

VOLVO

for life



PRESS INFORMATION

DETROIT 2003



VOLVO
Volvo Car Corporation



Volvo Car Corporation

PRESS INFORMATION

Successful Volvo XC90 launch brightened a tough year for Volvo Car Corporation

- More than 15,000 orders for the Volvo XC90 even before the first car was delivered
- Raised annual target for Volvo XC90: 60,000 cars
- Tough year from the sales viewpoint, with setbacks in North America, but increased market shares in Europe

Volvo Cars can look back on a tough year from the sales viewpoint – and on a highly successful launch year for the new Volvo XC90.

“We had high expectations, but we did not dare hope for quite such an overwhelming reception. We had more than 15,000 confirmed orders even before the first XC90 was delivered to a customer last autumn,” says Hans-Olov Olsson, President of Volvo Car Corporation.

“The demand is so high that we have decided to raise the annual target to 60,000 vehicles,” says Hans-Olov Olsson. “Nonetheless, we will never permit any risk of over-capacity. A strong demand from the market is important both to our economy and to that of our customers. Continued high demand promotes a high resale value – and this too is an important sales argument.”

The first cars already delivered

It is expected that about 65 per cent of the annual target of 60,000 Volvo XC90 cars will be sold in North America. Europe will account for about 25 per cent, while the remaining 10 per cent will be spread throughout the rest of the world.

The first North American customers received their cars in late autumn 2002, with deliveries to European customers getting under way in early 2003.

The Volvo XC90 has received a number of awards since it was unveiled to the world press at the Detroit Motor Show in January 2002. Among the many accolades the new car received was "SUV of the Year" by America's influential Motor Trend motoring magazine.

"In this industry, there is widespread recognition that this award usually helps promote sales. We naturally take this with a pinch of salt, but the title does nevertheless have definite commercial significance," explains Hans-Olov Olsson.

In 2002, Volvo Cars also introduced the sizzling Volvo S60R and Volvo V70R high-performance models. Both cars feature ground-breaking technology, and first customer deliveries are scheduled for early summer 2003.

Tough year

From the sales viewpoint, 2002 has been a tough year for Volvo Cars. Overall deliveries totalled about 400,000 cars. Sales have been dropping in the USA, but the market shares in Europe went up.

There are also positive signs when it comes to quality. Volvo was ranked as the best European brand, with a 5th place overall, in the latest J.D. Powers report. The product plan is continuously aggressive and the new models replacing the Volvo S40 and V40 will be introduced during 2003.

"Our long term target is still 600,000 cars a year. The road to get us there, however, will be somewhat longer than we initially planned. For 2003, the Volvo XC90 will help boost our sales. Together with the replacement for the Volvo S40 and V40, it will take us towards the 500,000 mark in the next few years," concludes Hans-Olov Olsson.

2003-01-05

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AWARDS

Volvo XC90, 2002

Canada

XC90 – Best New Sport Utility Vehicle over \$45,000

AJAC (Automobile Journalists Ass. Of Canada)

Canada

XC90 – SUV of the Year

Guide L'Auto mag.

Germany

XC90 – Most important (foreign) novelty on the Auto

Trophy, Auto Zeitung mag. German car market

Italy

XC90 – World's most stylish multifunctional vehicle

L'Automobile più Bella del SUV category Mondo (Automobilia)

Spain

XC90 – 2003 Offroad car of the Year

Car & Driver Magazine

The US

XC90 – Truck of Texas (Texas Truck Rodeo)

Texas Auto Writers Ass.

The US

XC90 – SUV of the Year Award/Mudfest Champion

North West Automotive Press Association

The US

XC90 – Best new SUV

Kiplingers

The US

XC90 – Auto Spies 2003 SUV of the Year Award

Autospies.com (web site)

Editors Award & Peoples Choice

The US

XC90 - SUV of the Year (2003)

Motor Trend magazine "Golden Caliper"

The US

XC90 RSC (Roll Stability Control) 2002

World Traffic Safety Symposium Manufacturer's Award

(Automobile Dealers Ass. N.Y.)

The UK

XC90 – 4X4/SUV Award

Institute of Vehicle Engineers Safety Award

Motor Show Design Awards 2002 Birmingham



Volvo Car Corporation

PRESS INFORMATION

Volvo S40 and V40: improving ambience and practicality in equal measure

- Improved side-impact curtains
- Even lower fuel consumption
- New instruments with four dials
- Three-spoke steering wheel
- Seats that offer enhanced comfort
- Colour-keyed trim mouldings
- New dynamic grille
- Key Integrated Remote Control with Alarm button

The medium-range cars in the Volvo Cars line-up, the S40 and V40, have undergone improvements in a number of key areas: safety, fuel consumption and, not least, design – both inside and out.

In the area of safety, protection against side impacts has been in firm focus. The Volvo IC (Inflatable Curtain) has been further developed to improve protection in a collision with a narrow hard object such as a lamppost or tree.

The side-impact curtain's inflatable cells are now bigger and deeper to offer protection for the car occupants' heads. The inflatable curtain deploys more quickly, and it is fully inflated after just 30 thousandths of a second.

Another new feature is that the curtain is deployed further down along the inside of the car, thus offering better protection for shorter passengers.

With the help of optimised software in the engine control units, most of the 4-cylinder petrol engines now offer lower fuel consumption. One example is the 2.0

litre, 165 hp light-pressure turbo engine that has cut fuel consumption by 5 per-cent, to just 7.9 litres/100 km.

The exterior design of the Volvo S40 and V40 has undergone a few select but important changes. The new grille with its black eggcrate pattern lends a touch of added sportiness, while the colour-coordinated side and bumper mouldings (option) create a sense of heightened refinement. The headlamps have a black surround with rings in front of the reflectors.

At the rear is another new feature, a chrome-plated opener for the luggage compartment.

Slip behind the wheel and you will immediately notice the new instruments, designed along the lines of those found in Volvo's larger cars – the S60, S80 and V70: two large, centrally positioned instruments flanked by two smaller dials.

This layout improves readability and the driver's ability to quickly assimilate the information he or she needs.

The new instruments are supplemented with a new and sporty three-spoke steering wheel of the same type that is found in the Volvo S60.

For personal security the new Volvo S40 and V40 with a key remote control featuring an alarm button that activates the alarm lights and the siren to discourage potential robbers. The remote control has a foldable key blade.

The seats in the Volvo S40 and V40 are even more comfortable than before, owing to an entirely new backrest design along the same lines as that found in Volvo's larger models – these are seats that are renowned as being among the very best in the automobile world.

2003-01-05

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Volvo S40

ENGINES

| |
|--------------------------------|
| Type |
| Configuration |
| Displacement, cm ³ |
| Engine cylinder block material |
| Cylinderhead material |
| Combustion chamber type |
| Compression ratio |
| Valves, no/cylinder |
| Camshafts |
| Engine management system |
| Ignition sequence |
| Engine idling speed |
| Fuel, rec. octane |
| Max output, kW (hk)/rpm. |
| Max torque, Nm/rpm. |

TRANSMISSIONS

5-speed manual gearbox. 5-speed adaptive automatic transmission, electronically controlled, with lock-up and winter mode selection.

| Ratio | JB3-306 | JC5-227 | M56-H1 | F5-M42 | M56-L2 | M56-H2 | AW 55-50 |
|---------|---------|---------|--------|--------|--------|--------|----------|
| First | 3.36 | 3.36 | 3.07 | 3.58 | 3.39 | 3.07 | 4.77 |
| Second | 1.86 | 1.86 | 1.77 | 1.95 | 1.91 | 1.77 | 2.99 |
| Third | 1.32 | 1.32 | 1.19 | 1.27 | 1.19 | 1.19 | 1.96 |
| Fourth | 1.03 | 1.03 | 0.87 | 0.97 | 0.87 | 0.87 | 1.32 |
| Fifth | 0.82 | 0.82 | 0.70 | 0.82 | 0.65 | 0.65 | 1.02 |
| Reverse | 3.55 | 3.55 | 2.99 | 3.36 | 3.30 | 3.30 | 3.23 |

Manual gearbox/final drive

Automatic transmission/final drive

PERFORMANCE

| |
|---|
| Gearbox |
| Acceleration, 0-100 km/h (sec) |
| Top speed, km/h |
| Fuel consumption l/100 km (EEC 80/1268 1999/100, combined) |
| CO ₂ g/km, combined |

B4164S2

In-line 4 cyl. naturally aspirated
Transverse, front wheel drive

1587

Aluminium

Aluminium

Pent-roof

10.0

4

2

Microprocessor controlled fuel and ignition system with self diagnostics

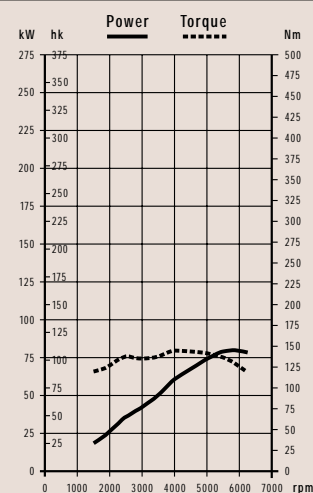
1-3-4-2

750

91-98 RON

80 (109)/5800

145/4000



JB3-306/4.07

-

Manual

Automatic

12.0

-

190

-

7.7

184

-

B4184S2

In-line 4 cyl. naturally aspirated
Transverse, front wheel drive

1783

Aluminium

Aluminium

Pent-roof

10.3

4

2

Microprocessor controlled fuel and ignition system with self diagnostics

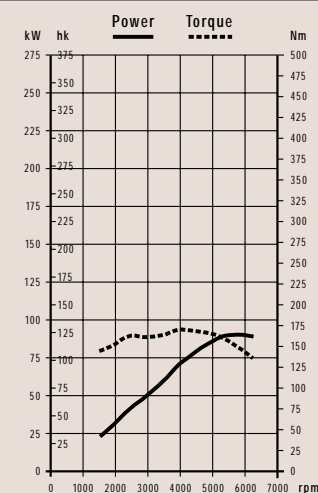
1-3-4-2

750 manual/700 automatic

91-98 RON

90 (122)/5800

170/4000



M56H1/4.45

AW55-50/2.86

Manual

Automatic

10.5

11.5

200

195

7.8

187

8.7

208

CHASSIS

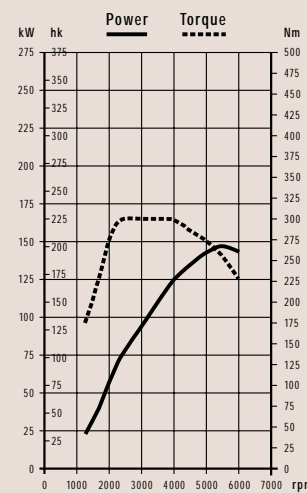
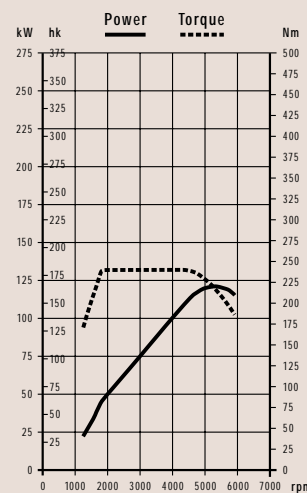
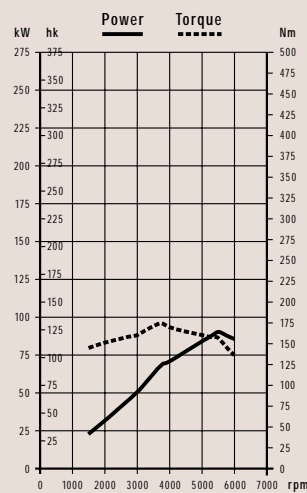
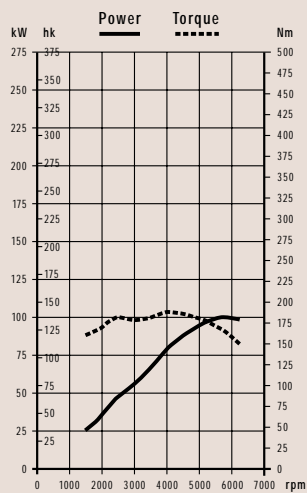
| | | |
|--------------------------------------|-------|--|
| Suspension | front | Spring-strut, lower link, anti-roll bar |
| | rear | Individual, Multi-Link, with coil springs, anti-roll bar |
| Steering | | Rack and pinion, power assisted |
| Turning circle | | 10.6 m |
| Turns of steering wheel lock to lock | | 3.1 |
| Braking system | | ABS discs all round, ventilated at the front + EBD |
| Brake disc diameter (front/rear) | | 256/260 |
| DSA (Dynamic Stability Assistance) | | |
| S40T4/Others | | Standard/Option |

| |
|--|
| B4204S2 |
| In-line 4 cyl. naturally aspirated |
| Transverse, front wheel drive |
| 1948 |
| Aluminium |
| Aluminium |
| Pent-roof |
| 10.5 |
| 4 |
| 2 |
| Microprocessor controlled fuel and ignition system with self diagnostics |
| 1-3-4-2 |
| 750 manual/700 automatic |
| 91-98 RON |
| 100 (136)/5800 |
| 190/4000 |

| |
|--|
| B4184SJ |
| In-line 4 cyl. naturally aspirated |
| Transverse, front wheel drive |
| 1834 |
| Cast iron |
| Aluminium |
| Pent-roof |
| 11.6 |
| 4 |
| 2 |
| Microprocessor controlled fuel and ignition system with self diagnostics |
| 1-3-4-2 |
| 620 |
| 95-98 RON |
| 90 (122)/5500 |
| 174/3750 |

| |
|--|
| B4204T3 |
| In-line 4 cyl., light press. turbo |
| Transverse, front wheel drive |
| 1948 |
| Aluminium |
| Aluminium |
| Pent-roof |
| 9.0 |
| 4 |
| 2 |
| Microprocessor controlled fuel and ignition system with self diagnostics |
| 1-3-4-2 |
| 750 |
| 91-98 RON |
| 120 (163)/5250 |
| 240/1800-4500 |

| |
|--|
| B4204T5 |
| In-line 4 cyl., high press. turbo |
| Transverse, front wheel drive |
| 1948 |
| Aluminium |
| Aluminium |
| Pent-roof |
| 8.5 |
| 4 |
| 2 |
| Microprocessor controlled fuel and ignition system with self diagnostics |
| 1-3-4-2 |
| 750 |
| 91-98 RON |
| 147 (200)/5500 |
| 300/2500-4000 |



| | |
|-------------------|-----------|
| M56H1/4.45 | |
| AW55-50/2.86 | |
| Manual | Automatic |
| 9.7 | 10.7 |
| 205 | 200 |
| 8.1 | 8.9 |
| 194 | 213 |

| | |
|-------------------|-----------|
| F5M42/3.72 | |
| - | |
| Manual | Automatic |
| 10.5 | - |
| 200 | - |
| 6.9 | - |
| 164 | - |

| | |
|-------------------|-----------|
| M56H1/4.00 | |
| AW55-50/2.44 | |
| Manual | Automatic |
| 8.5 | 9.0 |
| 220 | 215 |
| 7.9 | 9.1 |
| 189 | 217 |

| | |
|-------------------|-----------|
| M56H2/4.25 | |
| AW55-50/2.44 | |
| Manual | Automatic |
| 7.3 | 8.0 |
| 235 | 230 |
| 8.9 | 9.5 |
| 212 | 227 |

| D4192T4/DI | | D4192T3/DI | | B4184S9 (LPG mode) | | B4184S9 (petrol mode) | |
|-------------------------------|-----------|-------------------------------|-----------|--|-----------|--|-----------|
| In-line 4 cyl., turbo diesel | | In-line 4-cyl. turbo diesel | | In-line 4 cyl. naturally aspirated, Bi-Fuel | | In-line 4 cyl. naturally aspirated, Bi-Fuel | |
| Transverse, front wheel drive | | Transverse, front wheel drive | | Transverse, front wheel drive | | Transverse, front wheel drive | |
| 1870 | | 1870 | | 1783 | | 1783 | |
| Cast iron | | Cast iron | | Aluminium | | Aluminium | |
| Aluminium | | Aluminium | | Aluminium | | Aluminium | |
| - | | - | | Pent-roof | | Pent-roof | |
| 19.0 | | 19.0 | | 10.3 | | 10.3 | |
| 2 | | 2 | | 4 | | 4 | |
| 1 | | 1 | | 2 | | 2 | |
| Integr. fuel/ignition system | | Integr. fuel/ignition system | | Microprocessor controlled fuel and ignition system with self diagnostics | | Microprocessor controlled fuel and ignition system with self diagnostics | |
| 1-3-4-2 | | 1-3-4-2 | | 1-3-4-2 | | 1-3-4-2 | |
| 750 | | 750 | | 750 | | 750 | |
| Diesel min cetane 48 | | Diesel min cetane 48 | | LPG | | 91-98 RON | |
| 75 (102)/4000 | | 85 (115)/4000 | | 88 (120)/5800 | | 90 (122)/5800 | |
| 215/1750-3250 | | 265/1750-2500 | | 167/4000 | | 170/4000 | |
| | | | | | | | |
| M56L2/3.77 | | M56L2/3.77 | | JC5-227/3.87 | | JC5-227/3.87 | |
| - | | - | | - | | - | |
| Manual | Automatic | Manual | Automatic | Manual | Automatic | Manual | Automatic |
| 12.0 | - | 10.5 | - | 11.0 | - | 10.5 | - |
| 185 | - | 195 | - | 200 | - | 200 | - |
| 5.4 | - | 5.4 | - | 10.4 LPG | - | 8.1 | - |
| 142 | - | 142 | - | 168 | - | 193 | - |

MEASUREMENTS AND VOLUMES

| Exterior measurements (cm) | | Interior measurements (cm) | |
|------------------------------|-------------|--|-----------|
| Length | 452 | Headroom with sunroof (front/rear) | 96/93 |
| Width | 172 | Headroom without sunroof (front/rear) | 98/95 |
| Height | 142 | Passenger compartment width at | |
| Wheelbase | 256 | shoulder height (front/rear) | 137/137 |
| Track, front | 147 | Luggage volume, litres (DIN V210) | 471/415** |
| Track, rear | 147 | Load length | 101/95** |
| Ground clearance | 15 | Load length with rear seat folded down | 174/169** |
| Load height | 67 | Load length with rear seat and | |
| Weights/Miscellaneous | | front passenger seat folded down | 270/264** |
| Weight/kg min. | 1255/1316** | Height of luggage compartment | 51 |
| Petrol tank, l | 60 | Width of luggage compartment | |
| LPG tank, l (usable) | 40 | between wheel arches | 90 |
| Max. trailer weight, kg | 1400/1200* | | |
| Drag coefficient | 0.31-0.32 | | |

* B4164S2, B4184S2, B4184S9 och B4184SJ ** Bi-Fuel

ENGINES

| |
|--------------------------------|
| Type |
| Configuration |
| Displacement, cm ³ |
| Engine cylinder block material |
| Cylinderhead material |
| Combustion chamber type |
| Compression ratio |
| Valves, no/cylinder |
| Camshafts |
| Engine management system |
| Ignition sequence |
| Engine idling speed |
| Fuel, rec. octane |
| Max output, kW (hk)/rpm. |
| Max torque, Nm/rpm. |

TRANSMISSIONS

5-speed manual gearbox. 5-speed adaptive automatic transmission, electronically controlled, with lock-up and winter mode selection.

| Ratio | JB3-306 | JC5-227 | M56-H1 | F5-M42 | M56-L2 | M56-H2 | AW 55-50 |
|---------|---------|---------|--------|--------|--------|--------|----------|
| First | 3.36 | 3.36 | 3.07 | 3.58 | 3.39 | 3.07 | 4.77 |
| Second | 1.86 | 1.86 | 1.77 | 1.95 | 1.91 | 1.77 | 2.99 |
| Third | 1.32 | 1.32 | 1.19 | 1.27 | 1.19 | 1.19 | 1.96 |
| Fourth | 1.03 | 1.03 | 0.87 | 0.97 | 0.87 | 0.87 | 1.32 |
| Fifth | 0.82 | 0.82 | 0.70 | 0.82 | 0.65 | 0.65 | 1.02 |
| Reverse | 3.55 | 3.55 | 2.99 | 3.36 | 3.30 | 3.30 | 3.23 |

Manual gearbox/final drive

Automatic transmission/final drive

PERFORMANCE

| |
|---|
| Gearbox |
| Acceleration, 0–100 km/h (sec) |
| Top speed, km/h |
| Fuel consumption l/100 km (EEC 80/1268 1999/100, combined) |
| CO ₂ g/km, combined |

CHASSIS

| | | |
|--------------------------------------|--|--|
| Suspension | front | Spring-strut, lower link, anti-roll bar |
| | rear | Individual, Multi-Link, with coil springs, anti-roll bar |
| Steering | Rack and pinion, power assisted | |
| Turning circle | 10.6 m | |
| Turns of steering wheel lock to lock | 3.1 | |
| Braking system | ABS discs all round, ventilated at the front + EBD | |
| Brake disc diameter (front/rear) | 256/260 | |
| DSA (Dynamic Stability Assistance) | | |
| V40T4/Others | Standard/Option | |

B4164S2

In-line 4 cyl. naturally aspirated
Transverse, front wheel drive

1587

Aluminium

Aluminium

Pent-roof

10.0

4

2

Microprocessor controlled fuel and ignition system with self diagnostics

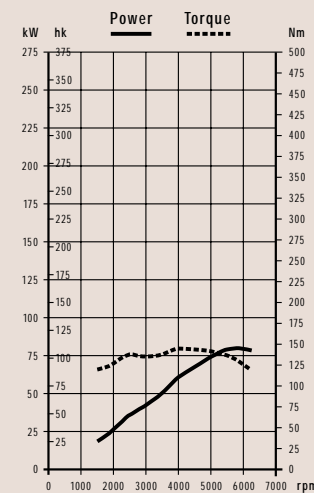
1-3-4-2

750

91–98 RON

80 (109)/5800

145/4000



JB3-306/4.07

–

Manual

Automatic

12.0

–

190

–

7.7

184

–

B4184S2

In-line 4 cyl. naturally aspirated
Transverse, front wheel drive

1783

Aluminium

Aluminium

Pent-roof

10.3

4

2

Microprocessor controlled fuel and ignition system with self diagnostics

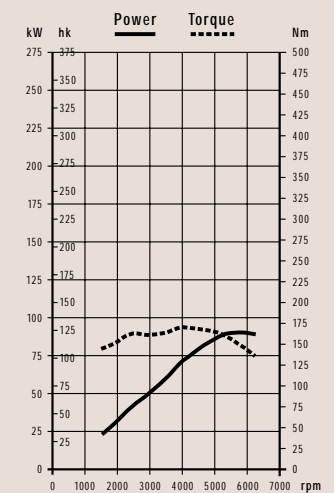
1-3-4-2

750 manual/700 automatic

91–98 RON

90 (122)/5800

170/4000



M56H1/4.45

AW55-50/2.86

Manual

Automatic

10.5

11.5

200

195

7.8

187

8.7

208

| B4204S2 | | B4184SJ | | B4204T3 | | B4204T5 | |
|--|-----------|------------------------------------|-----------|--|-----------|-----------------------------------|-----------|
| In-line 4 cyl. naturally aspirated | | In-line 4 cyl. naturally aspirated | | In-line 4 cyl., light press. turbo | | In-line 4 cyl., high press. turbo | |
| Transverse, front wheel drive | | Transverse, front wheel drive | | Transverse, front wheel drive | | Transverse, front wheel drive | |
| 1948 | | 1834 | | 1948 | | 1948 | |
| Aluminium | | Cast iron | | Aluminium | | Aluminium | |
| Aluminium | | Aluminium | | Aluminium | | Aluminium | |
| Pent-roof | | Pent-roof | | Pent-roof | | Pent-roof | |
| 10.5 | | 11.6 | | 9.0 | | 8.5 | |
| 4 | | 4 | | 4 | | 4 | |
| 2 | | 2 | | 2 | | 2 | |
| Microprocessor controlled fuel and ignition system with self diagnostics | | | | Microprocessor controlled fuel and ignition system with self diagnostics | | | |
| 1-3-4-2 | | 1-3-4-2 | | 1-3-4-2 | | 1-3-4-2 | |
| 750 manual/700 automatic | | 620 | | 750 | | 750 | |
| 91-98 RON | | 95-98 RON | | 91-98 RON | | 91-98 RON | |
| 100 (136)/5800 | | 90 (122)/5500 | | 120 (163)/5250 | | 147 (200)/5500 | |
| 190/4000 | | 174/3750 | | 240/1800-4500 | | 300/2500-4000 | |
| | | | | | | | |
| M56H1/4.45 | | F5M42/3.72 | | M56H1/4.00 | | M56H2/4.25 | |
| AW55-50/2.86 | | - | | AW55-50/2.44 | | AW55-50/2.44 | |
| Manual | Automatic | Manual | Automatic | Manual | Automatic | Manual | Automatic |
| 9.7 | 10.7 | 10.5 | - | 8.5 | 9.0 | 7.3 | 8.0 |
| 205 | 200 | 200 | - | 220 | 215 | 235 | 230 |
| 8.1 | 8.9 | 6.9 | - | 7.9 | 9.1 | 8.9 | 9.5 |
| 194 | 213 | 164 | - | 189 | 217 | 212 | 227 |

MEASUREMENTS AND VOLUMES

Exterior measurements (cm)

| | |
|------------------|---------|
| Length | 452 |
| Width | 172 |
| Height | 143 |
| Wheelbase | 256 |
| Track, front | 147 |
| Track, rear | 147 |
| Ground clearance | 15 |
| Load height | 51/62** |

Weights/Miscellaneous

| | |
|-------------------------|-------------|
| Weight/kg min. | 1280/1341** |
| Petrol tank, l | 60 |
| LPG tank, l (usable) | 40 |
| Max. trailer weight, kg | 1400/1200* |
| Drag coefficient | 0.32-0.33 |

Interior measurements (cm)

| | |
|---|----------------|
| Headroom with sunroof (front/rear) | 96/93 |
| Headroom without sunroof (front/rear) | 98/97 |
| Passenger compartment width at shoulder height (front/rear) | 137/137 |
| Luggage volume, litres (DIN V211/212/214) | 413/751/1421 |
| | 357/695/1365** |
| Load length | 102/97** |
| Load length with rear seat folded down | 175 |
| Load length with rear seat and front passenger seat folded down | 273 |
| Height of luggage compartment | 88 |
| Width of luggage compartment between wheel arches | 90 |

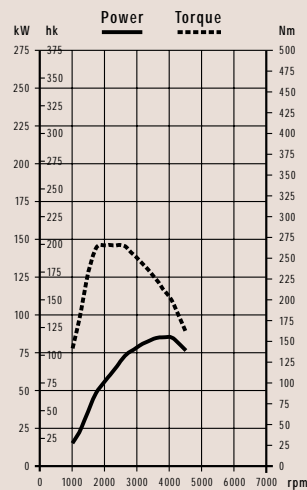
* B4164S2, B4184S2, B4184S9 och B4184SJ ** Bi-Fuel

| |
|-------------------------------|
| D4192T4/DI |
| In-line 4 cyl., turbo diesel |
| Transverse, front wheel drive |
| 1870 |
| Cast iron |
| Aluminium |
| - |
| 19.0 |
| 2 |
| 1 |
| Integr. fuel/ignition system |
| 1-3-4-2 |
| 750 |
| Diesel min cetane 48 |
| 75 (102)/4000 |
| 215/1750-3250 |



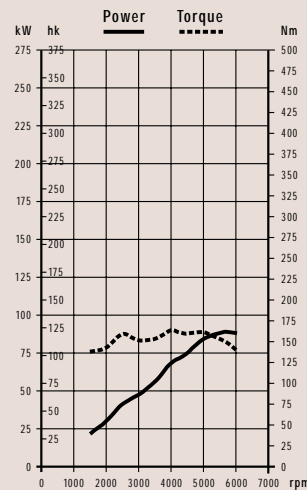
| |
|-------------------|
| M56L2/3.77 |
| - |
| Manual Automatic |
| 12.0 - |
| 185 - |
| 5.4 - |
| 142 - |

| |
|-------------------------------|
| D4192T3/DI |
| In-line 4-cyl. turbo diesel |
| Transverse, front wheel drive |
| 1870 |
| Cast iron |
| Aluminium |
| - |
| 19.0 |
| 2 |
| 1 |
| Integr. fuel/ignition system |
| 1-3-4-2 |
| 750 |
| Diesel min cetane 48 |
| 85 (115)/4000 |
| 265/1750-2500 |



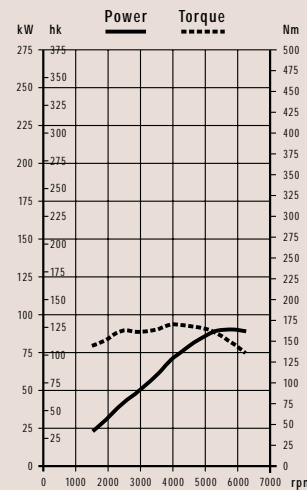
| |
|-------------------|
| M56L2/3.77 |
| - |
| Manual Automatic |
| 10.5 - |
| 195 - |
| 5.4 - |
| 142 - |

| |
|--|
| B4184S9 (LPG mode) |
| In-line 4 cyl. naturally aspirated, Bi-Fuel |
| Transverse, front wheel drive |
| 1783 |
| Aluminium |
| Aluminium |
| Pent-roof |
| 10.3 |
| 4 |
| 2 |
| Microprocessor controlled fuel and ignition system with self diagnostics |
| 1-3-4-2 |
| 750 |
| LPG |
| 88 (120)/5800 |
| 167/4000 |



| |
|-----------------------|
| JC5-227/3.87:1 |
| - |
| Manual Automatic |
| 11.0 - |
| 200 - |
| 10.4 LPG - |
| 168 - |

| |
|--|
| B4184S9 (petrol mode) |
| In-line 4 cyl. naturally aspirated, Bi-Fuel |
| Transverse, front wheel drive |
| 1783 |
| Aluminium |
| Aluminium |
| Pent-roof |
| 10.3 |
| 4 |
| 2 |
| Microprocessor controlled fuel and ignition system with self diagnostics |
| 1-3-4-2 |
| 750 |
| 91-98 RON |
| 90 (122)/5800 |
| 170/4000 |



| |
|---------------------|
| JC5-227/3.87 |
| - |
| Manual Automatic |
| 10.5 - |
| 200 - |
| 8.1 - |
| 193 - |



Volvo Car Corporation

PRESS INFORMATION

Volvo XC70 D5 – power and pleasure with all-wheel drive

- Volvo Cars' first diesel engine produced in-house
- World-leading performance and fuel economy
- 340 Nm torque at 1750 rpm
- Fuel consumption 8.4–8.5 litres/100 km (depending on specification)
- Electronically controlled AWD

The Volvo XC70 D5 combines the new D5 diesel engine and electronically controlled all-wheel drive. This offers major benefits for the driver, especially when it comes to drivability and take-off at low revs.

The D5 turns a new leaf in Volvo Cars' engine history. This advanced new common-rail unit is the first diesel engine produced by the company in-house – and evidence of just how important it is for Volvo Cars to be able to offer a modern diesel engine in the premium segment.

Aluminium for low weight

One obvious parameter in the design brief was to utilise one of the most compact and strongest engine blocks on the market: Volvo's own 5-cylinder aluminium block, which was originally launched in the Volvo 850 in 1991. This block was designed and dimensioned from the very outset to be able to accommodate diesel power.

Since the cylinder head too is made of aluminium, the Volvo D5 weighs just 163kg without gearbox – a major benefit since low weight plays a major role in ensuring high performance and low fuel consumption.

Since the Volvo D5 is a transverse in-line engine that is relatively narrow, it contributes considerably to crash safety. The compact engine leaves maximum possible space for the all-important crumple zone.

Generous torque

The new Volvo D5 produces higher torque than the most powerful 5-cylinder petrol engine in the Volvo Cars range. What is more, this high torque is available at even lower revs.

The D5 pumps out no less than 340 Nm at just 1750 rpm, compared with the 330 Nm at 2400 rpm produced by the 250 hp T5 petrol engine.

This means there is plenty of power on tap, irrespective of engine speed and driving style – driving enjoyment was top of the list of priorities in the development of the new Volvo D5.

The Volvo D5 produces 163 hp (120 kW) at 4000 rpm, which in a Volvo XC70 D5 gives acceleration from 0 to 100 kph in 11.5 seconds. Top speed is 195 kph.

Automatic transmission is standard. This is a five-speed transmission, electronically controlled to adapt to the driver's personal style of driving. It has a "W" setting for slippery or winter driving conditions, plus a lock-up function, which reduces fuel consumption at constant speed. A manual gearbox will be available during the second quarter of 2003.

Modern technology – low fuel consumption

Low fuel consumption is one of the strongest reasons for the customer to buy a car with a diesel engine. It is only 8.4–8.5 litres/100 km (depending on specification) in the Volvo XC70 D5.

This means, in effect, that it is possible to drive no less than 810 km in a Volvo XC70 D5.

This low fuel consumption has been achieved with a range of well-integrated factors:

- low internal engine friction owing to simple engine architecture and a single cam belt-drive system for camshafts and injection pump
- roller finger followers in the valve and cam systems, for the lowest possible friction in the cylinder head, particularly at low revs and in urban operation

- lightweight moving parts, particularly pistons and connecting rods, resulting in less vibration, lower loads on bearings and crankshaft and thus lower friction
- an efficient combustion system with four valves for each cylinder and injection with a centrally positioned vertical injector
- the relatively (for a diesel engine) modest compression ratio of 18:1 is beneficial as regards combustion pressure, reducing mechanical loads and friction.

VNT turbo and common rail

The major source of this engine's enormous reserves of torque, 340 Nm, is the turbocharger, which is of the VNT or Variable Nozzle Turbine type.

With this system, the turbine on the intake side has movable guide vanes that change position to provide optimum flow conditions and a high turbine efficiency rating, throughout the engine speed range. This permits high boost pressure from low engine speeds, and thus a flatter torque curve and higher power output.

The movable guide vanes are controlled by the engine management system, adjusting gas flow to the turbine to ensure optimum efficiency. The result is that the engine responds instantly to the throttle, providing excellent drivability.

The turbocharger is cooled by the engine oil.

Common-rail technology plays a vital role in modern diesel engines. The common-rail system adopted in the new Volvo D5 is a second-generation development, featuring a higher pressure and load-responsive volume and pressure control.

This makes it one of the most modern and advanced systems in the automobile industry today.

The amount of fuel and the injection timing are controlled electronically by fast-acting solenoid valves. Fuel is injected directly into the cylinders under exceptionally high pressure, up to 1600 bar.

The result is extremely finely atomised fuel, ensuring that combustion is as efficient as possible, while at the same time minimising emissions of nitrogen oxides (NO_x) and particulates.

In order to further reduce exhaust emissions, the Volvo D5 is equipped with the very latest advances in EGR (exhaust gas recirculation) technology. With this system, some of the exhaust gases are returned to the combustion system, further reducing emissions of nitrogen oxides.

Increased efficiency and precision are achieved with the fast-acting EGR valve, which is directly electrically operated. The recirculated exhaust gases are cooled in a special EGR cooler before being mixed with the intake air.

This advanced EGR system sharply reduces NO_x emissions, while retaining high fuel efficiency. The EGR cooler itself provides a further 7% reduction in nitrogen oxides compared with a system without cooling.

Fast-acting catalytic converter

Hydrocarbons (HCs) and carbon monoxide (CO) – the main components of the remaining exhaust gases – and some of the particulate emissions are cleaned with the help of an oxidising catalytic converter.

The Volvo D5 easily exceeds the Euro 3 standards, halving exhaust gas emissions compared with Volvo's previous passenger-car diesel engines.

Electronically-controlled all-wheel drive

The Volvo XC70 D5 is equipped with electronically controlled AWD. The system has been developed in collaboration with one of the pioneers in this field – the Swedish company Haldex.

The electronically controlled AWD system is intelligent. It senses what condition the car is in and what the driver wants. This information provides the basis for whether and how the system is to act.

By comparison with the earlier Volvo all-wheel drive systems based on a viscous coupling differential, the new AWD system is much swifter in its response. It only needs one of the front wheels to start to slip by a seventh of a single wheel revolution for the system to divert more power to the rear wheels.

Better traction on difficult surfaces

This means that the new AWD system provides much better starting traction on difficult surfaces, minimising the risk, for instance, of the front wheels digging into soft sand. The 'heavier' the driving surface, e.g. wet sand or mud, the greater the difference and the advantages compared with the earlier system.

Normally anything between 5 and 65 per cent of the power is delivered to the rear wheels, depending on the driving conditions. Changes in the amount of power diverted to the rear wheels take place extremely quickly but smoothly, without the driver even noticing.

Communicates with other systems

The AWD system is connected to the Multiplex system in the car. As a result, it communicates with the other systems in the car in order to optimise all-wheel drive at all times to match the driving situation. This digital communication involves the Traction Control System (TRACS), for example.

It is also possible to equip the Volvo XC70 with DSTC (Dynamic Stability and Traction Control).

The distribution of power between right and left is managed by TRACS, Volvo's anti-spin system. TRACS intervenes when necessary by braking one wheel to increase the relative power to the wheel with the best traction. This means that the AWD system, working in conjunction with TRACS, can distribute power to the wheels which have the best traction at any given time.

When the vehicle is braked, the AWD system is deactivated so that the brake and ABS systems can function effectively, giving high stability and short braking distances. Similarly, the AWD system is deactivated by the Dynamic Stability and Traction Control system (DSTC) if this performs any braking intervention to counteract skidding.

Wet multi-plate clutch

In this new system the power is distributed between the front and rear wheels via a wet multi-plate clutch.

The function of this unique design is threefold:

- A hydraulic pump which is driven by the difference in speed between the axles.
- A wet multi-plate clutch.
- A control valve with electronics.

The unit can be regarded as a hydraulic pump where the housing and the ring-shaped piston are connected to one axle, while the piston control unit is connected to the other axle. When both axles are rotating at the same speed, no pumping takes place. As soon as a difference in speed arises, the pumping and flow of oil start. As it is a piston pump, the response is virtually instantaneous, without any delay due to slow pumping.

Oil is supplied to a clutch piston which compresses the clutch stuffing box and consequently reduces the speed difference. The oil returns to the reservoir via an adjustable throttle valve which controls the oil pressure and therefore the pressure on the clutch stuffing box.

The electronic control means that the clutch can be adapted to different driving situations.

Another advantage of the electronically-controlled AWD system is that it does not require special consideration in specific situations. Towing and tyre-changing, for example, can be carried out as normal.

Growing diesel share

Volvo Car Corporation's 2002 target is 63200 diesel cars in the large-car segment.

This will bring the diesel share of all large Volvo cars sold in Europe to over 42 per cent.

A competitive diesel engine is nothing less than a matter of survival in Europe. In 2002, 40 per cent of all cars sold in Europe will be diesel cars. This figure is forecast to increase to 46 per cent by 2005.

There is considerable demand in all segments, although it is found primarily in those segments where the Volvo XC90, S80, V70, XC70 and S60 compete. The combination D5 and AWD is available in the Volvo XC90, XC70 and V70.

The largest markets

Germany is the largest diesel market for Volvo Cars, with sales of 13,000 large diesel-engine cars expected there in 2002. Germany is followed by UK with 10,600 cars, Italy with 8460, Belgium with 5700, Sweden with 4940, NL with 4400 and France / Spain with 4270 cars.

In France, Belgium and Austria 85 per cent of all large Volvos sold will be diesel cars. Italy has a 80 per cent diesel share, followed by Portugal with 75 per cent.

Powerful entry

“Our Cross Country family consists of two models: the Volvo XC90 and the Volvo XC70. It’s extremely important to have a good diesel engine in this category. And since our latest engine has already convinced the market that we are among the best when it comes to diesel technology, we expect the diesel versions of the XC90 and XC70 to be very successful,” concludes Hans-Olov Olsson, President and CEO of Volvo Car Corporation.

The initial sales target for the Volvo XC70 D5 is 1,800 cars in 2002. This figure is expected to increase to 3,200 in 2003. If the Volvo V70 D5 AWD is included, the figure grows to 5,700 cars.

2003-01-05

HÅ

Volvo XC70 AWD

ENGINES

| |
|--------------------------------|
| Type |
| Configuration |
| Displacement, cm ³ |
| Engine cylinder block material |
| Cylinderhead material |
| Combustion chamber type |
| Compression ratio |
| Valves, no/cylinder |
| Camshafts |
| Engine management system |
| Ignition sequence |
| Engine idling speed |
| Fuel, rec. octane |
| Max output, kW (hk)/rpm. |
| Max torque, Nm/rpm. |

TRANSMISSIONS

5-speed manual gearbox.
5-speed adaptive automatic transmission, electronically controlled, with lock-up and winter mode selection.
Geartronic available for B5244T3.

| Ratio | M58L | AW 55-50 |
|---------|------|-------------|
| First | 3.39 | 4.66 |
| Second | 1.91 | 3.03 |
| Third | 1.19 | 1.98 |
| Fourth | 0.87 | 1.34 |
| Fifth | 0.70 | 1.02 |
| Reverse | 3.30 | 5.11 |

| |
|------------------------------------|
| Manual gearbox/final drive |
| Automatic transmission/final drive |

PERFORMANCE

| |
|--|
| Gearbox |
| Acceleration, 0–100 km/h (sec) |
| Top speed, km/h |
| Fuel consumption l/100 km* (EC 17/1999, combined) (Figures within brackets valid for lower inertia class) |
| CO ₂ g/km (Figures within brackets valid for lower inertia class) |

* Electronically controlled top speed.

CHASSIS

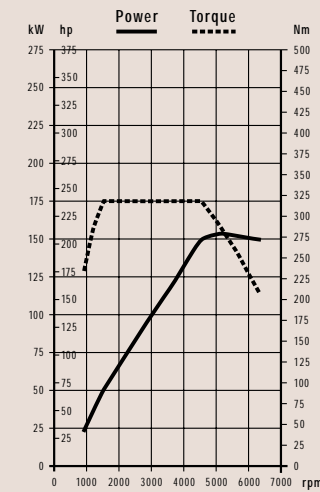
| | | |
|------------------------------------|---|---|
| Suspension | front | Spring-strut, lower link, anti-roll bar |
| | rear | Individual Multi-link suspension, anti-roll bar |
| Steering | Rack and pinion, power assisted | |
| Turning circle | 11.9 m | |
| Turns of steering wheel end to end | 2.8 | |
| Braking system | ABS system with EBD. Ventilated discs front, discs rear | |
| Brake disc diameter (front/rear) | 305/288 mm | |

MEASUREMENTS AND VOLUMES

| | |
|----------------------------|---------------|
| Exterior measurements (cm) | Cross Country |
| Length | 473 |
| Width | 186 |
| Height | 156 |
| Wheelbase | 276 |
| Track, front | 161 |
| Track, rear | 155 |
| Ground clearance | 20 |
| Load height | 67 |
| Weights/Miscellaneous | |
| Weight/kg min. | 1660/1690* |
| Fuel tank, l | 68 |
| Max. trailer weight, kg | 1800 |
| Drag coefficient | 0.34 |

* AWD Diesel

| B5254T2 | D5244T |
|--------------------------------------|-------------------------------|
| In-line 5-cyl., light pressure turbo | In-line 5-cyl. turbo diesel |
| Transverse, all wheel drive | Transverse, front wheel drive |
| 2521 | 2401 |
| Aluminium | Aluminium |
| Aluminium | Aluminium |
| Pent-roof | - |
| 9.0 | 18.0 |
| 4 | 4 |
| 2 | 2 |
| Microprocessor controlled... | Integr. fuel/ignition system |
| 1-2-4-5-3 | 1-2-4-5-3 |
| 670 | 700 |
| 91–98 RON | Diesel Min Cetane 48 |
| 154 (210)/5000 | 120 (163)/4000 |
| 320/1500–4500 | 340/1750–3000 |



| | | | |
|--------------|--------------|--------|-----------|
| M58L/4.25 | - | | |
| AW55-50/2.65 | AW55-50/2.65 | | |
| Manual | Automatic | Manual | Automatic |
| 8.1 | 8.5 | - | 11.5 |
| 210* | 210* | - | 195 |
| 10.4 (n.a.) | 11.3 (11.1) | - | 8.5 (8.4) |
| 249 (n.a.) | 270 (266) | - | 226 (223) |



Volvo Car Corporation

PRESS INFORMATION

The new Volvo XC90: next generation SUV this winter

- Secure winter progress in a passenger car-based all-wheel drive SUV
- Maximum flexibility for up to seven passengers
- New safety solutions for roll-over and vehicle compatibility
- Three engines from 163 to 272 hp
- Clean inside and out

The passenger car-based Volvo XC90 is the top of the line model in the Swedish car maker's new XC range.

"Our all-wheel drive XC90 is the next generation SUV, and it is designed to be one of the safest and most exciting offerings on the market – even when there's snow and ice on the roads," says Hans Wikman, project director for the new Volvo XC90.

With unmistakable car-like qualities and advanced technology, the Volvo XC90 is a safe, secure and easy to manage car for winter conditions. Both the four-wheel drive system and the DSTC anti-skid system respond instantaneously to ensure consistent driving behaviour.

"The word 'consistent' sums up this car really neatly. The adaptive systems deal with any problems even before you have time to note them yourself. Leaving you to concentrate in peace and quiet on your driving and on the surrounding traffic," says Hans Wikman.

Muscular design

"Masculine, but not macho; muscular, but not aggressive," is how the new Volvo XC90 is described by Peter Horbury, Vice President and Chief Designer at Volvo Cars.

The muscular stance is the synthesis of a number of traditional yet unique Volvo features:

- the upright front with its dark, egg-crate grille
- the V-shaped hood, further emphasised on the Volvo XC90
- the broad, pronounced shoulders
- the characteristic tail lamps

“Nobody should be in any doubt that this is a modern Volvo,” says Peter Horbury. The muscularity of the Volvo XC90 is matched by chamfered corners front and rear, promoting a gentle, non-aggressive impression, helping the vehicle to look more homogenous.

“Cockpit forward design”

Peter Horbury is happy to talk about the “cockpit forward design” in the Volvo XC90, where the passenger compartment has been moved as far forward in the vehicle as possible, and where the sloping windscreen is positioned further forward than in most other SUVs.

This has allowed Volvo to make a seven-seater SUV within compact overall body dimensions. The Volvo XC90 is 4.80 metres long, just 87 mm longer than a Volvo V70.

The interior of the Volvo XC90 is characterised by airiness, space and quality materials.

Facing the driver is one of the car world’s clearest and most ergonomically designed instrument panels.

It is characterised by Scandinavian simplicity of line and functionality: plenty of information from a small number of meticulously designed instruments.

Top level safety

Customers expect Volvo to retain its lead in the field of safety – irrespective of vehicle type. With the launch of its first-ever SUV, Volvo Cars enters an entirely new segment, and the goal is perfectly clear: to lead the way in terms of safety.

With the entry of Volvo Cars into the SUV market, there is increased focus on several new areas. One of them is roll-over accidents, where the vehicle rolls over onto its roof one or more times.

In order to help reduce the risk of a roll-over situation, the Volvo XC90 is equipped with an active stability-enhancing system known as Roll Stability Control or RSC. The system uses a gyro-sensor to register the vehicle’s roll speed and roll angle.

Using this information, the terminal angle is instantly calculated and thus also the roll-over risk.

If the calculated angle is so great that there is an obvious risk of rolling over, the DSTC (Dynamic Stability and Traction Control) anti-skid system is activated. DSTC responds by reducing the engine's power and also by braking one or more wheels as necessary until the vehicle understeers and stability is regained.

This help reduce the risk of a roll-over accident initiated by extreme manoeuvres. RSC is the only active stability-enhancement system on the market to measure the car's roll angle. It was developed jointly by Volvo and Ford Motor Company.

Special steel in a reinforced roof structure

If the Volvo XC90 experiences a roll-over the passive safety systems step in.

The goal is to reduce the risk of the occupants' heads from coming into contact with the vehicle's interior roof panel or sides. Volvo has reinforced parts of the roof structure in the Volvo XC90 with extremely tough Boron steel, which is four to five times stronger than normal steel.

All the seats are equipped with seat belt pretensioners to hold the occupants securely in place.

In order to help prevent the head from striking the car's sides, the Volvo XC90 is equipped with Volvo's IC or Inflatable Curtain. IC also helps prevent the occupants from being ejected in an accident.

In the Volvo XC90, all three rows of seats in the 7-seat version are protected by the IC.

Selfless compatibility

The problem of compatibility – when a tall SUV collides with a car that sits closer to the road surface – was in firm focus throughout the development of the new Volvo XC90. The typical SUV has a high ground clearance and thus often comes with high-positioned bumpers. This may create a greater risk of damage to the oncoming passenger car and more serious injuries to its passengers, since the lower car's protective beams and crumple zones simply slip below the front of the SUV without being activated.

In order to reduce the risk of this type of injury, the front suspension subframe in the Volvo XC90 is supplemented with a lower cross-member, positioned at the height of the beam in a conventional car. This lower beam is integrated into the XC90s structure and is neatly concealed behind the spoiler.

This construction reduces risk of injuries in frontal collisions as well as in rear-end impacts and side impacts. The lower cross-member strikes the oncoming car's protective structure, activating its crumple zone as intended so the occupants can be given the maximum level of protection.

Chassis for all challenges

The Volvo XC90 is a vehicle designed for all types of roads, irrespective of the surface beneath the tyres and the weather conditions.

Even though it is not focusing on off-road driving, the combination of electronically controlled four-wheel drive and 218 millimetres of ground clearance creates the right preconditions for continued progress when the going gets tough.

The rear suspension of multi-link type is completely insulated, with the dampers and springs attached directly to the subframe. This results in a quieter ride, since road and transmission noise is largely filtered out before it reaches the bodywork.

The front suspension is of MacPherson type and, together with the new ZF steering gear, promotes increased precision and sharp response.

The Volvo XC90 has an extremely wide track (1634 mm front, 1624 mm rear) and a long wheelbase (2859 mm between the front and rear axles). This makes for exceptional stability, with the vehicle behaving very consistently and dependably even on curving, twisting and uneven roads.

Electronically controlled AWD

One important ingredient in the recipe for safe driving pleasure in the Volvo XC90 is its electronic AWD system, developed in close cooperation with one of the foremost experts in this area – Haldex of Sweden.

Just like in previous AWD models from Volvo, the four-wheel drive system in the XC90 operates entirely independently of driver input, that is to say power is distributed automatically between the front and rear wheels for best possible grip on all types of road surfaces.

The electronically controlled AWD system is intelligent. It monitors the vehicle's contact with the underlying road surface and assesses the signals that the driver receives through the steering wheel, brake pedal and accelerator. This information then helps determine whether, and if so how, the system should respond.

In normal driving on dry roads, almost all power is delivered to the front wheels. If the road surface causes the front wheels to slip, power is proportionately diverted to the rear wheels. With electronically activated four-wheel drive, AWD

engagement takes place quickly, after just one-seventh of a wheel turn, which eliminates wheelspin and ensures reliable road grip.

Engines for every need

The Volvo XC90 is available with a choice of three engines, all made entirely of aluminium:

- An in-line 6-cylinder petrol engine with a displacement of 2.9 litres, equipped with twin turbochargers. It produces 272 bhp (200 kW) and has no less than 380 Nm of torque from just 1800 revs/min. With the twin-turbo six and the 4-speed Geartronic transmission, the Volvo XC90 reaches 100 km/h in 9.3 seconds and the top speed is limited to 210 km/h.
- An in-line 5-cylinder 2.5 litre petrol engine with a light-pressure turbocharger. It has a power output of 210 bhp (154 kW) and torque of 320 from 1500 revs/min. The 2.5 litre engine comes with a 5-speed Geartronic transmission. 0–100 km/h takes 9.9 seconds and top speed is 210 km/h.
- An in-line 5-cylinder 2.4 litre common rail turbodiesel engine. It produces 163 bhp (120 kW) and offers 340 Nm from 1750 revs/min. The turbo diesel is available with the 5-speed Geartronic gearbox. 0–100 km/h takes 12.3 seconds and top speed is 185 km/h.

All performance figures are preliminary.

Environmental care

Environmental care is one of the core values at Volvo Cars.

That is why we were faced with an extra-tough challenge when we developed the Volvo XC90, since SUVs are relatively large vehicles with powerful engines.

The Volvo XC90 will take the lead in the SUV segment as regards both fuel economy and emissions. The 6-cylinder petrol engine meets the American ULEV (Ultra Low Emission Vehicle) requirements, while the 5-cylinder petrol engine already meets ULEV II, a standard that does not come into force until model year 2004.

What is more, the Volvo XC90 meets these standards in 50 American states, a clear demonstration that Volvo Cars regards the environment as equally important everywhere.

In Europe, the petrol engines in the Volvo XC90 already meet the Euro 4 requirements which come into force in the year 2005.

The new Volvo Cars 5-cylinder diesel engine is among the very cleanest on the market today, offering top-class fuel economy.

Infotainment

In the Volvo XC90, considerable importance has been attached to providing comprehensive and innovative infotainment. One result of this focus is that Volvo is the first carmaker in the world to launch Dolby Prologic II in a car audio system. Dolby Pro Logic II creates the conditions for optimum audio perception even for passengers in the rear seat, and the sound profile is both broader and more natural. The Volvo XC90 can be specified with 13 loudspeakers, one of which is an 8-inch 140-watt active subwoofer for better bass quality.

Rear-seat passengers have access to their own control unit for the audio system, located conveniently in the C-post. There they can plug in their headphones and listen to a separate audio source, so they are not limited to what is coming through the vehicles's loudspeakers. This means that parents and children can each enjoy their different taste in music at the same time – making a long trip in a Volvo XC90 even more enjoyable.

Rear Seat Entertainment

The Volvo XC 90 offers more than audio entertainment – it offers pictures as well. A DVD player with a 7-inch wide screen can be fitted in the roof, where it can be seen by passengers in seat rows two and three.

The design is extremely compact and the screen is lowered on powered hinges. The functions are remote-controlled and wireless headphones can be used to avoid disturbing other passengers in the car. The DVD player plays ordinary CDs as well.

The RTI (Road and Traffic Information) navigation system (option) is an important part of the infotainment unit in the Volvo XC90. The crystal-clear 6.5-inch widescreen display is recessed into the upper face of the instrument panel, from where it pops up at the touch of a button in the steering wheel.

2003-01-05

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Volvo XC90

ENGINES

| |
|--------------------------------|
| Type |
| Configuration |
| Displacement, cm ³ |
| Engine cylinder block material |
| Cylinderhead material |
| Combustion chamber type |
| Compression ratio |
| Valves, no/cylinder |
| Camshafts |
| Engine management system |
| Ignition sequence |
| Engine idling speed |
| Fuel, rec. octane |
| Max output, kW (hp)/rpm. |
| Max torque, Nm/rpm. |

| | |
|--|--|
| B5254T2 | |
| In-line 5 cyl., light press. turbo | |
| Transverse, all wheel drive | |
| 2521 | |
| Aluminium | |
| Aluminium | |
| Pent-roof | |
| 9.0 | |
| 4 | |
| 2 | |
| Microprocessor controlled fuel and ignition system with self diagnostics | |
| 1-2-4-5-3 | |
| 670 | |
| 91-98 RON | |
| 154 (210)/5000 | |
| 320/1500-4500 | |

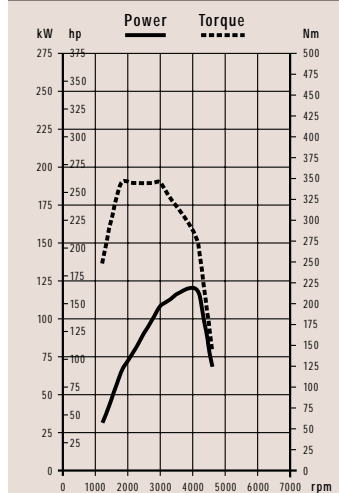
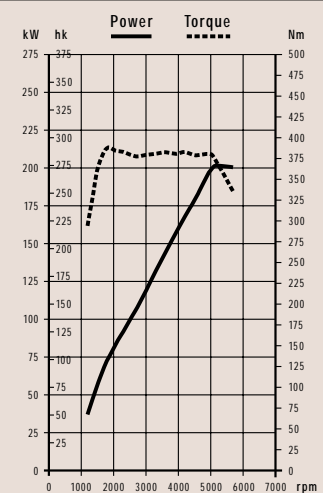
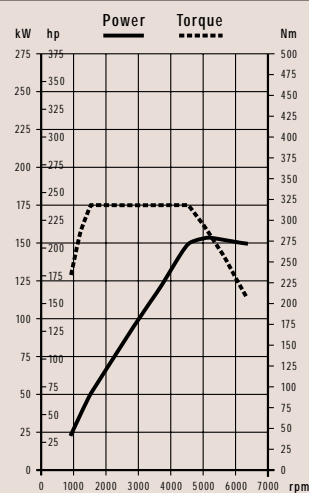
| | |
|--|--|
| B6294T | |
| In-line 6 cyl., twin turbo | |
| Transverse, all wheel drive | |
| 2922 | |
| Aluminium | |
| Aluminium | |
| Pent-roof | |
| 8.5 | |
| 4 | |
| 2 | |
| Microprocessor controlled fuel and ignition system with self diagnostics | |
| 1-5-3-6-2-4 | |
| 650 | |
| 91-98 RON | |
| 200 (272)/5100 | |
| 380/1800-5000 | |

| | |
|--|--|
| D5244T | |
| In-line 5 cyl. turbo diesel | |
| Transverse, all wheel drive | |
| 2401 | |
| Aluminium | |
| Aluminium | |
| - | |
| 18 | |
| 4 | |
| 2 | |
| Microprocessor controlled fuel and ignition system with self diagnostics | |
| 1-2-4-5-3 | |
| 700 | |
| Diesel Min Cetane 48 | |
| 120 (163)/4000 | |
| 340/1750-3000 | |

TRANSMISSIONS

5-speed/4-speed adaptive automatic transmissions with Geartronic, electronically controlled, with lock-up and winter mode selection.

| Ratio | AW55-51 | GM4T65 |
|---------|---------|--------|
| First | 4.66 | 3.28 |
| Second | 3.03 | 1.76 |
| Third | 1.98 | 1.12 |
| Fourth | 1.14 | 0.79 |
| Fifth | 1.02 | - |
| Reverse | 5.11 | 2.67 |



| | |
|-------------------------------|--------------|
| Manual gearbox/final drive | - |
| Automatic gearbox/final drive | AW55-51/2.86 |

| | |
|-------------------------------|-------------|
| Manual gearbox/final drive | - |
| Automatic gearbox/final drive | GM4T65/3.69 |

| | |
|-------------------------------|--------------|
| Manual gearbox/final drive | - |
| Automatic gearbox/final drive | AW55-51/2.86 |

PERFORMANCE

| |
|---|
| Gearbox |
| Acceleration, 0-100 km/h (sec) |
| Top speed, km/h |
| Fuel consumption l/100 km (EC 199/100, combined) 5/7 Seat |
| CO ₂ g/km 5/7 Seat |

| | |
|--------|-----------|
| Manual | Automatic |
| - | 9.9 |
| - | 210 |
| - | 11.8/12.0 |
| - | 282/287 |

| | |
|--------|-----------|
| Manual | Automatic |
| - | 9.3* |
| - | 210** |
| - | 12.7/12.9 |
| - | 304/309 |

| | |
|--------|-----------|
| Manual | Automatic |
| - | 12.3 |
| - | 185 |
| - | 9.0/9.1 |
| - | 239/242 |

*Electronically controlled top speed

CHASSIS

| | | |
|------------------------------------|-------|---|
| Suspension | front | Spring-strut, lower link, anti-roll bar |
| | rear | Individual, multilink, coil springs, anti-roll bar |
| Steering | | Rack and pinion, power assisted |
| Turning circle | | 11.9 m (16" wheel) 12.5 m (17", 18" wheel) |
| Turns of steering wheel end to end | | 2.8 (16") 2.7 (17", 18") |
| Braking system | | ABS system with EBD. Ventilated discs front and rear. |
| Brake disc diameter | | 16" Front/Rear 306/308 mm 17", 18" Front/Rear 336/308 mm |

MEASUREMENTS AND VOLUMES

| | |
|----------------------------|-----------|
| Exterior measurements (cm) | |
| Length | 480 |
| Width | 190 |
| Height | 174 |
| Wheelbase | 286 |
| Track, front | 163 |
| Track, rear | 162 |
| Ground clearance | 21.8 |
| Load height | 87 |
| Weights/Miscellaneous | |
| Weight, kg 5-seat/7-seat | 1982/2046 |
| Fuel tank, l | 72 |
| Max. trailer weight, kg | 2250 |
| Drag coefficient | 0.36 |

| | |
|--|---------|
| Interior measurements (cm) | |
| Headroom with sunroof (front/rear) | 101/99 |
| Headroom without sunroof (front/rear) | 102/100 |
| Passenger compartment width at shoulder height (front/rear) | 148/146 |
| Luggage volume, litres | |
| (ISO V213/V211) 5-seat/7-seat | 613/249 |
| Load length 5-seat/7-seat | 112/57 |
| Load length with rear seat(s) folded down | 189 |
| Load length with rear seat(s) and front passenger seat folded down | 291 |
| Height of luggage compartment | 87 |
| Width of luggage compartment between wheel arches | 113 |

Volvo reserves the right to make changes in the specifications without any notice.