

SAAB 95|96 V4

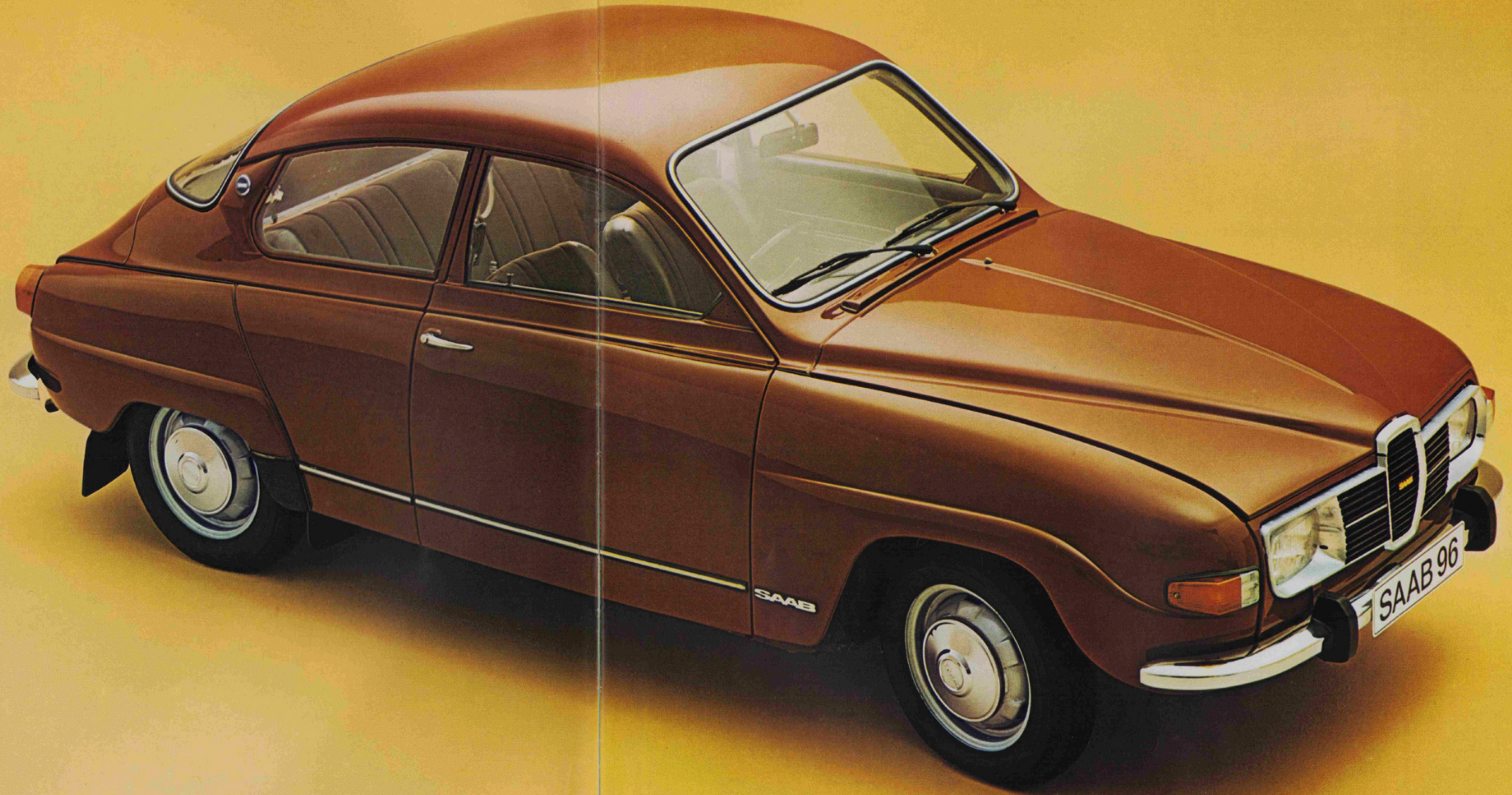


An economical car which is so robust and so roadworthy that it has become a classical rally car

You could easily gain the impression that the Saab V4 has been designed to win major rallies, but that would not be quite true. The truth of the matter is that it is made to win the hearts of motorists who appreciate quality and safety.

That is why the Saab V4 is front wheel driven and has large, 15-inch wheels. That is why it has a robust V4 engine and a diagonally split, power assisted dual-circuit foot brake system. That is why it has a classical body which has been wind-tunnel designed to reduce the air resistance as much as possible.

The rally successes provide stimulating proof that the basic design is sound.



All Saabs are pulled by their front wheels

To Saab engineers it has always been obvious that the engine should be located above the driving wheels for optimum road grip. On the Saab 96, 60% of the weight (including the driver) is supported by the front wheels.

The wheels which propel the car are also those which steer it. When driving a Saab, you can hardly fail to experience the fine coordination between the car and the road, and the precise rack and pinion steering.

The rear wheels of a Saab are always parallel

Owing to the rigid rear axle, the rear wheels are always perpendicular to the road surface. This eliminates the constant changes in the track and wheel inclination which can give rise to many an unpleasant surprise, especially on a slippery surface.

Since the rear axle does not transmit any of the driving forces, it is of very light construction. The unsprung weight is therefore low, thus increasing the comfort and the safety.

Stable, unit construction steel body

A car should offer good protection to the driver and passengers if an accident should occur. The passenger compartment of a Saab body therefore consists of a framework of robust steel beams. In addition, the windscreen and side pillars incorporate additional steel sections. The front and rear sections of the car are designed to act as energy absorbent zones. (Figure 3).

Saab introduced the diagonally split, dual-circuit brake system as early as 1963

The hydraulic system is diagonally split into two circuits which operate independently of each other (Figure 1). Should one of these circuits fail, half of the braking effort will still be available. But the risk of failure of the brake lines is minimal, since they run predominantly inside the car, on one of the anti-corrosion treated sill beams.

The Saab V4 has disc brakes on the front wheels and drum brakes at the rear. And to ensure safer and more gentle braking, the brake system has been provided with vacuum assistance.

Additional features

The petrol tank is mounted in a well-protected location between the rear wheels (Figure 2).

The steering column is of the safety type – telescopic as well as jointed. The steering box is located at the very rear of the engine compartment.

In the autumn of 1970, Saab became the world's first car manufacturer to introduce headlamp wipers and washers which ensure that the headlamps will always be clean and will provide full light intensity under all road conditions.

In 1972, Saab took another step towards safer night driving by producing dipping halogen headlamps.

Body protected by electrophoresis

The body is primed in accordance with the electrophoresis method. This implies that the body is lowered into a bath of primer paint which is induced into all recesses by a heavy electric current to penetrate and adhere to all metal surfaces. To provide further corrosion protection a special anticorrosion

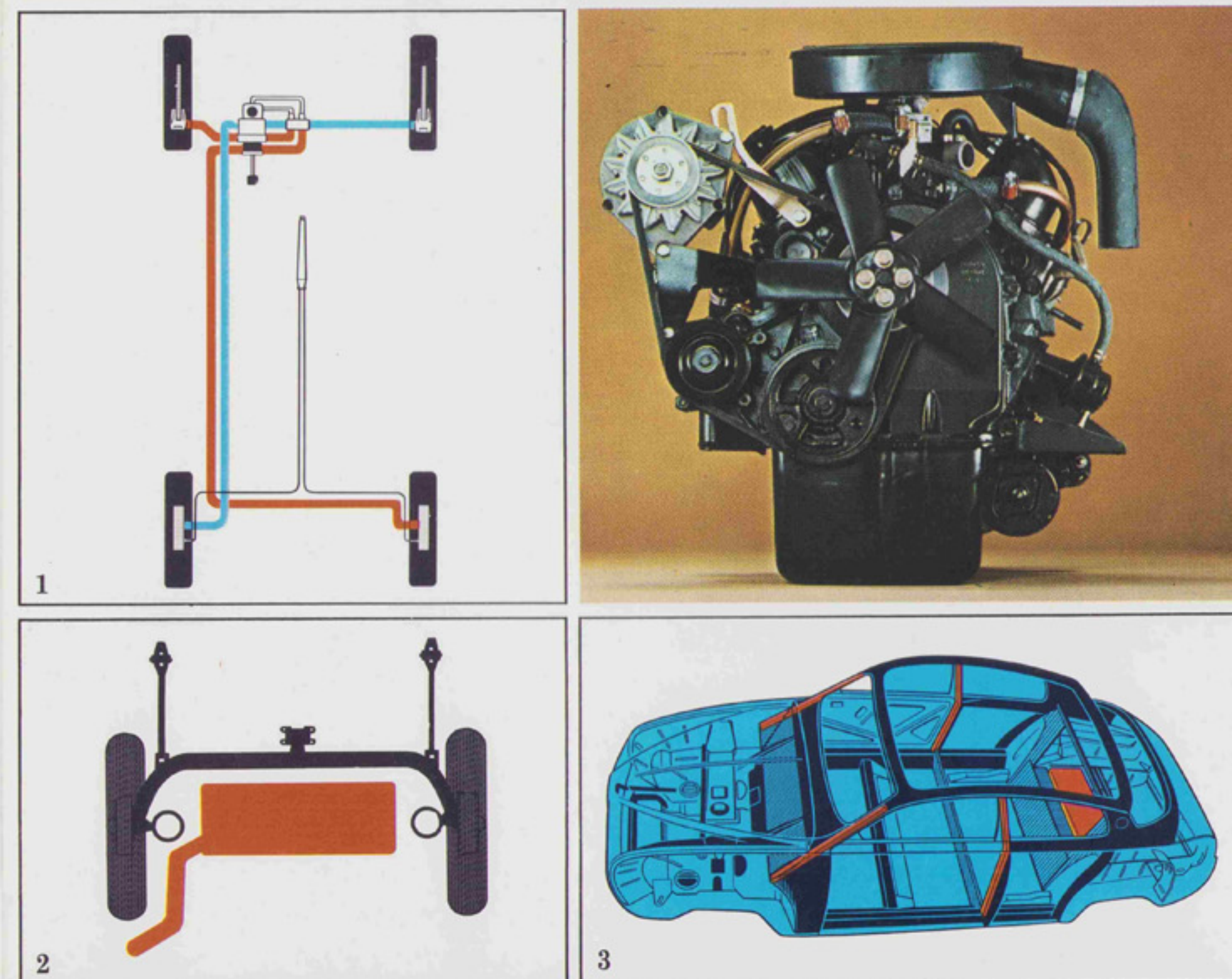
oil is sprayed into the doors, the sill beams and other closed sections. The oil has the ability to penetrate through moisture to protect the metal. The oil treatment comprises about 30 points on the body plus the underside of the car, where the oil also penetrates through the underbody compound.

The rally tracks are vital extensions of the Saab experimental and test department

During more than twenty years of racing, Saab has won numerous national and international victories. These include the Monte Carlo Rally twice, the RAC Rally five times, the Finnish Snow Rally nine times, the Norwegian Winter Rally five times and the Swedish KAK Rally three times – in 1971, 1972 and 1973. Often competing against cars with twice the engine power. In long, demanding rallies, brute engine power can often be less important than the roadholding characteristics and the reliability. These properties are as vital to rally drivers as they are to ordinary motorists.

Tortured for 80 hours

Racing tracks are not the only testing grounds for Saab cars. A test car is occasionally subjected to 80 hours of torture on a vibrating test bed. This implies that the wheels of the car have to sustain 410000 blows from rotating rollers fitted with up to 10 cm (4") high blocks.



The well-proven and economical V4 engine

Both the Saab 95 and the Saab 96 are equipped with the robust, 1.5 litre V4 engine. It develops 65 hp DIN (48 kW). In spite of its high output, it is extremely economical. Impartial tests have proved that the fuel consumption is about 7 litres per 100 km (40.36 m.p.g.) for long-distance runs at normal speeds. At a constant speed of 70 km/h (43.51 m.p.h.), the consumption was found to be 5.8 litres per 100 km (48.55 m.p.g.).

One of the reasons for the low petrol consumption is the free-wheel which disengages the engine when you ease off the throttle. The engine will then run at idling speed. The free-wheel is also a safety feature when driving on slippery roads. A third advantage is that changing down is possible without declutching. In other words, a sort of semi-automatic feature. If you prefer to drive without the free-wheel, it is just a matter of pulling out a control and the engine will again act as a conventional over-run brake.

Easy to start, whatever the weather

Since the Saab is a Swedish car, it is naturally designed to withstand the bitter Scandinavian winters. It is fitted with a 12 volt battery with a capacity of 44 Ah, an alternator, a 1 hp starter motor and a carburettor developed for Arctic conditions.

Comfortable. Even after a full day's driving

The Saab comfort is best appreciated during long runs. You will then be grateful not only for the comfortable padding of the seat but also the built-in restfulness. In addition, the seats have an exceptionally large fore-and-aft adjustment range and the backrests can be set in seven different angles of rake. The legroom in the front is appreciably large.

All seats and backrests are upholstered with cloth, to ensure that they do not feel too warm in the summer or too cold in the winter.

The almost flat floor is covered with a thick nylon fitted carpet which is easy to keep clean.

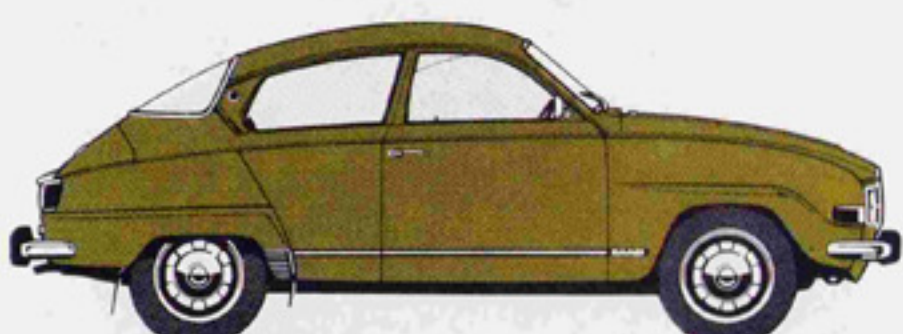
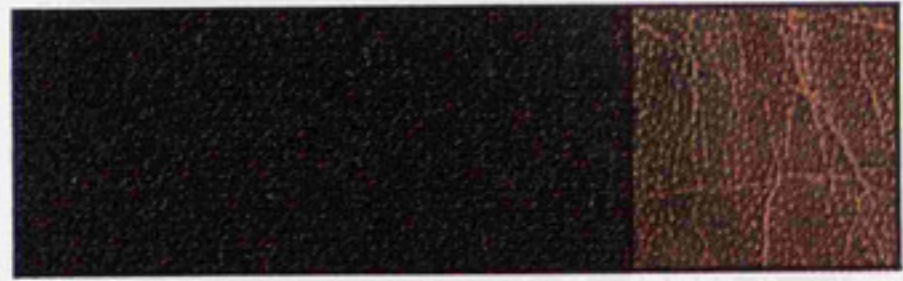
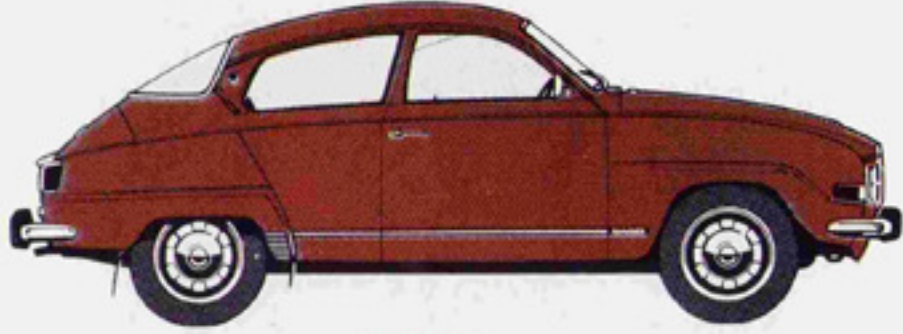
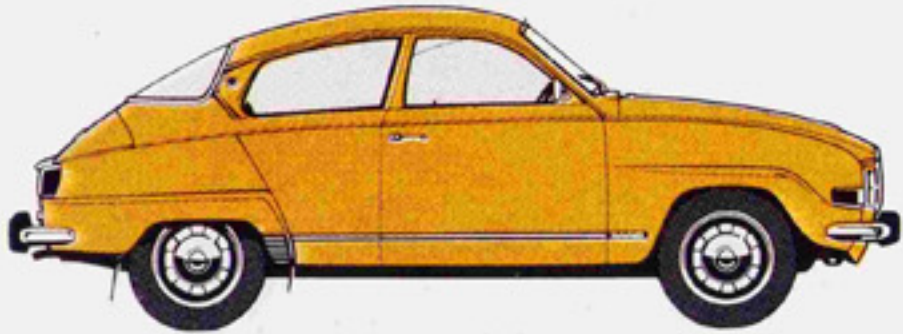
The wastepaper baskets at the front are typical examples of practical features.

A disguised semi-estate car

The Saab 96 is a practical semi-estate car, without this being obvious from the outside. By raising the rear seat and lowering the rear backrest, the luggage compartment can be more than doubled in less than 30 seconds without the use of tools. The result is a flat floor which is 154 cm long (60.63"). It is easy to move luggage in and out of the car, since there is no high rear sill in the way.

Colour combinations

<i>Exterior</i>	<i>Interior</i>
Indian yellow	Manila brown
Sienna brown	Manila brown
Toreador red	Manila brown
Polar white	Lion yellow
Caroliner blue	Blue
Verona green	Green



The internal safety

Sturdy, safety type door locks will hold the doors closed even if the car should turn over. On the inside, the door handles are recessed in order to avoid the doors being inadvertently opened.

To protect the passengers, the windscreen and side pillars, the arm rests, the trim under the windows, the top of the instrument panel and several other components are provided with energy-absorbing padding. In addition, the instrument panel will give way if a high force is applied.

The Saab seat belts at the front are of the three-point type and are easily adjustable. The two straps are independently adjustable.

One outside rearview mirror is standard on the 95. The interior rearview mirror is mounted on a flexible bracket and is adjustable in height to suit all drivers.

Clear instrumentation

The Saab 95 as well as the 96 has two large, circular and non-reflecting main instruments, with black backgrounds and clearly visible, orange-coloured pointers. The instruments include gauges for the cooling water temperature and fuel, speedometer and odometer, as well as a number of warning lamps.

The controls on the panel (from left to right in the large illustration) are the temperature control, ventilation, defroster, instrument illumination, warning (hazard) flashers, headlamps and heater fan.

A Saab refinement is that the headlamp supply circuit is connected across the ignition switch. This implies that if the headlamps are on when parking the car, they will be extinguished when the ignition is switched off.

Saab has also been one of the initiators of fingertip levers direct-

ly below the steering wheel. The headlamp dip/flash switch and direction indicator control is on one side. The windscreen wiper and washer control is fitted on the other side. It can hardly be safer or more convenient.

Thermostatically controlled heating for the Scandinavian climate

The Saab has an efficient heating and ventilation system of the through-flow type (Figure 2).

Warm air is admitted at the floor, in the front. Defroster nozzles are provided for the windscreen and the front side windows.

The flow of air through the passenger compartment helps to prevent misting-up of the rear window. The air is discharged through holes below the bottom edge of the rear window.

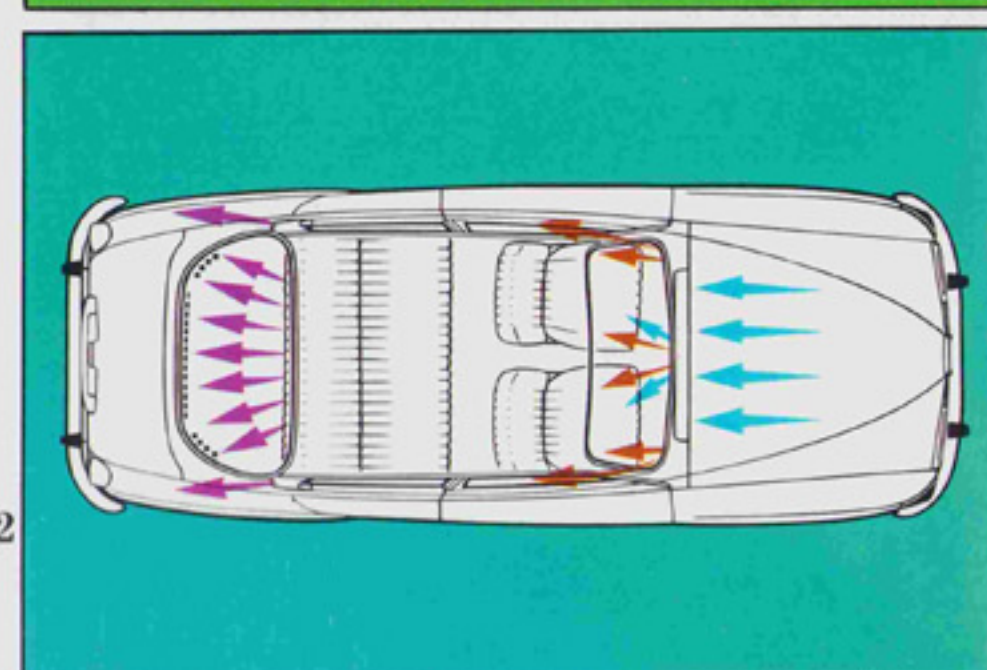
A separate fresh air supply unit is provided below the centre of the instrument panel, with controls for the air supply and for directing the flow of air (Figure 3).

The Saab heated seat

The heated seat gets the driver warm while the heating system is gaining temperature (Figure 1).

If the temperature of the driver's seat is below $+14^{\circ}\text{C}$, the electric heating will be switched on as soon as the ignition key has been turned. But there is no risk of overheating. A thermostat ensures that the heat will be switched off at a comfortable level of $+27.5^{\circ}\text{C}$.

The importance of a warm and comfortable car seat can only be appreciated by those who have suffered from backache and abdominal chills.



Saab 95 – the seven-seat estate car

A multi-purpose car would probably be a better name, since the interior can be rearranged in four different ways (Figure 2).

Seven persons can be accommodated in the Saab 95, by raising the extra seat at the extreme rear.

With the extra seat in the folded position, the car can carry five persons plus 220 kg (485 lb) of luggage. You can also carry two people at the front and two at the extreme rear, and reserve the centre space for luggage.

If you ever have to carry bulky or long items, fold both the rear and centre seats and you will then have a luggage compartment with a flat floor, capable of accommodating items up to 165 cm (65") long and up to 120 cm (47") wide (Figure 1).

If the load you have to carry is heavy, it may be worth knowing that the Saab 95 can manage up to half a ton. This is a fair tribute to the robust and sound design of the car.

A few other dimensions:
Width of tailgate opening: 93 cm (36.61")
Height of tailgate opening (vertical): 75 cm (29.53")
Maximum height between luggage compartment floor and roof lining: 90 cm (35.43")
Length of the rear section of the luggage compartment floor: 110 cm (43.3")

Practically unaltered road-holding properties in spite of a heavy load

Except in extreme cases, the Saab 95 is understeered – whatever the load.

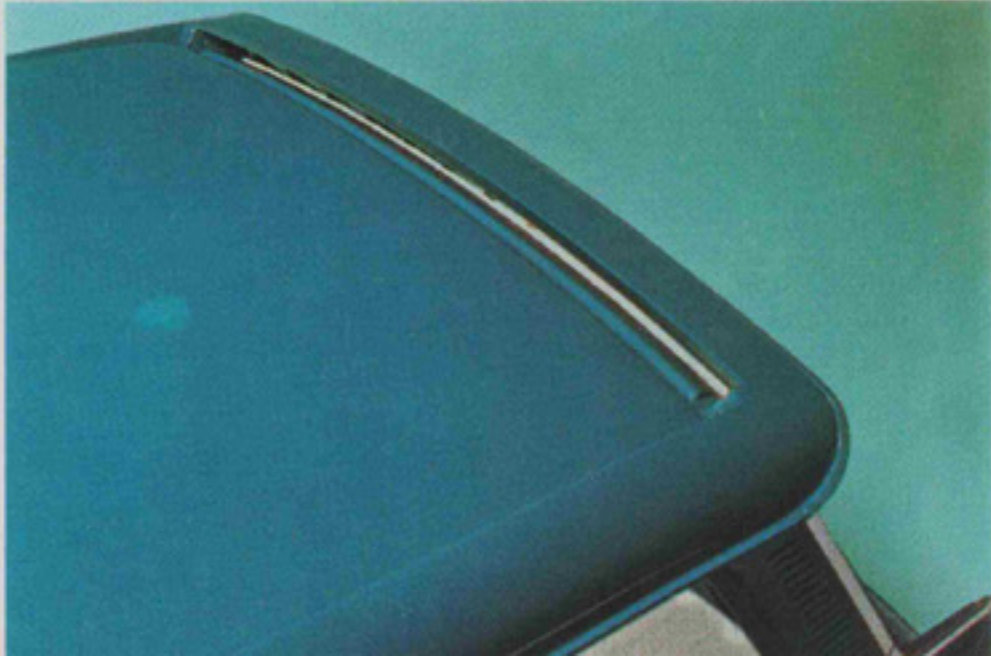
This is another example of the built-in safety of the Saab. Many other cars can vary between understeering and oversteering depending on the load.

A few features and refinements

The luggage compartment floor is covered with a layer of almost indestructible plastic which is easy to keep clean and tidy.

When the extra rear seat is not used, the foot-wells can be utilized as additional storage space (Figure 3).

A spoiler (Figure 4) helps to keep the rear window free from dirt.



Technical data, Saab 95 V4 and Saab 96 V4, 1974

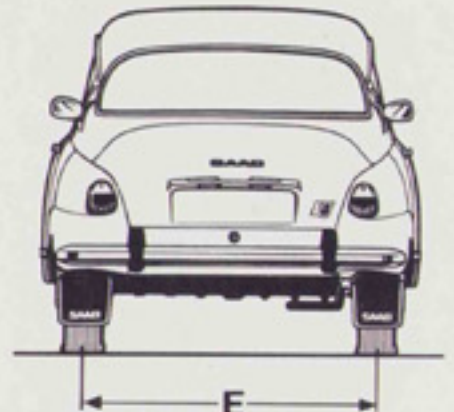
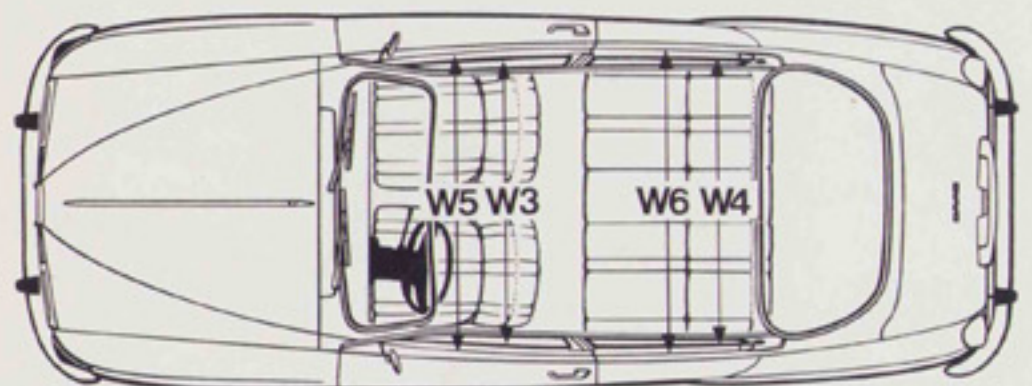
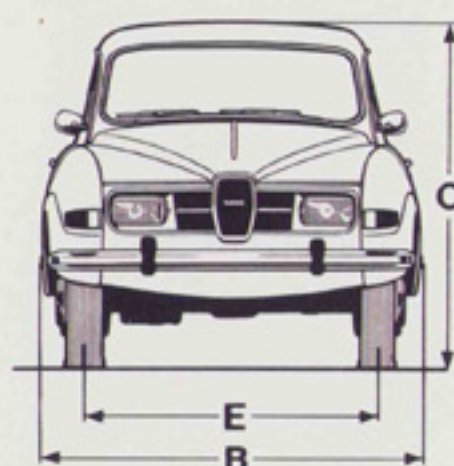
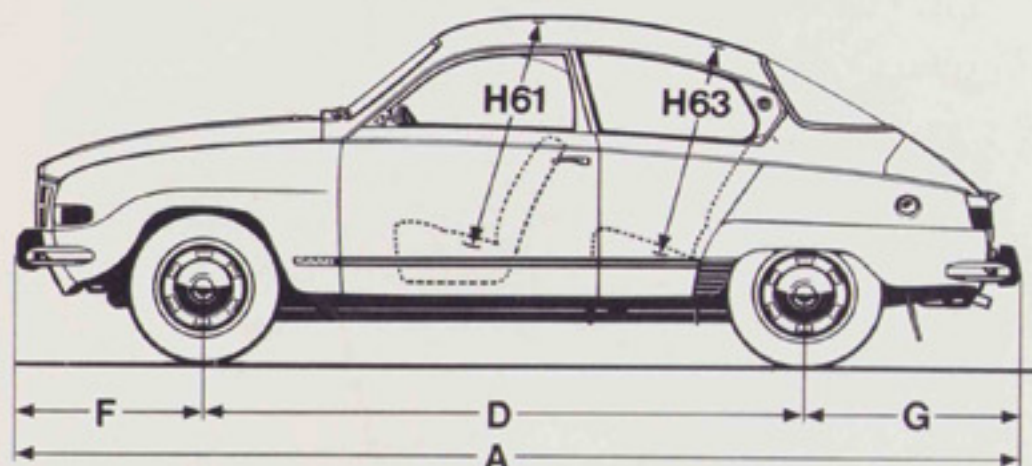
Engine

Cylinders.....	4, in Vee, 60°
Piston displacement.....	1498 cm ³
Bore.....	90 mm (3.54 in.)
Stroke.....	58.86 mm (2.32 in.)
Compression ratio.....	9.0:1
Max. output (DIN).....	65 hp (48 kW) at 4700 r.p.m.
Max. torque (DIN).....	85 lbf.ft. (115 Nm) at 2500 r.p.m.
Valves.....	overhead, pushrod operated
Camshaft.....	central, 3 bearings
Main bearings.....	3
Battery.....	12 volt, 44 Ah
Alternator.....	35 A.
Cooling system capacity.....	6.8 litres (12 Imp. pints)
Lubricating oil quantity.....	3.3 litres (6 Imp.pints)
Petrol tank, capacity, 95.....	42 litres (9.2 Imp. gals.)
96.....	38 litres (8.4 Imp. gals.)

Power transmission

Clutch.....	single dry plate
Clutch operation.....	hydraulic
Freewheel.....	can be engaged or disengaged
Ratios, engine to driving wheels, 1st.....	17.0:1
2nd.....	10.2:1
3rd.....	6.3:1
4th.....	4.1:1
reverse.....	15.5:1
Final drive ratio.....	4.88:1
Top gear speed at 1000 engine r.p.m.....	27.5 km/h (17.2 m.p.h.) ¹

¹) With radial ply tyres 155 × 15".



Brakes, steering, suspension, wheels

Footbrake system.....	two-circuit with vacuum power assist
Front wheel brakes.....	discs, 10 ¹ / ₂ " diam.
Rear wheel brakes.....	drums, 8" diam.
Total friction area, front and rear ..	1650 cm ² (255 sq. in.)
Handbrake.....	mechanical, on rear wheels
Steering gear.....	rack and pinion, 15.5:1 ratio
Steering wheel turns, lock to lock ..	2.7
Turning circle diameter.....	10.8 m (35.4 ft.)
Front wheel suspension.....	independent, transverse wishbones
Rear axle.....	U-shaped, trailing axle
Springs, front and rear.....	coils
Rims.....	4J × 15"
Tyres.....	155 × 15", radial ply textile corded

Dimensions and weights

A Overall length, 95	4300 mm (14 ft. 1.3 in.)
96	4200 mm (13 ft. 9.4 in.)
B Overall width, 95/96 ..	1590 mm (5 ft. 2.6 in.)
C Height, unladen, 95 ...	1490 mm (4 ft. 10.7 in.)
96 ...	1470 mm (4 ft. 9.9 in.)
D Wheelbase, 95/96	2498 mm (8 ft. 2.3 in.)
E Track, front and rear,	
95/96	1220 mm (4 ft.)
F Front overhang, 95/96.	795 mm (2 ft. 7.3 in.)
G Rear overhang, 95	1007 mm (3 ft. 3.6 in.)
96	907 mm (2 ft. 11.7 in.)
H61 Effective headroom,	
front, 95/96.....	980 mm (3 ft. 2.6 in.)
H63 Effective headroom,	
rear, 95	947 mm (3 ft. 1.3 in.)
96	955 mm (3 ft. 1.6 in.)
W5 Elbow room, front,	
95/96	1285 mm (4 ft. 2.6 in.)
W3 Shoulder room, front,	
95/96	1148 mm (3 ft. 9.9 in.)
W6 Elbow room, rear, 95	1267 mm (4 ft. 1.9 in.)
96	1225 mm (4 ft. 0.2 in.)
W4 Shoulder room,	
rear, 95.....	1224 mm (4 ft. 0.2 in.)
96.....	1195 mm (3 ft. 11 in.)
Kerb weight, approx., 95	970 kg (2140 lb.)
96	910 kg (2005 lb.)
Max. weight, fully loaded,	
95	1540 kg (3395 lb.)
96	1350 kg (2975 lb.)

Important note

Headlamp wipers and washers available as accessories from approved Saab retailers.

Some illustrations contained in this brochure depict models with left-hand-steering. In the United Kingdom all models are supplied with right-hand-steering unless specifically ordered to the contrary. The 95 is equipped with one external door mirror.

For more detailed information please contact your nearest Saab Dealer or Saab (Gt. Britain) Ltd., Wellcroft Road, Slough SL 1 4AJ, England.

■ The manufacturer reserves the right to change specifications and equipment without notice.

SAAB-SCANIA

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