

2006 model year

VOLVO V70

OVERVIEW

In brief:

- Award winning 'Best Estate'.
- Class-leading, premium large estate car.
- Smart, clean Scandinavian design.
- Modern Volvo design combined with classic Volvo estate style.
- Oeko-tex standard emissions-free interior, with versatile, flat load area.
- High Volvo safety standards – fully crash tested in Volvo Safety Centre.
- Wide range of powerful engines (inc Diesel and Bi-Fuel) from 140bhp to 300bhp.
- High performance flagship model - V70 R – with 300bhp, 400Nm of torque, AWD and active Four-C chassis (Advanced, Sport and Comfort settings).
- Bi-Fuel CNG model with five cylinder, 2.4-litre petrol/gas engine.
- Higher specifications compared to most other premium brand rivals.
- Superior Sovereign Hide or bespoke 'Inscription' upholstery available.
- Healthier Oeko-Tex standard compliant, emissions-free interiors.
- Performance, High Performance or Premium sound audio systems available with Dolby Pro Logic Surround Sound, and 'digital jukebox'.
- Available in S, Sport and SE trim levels.

The award-winning Volvo V70 continues to dominate the premium large estate car market, and defines the parameters by which estate cars are judged by mixing practicality and design with quality, comfort and desirability.

Produced in both of Volvo's plants in Gothenburg, Sweden and Ghent, Belgium, the V70 echoes the design cues introduced by the Volvo S80 and subsequently continued in the XC90 and Volvo's compact Sportswagon, the V50.

Inside, the V70 is equally well designed with crisp Scandinavian style and an ergonomically efficient facia, plus room for a quintet of adults – with the option of two extra rear-facing seats in the load area.

The V70's rear seats easily and conveniently fold down to create a vast, completely flat load bay that's enhanced by clever design features, such as head restraints that neatly fold away instead of needing to be removed, plus a pop-up shopping bag holder available to keep items in place during travel.

Couple all this with an outstanding safety, security and environmental package, and it is little wonder that the Volvo V70 has achieved such critical acclaim.

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- Bi-Fuel CNG model with five cylinder, 2.4-litre petrol/gas engine.
- Higher specifications compared to most other premium brand rivals.
- Superior Sovereign Hide or bespoke 'Inscription' upholstery available.
- Healthier Oeko-Tex standard compliant, emissions-free interiors.
- Performance, High Performance or Premium sound audio systems available
- Available in S, Sport and SE trim levels.

The latest, award-winning Volvo V70 was launched in 2000 and updated in 2004, and remains the market leader in the large estate car market. Building on over half a century of Volvo experience in producing estate cars, the V70 has all the qualities expected of a Volvo estate, has defined the parameters by which estate cars are judged, and also reflects the quality, design, versatility and charisma that characterises Volvo's latest models.

Design Concept

Styled under Volvo's then Director of Design, Peter Horbury, the V70 is instantly recognisable as a Volvo with a V-shaped bonnet, low grille and prominent shoulder lines that echo the acclaimed style introduced in the Volvo S80 and continued in subsequent models such as the Volvo XC90 and V50 compact Sportswagon.

The rounded curves of its side profile are a particular highlight and disguise the square, practical design of the V70's rear. The vertical tailgate is another feature synonymous with large Volvo estates and helps to provide a spacious, well-shaped load area.

Driving Dynamics

Engine	Type	Power	Torque	0-62 mph	Top speed	CO2 g/km	MPG Man/auto
2.0T	1984cc 5cyl/20v turbo	180bhp	240Nm at 1850 rpm	9.0 man 9.5 auto	137 man 130 auto	217 man 237 auto	Urban: 22.2/20.0 Extra Urban: 40.4/37.7 Combined: 31.0/28.5
2.4 (140)	2435cc 5cyl/20v	140bhp	220Nm at 3300 rpm	10.5 man 11.4 auto	127 man 124 auto	214 man 231 auto	Urban: 22.8/20.9 Extra Urban: 40.9/38.2 Combined: 31.4/29.1
2.4 (170)	2435cc 5cyl/20v	170bhp	220Nm at 4500 rpm	9.0 man 9.9 auto	137 man 134 auto	220 man 234 auto	Urban: 22.4/20.6 Extra Urban: 39.2/37.7 Combined: 30.7/28.8
2.5T	2521cc 5 cyl/20v turbo	210bhp	320Nm at 1500 rpm	7.4 man 7.8 auto	143 man 140 auto	219 man 241 auto	Urban: 21.9/19.6 Extra Urban: 39.8/36.7 Combined: 30.7/28.0
2.5T AWD	2521cc 5 cyl/20v turbo	210bhp	320Nm at 1500 rpm	7.6 man 8.0 auto	140 man 137 auto	237 man 255 auto	Urban: 20.8/19.1 Extra Urban: 36.7/34.4 Combined: 28.5/26.6
T5	2401cc 5 cyl/20v turbo	260bhp	350Nm at 2100 rpm	6.8 man 7.2. auto	155 man 152 auto	226 man 239 auto	Urban: 22.1/19.3 Extra Urban: 38.2/37.2 Combined: 29.7/28.2
R	2521cc 5cyl/20v turbo	300bhp	400Nm at 1950 rpm	5.9 man 6.9 auto	155 man 155 auto	256 man 264 auto	Urban: 22.4/20.6 Extra Urban: 39.2/37.7 Combined: 30.7/28.8
2.4D	2401cc 5cyl/20v turbo diesel	163bhp	340Nm at 1750 rpm	9.5 man 10.0 auto	130 man 130 auto	179 man 209 auto	Urban: 31.4/26.9 Extra Urban: 51.4/44.1 Combined: 41.5/35.8
D5	2401cc 5cyl/20v turbo diesel	185bhp	400Nm at 2000 rpm	8.5 man 9.0 auto	140 man 137 auto	179 man 209 auto	Urban: 31.4/26.9 Extra Urban: 51.4/44.1 Combined: 41.5/35.8
D5 AWD	2401cc 5cyl/20v turbo diesel	185bhp	400Nm at 2000 rpm	8.9 man 9.5 auto	134 man 130 auto	194 man 219 auto	Urban: 28.8/25.9 Extra Urban: 47.9/41.5 Combined: 38.7/34.0
Bi-Fuel	2435cc 5cyl, 20v CNG: Petrol:	140bhp	192Nm at 4500 rpm	11.0 man 11.9 auto	127 man 124 auto	169 man 183 auto	Urban: 21.6/19.3 Extra Urban: 38.7/36.7 Combined: 30.1/27.4
		140bhp	220Nm at 3300 rpm	10.5 man 11.4 auto	127 man 124 auto	215 man 240 auto	Urban: 22.8/20.2 Extra Urban: 40.9/36.2 Combined: 31.4/28.2

A broad range of engines ensures there's a Volvo V70 to suit every customer. The petrol engine line-up consists of five-cylinder transverse configurations, ranging from a 2.0T petrol engine offering 180bhp and a 140bhp 2.4-litre to the latest 260bhp T5 and the awesome 300bhp of the 2.5-litre V70 R.

In addition, there is a 210bhp 2.5T (also available with All Wheel Drive) and Volvo's two new turbo-diesel engines: the 2.4D with 163bhp/340Nm and D5 with 185bhp/400Nm. Both diesel engines were introduced for the 2006 model year following extensive modifications to enhance power delivery, refinement, performance and emissions, compared to Volvo's previous D5 unit.

Both diesels are fitted with a diesel particulate filter with oxidising coating as standard, with six-speed manual transmissions, or Volvo's new (optional) six-speed Geartronic, plus the latest common rail direct injection technology to combine generous amounts of torque - 340Nm at 1,750rpm for the 2.4D, while the new D5 generates as much as the V70 R with 400Nm from 2,000rpm.

Another interesting engine choice for the range is the 2.4 litre Bi-Fuel, which underlines Volvo's commitment to alternative fuels and the environment. Built on the same production line as the rest of the range, fully crash tested and with the usual Volvo Car UK three year warranty, the Bi-Fuel is available to run on either petrol or cheaper, cleaner gas (CNG). Its gas tanks are invisible from sight under the luggage compartment and do not impose on loading space, while there is a smaller petrol tank as the reserve fuel.

The Bi-Fuel engine produces lower and cleaner emissions when running on gas, and smoothly switches between either fuel source at the touch of button. Apart from fuel cost savings (especially for Companies that 'bunker' their own fuel), once registered, Bi-Fuel models are exempt from paying London's Congestion Charge.

Service intervals for all V70 models were extended for the 2006 model year. The S60 R and the Bi-Fuel models have increased from 12,000 to 12,500 miles, or one year, while the rest of the models increased to 18,000 miles, or one year (whichever comes first).

The Volvo V70's ride and handling belies the view that choosing an estate car means sacrificing driving pleasure. MacPherson strut front suspension and a sophisticated Multi-link system at the rear provide an entertaining drive with a high level of active safety.

An optional Sports Handling pack is available offering larger 18in alloy wheels, speed dependent steering and Volvo's advanced Four-C (Continuously Controlled Chassis Concept) active chassis, with a choice of two dynamic chassis modes: Comfort and Sport.

The Four-C system continuously analyses huge amounts of information up to 500 times a second and responds instantly by adjusting each of the Monroe-Öhlins shock absorbers

individually to suit the road and driving conditions. It also interacts with the DSTC (Dynamic Stability and Traction Control) system – the engine brakes, steering and other functions – to maximise response and handling. This all happens quickly and smoothly, and it will also automatically step in to help control the car in an emergency situation no matter which chassis mode is currently selected.

The Four-C active performance chassis is standard on the range-topping Volvo V70 R, with the choice of a third suspension setting – Advanced, as well as Sport and Comfort. This model, like the Volvo XC90, V70 AWD and XC70, also features All Wheel Drive with Instant Traction™ electronically controlled by a pre-charged Haldex coupling.

Versatile Design

The key to the success of any estate car, though, is its versatility, and the Volvo V70 does not disappoint. The passenger compartment offers plenty of space for five adults plus the option of two rear facing seats in the loadspace. The fascia is an ergonomic masterpiece and uses classical clean and simple Scandinavian design. Naturally, the luggage bay is vast, flat and well shaped. The front passenger seat also folds forward to accommodate items up to 3.05m long.

Great design touches include split folding rear seats (60/40) with two positions for the seat backs, rear head restraints that simply fold away rather than needing to be clumsily removed, and a grocery bag holder to keep shopping in place and upright during travel. Many variants also feature a waste bag holder/bottle holder for rear passengers and it's even possible to specify integrated booster seats for both outer rear seats, and a folding table or child seat that pops out of the centre rear armrest.

There's little wonder that the Volvo V70 has won an array of awards, including being named as *What Car?* magazine's 'Estate Car of the Year' several years running.

Quality and equipment

The V70 is available with S, Sport and SE trim levels – all usually offering better standard specifications and value than other premium brand rivals.

The standard specification of the 'S' model includes:

- Alarm with immobiliser
- ECC (Electronic Climate Control) with AQS (Air Quality System) and pollen filter
- Information system
- Steering wheel remote audio controls

- Performance sound system with 4x25w amplifier and 6 speakers
- 16in alloy wheels
- Dynamic chassis
- Front fog lights
- DSTC (Dynamic Stability and Traction Control) with EBA
- Key-integrated remote control central locking with deadlocking system

A high level of luxury equipment is fitted as standard to every model, including Electronic Climate Control with Volvo's Air Quality System (AQS), alloy wheels, a performance audio system with CD player and at least six speakers, plus information centre, fog lights and DSTC (Dynamic Stability and Traction Control).

For added style, the Sport model gains:

- Body-coloured lower bumpers and side mouldings
- Rear spoiler
- Larger 17in alloy wheels
- Sports leather/textile upholstery
- Aluminium inlays
- 'Spaceball' gear lever for manual transmission
- Water repellent door mirror glass
- Electric folding door mirrors with ground lights
- Automatic windscreen wiper activation
- Autodimming rear view mirror
- Grocery bag holder

In addition, upgrading to the enhanced SE specification offers:

- Electric driver's seat (with memory) and door mirror memory
- Sports leather upholstery
- High-performance audio system with 6 x CD and Dolby Pro Logic II Surround Sound with nine speakers and 4x50w amplifier
- Chrome trim in front and rear bumper mouldings

For further style and desirability, a comprehensive range of optional items includes Bi-Xenon headlights, heated seats, integrated telephone and Volvo's RTI satellite navigation system now with TMC (Traffic Message Channel) that warns of traffic problems ahead and can even re-route the driver, if required.

Volvo offers two stylish ways to further upgrade the interior of the V70:

- Superior 'Sovereign Hide' soft leather upholstery is available on Sport and SE models, or as part of the Premium pack, and comes in off-black or linen white colours.
- Volvo 'Inscription', launched for the 2006 model year, opens a whole new colourful world of interior sophistication with a collection of bespoke, exclusively designed interiors. Soft 'semi Aniline' leather upholstery, with ribbed inserts on the seats, comes from the finest hides and is available in a kaleidoscope of eight exciting colour combinations for the seats and door panels. It also includes a soft leather sports steering wheel and Nubuck trimmed floor mats with contrasting piping.

Safety

As you'd expect, the Volvo V70 is also packed with the latest safety features, which it shares with the rest of the Volvo range. Volvo's acclaimed SIPS (Side Impact Protection System) and WHIPS (Whiplash Protection System) are complemented by twin front 'intelligent' dual-stage airbags (with the option of a passenger airbag cut-off switch), three-point safety belts with tensioners for all five occupants, and an Inflatable Curtain (IC) to protect against head injuries in a side impact.

In addition, Volvo offers a passenger airbag cut-off switch to enable child seats to be carried in the front of the car. Integrated booster seats are available for the rear seats, as well as ISOFIX mounting points.

To improve the driver's visibility and avoid accidents, water repellent glass is available on door mirrors and (laminated) side windows.

Environment

Volvo's 'clean inside and out' environmental programme reflects its continuing commitment to the environment. Its plants are some of the automotive world's cleanest factories, and 85 per cent of each car can be recycled, plus every new Volvo is backed by an EPI (Environmental Product Information) which is available at www.volvocars.com/epi. Volvo also produces an annual Corporate Citizenship report, available on www.volvocars.com/citizenship.

Like all Volvos, the V70's interior is free from allergy inducing emissions, and an active carbon filter ensures dust and exhaust particles do not enter the cabin, while an Air Quality System (AQS) shuts down the air input if outside air is too dirty.

All the five cylinder petrol engines in the Volvo V70 range are available with Volvo's PremAir® - a special catalytic coating on the radiator which converts up to 75 per cent of the harmful

ground-level ozone passing through it into pure oxygen. In addition, they already meet the stringent EU 2005 emissions requirements.

DESIGN CONCEPT

In Brief:

The award-winning Volvo V70 has been styled to reflect the needs, expectations and active lives of today's premium brand estate car customers. The nose and the strong shoulder lines echo the award-winning shape and new Volvo styling introduced in the S80 but, from the windscreen back, the Volvo V70 asserts its own identity.

Despite its handsome lines, Volvo's designers have ensured it remains extremely functional and flexible. The upright side windows and vertical tailgate, for example, are traditional Volvo estate styling cues and help provide the Volvo V70 with a well-shaped, versatile load space.

In full:

- Designed to reflect the needs, expectations and active lives of premium brand estate car buyers
- Styling incorporates all elements of the latest Volvo design language introduced with the S80 saloon and subsequently in the XC90 and V50 compact Sportswagon, with V-shaped bonnet and strong, shapely shoulder lines
- Near-vertical tailgate and upright rear windows are classic Volvo design cues and help provide a vast load bay
- Styled under Volvo's former chief designer, Peter Horbury
- Aerodynamic CD figure of 0.30

Gone are the days when Volvo estates looked like they'd been designed only with the aid of a set-square. The Volvo V70 reflects the extraordinary, dynamic advances in Volvo design over the last decade and has been styled to reflect the varying needs of today's premium brand estate car owners.

The V70 follows many of the design cues introduced in the award-winning Volvo S80 that now form the new Volvo design language subsequently seen in the XC90 and the compact V50 Sportswagon. But form has not been allowed to take precedence over function - the Volvo V70 is still a true load carrier, offering versatility and practicality.

Peter Horbury, who was Volvo's Design Director in from 1991 to 2003, gives an enigmatic response when questioned about the concept for the Volvo V70:

"Imagine the front end of an E-type Jaguar married to the back end of a Ford Transit van," he says. "With the Volvo V70, we have tried to combine the two."

Thankfully, the end product is rather more handsome than Horbury's image suggests. The Volvo V70 offers a brilliant synthesis of the latest Volvo dynamic design cues, while retaining the practicality and versatility expected of a proper Volvo estate. It's also a shape that's exceptionally efficient – the CD figure is just 0.30 – and this helps both high-speed stability and fuel consumption.

The front end echoes the award-winning design of the Volvo S80 and the sporting Volvo S60 saloons. The V-shaped bonnet is instantly recognisable and it frames a traditional Volvo chrome 'waterfall' grille. Strong shoulder lines also reflect Volvo's strong, modern design language and help to give the car a sense of solidity, purpose and premium quality as well as emphasise and aid side impact protection.

From the windscreen back, though, Volvo's designers have developed unique themes for the Volvo V70 befitting its status as a versatile estate car. The complex rounded curves in the front and side profile underline its dynamic nature and help to disguise the practical square shape of the rear end.

"We tried to make the car appeal to saloon car buyers as well as traditional estate drivers," said Horbury. "It has the same dramatic front as the Volvo S60, but while the body of the Volvo S60 tapers to the rear, the Volvo V70 is vertical to the third window."

Upright rear side windows and an almost vertical rear door are classic Volvo estate design features and vital elements in making the Volvo V70 such a practical machine. The result is a cargo area that's both spacious and easy to load, even when the luggage is bulky.

Horbury continued: "The vertical rear door is crucial – a sloping tailgate means sacrificing a big triangular tube of space. And the third window has to be longer than the second for it to be a Volvo estate car."

At the rear, the shapely clear lense tail-lights have been developed from the curved theme of those first introduced on the Volvo S80 saloon, helping to retain a family look, but they are also stacked alongside the rear door, reflecting a Volvo styling theme that began with the 850

estate. Attention to detail is highlighted by the integrated LED side marker lights and the position of the tailgate hinges which keep the loading area clear of obstructions.

The exterior detailing has also been engineered to reflect the practical, active or sporting requirements of Volvo V70 owners. The top of the rear loading panel is finished with a protective plastic material, which prevents the paintwork from being damaged during loading and unloading, and if scratched is easily replaced, as are the chrome or body coloured bumper inserts. Such attention to detail helps the Volvo V70 stand out against some talented opposition.

DRIVING DYNAMICS

ENGINES

In brief:

The Volvo V70 is available with a wide range of five-cylinder, transverse petrol and diesel engines reflecting the varying needs and aspirations of customers in this sector.

There's a choice of five-cylinder petrol units including plenty of turbocharged power from the high-performance V70 R. This is complemented by Volvo's new, refined and economical turbodiesels, the 2.4D and D5, while a Bi-Fuel model that has lower, cleaner emissions and changes between running on gas (CNG) or petrol at the press of a button.

In full:

- Wide range of five-cylinder engines reflects requirements of customers
- All aluminium petrol engines with power outputs ranging from 140bhp to 300bhp
- Two new turbodiesels: D5 185bhp with 400Nm, and 2.4D 163bhp with 340Nm using the latest direct-injection and common rail technology are Euro IV compliant and have a diesel particulate filter as standard for impressive, refined performance, economy, and emissions.
- 2.4-litre, five-cylinder Bi-Fuel model operates on both CNG and petrol. Fully crash tested, with full type approval, built on same production line as standard car and sold with standard three year Volvo Car UK warranty.
- Service intervals: Bi-Fuel and V70 R 12,500 miles or 1 year (whichever comes first), and 18,000 miles/1 year (whichever comes first) for all other petrol and diesel models.

The Volvo V70 is available with a wide range of normally aspirated, turbocharged, turbodiesel and an environmentally friendly Bi-Fuel engine to suit the variety of owners needs.

Technical specifications:

Engine	Type	Power	Torque	0-62 mph	Top speed	CO2 g/km	MPG Man/auto
2.0T	1984cc 5cyl/20v turbo	180bhp	240Nm at 1850 rpm	9.0 man 9.5 auto	137 man 130 auto	217 man 237 auto	Urban: 22.2/20.0 Extra Urban: 40.4/37.7 Combined: 31.0/28.5
2.4 (140)	2435cc 5cyl/20v	140bhp	220Nm at 3300 rpm	10.5 man 11.4 auto	127 man 124 auto	214 man 231 auto	Urban: 22.8/20.9 Extra Urban: 40.9/38.2 Combined: 31.4/29.1
2.4 (170)	2435cc 5cyl/20v	170bhp	220Nm at 4500 rpm	9.0 man 9.9 auto	137 man 134 auto	220 man 234 auto	Urban: 22.4/20.6 Extra Urban: 39.2/37.7 Combined: 30.7/28.8
2.5T	2521cc 5 cyl/20v turbo	210bhp	320Nm at 1500 rpm	7.4 man 7.8 auto	143 man 140 auto	219 man 241 auto	Urban: 21.9/19.6 Extra Urban: 39.8/36.7 Combined: 30.7/28.0
2.5T AWD	2521cc 5 cyl/20v turbo	210bhp	320Nm at 1500 rpm	7.6 man 8.0 auto	140 man 137 auto	237 man 255 auto	Urban: 20.8/19.1 Extra Urban: 36.7/34.4 Combined: 28.5/26.6
T5	2401cc 5 cyl/20v turbo	260bhp	350Nm at 2100 rpm	6.8 man 7.2. auto	155 man 152 auto	226 man 239 auto	Urban: 22.1/19.3 Extra Urban: 38.2/37.2 Combined: 29.7/28.2
R	2521cc 5cyl/20v turbo	300bhp	400Nm at 1950 rpm	5.9 man 6.9 auto	155 man 155 auto	256 man 264 auto	Urban: 22.4/20.6 Extra Urban: 39.2/37.7 Combined: 30.7/28.8
2.4D	2401cc 5cyl/20v turbo diesel	163bhp	340Nm at 1750 rpm	9.5 man 10.0 auto	130 man 130 auto	179 man 209 auto	Urban: 31.4/26.9 Extra Urban: 51.4/44.1 Combined: 41.5/35.8
D5	2401cc 5cyl/20v turbo diesel	185bhp	400Nm at 2000 rpm	8.5 man 9.0 auto	140 man 137 auto	179 man 209 auto	Urban: 31.4/26.9 Extra Urban: 51.4/44.1 Combined: 41.5/35.8
D5 AWD	2401cc 5cyl/20v turbo diesel	185bhp	400Nm at 2000 rpm	8.9 man 9.5 auto	134 man 130 auto	194 man 219 auto	Urban: 28.8/25.9 Extra Urban: 47.9/41.5 Combined: 38.7/34.0
Bi-Fuel	2435cc 5cyl, 20v CNG: Petrol:	140bhp	192Nm at 4500 rpm	11.0 man 11.9 auto	127 man 124 auto	169 man 183 auto	Urban: 21.6/19.3 Extra Urban: 38.7/36.7 Combined: 30.1/27.4
		140bhp	220Nm at 3300 rpm	10.5 man 11.4 auto	127 man 124 auto	215 man 240 auto	Urban: 22.8/20.2 Extra Urban: 40.9/36.2 Combined: 31.4/28.2

Steering/tyres	Rack and pinion with 205-235 (16in-18in) section tyres.
Turning circle, m (ft)	11.9 – 12.0 (39ft – 39ft 4in). V70 R: 13.2 (43.3)
Transmission	5 speed manual (2.0T, 2.4, 2.5T, Bi-Fuel) 6 speed manual (2.4D, D5, T5, D5 AWD and V70 R) Auto: 5 speed (2.4, 2.0T) Geartronic: 5 speed (2.5T, T5); 6 speed (2.4D, D5, V70 R)
Brakes: front discs	15in – 286mm Ventilated (2.4, 2.4D, D5, Bi-Fuel) 16in – 305mm Ventilated (2.0T, 2.5T, 2.5T AWD, D5 AWD)
Rear discs	16.5in – 316mm Ventilated (T5) 330mm ventilated (V70 R) 288mm (all models, except V70 R) 330mm (V70 R)
Fuel Tank litres (gallons)	70 (15.4) (D5 AWD 68 (15.0)). Bi-Fuel: LPG 50 (11.0)/Petrol 29 (6.4); CNG 23Nm ³ /petrol 29 (6.4)
Load capacity: litres (cu ft)	
Rear seats up, to glass line	485 (17.1)
Rear seats down, to glass line	745 (26.3)
Rear seats down, to roof	1641 (58.0)
Load length: rear seats up	1077mm
Load length: rear seats down	1848mm
Dimensions: (mm)	
Length	4710
Width (excluding mirrors)	1804
Unladen height	1465 (AWD: 1490)
Wheelbase	2755
Front track width	1551
Rear track width	1548

(Full technical data, prices and options information available in Price list, or downloadable from www.media.volvocars.co.uk)

Volvo's 'RN' range of five-cylinder, all-aluminium petrol engines feature four valves per cylinder, a twin cam head, centrally mounted spark plugs and either single or dual continuously variable valve timing (CVVT). The latter helps optimise the combustion process and operates in two ways. On normally aspirated engines, it works on the inlet cam in order to improve low-end torque and driving characteristics. But on engines fitted with a turbo, it operates on both the inlet cam and the exhaust cam in order to maximise torque and minimise emissions, especially when the engine is cold.

2.4 (140) and 2.4 (170)

The 2.4-litre normally aspirated five-cylinder petrol engine is available in two states of tune. In the entry-level car it develops 140bhp and 220Nm of torque, mixing impressive refinement with ample performance – 0-62mph takes 10.5sec and it reaches 127mph.

A step up in performance is offered by the 170bhp version of the same engine. The peak torque output rises to 225Nm and the 0-62mph time is reduced to 9.0sec, with a 137mph top speed. Both of these engines average over 30mpg on the official Combined cycle and meet the strict European EU 2005 emissions requirements.

2.0T

The 180bhp 2.0T engine received some retuning for the 2005 model year to increase its torque at lower engine speeds making the maximum 240Nm of torque at 1,850rpm instead of 2,200rpm. It achieves 0-62mph in 9.0sec, with a top speed of 137mph and emissions of 217g/km.

2.5T and 2.5T AWD

A more powerful 2.5T engine employs a low-pressure turbo to develop 210bhp and an impressive 320Nm of torque, which is available from 1500-4500rpm. Developed to appeal to sportier drivers, it powers the Volvo V70 from 0-62mph in 7.4sec and on to a maximum speed of 143mph. But despite this impressive performance, it still manages to return an average of 30.7mpg on the Combined cycle.

The 2.5T engine is one of the engines available in the Volvo V70 AWD. Even allowing for the additional weight of the AWD system, the manual 2.5T Volvo V70 AWD sprints from 0-62mph in 7.6sec and reaches 140mph, while returning an average of 28.5mpg on the Combined cycle.

T5

The ultimate in performance and driving experience is offered by the T5 and V70 R models, which employ either a low or high-pressure turbo to devastating effect. The T5's five-cylinder engine was upgraded from 2005 model year to 2401cc to produce a mighty 260bhp at 5500rpm, with 350Nm of torque is available all the way from 2100-5000rpm. When mated to Volvo's new six-speed manual gearbox, it enables the Volvo V70 T5 to sprint from 0-62mph in 6.8sec and can return 29.7mpg on the Combined cycle with emissions of 226g/km.

V70 R

The five-cylinder, 2.5-litre high-pressure turbo engine in the Volvo V70 R provides dramatic performance with all the load carrying capacity of more humble V70 models. The peak power output is 300bhp and there's 400Nm of torque available from just 1950rpm with the six-speed manual transmission, ensuring that the engine is as flexible as it is potent, and can rocket from 0-62mph in 5.9sec and on to an electronically limited top speed of 155mph.

2.4D and D5

In the UK, the majority of Volvo V70 customers choose the performance, economy and range of a diesel engine. And from the 2006 model year, Volvo now offers V70 drivers a choice of two new, substantially updated versions of Volvo's acclaimed and refined 2.4-litre, five-cylinder turbodiesel: the 2.4D and D5.

Both new diesel engines offer a six-speed manual gearbox or the option of a new six-speed Geartronic available.

These enhancements have been achieved as a result of customer feedback and achieved by the following technological developments and extensive changes to performance characteristics of the D5 diesel engine - see following details:

- New electronic glow plug system for faster starting.
- More advanced injection process with 7 spray holes (instead of 5) in each injector for complete fuel atomisation and more efficient combustion and enhanced performance.
- New, larger and more efficient turbocharger with electronic control for faster/more precise control of charge pressure; plus larger compressor wheel, new cambered vanes for improved response at all speeds, and reduced turbo lag.
- Turbo centre housing now water cooled to provide continued cooling after engine stops.
- Improved flow of air/exhaust gases for optimal flow and reduced drop of pressure.
- More powerful engine management system with more sensors to improve regulation.
- EGR (Exhaust Gas Recirculation) system modified for improved flow/regulation.
- New, more effective cooling system for EGR.
- New, faster, electronically controlled throttle moves EGR gases/ regulates temp better.
- Air swirl in combustion chamber is now infinitely variable for more efficient combustion.
- Increased volume for combustion chambers, and consequently a lower compression ratio.
- Larger catalytic converter with oxygen sensor for more precise emissions control.
- NOx emissions reduced by 50%
- Maintenance free, coated diesel particulate filter (Euro IV compliant) automatically burns off soot particulates approximately every 500 miles.
- Low emissions superior to Euro IV control standard requirements:

	<u>Euro IV requirement</u>	<u>D5 (S60 example)</u>
CO (Carbon monoxide)	0.500 g/km	0.207 g/km (58% better than required)
NOx (nitrogen oxide)	0.250 g/km	0.187 g/km (25% better than required)
Particulates	0.025 g/km	0.001 g/km (96% better than required)

The new 2.4D, Euro IV engine develops 163bhp and 340Nm of torque from 1,750rpm to 3,000rpm (similar to previous D5), which guarantees excellent mid-range flexibility with a top

speed possible of 130mph and a 0-60mph time of 9.5 seconds. Yet despite its strong performance, the V70 2.4D achieves 51.4mpg on the extra-urban cycle, and 41.5 miles on a gallon of diesel on the Combined cycle. With the new, coated diesel particulate filter particulate emissions are reduced by 96 per cent. The 2.4D has carbon dioxide emissions of 179g/km, while all other emissions are now substantially below the levels required by the Euro IV compliance.

From 2006 model year, the new D5 Euro IV engine received a significant power boost from 163bhp to 185bhp, now boasting the same levels of torque as the V70 R, 400 Nm, from just 2000 rpm. This flexible performance provides a potential top speed of 140mph, with 0-62mph now possible in 8.5 seconds (compared to the previous D5's 9.5 seconds).

Bi-Fuel

Lower, cleaner emissions and savings on fuel costs are major benefits of Volvo's 2.4-litre, five-cylinder Bi-Fuel engine that runs on both gas (CNG) and petrol. CNG is substantially cheaper than petrol or diesel, particularly for commercial customers who can 'bunker' gas supplies for their fleets.

In contrast to some of its rivals, Volvo's Bi-Fuel cars are built on exactly the same production line as the rest of the range, rather than converted after production, with gas tanks completely concealed under the loadspace, and enjoy full type approval and the standard three year Volvo Car UK warranty.

The provision of Bi-Fuel power was also integral to the Volvo S60's original design and so the additional fuel tank has been accommodated without any impact on luggage capacity. What's more, once registered, Bi-Fuel models enjoy an exemption from London's current congestion charging regulations.

The 2435cc Bi-Fuel engine is the only normally aspirated engine in the V70 range and is intended to primarily run on CNG (Compressed Natural Gas), with petrol as the reserve fuel. The power output is unchanged at 140bhp whether the car is running on petrol or gas, but the torque and emissions figures vary slightly.

In petrol form, the Volvo V70 Bi-Fuel develops 220Nm of torque and CO2 emissions of 215g/km, which compares with 169g/km for CNG.

In terms of performance, with a manual gearbox, the Volvo V70 Bi-Fuel sprints from 0-62mph in 10.5sec in petrol mode, while it takes 11.0sec for the CNG variant.

DRIVING DYNAMICS

CHASSIS

In Brief:

The Volvo V70 rubbishes the theory that choosing an estate car means sacrificing driving pleasure. The combination of high torsional rigidity and a sophisticated chassis provides a cushioning ride with entertaining handling and a high level of active safety.

An optional Sports Handling Pack is available, as is Volvo's Four-C (Continuously Controlled Chassis Concept) active chassis with Comfort and Sport settings.

However, customers seeking the ultimate high-performance all-rounder have the option of the V70 R. Using Volvo's new All Wheel Drive system with Instant Traction™ that works in conjunction with Volvo's advanced 'Four-C' active high-performance sports chassis now specifically tuned for the variety of UK roads with Sport, Advanced Sport and Comfort settings.

The All Wheel Drive system is also available in the V70 AWD, with a choice of petrol or diesel engines.

In Full:

- Entertaining, composed handling with high level of active safety
- High torsional rigidity benefits safety and chassis dynamics
- Sophisticated multi-link rear suspension
- Long wheelbase and wide track provide stability and control
- DSTC (Dynamic Stability and Traction Control) standard on all models
- Sports Handling Pack available (optional)
- Volvo's second generation 'Four-C' active chassis available (optional)
- Volvo V70 R uses Volvo's second generation 'Four-C' active high-performance chassis technology in conjunction with AWD
- Volvo V70 AWD and Volvo V70 R use new AWD with Instant Traction™ system, and Volvo's TRACS system to maximise traction in all conditions

The Volvo V70 is proof that owning an estate car does not mean sacrificing driving pleasure. High torsional rigidity, and a sophisticated suspension system shared with the Volvo S60 and Volvo S80, provide an unbeatable combination of comfort, refinement and handling finesse. And in the shape of the high performance V70 R, Volvo has a load carrier capable of

outperforming many so-called sports cars. It really does bring new meaning to the word 'versatile.'

A high level of torsional rigidity is crucial to providing a consistent ride and handling balance, and it also enhances a vehicle's crash performance. Volvo's engineers met their rigidity targets through the extensive use of High Strength Steel (HSS) and the application of bonding techniques in place of the more usual spot-welding. Bonding, unlike spot-welding, produces a continuous join that increases the rigidity of the structure and also steals less space in, for example, the luggage area. The technique clearly works, as the latest Volvo V70 is 50 per cent stiffer than its predecessor.

Suspension

The estate shares its basic suspension set-up with the Volvo S60 and S80. The MacPherson strut front suspension employs dampers and coil springs combined in a single unit and positioned asymmetrically in relation to the strut. Beneath the spring struts are triangular lower links, with an anti-roll bar attached directly to the bottom of the struts themselves. Anti-lift and anti-dive technology also enhances the car's stability in all conditions.

At the rear, a sophisticated multi-link system is mounted in a chill-cast aluminium subframe. This is attached to the body at four points via insulating rubber bushes to keep noise and vibration to a minimum. The use of aluminium helps keep the weight down, while the compact design ensures that there's no encroachment on passenger or luggage space.

Four links on each side – hence multi-link – comprised of two trailing arms, upper and lower links, a track rod and an anti-roll bar, control the movement of the wheels. As with the front suspension, the coil springs and dampers form a single unit. This system permits a small degree of passive rear-wheel steer when cornering, to aid stability. Load-compensating suspension can also be added as an option across most of the range (but not available for models fitted with Four-C active chassis as this has a similar feature built-in).

Sports Handling Pack

For more responsive handling for the enthusiastic driver, and for an added 'cool' appearance, a Sports Handling Pack includes 18in 235/40 Nebula BBS split rim or Capella alloy wheels, Volvo's Four-C active chassis and speed dependent steering.

DSTC, EBD and EBA

The carefully honed mechanical set-up is backed by sophisticated dynamic stability and traction control (DSTC) systems with Electronic Brake Distribution (EBD). The system

prevents wheelspin by either braking the wheel that has lost traction (up to 25mph) or, at speeds above 25mph, by reducing engine power. It ensures that the driven wheels get exactly as much power as they can transfer to the road. It also uses an array of sensors to detect the onset of a skid. The system then automatically slows the appropriate wheel to restore control.

All V70s benefit from Electronic Brake Assist (EBA), which senses an emergency stop and automatically brings the car to a halt in as short a distance as possible.

AWD (with Haldex coupling)

For driver's seeking additional control on a variety of road surfaces, Volvo has developed an all-wheel drive (AWD) system, which is fitted to the V70 AWD and the V70 R (as well as the XC70 and XC90). Developed in conjunction with the Swedish specialist Haldex, it operates independently of driver input, distributing torque automatically between the front and rear wheels for the best possible grip in all conditions. In addition, the Volvo TRACS system ensures that the wheel on each axle with the best grip always gets the most power.

The intelligent AWD system uses a variety of sensors to monitor the road surface and the steering wheel, brake and accelerator pedal positions. In normal driving conditions on dry roads, almost all the power is distributed to the front wheels. However, if the sensors detect slippage, torque is proportionately diverted to the rear wheels via the Haldex coupling to maximise traction. This system responds in just one-seventh of a wheel turn, making an outstanding contribution to active safety and driver enjoyment.

Active Four-C Active Chassis

The advanced electronics of Volvo's active 'Four-C' (Continuously Controlled Chassis Concept) technology allow all of the car's dynamic systems to communicate and work in unison and has now been specifically optimised for the variety of UK road conditions.

The car's speed, wheel movement and steering are continuously monitored via Multiplexed control systems that update the suspension settings 500 times per second.

The advanced electronics allow the driver to choose between different suspension settings at the touch of a button on the dashboard for maximum driver choice, control and enjoyment.

The system is designed to help counteract the cars natural dynamic tendencies:

- TAKE OFF: When accelerating away from standing start, the rear dampers are set to maximum stiffness to help prevent acceleration squat and optimise front wheel traction.

- **BRAKING:** When braking the front dampers are stiffened to reduce 'brake dive'. This allows greater rear end grip so more rear braking effort can be used.
- **CORNERING:** When cornering the outside dampers are stiffened to reduce roll and provide extra grip and traction. On the V70 R, the dampers work in unison with the AWD with Instant Traction™ to induce a degree of 'turn-in' oversteer. During the corner the dampers and AWD system balance power for a neutral stance. When exiting a corner, the dampers are set to allow maximum traction for the front wheels, to pull the car out of the corner.

For the v70 R the 'Four-C' system works in conjunction with the new sophisticated AWD (All Wheel Drive) with Instant Traction™ system. Developed in conjunction with the Swedish specialist Haldex, the new AWD operates independently of driver input, distributing torque automatically between the front and rear wheels via an electronically controlled coupling for the best possible grip in all conditions. On take off, power is fed to all four wheels then will balance to optimise performance and reduce fuel consumption.

The intelligent AWD system uses a variety of sensors to monitor the road surface and the steering wheel, brake and accelerator pedal positions. In normal driving conditions on dry roads, almost all the power is distributed to the front wheels. The new 'pre-charged' function uses a non-return valve within the coupling making 80Nm of torque instantly available to the rear wheels if the sensors detect any slippage.

Standard models with the Four-C system have the choice of Sport or Comfort chassis settings. However, this is taken one stage further for the v70 R when the system offers Sport, Comfort and an additional third setting – Advanced Sport:

Sport – Standard mid-setting for sporty driving. ('Sky-hook' control technique)

Advanced Sport – Uncompromising sports car handling, prioritising maximum driving pleasure using 'direct road contact' control technology, ('Road Contact' control technique)

Comfort – Optimises ride comfort using 'Sky Hook' control technology to make the car feel like it is suspended from an artificial horizon. ('Sky-hook' control technique)

DRIVING DYNAMICS

STEERING, BRAKES AND TRANSMISSIONS

In brief:

The Volvo V70's steering and braking systems have been tuned to maximise driver enjoyment and safety. The ZF rack and pinion steering (also available with optional speed dependent function) is linear in response and offers plenty of feedback, while the anti-lock brakes are boosted by Electronic Brakeforce Distribution (EBD) and Electronic Brake Assist (EBA).

A five-speed manual is standard in 2.4, 2.0T, 2.5T and Bi-Fuel models, while the 2.4D, D5, T5 and V70 R have six-speed gearboxes as standard. But for those who prefer to let a computer take the strain, Volvo offers two five-speed automatic transmissions and a new six-speed Geartronic. All adapt their shift points to suit individual driving styles, but the Geartronic system also permits sequential manual changes for added control.

In full:

- Power-assisted rack and pinion steering tuned to optimise feedback and response. Also available with optional speed sensitive steering
- ABS with Electronic Brakeforce Distribution (EBD) and Electronic Brake Assistance (EBA) as standard
- Six-speed manual gearbox standard on Volvo V70 R, T5, D5, 2.4D and D5 AWD. Five-speed manual standard on all other models
- Spaceball gearlever standard on T5, Sport models and V70 R with manual transmission. (optional on others)
- Five-speed adaptive automatic optional (2.4 140/170, 2.0T, Bi-Fuel)
- Geartronic adaptive auto with a sequential manual shift facility optional on most turbocharged petrol and diesel models (2.5T, 2.5T AWD, 2.4D, D5, D5 AWD, T5, R)

The V70 uses a ZF power-assisted rack and pinion steering system that has been developed to optimise driver feedback and response. The steering feel has been improved through careful tuning of the torque build-up during cornering and this helps the driver place the car accurately on the road.

There is also an optional speed dependent system available that provides additional assistance at low speeds and more steering feel as speed increases.

Large disc brakes, which are ventilated at the front, deliver a firm and consistent response, whatever the payload. The T5 has larger 316mm discs at the front, while the V70 R is equipped with large (330mm) four piston Brembo brakes to the front and rear to firmly control its added performance. As you'd expect from Volvo, an anti-lock braking system is fitted as standard and this is joined by Electronic Brakeforce Distribution (EBD) and Electronic Brake Assist (EBA).

EBD constantly distributes braking power between the front and rear wheels to ensure maximum retardation regardless of the road conditions or how the car is laden.

EBA automatically senses when an emergency stop is required and adjusts the braking pressure so that the car comes to a halt in the shortest possible distance.

The 2.4, 2.0T, 2.5T, 2.5T AWD and Bi-Fuel model, are supplied as standard with a five-speed manual gearbox. This compact unit uses a three-shaft (one input/two layshaft) system in place of the more traditional two-shaft design, which contributes to the smooth, positive shift quality.

The 2.4D, D5, D5 AWD, T5 and V70 R upgrade this further to a six-speed manual gearbox, providing additional flexibility and control.

For drivers who prefer to let a computer take the strain, Volvo offers a choice of two automatic gearboxes. The entry-level unit is fully adaptive, offers five-speeds and automatically adjusts its shift patterns according to an individual's driving style. A special 'W' (for winter) mode can be selected manually. This starts the car off in a higher gear to prevent wheelspin on slippery surfaces.

On V70 models equipped with a turbocharged petrol or diesel engine, this is upgraded to a Geartronic system. This combines a fully adaptive five-speed automatic (for the 2.5T/2.5T AWD, and T5) or Volvo's new ultra-compact, high-torque six-speed Geartronic (2.4D, D5, D5 AWD) that also offers the driver the opportunity to select gears manually. Gears are chosen sequentially by tipping the lever forwards to change up and backwards to change down.

INTERIOR DESIGN CONCEPT

In brief:

Maximised for convenience, comfort and practicality, the interior of the V70 has been designed to reflect the flexibility, desirability and quality required by today's premium brand estate car buyers.

The interior features classical, fresh and simple Scandinavian design with a smart ergonomically efficient fascia. There's ample room for a quintet of adults, with air vents on B-pillars for the added comfort of rear passengers, plus there's the option of two extra rear-facing seats in the loadspace.

The rear seatback is split 60/40 with two positions to optimise loadspace or passenger space, while the front passenger seat also folds forward to accommodate longer loads.

Naturally, the rear seats split and fold quickly and easily to create a flat load space with a maximum capacity of 1641 litres. The versatility of this area is improved with a number of clever features: head restraints that simply fold away rather than needing to be removed before folding the seats down, most models have a unique shopping bag holder in the boot that keeps items upright and secure and also feature a rear waste bag or bottle holder.

- Interior maximised for comfort, convenience and practicality
- B-pillar ventilation on all models for rear passenger comfort
- Ergonomically designed fascia with multi-adjustable driving position and steering wheel controls
- Ample space for five adults, with three-point safety belts with pre-tensioners and head restraints for each occupant. Two rear-facing seats in loadspace optional
- Rear seat backrest can be adjusted in two positions through 30 degrees to optimise passenger or loadspace
- Rear seats split/fold (60/40), leave a flat load bay and act as a bulkhead when folded forward
- Front passenger seat also folds forwards to accommodate loads up to 3.09m long
- Maximum luggage volume of 1641 litres with seats folded
- Unique shopping bag holder integrated into the boot of some models (standard Sport and SE)

- Rear waste bag/bottle holder fitted to most models with the option of integrated child booster cushions and a fold-out table or child seat from the centre armrest

The interior design of the Volvo V70 has been maximised for comfort, convenience and practicality. It reflects the flexibility, quality and desirability of today's premium brand estate car drivers, and mixes typical Swedish design simplicity with impressive attention to detail. The designer's goal was to provide a large, practical load bay that's also impressively versatile, yet good to look at.

Smart Scandinavian Style

The fascia architecture echoes that of the Volvo S80 and S60 and careful attention has been paid to the ergonomics. The large, easy to use buttons are spread logically across the fascia and the controls for the stereo, air-conditioning and dynamic systems are grouped together and fall naturally to hand.

Additional controls for the audio unit, cruise control and optional Road Traffic Information (RTI) system have also been cleverly integrated into the steering wheel and can be operated without the driver taking their hands off the wheel. All the car's primary functions are therefore grouped sensibly around the driver, helping to make the Volvo V70 an easy and satisfying car to use.

The centre tunnel console and arm rest were redesigned in 2004 with enhanced quality and details such as four cupholders and a multi-function folding armrest including 'burger-tray'.

Comfort

The front seats were orthopaedically designed and praised for their high level of comfort and support, particularly over long distance. They are multi-adjustable, include Volvo's WHIPS (Whiplash protection system) and were improved for 2005 models to offer a greater range of adjustment with slimmer head restraints to aid visibility of rear seat passengers. Coupled with a steering wheel that adjusts for reach as well as rake, the Volvo V70 provides an ideal driving position for people of all shapes and sizes.

Volvo has always been committed to providing exceptional comfort for all the car's occupants. For example, rear passengers have their own air vents in the 'B' pillars so they can also benefit from the air conditioning and ventilation system. Peter Horbury explains:

"Nobody rides tourist class in a Volvo; everybody rides at least business class. All five seats are a priority."

Space and Versatility

By opting for a transverse engine layout, Volvo's engineers have helped maximise the available passenger space. There's ample room in the rear for a triplet of adults and every occupant benefits from a proper head restraint and a three-point safety belt with tensioners. The angle of rear-seat backrest can also be adjusted through 30 degrees to maximise either rear passenger comfort, or load space.

The size of the area behind the rear bench is, of course, crucial to the appeal of an estate car. The V70 does not disappoint, as Volvo's trophy cabinet of 'best estate' awards for the V70 testifies. With the rear seats in place, it offers 485 litres of space to the glass line or, with the seats folded down, 745 litres to the glass line and a mighty 1641 litres to the roof.

Folding the rear seats has also been made as easy as possible. There's no need to remove the head restraints – they simply fold out of the way first – and lowering the seats leaves a totally flat cargo area that makes loading and unloading as convenient as possible. The rear seat splits 60/40 to allow awkward loads to be accommodated alongside passengers, and for transporting long objects, the front passenger seat can be folded forwards, creating a luggage compartment that's 3.09m long.

The load area also benefits from a 12 volt power point and a unique shopping bag holder, which is fitted on most models. A series of hooks help keep bags upright, ensuring the contents of a supermarket shop won't end up spread over the boot floor. And when it's not needed, the holder folds out of the way into the luggage compartment floor. Other neat features fitted as standard, or available as an option, include integrated booster seats, a waste bag/bottle holder and a child seat or foldable table that fold out of the rear centre armrest.

For drivers who require occasional seven-seater versatility, Volvo offers a pair of rearward-facing seats in the load area for children. Both of these seats benefit from a three-point safety belt and head restraints. And when they're not in use, the seats fold away completely beneath the luggage compartment floor.

QUALITY AND EQUIPMENT

In brief:

A passion for premium quality lies at the heart of the Volvo brand, which is reflected in the choice of trim materials and build quality.

The standard specification is equally impressive, with Electronic Climate Control, electric windows and mirrors, information system, cruise control, alloy wheels, a superior audio system with CD player and at least six speakers, DSTC (Dynamic Stability and Traction Control), fog lights, plus all the safety features expected in a Volvo.

Customers wanting added style have the choice of a Sport model or extra luxury in the lavish SE models, plus a wide range of options and accessories available reflecting the varied requirements of today's premium estate car customers.

In full:

- S, Sport and SE trim levels.
- High standard of materials and build quality.
- Interior trim materials conform to the Oeko-Tex standard and are allergen-free.
- Standard specification includes Electronic Climate Control (ECC) with Volvo's Air Quality System, performance sound system, cruise control, information system, alloy wheels, fog lights and DSTC (Dynamic Stability and Traction Control).
- Luxury 'Sovereign hide' soft leather upholstery, or new 'Inscription™' interiors.
- DVD-based Road and Traffic Information System (RTI) with TMC (Traffic Message Channel) available as an option – with or without TV.
- Volvo On Call telematics system (optional).
- Performance, High Performance and Premium Sound audio system with Dolby pro-Logic surround sound, plus 'digital jukebox' available.
- Vast range of accessories to meet all lifestyle requirements
- Three year/60,000 mileage warranty package
- Service intervals: 12,500 miles/1 year* for V70 R and Bi-Fuel; 18,000 miles/1 year* (*whichever is soonest)

A passion for premium quality lies at the heart of the Volvo brand. It's inherent not only in the build quality that reflects the durability and reliability for which the marque is renowned, but also in the choice of body and trim materials. From the exquisitely crafted door handles to the versatile load bay, the Volvo V70 exudes a feeling of quality and well-being. The

switchgear has a solid, chunky feel and the fascia is awash with soft-touch materials, reminding occupants that they are enjoying a premium product.

Luxury and Style

Customers in this sector also expect a high level of standard equipment, and the Volvo V70 does not disappoint. The luxury specification of every model includes Electronic Climate Control (ECC) with Volvo's Air Quality System (AQS), all-round electric windows, electric/heated door mirrors, cruise control, alloy wheels, a performance sound system with CD player and six speakers, DSTC (Dynamic Stability and Traction Control), fog lights and information centre, plus all the safety features expected in a Volvo.

For added style, a Sport model fits between the S and SE models. It is differentiated by a body-coloured rear spoiler, larger 17in alloy wheels and colour co-ordinated side mouldings and bumper inserts. Its interior features aluminium trim, Spaceball gearlever, unique sports leather/textile upholstery and water repellent glass for the electric folding door mirrors.

Upgrading to the SE version adds leather Sports upholstery, an electric driver's seat with a memory function for both the seat and mirrors, an autodimming rear-view mirror, and rear waste bag/bottle holder. The audio system is also upgraded to a high-performance 225W output unit with dash-mounted six CD autochanger, separate amplifier, nine speakers and Dolby Pro Logic II Surround Sound™ delivering outstanding sound quality.

For extra luxury, Volvo customers can further upgrade their V70 interiors with the luxurious 'Sovereign Hide' soft leather upholstery, available in Linen White, Arena and Off-Black colours.

Or, for the ultimate in extra style and desirability, Volvo Inscription™ was launched for the 2006 model year offering an exciting and exclusive new interior and exterior personalization concept – similar to the Land Rover 'Autobiography' programme, or BMW's 'Individual'.

Volvo Inscription™ interiors, available on Sport and SE models, include:

- A range of eight exclusive, full soft-leather upholsteries, in single and mixed colours.
- Ribbed seat panel inserts inspired by leather motorcycle racing suits.
- Finest Scottish semi-aniline leather from Bridge of Weir.
- Inscription™ 3-spoke sports steering wheel in soft leather with silver insert
- Leather door inserts in same colour and quality as upholstery
- Inscription™ textile mats with contrasting Nubuck piping in same colour as upholstery
- Fully Oeko-Tex standard compliant chromium-free hides

All interior trim materials conform to Oeko-Tex standards and are allergen-free to reduce allergies and skin conditions (see Environment section).

Options and accessories

Volvo owners are also encouraged to give their car a personal touch by choosing from a range of optional extras, many of which are conveniently grouped together, such as the Premium, Winter, Bi-Xenon, Family, Communications and Sports Handling Packs:

Winter Pack:	Heated front seats, headlamp cleaning system and luxury floor mats
Bi-Xenon Pack:	Bi-Xenon headlights, heated front seats, headlamp cleaning system, and luxury floor mats
Family Pack:	Foldable table and dual cupholders (rear), power child locks (rear doors) and integrated booster seats x 2
Premium Pack: (SE only)	Electric passenger seat, Premium Sound Audio System HU-850 RDS with 6 x CD Radio with Dolby Pro-Logic II Surround Sound™, 4 x75W Amplifier and 11 speakers, Walnut wood trim, and Sovereign Hide soft leather sports upholstery
Communications Pack 1:	Dual band integrated GSM telephone, RTi navigation system with RDS-TMC, remote control and Europe DVD maps, plus Volvo On Call
Communications Pack 2:	Dual band integrated GSM telephone, RTi navigation system with RDS-TMC, remote control and Europe DVD maps and TV, plus Volvo On Call
Sports Handling Pack: (N/A Bi-Fuel)	18in Endura, Capella or Nebula (BBS split rim) alloy wheels (235/40 R18 tyres), active Four-C chassis, and speed dependent steering

Volvo's RTI (Road and Traffic Information) satellite navigation system now features a new RDS-TMC (Traffic Message Channel) which displays up to date information of any traffic problems. It comprises of a large colour screen that rises from the top of the dashboard to be safely positioned in the driver's view. This is linked to a DVD map system and displays information for most of Europe, and displays any traffic problem areas by a set of red or yellow symbols to indicate the severity of any congestion. Controls on the steering wheel make it easy for the driver to use the system, which can display information of the traffic areas highlighted, or there's a remote control unit for passengers to use. The screen can also

double as a TV monitor, turning the Volvo V70 into a mobile multi-media centre.

Volvo On Call – advanced Telematics

Volvo On Call is a valuable personal safety feature using advanced Telematics. The system uses an integrated GSM telephone with a built-in GPS unit for satellite positioning, and ensures help is always close at hand.

Volvo On Call - Safety Package: Volvo On Call comes with a standard safety package. If an airbag or seatbelt pre-tensioner is triggered in the event of an accident, Volvo On Call automatically calls the Emergency Services via BT999 and can also provide data of your location.

Alternatively, pressing the red 'SOS' button on the integrated GSM telephone will put you straight through to the Emergency Services.

Also, if the car breaks down or you need help, pressing the Volvo On Call button will put you straight through to a Volvo On Call operator who is only a call away at any time of day to offer personal services such as route guidance, or to guide roadside assistance to you.

Volvo On Call - Security Package: An optional Volvo On Call security package offers the added benefits of a remote door unlock facility, theft notification and vehicle tracking.

In the future, Volvo On Call's services could include automatically contacting your local dealer when a service is required.

Accessories

Volvo offers a vast range of accessories for the V70. A Volvo front and rear parking sensor system, for example, produces a buzzing note that rises in frequency as the car gets closer to the obstacle. Hands-free kits can also be supplied to fit most types of mobile phone and a broad range of load-carrying systems and towing accessories cater for families or those with active hobbies and business or leisure activities. Another neat feature is the bespoke dog gate that provides a dedicated compartment within the load area for a pet. All of these features help to enhance the Volvo V70's reputation for versatility.

Quality and Customer Satisfaction

Volvo's employees are justifiably proud of the quality of their products, but they're equally determined to offer the best customer service. In 2001, Volvo's management set a goal of becoming the 'Customer satisfaction no. 1' in the premium sector. To fulfil this, Volvo has initiated a series of Quality Forums, which scrutinise information from a combination of internal and external sources, including independent rankings by companies such as JD

Power. Having analysed the data, the Forums initiate action plans to improve performance in specific areas.

This quality assurance package is backed up by a comprehensive warranty. The standard mechanical warranty is three years/60,000 miles, there's a three year, unlimited mileage warranty on the paintwork and eight years' cover against rust perforation. In addition, all Volvos are covered by one year's free RAC cover, which provides full breakdown and recovery assistance, anywhere in Europe, 24 hours a day.

SAFETY

In brief:

The Volvo V70 has been extensively tested in the award winning Volvo Safety Centre in Gothenburg, Sweden and features a comprehensive safety package designed to protect occupants in a wide variety of accidents.

The SIPS (Side Impact Protection System) includes side and Inflatable Curtain (IC) airbags that protect both front and rear occupants.

In a frontal collision, 'intelligent' front airbags work in unison with the safety belts, while the WHIPS (Whiplash Protection System) reduces the risk of back and neck injuries in the event of a rear impact. A passenger airbag cut-off switch is now available to enable child seats to be carried in the front seats, and integrated booster cushions are available for rear seats.

To improve the driver's vision, Volvo has introduced water repellent glass (WRG) available for door mirrors and (laminated) side windows.

In the rear of the car, all three passengers benefit from three-point safety belts with pre-tensioners, and there are ISOFIX mounting points for child seats.

In full:

- SIPS (Side Impact Protection System) with side airbags and IC (Inflatable Curtain) airbags for front and rear passengers
- Twin front 'intelligent' airbags
- Five three-point seatbelts with pre-tensioners. Load limiters for front occupants
- WHIPS (Whiplash Protection System) for front seats

- ISOFIX mounting points for rear seats
- BLIS (Blind Spot Information System)
- WRG: Water repellent glass for door mirrors and side windows
- Passenger airbag cut-off switch available
- DSTC (Dynamic Stability and Traction Control) standard on all models
- Extensively crash tested in Volvo's Safety Centre

Volvo's commitment to safety is as old as the company itself. As Assar Gabrielsson, one of the founders of Volvo, declared: "Cars are driven by people. The guiding principle behind everything we make at Volvo, therefore, is – and must remain – safety." It's a commitment that's more than fulfilled with the Volvo V70, designed after extensive crash testing in Volvo's Safety Centre. As a result, features an extensive safety package designed to protect occupants in the widest range of accident scenarios.

Side Impact Protection

A quarter of all impacts are from the side, which is why Volvo developed the Side Impact Protection System (SIPS). A large part of the force of a collision that would otherwise penetrate through the side of the car is dissipated by SIPS via beams, pillars, the floor, the roof and other parts of the car body.

The side impact airbags then play an important role in protecting the chests of the occupants. They are fitted in the outer edge of the front seats, not in the door, which ensures that they're always securely positioned next to the occupant's side, whatever the position or angle of the seat.

Further protection is provided by the IC (Inflatable Curtain) airbag, which sits in the headlining and protects occupants in the front and rear. In the event of a side impact, IC inflates in a few thousandths of a second and then remains inflated for about three seconds in order to provide maximum protection throughout complex collision sequences. The Curtain is effective whether the window is open or shut and it absorbs up to 75 per cent of the energy developed when the head is thrown sideways in a crash.

Intelligent Airbags

The two front airbags are 'intelligent' and deploy in two stages according to the severity of the accident, alleviating the risk of facial injuries caused by the occupant's faces impacting with the airbag. They are complemented by three-point safety belts with tensioners, which are fitted for all passengers. The tensioners activate within a few thousandths of a second in the event of a collision and tighten the belt for maximum protection. The front seat safety

belts then release a little so that the driver and passenger are cushioned by the airbags in a controlled manner.

Whiplash Protection

Volvo was the first car manufacturer to improve driver comfort by studying ergonomics and introducing adjustable lumbar support backs in 1964 and, after nearly 40 years of continuous research, crash testing and innovation, Volvo is now proud to claim its seats can reduce whiplash injuries by 50 per cent.

Seventy per cent of personal injuries in car accidents include whiplash, but Volvo's research shows this risk can be reduced by half with 'WHIPS' – the Volvo whiplash protection system, first introduced at the launch of the S80 in 1998, and is now standard in all Volvo front seats.

Volvo's WHIPS seats significantly reduce the force on the spine and head by absorbing energy from the impact and offering superior support thanks to a combination of an innovative moving support mechanism in the seat back, and a fixed head restraint design permanently at the right height and position.

In practice, the WHIPS seat mechanism bends backward with the occupant's body - first in parallel and then in a short reclining movement.

Volvo's traffic accident research team compared real-life whiplash injuries from Volvos with and without WHIPS, and the results point to a clear conclusion: WHIPS reduced short term and long term (of more than a year) injuries by 33 per cent and 54 per cent respectively, with whiplash injuries in women these were reduced by as much as 50 per cent and 75 per cent, respectively.

All Volvo car head restraints were placed in the highest category in the 'New Car Whiplash Rating' published by the Thatcham Motor Insurance Repair Research Centre. Static tests were carried out to measure the design and position of head restraints in 500 car models.

"We are very proud of coming out so well," says Volvo Car Corporation's safety engineer and whiplash specialist, Lotta Jakobsson. "Volvo has long understood how important head restraints are, and led the industry in introducing them.

“However, static evaluations of head restraints only show a part of what happens in real life accidents. That is why Volvo has invested over a decade’s research into crash testing and analysis of real accidents, and introduced its Whiplash Protection System – ‘WHIPS’.

In October 2002, the United States Insurance Institute for Highway Safety (IIHS) compared car seats with and without whiplash protection, and achieved an average injury reduction of 49 per cent.

Like Volvo, the Swedish insurance company, Folksam, also compared real-life accidents, and showed that WHIPS seats reduced whiplash injury by 40 per cent. Folksam also crash tested seats from different 2003 cars and Volvo seats were considered the best, with an overall whiplash injury reduction in the region of 50 per cent possible, if all cars had seats as good as Volvo.

Child Safety

A passenger airbag cut-off switch is now available to enable a child seat to be carried in the front of the car, while in the rear Volvo has also paid special attention to child safety with the option of an integrated booster cushion built into the rear centre armrest designed for children aged between 4 and 10.

In addition, two integrated booster cushions are also available for the rear seats.

Water Repellent Glass (WRG)

Another aid to improve driver visibility is Water Repellent Glass (WRG) that Volvo has now introduced as standard on some models for door mirrors and is also available for (laminated) side windows.

On the side windows the WRG gathers water as pearls of moisture which easily blow away by the wind speed, leaving a dry glass panel with unobstructed visibility. Since it is more difficult for dirt to fasten on dry surfaces, it is also easier to keep the windows cleaner. The WRG treatment requires that the windows be laminated.

On the WRG door mirrors, a different method is used. Here, the water is distributed evenly across the entire glass surface so that it is possible to see through the water. In certain weather conditions, the function can be speeded up if the mirror heater elements are activated.

ENVIRONMENT

In brief:

Volvo's continued commitment to the environment is reflected in its 'clean inside and out' programme.

An air filter prevents dust, pollen and exhaust particles reaching the interior, while the Interior Air Quality System ensures that the air inside the cabin is always cleaner than that outside. All the trim materials comply with Oeko-Tex standards to create a healthier, emissions-free interior, helping to reduce the risk of an allergic or asthmatic reaction.

Another pioneering feature is Volvo's PremAir system, which converts up to 75% of the ground level ozone passing through the radiator into oxygen. Several of the engines in the range already also meet the stringent EU 2005 emission requirements.

The V70 is built in one of the automotive world's cleanest factories, with 85 per cent of each car able to be recycled and every new Volvo is backed by an Environmental Product Information (EPI) analysis. This is available at www.volvocars.com/epi.

Volvo also produces an annual Corporate Citizenship report, which is available at www.volvocars.com/citizenship.

In Full:

- 'Clean inside and out' environmental commitment
- Interior trim materials conform to Oeko-Tex standards and are allergen-free
- Cabin air filter removes dust, pollen and exhaust particles
- PremAir ozone system converts up to 75% of ground level ozone to oxygen
- Interior Air Quality System ensures cleaner air inside than out
- 85 per cent of the car can be recycled
- Several of the engines already meet stringent EU 2005 and the American ULEV (Ultra Low Emission Vehicle) emission requirements
- Each new Volvo is backed by an Environmental Product Information (EPI) analysis. This is available at www.volvocars.com/epi.

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Healthier Inside

According to the 2001 RAC Report on Motoring, the typical private motorist drives for over 250 hours each year, while in the same period, a company car driver spends an average of 425 hours inside their vehicle.

Yet, while most of us are aware of vehicle emissions and air quality issues, how many drivers know that the air inside their cars may also be harmful? Or that the metals, textiles and leathers used in car interiors can emit volatile substances, which activate allergies and skin conditions?

Many motorists don't realise their car could be increasing their risks of asthma, eczema, headaches, eye irritation or even a heart attack. In recent years, the number of people suffering from allergies and other forms of hypersensitivity has been growing rapidly.

Volvo's 'clean inside and out' programme to create emission-free cars is a healthy solution to the problem.

The interior of the Volvo V70 complies with a strict standard called Oeko-Tex, which sets maximum levels for dangerous substances contained in textiles and trim materials. All the leather upholstery and the trim fitted to the Volvo V70 meets Oeko-Tex standards. The components on the Volvo V70 that most frequently come into contact with the skin – the door handle, ignition key and safety belt locks – are also compliant with Oeko-Tex and allergen-free.

Air Quality

The Volvo PremAir[®] system makes a major contribution to air quality. It's an industry first and is available on every Volvo V70. PremAir[®] features a catalytic coating on the radiator that converts up to 75% of the ground level ozone passing through it into oxygen. It therefore reduces harmful pollutants in the local environment.

Every Volvo V70 also benefits from Volvo's Air Quality System. This constantly monitors the cabin environment to minimise odours and pollutants entering from the outside. It ensures that the air inside the car is always cleaner than that outside. The air-conditioning system also incorporates a cabin air filter that prevents dust, pollen and exhaust gas particles entering the car.

Corporate Citizenship

The Volvo V70's impressive aerodynamics (Cd 0.30) and sophisticated catalyst and engine management systems help to keep fuel consumption and emissions to a minimum. Several of the engines in the range already meet the extremely stringent EU 2005 and ULEV (Ultra Low Emission Vehicle) emission requirements and the Bi-Fuel models, in particular, make a major contribution to improving environmental standards. Natural gas (CNG) powered cars cut the emissions of carbon dioxide – which contributes to the greenhouse effect – by about 20% compared with the same car running on petrol. An LPG-powered Volvo V70 reduces carbon dioxide emissions by around 10%.

Volvo's commitment also extends beyond the car's immediate environment. It was one of the first manufacturers to use tools to evaluate the life-cycle environmental impact of its products. The system, known as EPI (Environmental Product Information) enables Volvo to evaluate the impact of its products and processes on natural resources, ecosystems and human health. This information is available to the public at www.volvocars.com/epi.

It's a strategy that's clearly paid dividends. The V70 is built in one of the automotive world's cleanest factories with emissions of solvents from the Volvo Torslanda plant in Sweden reduced by over 90 per cent since 1972. Plus, 85 per cent of each car can be recycled and every new Volvo is backed by an EPI. Volvo's annual Corporate Citizenship report is available on www.volvocars.com/citizenship.

SECURITY

In Brief:

Volvo is committed to protecting the vehicle, its occupants, and their possessions. Every V70 is fitted as standard with a sophisticated alarm and immobiliser that can be switched on and off using the convenience of a remote control on the key fob. The combination of deadlocks and the availability of laminated and dark tinted side windows make the Volvo V70 more secure.

The remote control also operates the Approach lighting system, which illuminates the car and the surrounding area as the driver approaches. Likewise, a tweak of the headlight stalk activates the Home Safe system, switching on the headlamps for thirty seconds after the occupants have left the vehicle.

In Full:

- Electronic immobiliser fitted as standard
- Alarm and deadlock system operated from remote control key fob
- Approach and Home Safe Lighting system fitted to every model
- Laminated and dark tinted side windows available (optional)

Volvo's passion for the safety of its owners also extends to issues of personal security. The Volvo V70 is fitted as standard with a wide range of features designed to protect occupants from burglary, theft and assault.

Volvo came out as overall 'Best Manufacturer' in the first 'British Insurance Car Security Awards' announced in July 2004, and won the same award again in 2005. The BISCA aim is to raise consumer awareness of vehicle security and recognise manufacturers' efforts to make more secure cars. To be eligible for the awards, all cars had to pass strict selection criteria in line with the New Vehicle Security Ratings scheme (NVSR) developed by the Motor Insurance Repair Research Centre (Thatcham).

An electronic immobiliser makes it impossible to start the car without the right key, while the outer lock cylinder rotates, making it difficult to break in to. If the thief does manage to get in, via a window, for example, the deadlock system makes it impossible to open a door from the inside. The introduction of optional laminated side windows also makes it harder for thieves to gain access.

The deadlock system is activated by the remote control key fob, which allows the driver to open the car as they approach. This system can also be used to access the tailgate independently of the doors, which is a useful deterrent to opportunist thieves.

The same remote control system also switches on the alarm system, which is standard on every Volvo V70. The alarm is triggered if anyone attempts to open the doors, the bonnet or the boot lid. It also reacts to movement inside the car or if a window is broken. As an option, this system can be upgraded to include a level sensor that activates the alarm if the car is jacked up in any way.

For additional security, Volvo is one of very few car companies to offer the option of stronger, laminated windows plus dark tinted rear windows to protect the car's interior contents and aid personal security.

An important contribution to personal security is provided by the Approach and Home Safe

lighting system. By pressing a button on the remote controller as they approach the car, the driver is able to turn on the inside lights, the side marker lights and the lights in the rear-view mirrors. On leaving the car, a tweak of the headlight stalk activates the dipped beam headlamps for 30 seconds, lighting a path to the door. It's a simple system that offers considerable peace of mind.

Volvo On Call – advanced Telematics

Volvo On Call is a valuable optional safety and security feature using advanced Telematics. The system uses an integrated GSM telephone with a built-in GPS unit for satellite positioning, and ensures help is always close at hand. If an airbag or seatbelt pre-tensioner is triggered in the event of an accident, Volvo On Call automatically calls the Emergency Services via BT999 and can also provide data of your location.

Alternatively, pressing the red 'SOS' button on the integrated GSM telephone will put you straight through to the Emergency Services.

Also, if the car breaks down or you need help, pressing the Volvo On Call button will put you straight through to a Volvo On Call operator who is only a call away at any time of day to offer personal services such as route guidance, or to guide roadside assistance to you.

An optional Volvo On Call security package offers the added benefits of a remote door unlock facility, theft notification and vehicle tracking.

DID YOU KNOW?

- 1 The V70 is built in Ghent, Belgium and in Gothenburg, Sweden.
- 2
- 3 The typical V70 customer is university educated, is either a company director, the owner of a small business, or retired, and 83% are aged between 35 to 64, either with a family or is in the post-family stage*
- 4 The top hobbies of V70 customers are:
 - Football/rugby spectator (23.92%)*
 - Walking/hiking/hill climbing (23.86%)*
 - Gardening (20.96%)*
 - Golf (13.27%)*
 - Music/opera (12.93%)*
- 5 There are V70 owners all over the world. The car is sold in South America, Australia, the Far East, and of course, USA and Canada.
- 6 The five best selling countries for the V70 in 2004:

Sweden	21,431
USA	10,497
Germany	9,511
UK	7,182
Japan	6,432

- 7 The V70 is the top selling car in Sweden. In the UK, Volvo sold 7,178 V70s in 2004, it's second best selling model after the XC90.
- 8 Volvo sold a total of 74,656 V70s in 2004 around the world (total Volvo global production 2004, 456,224), making it Volvo's second best selling single model (behind the XC90 at 84,032).
- 9 The latest V70 has consistently won awards for 'Best Estate' since it was introduced in 2000, including:
 - What Car? Car of the Year Awards, 'Best Estate', 2000, 2001 and 2002
 - Auto Express, New Car Honours, 'Estate Car', 2001 and 2002
 - Fleet World, 'Best Estate', 2001
 - Auto Express, Used Car Honours, 'Estate Car' 2002
 - Used Car Buyer, 'Best Estate' 2001, 2002, 2003, 2004

* Source: New Car Buyers Survey 2002/2004