gas shock absorbers are direct-acting and are mounted straight onto the axle.

The entire front assembly, including the engine and gear-box unit, is pre-assembled on a sub-frame and is tested before being fitted into the car. This ensures high quality and reliability. The front suspension of the 9000 is by McPherson struts. The system is simple, reliable and compact. The long spring travel provides firm contact

with the road surface, even when the car is driven fast over the brow of a hill or when it is cornering hard. The suspension also contributes to the high riding comfort. The mountings incorporate vibration dampers which improve the durability and attenuate the road noise, but are sufficiently rigid to provide the driver with correct "feel of the road".

The weight distribution combined with the chassis geometry give the Saab 9000 superb roadholding characteristics. Most of the weight is supported by the driven and steered front wheels, so that the 9000 always grips the road firmly and behaves consistently in all situations.

The rack-and-pinion steering is power-assisted and responds quickly and distinctly to the steering wheel. The steering

behaviour of the car is neutral. The steering column is made in three sections and is designed to collapse in stages in the event of a collision. The system absorbs the shocks from the irregularities in the road surface, although still providing the driver with the maximum amount of information.

The 9000 is equipped with large-diameter disc brakes all round. The front discs are ventilated. The dual-circuit, diagonally split system, with one front wheel and one rear wheel in each circuit, guarantees that 50% of the braking effort will still be available, even if one circuit should fail. The front and rear brake cylinders are of different diameters, and the characteristics of the front and rear brake pads change in a predetermined manner, depending on the load. This combination minimises the risk of locking of the rear wheels on heavy

braking. The brake pads are asbestos-free and are of the new generation that Saab was first to launch in 1982. The useful life of the brake pads is two to three times longer than that of conventional pads, and the fade tendency of the friction material is low, even at high temperatures. The brake pads are also more silent and cause less fouling of the wheels than conventional pads. The brakes are power assisted and the braking effort is well-balanced, even when the car is braked hard from very high speeds.

The roadholding characteristics of the Saab 9000 Turbo 16 are in a class of their own. The chassis is built with focus on the driver, which results in distinct and clear communication between the driver, the car and the road surface. The 9000 Turbo 16 takes over where others have left off.







The Saab 9000 Turbo 16 is not merely a high-performance car. It is also designed for motoring in lavish comfort. The car owes its exceptional comfort to the careful balance between performance and size.

THE SAAB 9000 has been built from the inside outwards, with the aim of providing five adults with the highest possible comfort, but within compact dimensions that restrict the



weight and thus the fuel consumption. The result is a very roomy and extremely comfortable car.

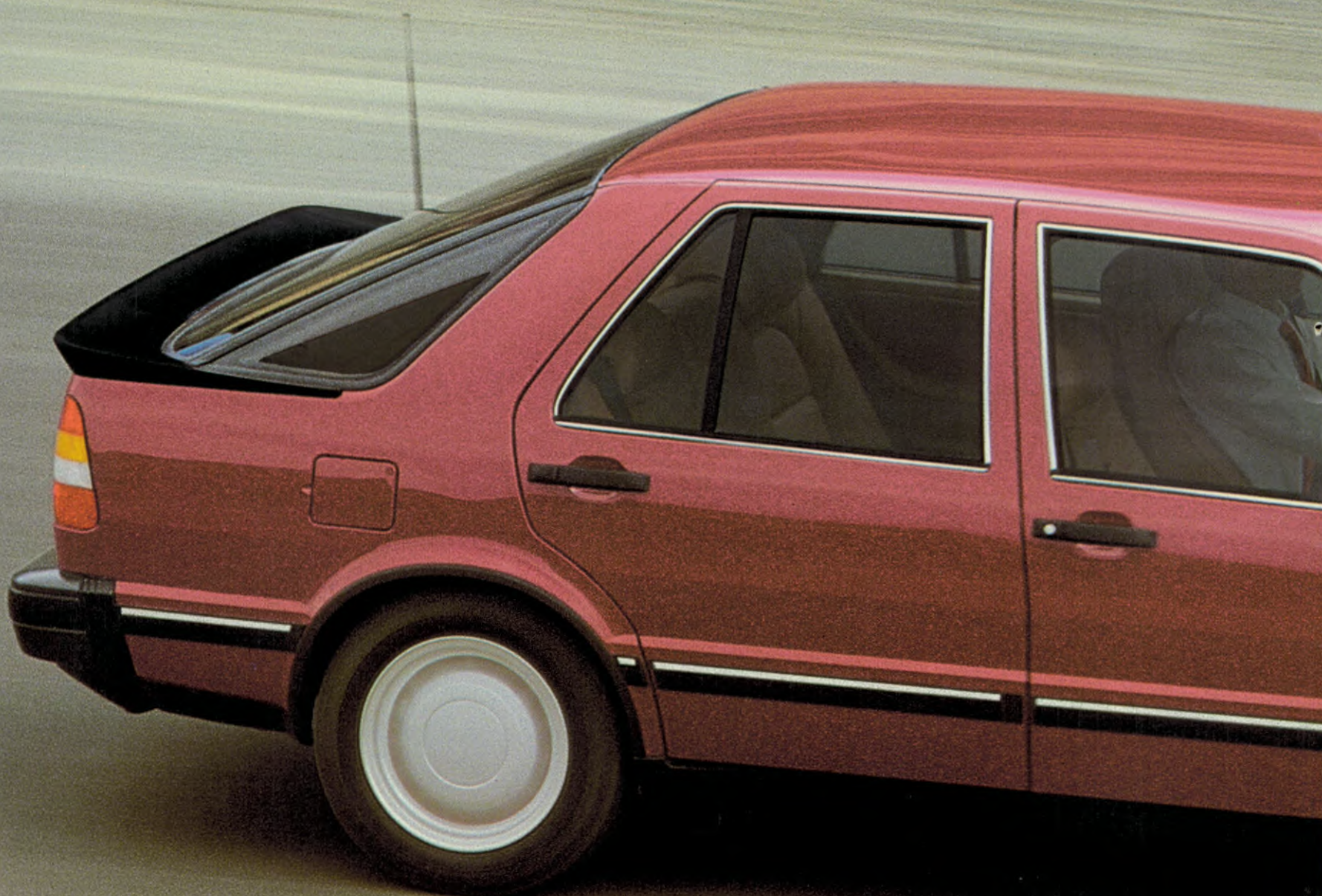
According to the American EPA standards, the 9000 is classified as a "Large Car". So in terms of space, it is amongst the largest cars on the market. But it also has sparkling perfor-

mance and superb roadholding. And this is just what is normally lacking in the Large Car concept.

The interior includes many features that contribute to comfortable motoring. A decisive factor is the extremely high quality of all materials used throughout the car. The leather and fabrics have been selected with great care, to provide the best possible seating comfort on long journeys.

The sound insulation has been very carefully designed for the best possible acoustic environment in the interior. It has been created to amplify speech and music, but to suppress disturbing noise.

The Saab 9000 Turbo 16 offers a unique combination of performance and comfort in an attractive and roomy guise.



Lavish interior space, high engine performance and impeccable chassis characteristics have been moulded together and then reinforced with flexibility. That's the Saab 9000 Turbo 16—in a class of its own. What other comparable car can offer the same comfort on a long journey and the same cargo space, merely by folding down the back seat?

THE SAAB 9000 has built-in flexibility. It can easily be converted from a comfortable five-seater into a two-seater, three-seater or four-seater

cargo carrier—but without impairing the comfort.

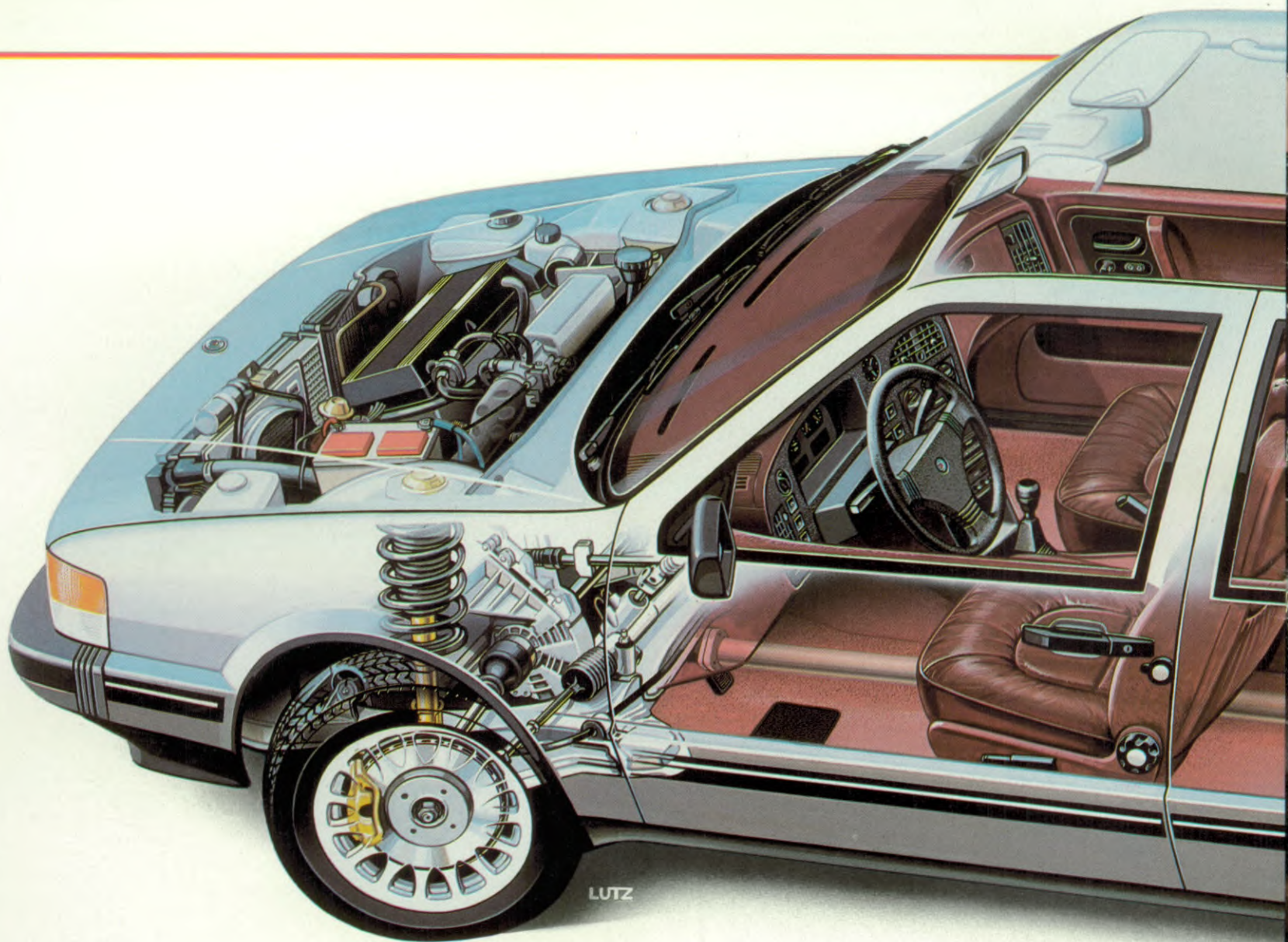
On the 9000, the estate car principle has been applied with refinement. This has been achieved by more attractive styling, a lower sound level in the interior and a wider variety of load-carrying facilities. Due to its excellent aerodynamics, its fuel consumption is also lower. The Combi Sedan concept enables valuable, theft-prone luggage to be concealed in a way that no conventional estate car can offer. The



ordinary luggage compartment is ample for the luggage of five persons. Due to the split, folding back seat and the removable parcel shelf which conceals the ordinary luggage compartment, the 9000 has at least four different load-carrying alternatives. Since the back seat is split 40/60, narrow objects, such as skis, can be carried inside the car without damaging delicate materials. So with four persons comfortably seated in the car, long and narrow items need no longer be carried on the roof, where they increase the fuel consumption, cause noise, pick

up road dirt or run the risk of being stolen. With the whole of the back seat folded down, the 9000 can carry no less than 1600 dm³ of cargo—without impairing the comfort in the front seats.

Peak performance, lavish comfort and flexible load-carrying facilities make the Saab 9000 Turbo 16 a unique car.



The Saab 9000 is a high-quality product. All of our collective expertise—on cars and the whole vast spectrum of other products of the Saab-Scania Group—has been mobilised so that the highest conceivable quality will be achieved. And our concept of quality embraces a high level of design, materials, production, delivery, utilitarian and service quality.

IN ADDITION to these tangible quality factors, a high level of ambition has always been one of the most important cornerstones of everything related to Saab quality. Moreover, testing is continually in progress in the laborato-

ries and out on the roads, with the aim of achieving even higher quality.

High design quality is typified by the large number of pre-assembled units. Good performance and high quality are assured by large units being assembled and tested before they are fitted into the car. The pre-assembled units are designed for optimum serviceability, which cuts down the servicing time.

Another example of high design quality is the anti-corrosion protection. This has been matched to the Nordic climate—one of the world's toughest from the corrosion viewpoint. Protection against corrosion was a very important aspect right from the early drawing-board stage: The number of welded joints has

been cut down to a minimum by using large components, and the welds that are still necessary are correctly oriented and are at a high level. Large parts of the body and chassis are galvanised or hot-dip galvanised to withstand corrosion attack. The floor panel has no pockets that could collect dirt and moisture. The insides of the wheel housings are protected by plastic liners.

The demands made on the quality and thickness of the sheet steel used for the body of the Saab 9000 are much more stringent than is usual in automotive applications, to match the rigours of the Nordic climate. The primer is applied electrostatically by immersing the body in a bath of paint. A



computerised system is used for spraying anti-corrosion oil into the cavities of the body. Polyester is applied to the entire floor panel to provide protection against wear. Extra-thick coats are sprayed wherever the paintwork may be damaged by flying stone chips. Triple protective coats are applied to the welded joints. The paint is sprayed by robot and is cured in a furnace, to ensure a uniformly high finish, with the correct quantity and distribution of paint and high resistance to wear.

Design quality also includes details such as the ventilated front disc brakes. Together with the wear-resistant, asbestos-free pads, this ensures extra-long useful life. The engine has been thoroughly tested and developed further,

and now incorporates reliable, self-adjusting hydraulic tappets. The wiring is exceptionally reliable too, mainly because the limited number of connectors used are entirely moisture-proof and thus eliminate the risk of corrosion and voltage drops. The exhaust system is made of corrosion-resistant material. The front seat frames consist of a small number of large, integral components, and this design ensures very high strength. The pre-assembled doors fit very accurately into their frames.

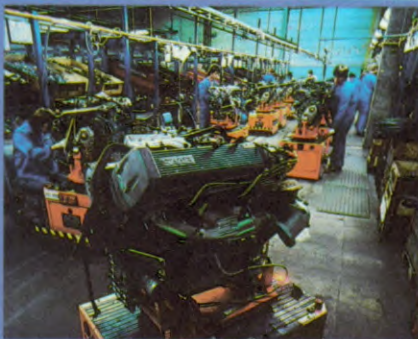
Very high quality standards have been achieved by thorough structuring of the production. This applies to everything from writing the computer programs for the

assembly work, right up to the final quality inspection. Towards this end, we have organised autonomous working groups that carry out assembly in short production lines and are responsible for their own work and for inspecting the results. Special methods have been developed for improving the accessibility and easing the work—such as by inclining the body for fitting components to its underside. Robots are widely employed for monotonous, repetitive jobs, to provide uniformly high quality. A reference point system is used, in which the exact location of every component is pin-pointed according to a coordinate system on the design drawings. Welding and painting by robot, with high precision and an accurate fit, contribute further to high and uniform quality.

Several important inspection units outside the autonomous working groups inspect the quality of the cars before they are delivered.

The utilitarian quality is assured by a system based on predetermined work being done during the warranty period and at various intervals right up to 100.000 km.

Our quality system is highly reliable and eliminates all risk of faulty units slipping through the closely-woven inspection network. The high level of design, materials, delivery, utilitarian and production quality ensures that the Saab 9000 verges on perfection in terms of quality.



Saab 9000



Saab 900



Saab 900



Saab 90



The Saab 90 is included in Saab's overall sales program, but is not marketed in all countries.

Saab-Scania today holds a leading position within the area of transport and communication. The Group's technical know-how has been developed since the turn of the century and the company's products can be found on the road, in the air and in space.

AS FAR BACK AS 1897, Vabis was supplying factory-made vehicles and in 1901 Scania introduced its first passenger car—with the griffin on the hood. The first truck followed in 1902 and the first bus in 1911. Production of aircraft started in the early 1930s.

Within the automotive and aerospace sectors, Saab-Scania's product program currently comprises passenger cars, trucks and buses, civil and military aircraft, satellites and missiles. This product program is unique. No other company can offer such breadth.

Outside the transport technology and communication sectors, Saab-Scania also supplies advanced products and systems in electronics, optics and precision mechanics, as well as systems for energy recovery and heating.

Saab-Scania, with sales of about SEK 20 billion and around 40,000 employees, invests more than SEK 1 billion annually in research and development. A similar amount is invested in production and the international marketing organization.



Saab-Scania's products are concentrated in well-defined business areas: high-performance passenger cars, trucks for heavy transports and aircraft for regional traffic.

This concentration in expansive market segments, along with substantial investments in new products, has borne fruit. Saab-Scania today holds a leading position in the field of specialized transport technology.

Saab-Scania's new company symbol represents sound technical know-how, long tradition and broad-based experience.



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