

# THE VOLVO FAMILY

1991

For family and business budgets, superb comfort, and value for money the 340 is the perfect car



The distinctively styled 340 combines driving pleasure with safety - to Volvo's traditionally high standards.

This beautifully balanced car inspires confidence with precise handling in all weather conditions. Even when carrying a maximum load, the 340 behaves impeccably; impressive when you consider that the load capacity can be increased to 42 cubic feet with the rear seat folded.

With the choice of 1.4 or 1.7 litre engines to provide spirited performance and reliability, and a five-speed manual gearbox or four-speed automatic transmission, the 340 suits individual motoring needs.

Above all, the 340 is a safe car. Front and rear crumple zones, a rigid steel safety cage, front and rear inertia reel safety belts are all standard. And with its usual attention to detail, Volvo has designed the interior to ensure the driver remains alert yet comfortable.

Standard features include electrically heated front seats, headlamp wash/wipes and a stereo radio/cassette.

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With a sleek and stylish exterior, the 440 combines traditional Volvo virtues with modern refinement and imaginative design





The advanced technology behind the development of the 1.7 litre engine has created a highly responsive power unit which comfortably meets the stringent legislation on exhaust emission.

The unique self-correcting action of the front wheel drive geometry ensures the 440 grips the road in all weather conditions. The result, a five-water car with excellent performance and roadholding.

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Powerful servo-assisted front disc brakes and Volvo's renowned reliability and safety, incorporating front and rear crumple zones, steel bars and safety cage, creates the framework for all-round protection and security.

The 440's superb comfort has evolved from Volvo's belief that a comfortable driver is a safer driver. The multi-positional driver's seat, expansive leg and head-room, clear instrument panel and carefully designed dashboard serve to maximise driving comfort.



#### The fine, sculpted lines of the 460 reveal its Volvo pedigree. Elegance with practicality, safety with performance

Few people would deny that the 460 is in a class of its own. Stylish elegance combined with modern design has created a technically advanced and refined car which is practical, safe, but also possesses spirited performance.

All models in the 460 range are powered by a 1.7 litre engine which provides crisp power delivery through all the gears. Superb roadholding and handling properties have produced a car of refinement.

And the 460 does not compromise on comfort. Generous interior space allows five adults to be accommodated with ease - with their full complement of luggage easily tucked away in the huge loadspace. All major controls are thoughtfully positioned within comfortable reach.

The 460 is equipped to the highest level with electrically heated front seats, electric sunroof, tinted glass and stereo radio/cassette as standard.

The result is a unique blend of quality and style, ideal for family and business motoring.



One of the most distinctive sporting coupes, the 480 offers exhilarating performance with Volvo's high standards of motoring safety

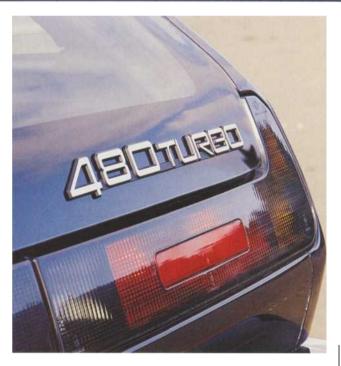


The 480 has personality and refinement. Innovative design has created a stylish car which is deceptively spacious, offering generous leg and headroom for driver and passengers. Standard equipment features an electronic information centre, sunroof, central locking, burglar alarm and halogen pop-up lights.

But it is when you get behind the wheel that you most appreciate the 480's impeccable road manners. The 1.7 litre fuel-injected engine is served by computerised control technology which helps maximise fuel efficiency and ensures instant throttle response.

The 480 turbo can accelerate from 0 to 60 mph in 9.1 seconds. Powerful, but it is reassuring to know that the 480 still has all the inherent safety features of a Volvo.

The 480 is an impressive example of modern design and technology applied to traditional principles.



## The 240 has helped build Volvo's worldwide reputation for practical automotive design which stands the test of time

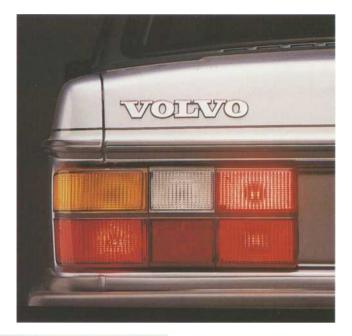
The 240 is a contemporary classic. Designed and built to incorporate Volvo's world-famous qualities of reliability, safety and durability, it offers traditional refinement with a very spacious interior.

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The combination of carefully balanced chassis, economic and durable 2.0 or 2.3 litre engines and powerassisted disc brakes ensures that the 240 provides a smooth, comfortable ride with superb roadholding. Even over long distances, driving is always a pleasure.

The high level of equipment reflects Volvo's concern for the comfort and safety of the driver and passengers. Heated front seats, electric windows, central locking and headlamp wash/wipe are standard. As are Volvo's renowned safety features of tough steel cage, front and rear crumple zones and side impact bars, which are built into every car.

The 240 has established itself as something of a legend. It is, for many people, the perfect spacious car, an impressive example of style with staying power.







The 740 is a luxury car with a safety specification as impressive as the high level of standard equipment



The 740 is a technically refined, well-equipped car offering superior levels of comfort. It continues the Volvo tradition of practicality with comfort, safety and generous loadspace.

With the well-proven 2.0 litre engine, both saloon and estate offer quality engineering at a competitive price. Superbly weighted power steering imparts plenty of feel and the excellent suspension ensures positive handling at all times in all conditions.

Orthopaedically designed seats, concise, easy-to-read instrumentation, good ventilation and excellent all-round visibility ensure alert yet comfortable driving.

The 740 is exceptionally spacious - coping easily with the most demanding of loads. And with multi-position driver's seat, reclining and heated front seats, central locking, quadrophonic radio and electric front windows, the standard specification is very impressive.

Equally impressive is the inherent structural safety of the 740. The tough steel cage, crumple zones and side impact bars ensure a high level of passenger protection.







Developed for the truly discerning driver, the 940 epitomises Volvo tradition, design and superb craftsmanship



All the flair that has gone into designing the graceful lines of the 940 is matched by Volvo's famous attention to detail and meticulous engineering.

The 940 range offers a wide selection of engines but whichever you choose you can depend on smooth delivery with impressive performance - and a car which handles predictably in all situations. With a three-way catalytic converter fitted as standard to all petrol engines, harmful emissions are significantly reduced.

The sumptuous interior is virtually free of engine noise, while comfort and safety are further enhanced by bodycontoured seats, an integrated armrest and child cushion which folds away into the backrest, excellent all-round visibility and comprehensive instrumentation to keep the driver constantly updated on the performance of the car.

The 940 embodies style and function, crafted with care. One in every seven cars is water tested to check for water leakage and you can relax in the knowledge that the car has been designed with every aspect of safety carefully considered.





#### A prestigious luxury car which offers the highest levels of performance and comfort, the 960 sets new standards

The 960 is a high performance luxury car which delivers all you require for relaxed and pleasurable driving. Spacious and supremely comfortable, it epitomises Volvo design excellence and high-quality craftsmanship.

The eye-catching streamlined body hints at the stunning performance. There is a choice of the well-proven and responsive turbo or an outstanding new 24-valve engine, featuring an electronically controlled automatic gearbox with a choice of gearchanging programmes. All 960s are equipped with a three-way catalytic converter.

Volvo has designed a chassis you can trust - safe, reliable and made to match the power of the engine.

Levels of interior comfort are outstanding. Leatherfaced, body-contoured upholstery. ABS for the confidence of ultimate control, electric sunroof, windows and mirrors, electronic climate control and radio/cassette with six speakers are all standard features with cruise control standard on the 24-valve model. And even at high speed, cabin noise is virtually non-existent thanks to extra insulation.

The 960 is a car which reflects the heritage and prestige of all that is best in a Volvo.





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Volvo has always been at the very forefront of passenger safety. It is a philosophy which spans the total process from concept to aftersales care

### PROTECTION AS STANDARD

'The basis for everything we do at Volvo is, and must remain, safety and care'. Gustaf Larson, Swedish engineer and co-founder of Volvo, 1927.

Volvo has been synonymous with safety ever since. We have won America's National Highway Traffic Administration Award three times, among a wide range of international safety awards. Many of Volvo's own safety standards have become legal requirements all over the world or prove more demanding than government legislation. UK law, for example, stipulates that every car must be able to withstand a 30mph head-on collision. However, we insist on а 35mph

threshold because the extra 5mph improves a car's ability to withstand impact by a further 36 per cent.

Each year, we spend a considerable amount of time and money on research into car safety. With the complexity of modern traffic a driver cannot always anticipate hazards. But carefully researched car design and engineering can minimise the consequences of an accident.

We simulate hundreds of collisions each year at the Volvo Safety Laboratories, as well as studying thousands of road crashes.

Sometimes, the result of this research is a feature which provides the driver with a way to avoid potential



accidents - active safety. Sometimes it is a more defensive feature, of vital importance should an accident occur -- passive safety.

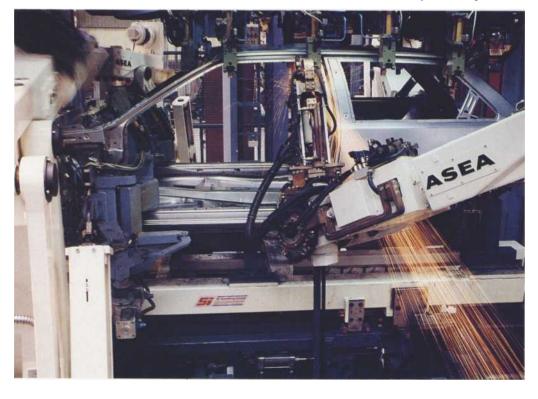
The ability to accelerate quickly and smoothly, antilock braking and well-designed suspension systems in

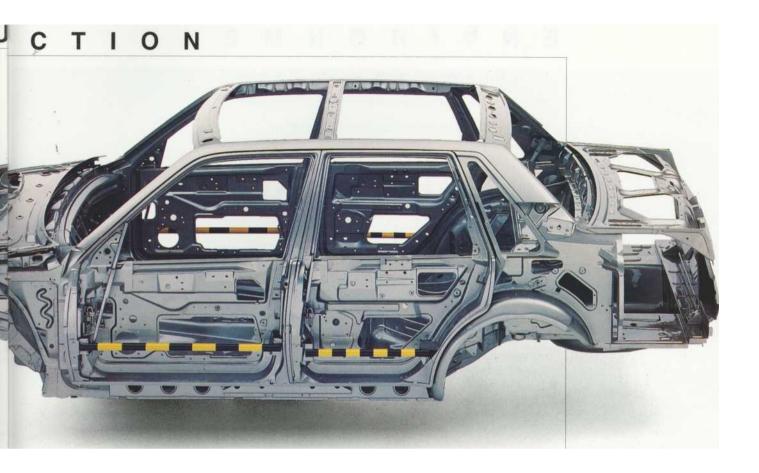
MANY OF VOLVO'S OWN SAFETY STANDARDS HAVE BECOME LEGAL REQUIREMENTS ALL OVER THE WORLD

terms of roadholding and handling are all positive aspects applied to reduce the risk of an accident.

Every Volvo offers the same fundamental protection: a rigid steel safety cage, computer-designed front and rear crumple zones, roll-over protection bar in the roof and steel bars in the doors. In the event of an accident they all absorb impact and deflect shock waves from the passengers. The collapsible steering column reduces the risk of chest injury to the driver and the door locks are designed to hold the doors closed during

The production and painting processes are highly automated to provide consistent quality and long life for every car



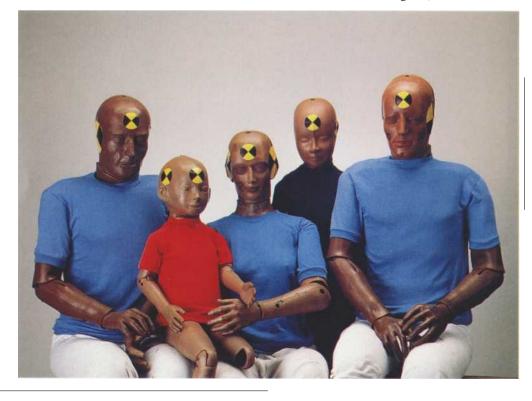


an impact, but open easily straight afterwards.

Comfort is an important factor (a comfortable driver is always a safer driver). All the seats are body contoured and orthopaedically designed, and the front seats contain lumbar support to ease strain on the back; instrumentation is clear and easy to read so the driver's eyes need never leave the road and thorough ventilation ensures the driver remains alert and aware.

The 22-stage programme of surface treatments, including 13 coats of primer and high-gloss paint, along with zinc-coating and resin application provides effective protection against rust. It's no wonder that the average life expectancy of every Volvo from Sweden we produce is 20.7 years (Swedish government figures).

Personal protection. The whole of the passenger compartment fits into Volvo's renowned steel safety cage construction







Computer-monitored sensors on the Volvo family of dummies measure precisely the effects of a crash on the human body

### **NVIRONMENT** E

Volvo has a long-standing tradition of extensive research and development to use its technological expertise for the benefit of the environment

### **CARING FOR** THE FUTURE

More and more companies are becoming aware of the detrimental effects that manufacturing processes are having on the environment. But it is important that every statement of good intent is backed by a determined, long-term plan of action. Words and intentions are easy. Actions are harder to come by.

Volvo believes that a more responsible attitude towards the environment is the concern of every manufacturer and that is why the company has always taken a lead in making cars that are environmentally cleaner.

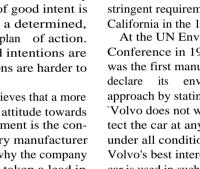
Volvo's environmental research began in 1965 with the

development of emission controls. Volvo was the first to introduce a fully regulated catalytic converter for unleaded petrol and to produce one which could meet the stringent requirements set by California in the 1970s.

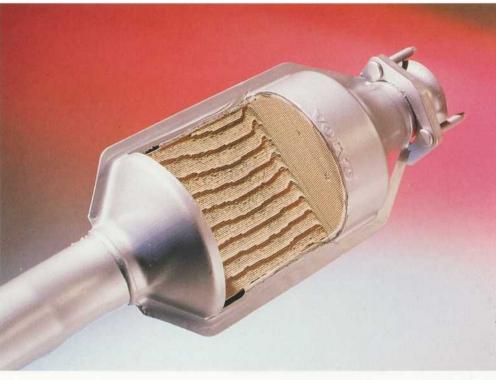
At the UN Environmental Conference in 1972. Volvo was the first manufacturer to declare its environmental approach by stating:

'Volvo does not wish to protect the car at any price and under all conditions. It is in Volvo's best interest that the car is used in such a way as it does not cause environmental damage.'

More recently, Pehr G. Gyllenhammar, chairman of







The sophisticated catalytic converter designed to reduce harmful toxic emissions by 90 to 95 per cent. Fitted as standard from 1991 model year on all new petroldriven Volvos



Volvo since 1971, stated: `Volvo customers are very interested in the environmental impact of our cars. What we are doing certainly isn't charity, but fits very well into the overall aims of our customers.'

Again, actions speak louder than words. Which is why every new petrol-driven Volvo comes with a catalytic converter as standard.

Furthermore, we are doing everything we can to eradicate or reduce pollutants from each stage of the production process.

For example, we have eliminated CFCs from all foam plastic used in seatpadding, and the same will soon be true of harder foams like those used in steering wheels. We were the first European car maker to adopt a water borne paint system that reduces by 60 per cent the release of solvents into the atmosphere and we became the first manufacturer to introduce a completely solvent-free underseal for corrosion-proofing our cars.

#### VOLVO HAS ADOPTED A STRATEGY OF ENVIRONMENTAL CARE IN EVERY PART OF ITS ORGANISATION

And now we are using natural gas for heating our factories, which cuts sulphur emissions by 90 per cent.

Volvo has adopted a strategy of environmental care in every part of its organisation and has developed a clear and carefully planned agenda for the future. Our plans include: replacing CFCs in all air conditioning; studying better scrapping methods; continuing the development and use of environmentally friendly plastics and car care products; further radical solvent discharge reduction; and more extensive research into improving recycling methods.

However, more must be done. As with all environmental matters, when it comes to transport there must be a concerted effort. To quote Gyllenhammar: `We need more investment in better traffic planning, cleaner engines, better terminals and improved rapid transit system. The answer lies in a partnership between the public sector and the car industry.' Volvo's cars for the Nineties are designed to be environmentally cleaner. But the company is continually seeking to improve environmental awareness throughout the car industry