

VOLVO 164 E



This is our finest Volvo:

And under its beautiful paintwork are all the features which make this Volvo 164 E one of the finest of European cars.

The most extensive engineering changes this year concern safety. Many important new features are to be found between the new shock absorbing front and rear bumpers. Features such as the bulb integrity sensor system, the electrically heated driving seat, the improved visibility, the new and safer located fuel tank - and much more which makes Volvo's most opulently equipped car safer to drive and nicer to own.

The Volvo 164 E gives more comfort and more power in a sophisticated package.



A powerful engine must be matched by brakes and tyres

The Volvo 164 E is built for travelling at effortless, fast and enjoyable speeds. To do this you need more than a potent engine. High-performance must be matched by a braking system which gives the greatest possible safety in every situation. And by tyres which give the best possible road grip and can withstand high speeds - hours on end - the law permitting.

The strong quiet type

The engine powering the Volvo 164 E is typically Volvo. Built for reliability and superb performance, this six-cylinder powerhouse offers generous speed reserves for all types of driving.

Engine displacement is three litres and it develops 175 hp SAE at 5800 rpm assisted by an electronically-controlled fuel injection system. Which in itself is no conjuring trick. What is very interesting, however, is the torque curve of this

wonderful Volvo engine. It lies practically flat at 24.5 kpm from an engine speed of 2200 rpm to 4500 rpm. Plain and simple, this means that this engine is not only powerful but also one of the most flexible and responsive available. These are qualities which cut gear changing to a minimum and give exhilarating acceleration throughout the entire speed range. With an engine like this there's practically no need for us to have an automatic transmission option. But we have.



A braking system with safety to spare

The Volvo 164 E has a very elaborate braking system, even for a car in this exclusive class.

All four wheels have disc brakes. Those on the front are of the ventilated type, with radial drillings through the disc, to withstand the great amount of heat which



is generated when a relatively heavy car is braking from high speed or descending long Alpine roads.

The 164 E has a dual circuit triangle-split braking system which means that each circuit feeds simultaneously both the front wheels and one of each of the rear wheels. Should one circuit fail completely, the other will still give 80 % of full braking power. A warning lamp on the dashboard lights up if either of the brake circuits should fail.

Other features of the Volvo braking system are power assistance for easier operation and special relief valves which prevent the rear wheels from locking prematurely in emergency situations.



Tyres are also a safety factor

The Volvo 164 E has radial ply tyres of HR-type as standard. Their construction gives improved tyre performance and an extended mileage in comparison to conventional cross ply tyres. They have been given an HR-designation because they are suitable for speeds of up to 130 mph/210 kmph and therefore give a reassuring safety margin.

The car which helps you to be a better and safer driver

Since the shape and function of man is determined once and for all, the car must be adapted to you and not you to it.

To be a good driver you must know what is happening around the car, to the car and in the car. In other words, you must have good visibility and easy to read instruments; the controls must be instantly recognizable, even in the dark, and readily reached when you are wearing a safety belt. Just as important, the car must be easy to handle.

This is why the instruments and controls in a Volvo are so well laid out. The generous safety padding is sufficiently resilient and thick to give protection should anything happen.

The attractively designed speedometer also houses the tripmeter and mileometer. And the mileometer goes on counting long after other cars have zeroed back. This way you can see whether a Volvo has done 30,000, 100,000 or 150,000 miles. And so they do. A tachometer is standard on the 164 E to show you how fast the engine is running even though you can't hear it.

The powerful windscreen wipers and washers make a clean sweep and are controlled by a convenient dual purpose stalk on the steering column.



Halogen headlights

The Volvo 164 E comes ready equipped with halogen headlights which make night driving a pleasure. It also has two fitted halogen foglights.

Two superb transmissions

First our quick-change artist, the four-speed manual with overdrive. It is an all synchromesh transmission and has a stubby floor-mounted gear shift. Overdrive is engaged by operating a stalk on the steering column and there's no need to use the clutch. Overdrive is, in fact, a fifth gear for effortless high speed driving.

An optional three-speed automatic transmission is available. It also features a floor-mounted gear shift, but this one has a thumb-button to give manual selection of its three speed ranges and to prevent



incorrect or inadvertent shifting. Its silky-smooth changes pass almost unnoticed except for the slight flicker of the tachometer pointer.



Just to drive a car with this good a gearbox is sufficient reason for trying a Volvo 164 E. No matter which gearbox you prefer.



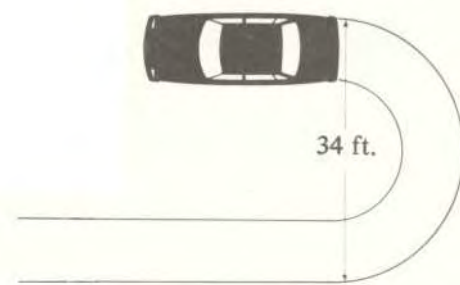
A bulb that lights up when others go out
 New on this year's models is a bulb integrity sensor which lights up to warn you immediately if any bulb in the dipped headlights, tail lights or brake lights should fail. Another warning lamp on the dashboard shows you if you've forgotten to release the handbrake, and a third lights up should a brake circuit fail.
 The results of an investigation by Volvo

of 28,000 car accidents showed the indisputable value of using safety belts. This is why we fit a FASTEN SEAT BELTS reminder which lights up if you don't belt up.

Our steering makes city driving a pleasure

The Volvo 164 E has power assisted steering which not only gives fingertip control but through good design also keeps the number of steering-wheel turns to a minimum, even in the city.

And the turning circle diameter is so small that the Volvo 164 E beats most



other cars in its class - it needs only 34 ft./ 10.3 metres between kerbs to do an elegant about face.

Comfort is a science

At first glance, the interior of this car may not appear to differ greatly from other cars of a similar class. Certainly it's exclusive and attractive. But from then on the Volvo 164 E is different.

Trimmed in the opulence of tradition, the big Volvo also incorporates the most modern of comfort features, created by doctors, safety experts and clever car technicians working as a team. Nowadays, Volvo does not count comfort as a luxury but as one aspect of safety. A very low level of noise, an ideal driving position and comfortable temperature and ventilation cut driver stress and keep you alert and ready to react instantly even on long journeys.

Seen from this point of view, the Volvo 164 E is one of the safest cars we have ever built - something you will learn to appreciate every day, every mile, for many years to come.

You'll warm to a Volvo

A freezing car driver is a poor car driver. Especially if the windows are misted up or decorated with beautiful but lethal crystal formations.

The solution to this problem is not just to build a heating system with as large a capacity as possible. That's only part of it. The secret is to make sure that the heated air is distributed as efficiently as possible, so that the temperature is kept steady and reaches full capacity very quickly after a cold start.

The remarkably efficient heating and ventilation system of the Volvo 164 E has no less than ten outlets. Two keep the windscreen clear. Four are located on the dashboard, and the aim and flow of these is individually adjustable. The two outer ones can be swivelled to keep the side windows clear. Then there are two at floor level in the front and another two for the rear seat passengers. Below the rear window, which is heated electrically, are the air extractor vents which allow through-flow ventilation.

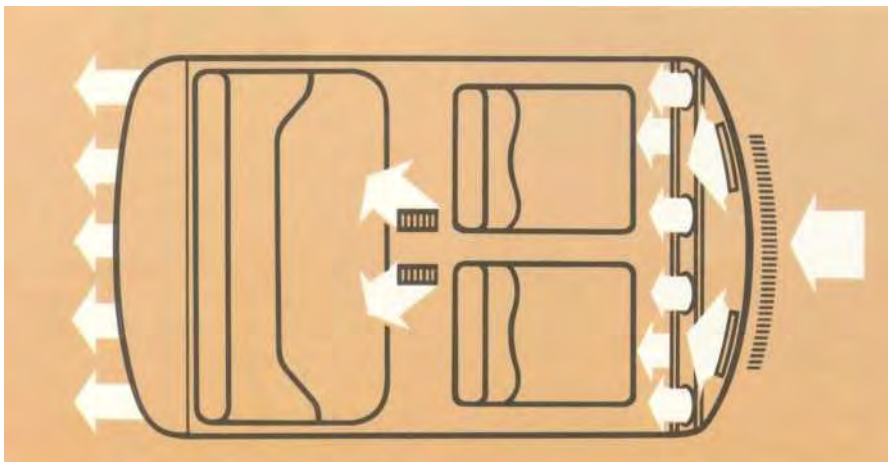
The heating system is push-button con-

trolled and a thermostat ensures that the temperature you choose remains constant. There's no need to open windows to get rid of misting since the air is carefully distributed through the car and led out through the extractor vents at the rear. The air intake is below the windscreen well out of the way of the exhaust fumes from the not so fortunate motorist in front.

A hot and bothered driver is a poor driver. Even in Britain, it's nice to have a number of adjustable air outlets to keep you cool, calm and collected. If you want to make absolutely sure of keeping your cool, why not order your Volvo with air conditioning - the 164 E is prepared ex-works for air conditioning. A passenger who neither freezes nor perspires is a pleasant travelling companion.

A spacious interior trimmed to please

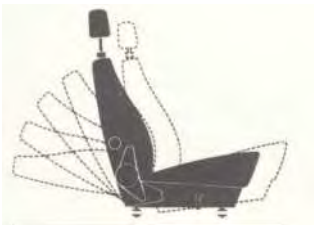
In a Volvo 164 E you sit on leather upholstered seats with tough vinyl trim. Full carpeting is featured in a durable textile finish. All of these materials are fire-resistant.



No two people are made alike

So: The seat can be moved 7.9 in./200 mm forwards or backwards, and if you are very tall, the seat rails can be moved a further 1.2 in./3 cm to allow you to stretch. The front seat backrests are fully adjustable down to a reclining position and the driver can even alter the height of his seat without getting out of the car. To stop you getting pains in the small of the back, our front seats have an adjustable lumbar support which is knob-controlled. The head restraints can be easily lifted or lowered.

Also new on our front seats this year is the locking mechanism for front-rear movement. It locks on both floor rails



and is operated by means of a bar which runs the full width of the seat at the front. Backrest angle is now set by means of a large knob.

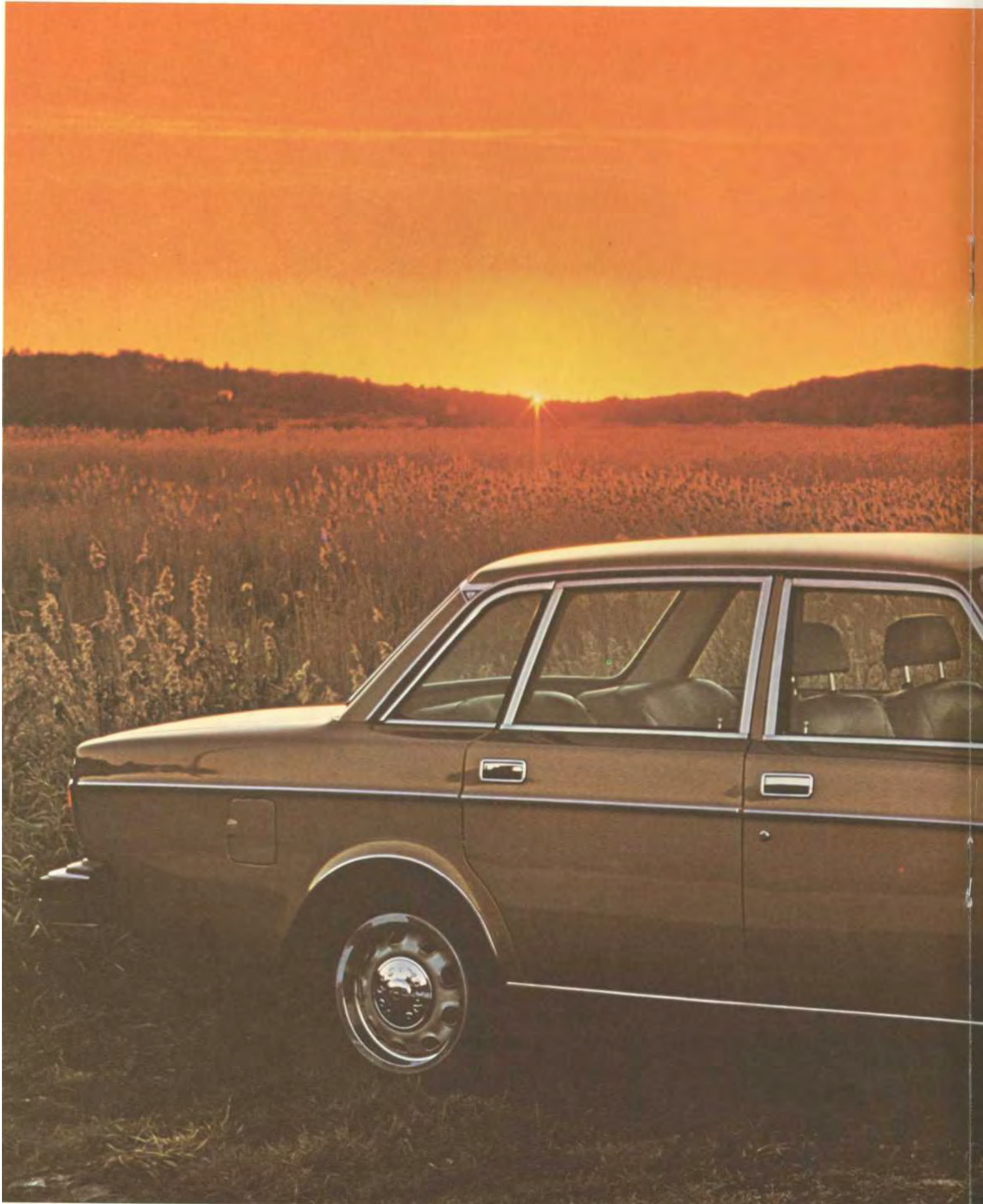
Maybe now you understand that we are better justified than many other car manufacturers when we promise you a comfortable driving position. Without ever having met you.

The automatically heated driving seat

Not only is it injurious to health to sit on a cold seat, if you're not comfortable your driving suffers too.

So this year we have fitted a driving seat which has an electrically heated cushion and backrest. With the ignition on, the heating system starts automatically as soon as the temperature has dropped below 14°C . It heats the seat up to 26°C and then switches itself off. On cold, winter mornings you can sit comfortably - from freezing point to 26°C in three minutes flat!







Little things you'll appreciate

At first glance it is easy to overlook all the small details which can make you love a car or hate it. It's the day-to-day motoring that brings these things to light.

Do the doors open wide enough to allow dignified entry and exit? Is the boot ample? What's the vision like? Think about it.



The doors

The Volvo 164 E is easy to get in and out of due to the wide opening angles (almost 80°). This year, the door arches have been made stronger and safer to add torsional stiffness to the body. The very efficient heating and ventilation system

has made ventilation windows unnecessary. So we removed them. This reduces the risk of wind roar and a possible entry point for a thief. Naturally, the rear doors have child-proof locks controlled by a button on the trailing edge of the door.



The spacious boot

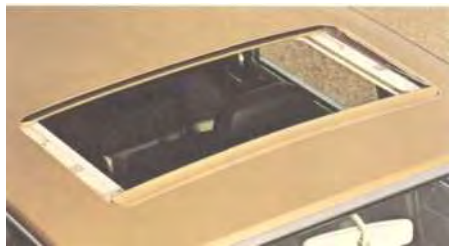
Box-like in shape, the luggage compartment of a Volvo 164 E allows you to pack your cases handles-up and it's larger than you will find on even bigger cars - 21.5 cu.ft./615 dm³ (measured with SAE-cases: 395 dm³).



At last - a practical filler cap

The filler cap this year is concealed behind a flap. On the inside of the flap is a well thought out item, a small holder which keeps the cap secure while you're filling up. And gone are the days when you could forget to replace the filler cap - you can't close the flap without having

first replaced the cap. The filler tube has been redesigned to accept full fuel pump flow without blow-back and the fuel tank itself incorporates an expansion pocket which eliminates the risk of petrol being forced out of a brim-full tank on a hot summer's day.



Sunroof

You don't have to be an outdoor fiend to appreciate sun, fresh air and a blue sky. Which is why we gave the 164 E a sliding steel sunroof. It is easily opened and absolutely weatherproof when closed. A Volvo sunroof can open up a new aspect of pleasurable motoring for you.

If you regard a car as being an investment -read this carefully

Rules of reasoning are often quite depressing, rules like you must start thinking about changing your new car before you have even bought it. However, there's no getting away from the fact that the trade-in value of a car is very important in the overall cost of motoring. And the trade-in value of your car is dependent on how attractive a car it is when the time comes around to replace it; if it has worn well, still runs well and still inspires confidence in the marque.

Volvo products have enjoyed a high trade-in value for many years. Statistics from Sweden's Motor Vehicle Inspection Company show that in Sweden - which is no easy place for a car to live - the probable average life expectancy of a Volvo is no less than 14.2 years.

The safety of a car can also be regarded as an investment, just like insurance. The difference is, however, that a normal insurance gives you no protection until the accident has happened.



Ageing with dignity

Generally it is rust which puts a definite end to the useful life of a car. Various types of rust-proofing and their respective benefits have been discussed for years. When one expert claims that galvanizing of the most exposed parts is best, another says that electro-dip application of the primer paint is better, while a third claims that rust-proofing fluid is all that is required. We stay on the safe side. So we use all of these methods.

We build a car which will remain shining and a thing of beauty for many years to come with effective rust-proofing in every nook and cranny and even inside the box-section parts.

But not even this is sufficient for the Volvo designers for whom car safety and long life is almost something of an obsession. They have designed the Volvo 164 E so that it has the upper hand on rust. The cavity-ventilated door sills are an excellent example. We arranged a draught which blows down inside the bulkhead and through the door sills before emerging through special slits in the bottom. There's no chance of rust starting here. There are natural explanations to why Volvo cars reach such a distinguished mellow age.

"Soft bumpers"

These wide, rubber-clad bumpers are not only stronger than last year's, they are also designed to absorb shock if you bump into an obstacle at speeds up to 5 kmph, and they do this without damaging the body of the car. They will certainly save money for Volvo owners and insurance companies alike.



New safer location of fuel tank

Another specific example of Volvo's rugged and thoughtful engineering is that the fuel tank has been moved forward this year and is now below the floor where it is better protected if your car is hit from behind. And even if it should leak, the tank is sealed off completely from the body interior and luggage compartment. The rear side members of the body have also been strengthened and give even better protection for the fuel tank.



Body strength

The Volvo body is of unitized construction which means that you do not sit on a frame but rather inside a cage of strong steel profiles. Each of the six posts carrying the roof is strong enough to carry the entire weight of the car. The front and rear ends of the body differ in design from the passenger compartment in that they are built to absorb impact by crumpling in the event of a collision. Even the doors are designed to protect you by means of an anti-intrusion bar which is welded into every door to ward off the effects of a side collision.



Steering safety

The steering-wheel has a large padded centre and it is designed to swivel under impact and align with the driver's body.

Volvo 164E - Highlights

Automatic inertia reel safety belts with
"fasten seat belt" reminder.

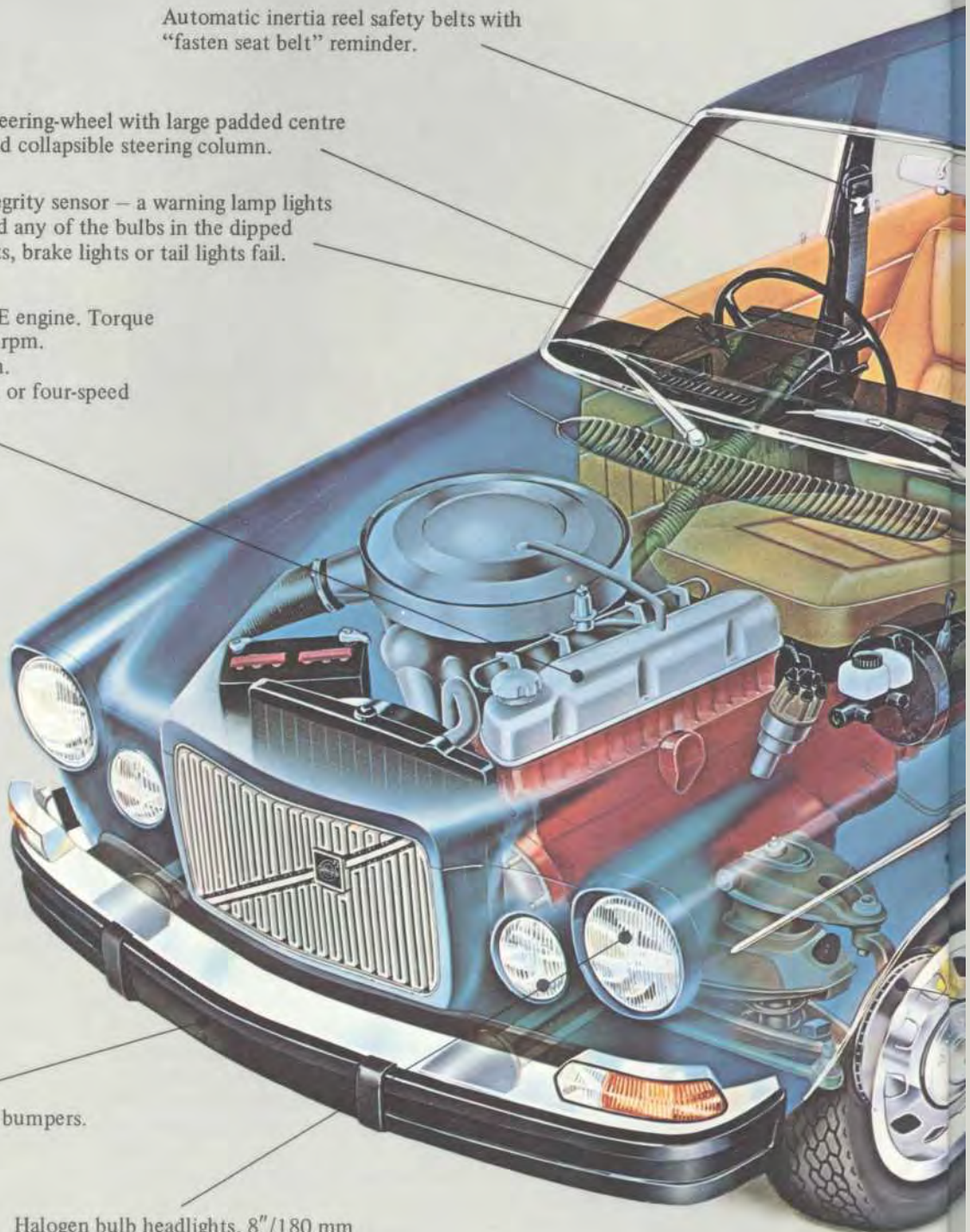
Steering-wheel with large padded centre
and collapsible steering column.

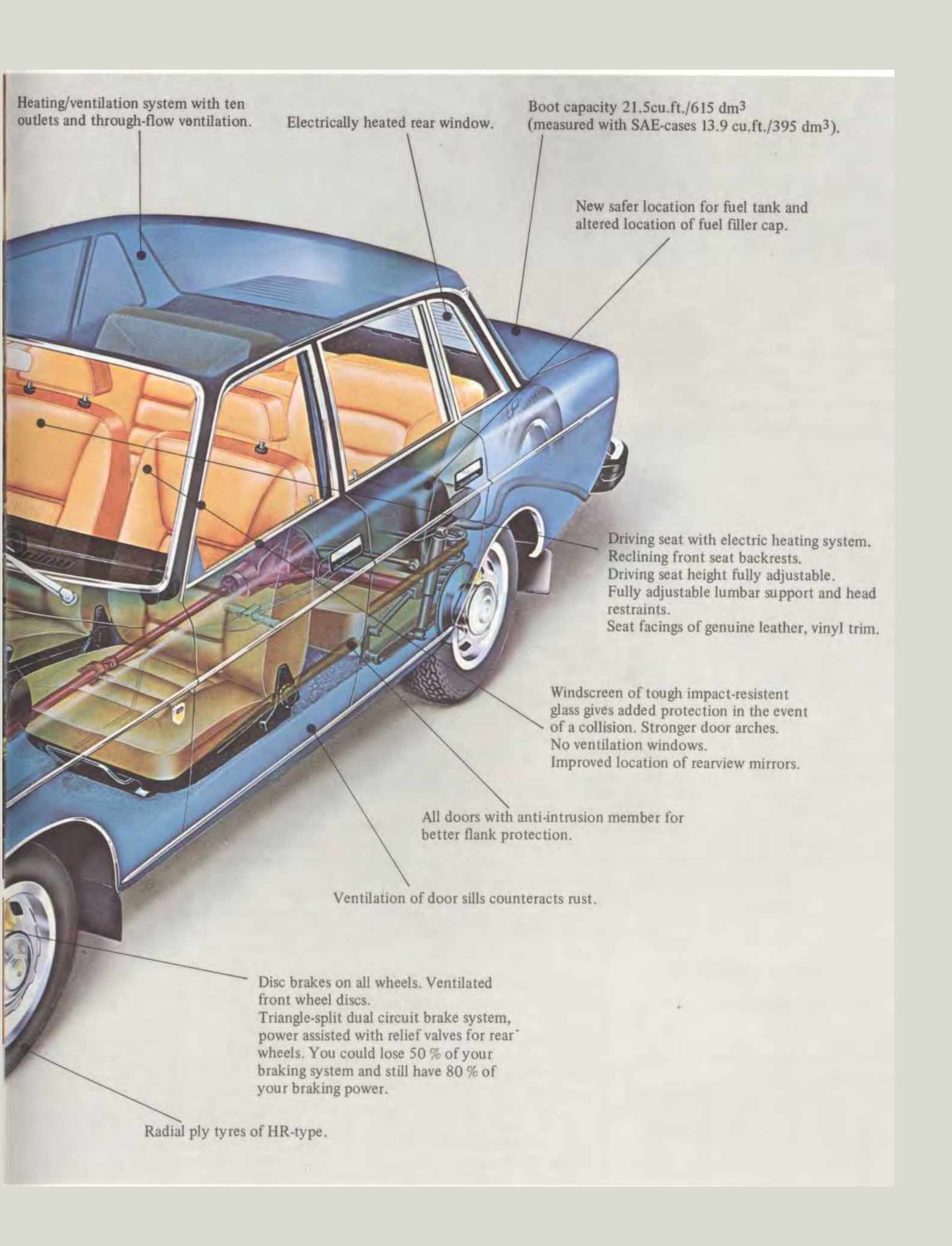
Bulb integrity sensor - a warning lamp lights
up should any of the bulbs in the dipped
headlights, brake lights or tail lights fail.

Six-cylinder 175 hp SAE engine. Torque
24.5 kpm SAE at 2500 rpm.
Electronic fuel injection.
Automatic transmission or four-speed
manual with overdrive.

Effective shock-absorbing bumpers.

Halogen bulb headlights, 8"/180 mm
reflector aperture.
Two fitted halogen foglights.





Heating/ventilation system with ten outlets and through-flow ventilation.

Electrically heated rear window.

Boot capacity 21.5cu.ft./615 dm³
(measured with SAE-cases 13.9 cu.ft./395 dm³).

New safer location for fuel tank and altered location of fuel filler cap.

Driving seat with electric heating system.
Reclining front seat backrests.
Driving seat height fully adjustable.
Fully adjustable lumbar support and head restraints.
Seat facings of genuine leather, vinyl trim.

Windscreen of tough impact-resistant glass gives added protection in the event of a collision. Stronger door arches.
No ventilation windows.
Improved location of rearview mirrors.

All doors with anti-intrusion member for better flank protection.

Ventilation of door sills counteracts rust.

Disc brakes on all wheels. Ventilated front wheel discs.
Triangle-split dual circuit brake system, power assisted with relief valves for rear wheels. You could lose 50% of your braking system and still have 80% of your braking power.

Radial ply tyres of HR-type.

Specifications

Engine	B 30E
Max. output h.p. SAE at r/m	175/5800
Max. output h.p. DIN at r/m	160/5500
Max. torque kpm SAE at r/m	24.5/2,500
Max. torque kpm DIN at r/m	23.5/2,500
Displacement cm ³	2978
Compression ratio	10.0:1

Six-cylinder, water-cooled unit with seven-bearing crankshaft. Electronically-controlled fuel injection.

Cooling system

Fully sealed and frost protected. Capacity approx. 10.9 Imp. quarts./ 12.4 litres.

Electrical system

Alternator, rating 55 Amp.
Battery capacity: 1 2 V/60 Ah.

Transmission

Single dry disc clutch of diaphragm spring type. Four-speed all-synchromesh gearbox with electrically operated overdrive on 4th gear. An automatic transmission is available.

Ratios

1st gear	3.54:1
2nd gear	2.12:1
3rd gear	1.34:1
4th gear	1.00:1
Reverse	3.54:1
Overdrive	0.797:1

Steering gear

Recirculating ball and nut with safety steering column of telescope type and steering-wheel boss of crumple-zone type.

Suspension

Front: independent with rubber-mounted control arms and stabilizer.

Rear: live, carried by longitudinal rubber-mounted control arms and torque rods, transverse location by rubber-mounted track rod.

Coil springs with telescopic shock absorbers all round.

Wheels and tyres

Balanced pressed steel J-15 in. wheels with 175 HR 15 tyres.

Braking system

Power-assisted, dual circuit system. Each circuit operates simultaneously on both front wheels and one of each of the rear wheels. Disc brakes all round. Ventilated front wheel discs. Relief valves in each circuit prevent premature rear wheel lock-up. Handbrake operates on rear wheels through special drums.

Fuel tank

Capacity 13.2 Imp. galls/60 litres. Located under rear underbody.

Instrumentation

Padded dashboard. Rheostat-controlled instrument lighting. Six-figure mileometer with tripmeter, fuel gauge and coolant temperature gauge. Warning lamps for alternator charging, oil pressure, direction indicators, main beam, handbrake, brake circuit failure and bulb integrity sensor. Glove compartment light. Combined steering and ignition lock.

The centre console, carries the controls for the electrically heated rear window, the four-way hazard warning lights, instrument lighting rheostat, and the fog-lights. "Fasten seat belts" reminder. Heating and ventilation controls. Cigarette lighter. Ashtray. Room is provided for a radio.

Other standard equipment

Combined stalk for direction indicators and the main and dipped beam with headlight flasher. Combined stalk on steering column for two-speed windscreen wipers and electric windscreen washers. Two foglights of halogen type. Main headlights of H4 halogen type. Luggage compartment and boot lighting. Automatic reversing lights. Inertia reel front seat belts. Anchorages for rear seat belts. Tinted glazing. Laminated windscreen of

high-impact type. Padded sun visors with make-up mirror on passenger side. Anti-dazzle rear view mirror of safety type. Ashtrays in each rear door panel. Net holdalls on rear of front seat backrests. Adjustable head restraints on front seats. Electrically heated driving seat. Leather upholstered seat and backrest facings. Tow hooks front and rear. Mudflaps all round. Sunroof.

Outer dimensions

Overall length 191.7 in/487 cm
Overall width 67.1 in/ 171 cm
Overall height 57.1 in/145 cm
Wheelbase 107.0 in/272 cm
Track, front and rear 53.1 in/135 cm
Turning circle diameter
Between kerbs 34 ft/ 10.3 m
Between walls 36.5 ft/ 11.1 m

Interior dimensions

Headroom, front 37.4 in/95 cm
Headroom, rear 35.0 in/89 cm
Seat width, front and rear:
 shoulder height 54.7 in/ 139 cm
 hip height 56.3 in/ 143 cm
Front seat depth 19.3 in/49 cm
Front seat width 22.4 in/57 cm
Boot capacity 21.5 cu. ft./615 dm³
With SAE cases 13.9 cu. ft./395 dm³

Weights

Total weight 4145 lb/1880 kg
Max. permissible trailer weight 2646 lb/ 1200 kg

The factory reserves the right to make changes at any time, without notice, to prices, colours, materials, equipment, specifications and models and also to discontinue models.



There are many useful genuine accessories for your Volvo



Think Cold Think Volvo Air Conditioning

With Volvo air conditioning your car will remain cool and comfortable - and make you safer in traffic. The air conditioner changes the air in the passenger compartment regularly - making sure that you always breathe clean air. The cool air can be regulated through the four independent nozzles in the instrument panel, as well as through the other air nozzles in the car. If you want a car which is pre-adapted for the installation of an air conditioner, speak to the car salesman about it.



Volvo Radio - the new generation

The Volvo Radio has been specially designed and produced for Volvo, for disturbance-free reception and good station retention. Three regular sets to choose from FM/MW/LW, FM/MW and MW/LW. All models with push-button selection. 2 years' warranty. (The FM/MW radio is only available on special order in the U.K.)



Childrens safety seat

The Volvo child safety seat protects children up to 4 ft.6 ins./ 117 cm tall - about 6 years old. Fits in car with back towards facia. Designed and tested at the Volvo Safety Centre. Tested and approved by the National Swedish Institute of Road Safety - collision tested at 30 m.p.h./50 Km.p.h. Protects the child against collision from the front, sides and rear.



Volvo 8 Stereo

Volvo 8 Stereo - a combined radio and stereo-tape player for 8-track cartridges. Available with either FM or MW/LW radio. Push-button operation. Pre-adapted for stereo radio transmissions. Automatic change-over, tape player/radio. A high tape speed ensures good and stable sound reproduction. 2 years' warranty.

All Volvo accessories have been specially selected and tested for Volvo cars. You will find many more useful accessories to choose from in the Volvo Accessories Brochure.

VOLVO 164 E



VOLVO

AB VOLVO GÖTEBORG SWEDEN