

**VOLVO**  
Volvo Car Corporation

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VOLVO CAR CORPORATION

# 2004 POCKET GUIDE

**VOLVO**  
for life

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**OUR VISION:** TO BE THE WORLD'S MOST SUCCESSFUL  
AND DESIRABLE PREMIUM CAR BRAND

**OUR MISSION:** TO CREATE THE SAFEST AND MOST  
EXCITING CAR EXPERIENCE FOR MODERN FAMILIES



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## **VOLVO. FOR LIFE – A PROMISE**



The promise of safety gives Volvo a special place among the world's carmakers. Our founders were the first to declare that the company's activities should be based on human concern. As a result, SAFETY, QUALITY and ENVIRONMENT are the core values which permeate all of our operations, our cars and our actions.

The experience of our brand also includes attractive design, driving pleasure and enjoyable car ownership at all stages of life. Both aspects of the Volvo ethos – to protect and to celebrate life – are expressed in the global brand tagline VOLVO. FOR LIFE.



## SAFETY



"CARS ARE DRIVEN BY PEOPLE. THE GUIDING PRINCIPLE BEHIND EVERYTHING WE MAKE AT VOLVO, THEREFORE, IS – AND MUST REMAIN – SAFETY."

Assar Gabrielsson and Gustaf Larson, founders of Volvo



Volvo's founders were the first to take a clear and unambiguous approach to the issue of safety. Today, our aim of being a leader in the area is stronger than ever. In an increasingly complex societal and traffic environment, it is ultimately people who must be able to use our cars in a simple and safe manner. Our safety philosophy is based on a holistic approach.

Our aim is to build cars which:

- primarily help the driver to avoid accidents;
- if an accident is unavoidable, help to protect all of the occupants;
- take account of the safety of the occupants of other cars and of unprotected road users;
- afford enhanced personal security; in other words, make break-in and theft more difficult, and help to provide the occupants with greater protection in threatening situations.

Our working methodology can best be described in the form of a circle, which begins and ends in the real traffic environment. The experience which we have gained from traffic accident research is applied when specifying, designing and crash-testing new models. Since 1970, the Volvo Accident Research Team has studied over 30,000 Swedish traffic accidents in

which Volvo cars of recent model years have been involved. Safety innovations which owe their origins to the work of the team include side-impact protection (SIPS) and the WHIPS anti-whiplash system.

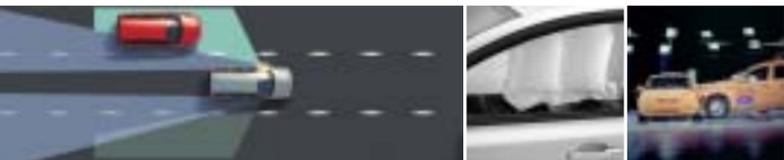
In 2003, in cooperation with the Thai government, we inaugurated an accident research centre in Bangkok, where we are helping to develop local expertise in traffic accident investigation. At the same time, we are also expanding our own knowledge of conditions in countries with traffic problems of different kinds. In the course of time, responsibility for these activities will be passed to the local authorities.

### CHILD SAFETY

Volvo Cars possesses wide-ranging experience of in-car child safety. We introduced the world's first rear-facing child seat in 1972 and believe that all children should, whenever practically possible, be seated facing the rear until at least the age of three. Among other programmes, we hold seminars to disseminate our knowledge and experience in the field and we published a child safety manual in 2003. We have also developed a virtual, pregnant crash dummy to study the effects of car accidents on mothers-to-be and their unborn children – knowledge which is invaluable when designing future car models.

Our child safety manual is available for downloading as a pdf file. Visit [www.media.volvocars.com](http://www.media.volvocars.com) and click on Safety.





## SAFETY INNOVATIONS

Several safety innovations were unveiled in the new Volvo S40 and V50 introduced in 2003. IDIS (Intelligent Driver Information System) helps to reduce the driver's mental workload in certain stressful driving situations. A compact engine installation and a new, patented front-end structure made from four different grades of steel help to maintain the cabin space intact in a collision.

A number of active safety systems was also unveiled at the beginning of 2004. These include BLIS (Blind Spot Information System), which facilitates lane-changing and will be available in several Volvo models later in the year.

## VOLVO CARS SAFETY CENTRE

Our cars are crash-tested under the most realistic possible conditions at the Volvo Cars Safety Centre, one of the most advanced facilities of its type in the world. Among other things, this makes it possible to reproduce full-scale collisions between two moving vehicles, such as between a car and another car, a truck or a bus, at every conceivable angle and under carefully monitored conditions.

The facility is also used to carry out some testing for other Ford brands and the Volvo Group.

## VOLVO'S SAFETY TRADITION

- |   |  |
|---|--|
| <b>1944</b> Safety cage   | <b>1987</b> Driver airbag  |
| <b>1944</b> Laminated windscreen                                  | <b>1990</b> Integrated child booster seat  |
| <b>1959</b> Three-point safety belts in front                     | <b>1991</b> SIPS (Side-Impact Protection System)   |
| <b>1960</b> Padded dashboard                                      | <b>1991</b> Automatic height adjustment of front safety belts  |
| <b>1964</b> Prototype of first rear-facing child seat             | <b>1993</b> Three-point, inertia-reel safety belts standard in all seats                             |
| <b>1966</b> Triangular-split, dual-circuit braking system         | <b>1994</b> SIPS bags (side-impact airbags)  |
| <b>1966</b> Energy-absorbent crumple zones at front and rear      | <b>1997</b> ROPS (Rollover Protection System) (convertible models)                                   |
| <b>1967</b> Safety belts in rear                                  | <b>1998</b> WHIPS (Whiplash Protection System)   |
| <b>1968</b> Head restraints in front                              | <b>1998</b> IC (Inflatable Curtain)  |
| <b>1969</b> Three-point, inertia-reel safety belts in front       | <b>2000</b> Inauguration of Volvo Cars Safety Centre in Göteborg on 29 March                         |
| <b>1970</b> Establishment of Volvo Accident Research Team         | <b>2000</b> ISOFIX attachment system for rear-facing child seat                                      |
| <b>1972</b> Three-point safety belts in rear                      | <b>2000</b> Dual-stage inflation airbags   |
| <b>1972</b> Rear-facing child seat and childproof locks in rear   | <b>2000</b> Volvo On Call security and roadside assistance system                                    |
| <b>1972</b> Volvo Experimental Safety Car (VESC)                  | <b>2001</b> Volvo Safety Concept Car (SCC)   |
| <b>1973</b> Collapsible steering column                           | <b>2002</b> RSC (Roll Stability Control)   |
| <b>1974</b> Energy-absorbent bumpers                              | <b>2002</b> Extended rollover protection system (ROPS)   |
| <b>1974</b> Fuel tank located in safe position ahead of rear axle | <b>2002</b> Lower front crossmember (in Volvo XC90) to increase safety compatibility with lower cars |
| <b>1978</b> Child booster seat                                    | <b>2002</b> Development of virtual, pregnant crash dummy   |
| <b>1982</b> Anti-submarining protection in front and rear seats   | <b>2003</b> IDIS (Intelligent Driver Information System)   |
| <b>1982</b> Wide-angle door mirrors                               | <b>2003</b> New, patented front-end structure reduces collision forces                               |
| <b>1984</b> ABS (Anti-lock Braking System)                        | <b>2003</b> Inauguration of Thailand Accident Research Centre in Bangkok                             |
| <b>1986</b> High-level brake light                                |  |
| <b>1986</b> Three-point safety belt in centre rear seat           |  |
| <b>1987</b> Safety belt pretensioners                             |  |



## QUALITY



Volvo Cars customers have justifiably high expectations – and the purpose of all our quality programmes is to create satisfied customers. Quite simply, our aim is to be No. 1 in customer satisfaction.

The combination of quality cars and high-class customer care throughout the entire period of ownership is decisive to the achievement of our quality goals. For this reason, our quality improvement programmes cover the entire value chain from manufacture to sales and aftermarket service. To keep immediate track of customer satisfaction levels, we monitor more or less all new car purchases by means of our 'Customer For Life' survey. Other major quality indicators include Ford's ongoing GQRS (Global Quality Research System) measurements and independent assessments such as the J.D. Power surveys in the USA.

Our product development system is another important contributor to quality. Under the system, certain conditions must be fulfilled before each successive step in a new car development project can be commenced, ensuring high quality right from the design stage.

'Consumer Driven Six Sigma' is used to fine-tune the company's internal processes. This programme enables processes throughout the value chain to be refined – globally as well as locally – from purchasing to sales and service.

## ENVIRONMENT



Our aim is to be an environmental leader in the premium segment of the car industry. Our environmental goals include:

- reducing emissions of harmful substances and greenhouse carbon dioxide;
- developing alternative power trains;
- ensuring a healthy in-car environment;
- reducing the environmental impact of our production operations;
- achieving environmental certification of all of our operations.

Major aspects of our efforts to reduce fuel consumption include the ongoing development of power train and vehicle technologies, a new generation of compact cars, a higher proportion of high-efficiency diesel engines and continued commitment to our gas-driven Bi-Fuel models. We are also developing environmentally compatible technologies in close partnership with suppliers, the business community and universities.

Treatment of the exhaust gases from our petrol engines eliminates 95-98% of the carbon monoxide, nitrogen oxides and hydrocarbons. Several of our engines already comply with the next (2005) European exhaust emission standard and with the ULEV (Ultra Low Emission Vehicle) standard in California. All five-cylinder engines for the new Volvo S40 and V50, as well as a further two units, also comply with the even stricter, voluntary ULEV II limits. We also offer an engine complying with the requirements of PZEV (Partial Zero Emission Vehicle) – one

of the world's toughest emission control standards – in seven US states. Our diesel engines will be fitted successively with particle filters in 2004.

Most of our five and six-cylinder engines are equipped with PremAir<sup>®</sup>, a radiator coating which converts up to 75% of the harmful ground-level ozone in the cooling air into pure oxygen.

Eighty-five percent of the weight of a Volvo car is recyclable. Volvo was the first carmaker to provide an environmental product declaration for its cars. An EPD provides a unique overall picture of a product's environmental impact over its complete life cycle.

We have greatly reduced the environmental impact of our car production by measures including the reduction of solvent emissions, which are now among the lowest in the industry. Volvo is one of the first carmakers in the world to have all of its operations certified under the international environmental standard, ISO 14001. In addition, we require all major production-related suppliers to hold ISO 14001 certification. Many of our dealers and service workshops are also certified.

Volvo is also engaged in a number of environmental projects, ranging from the Volvo Environment Prize to the Volvo Adventure, an environmental competition for schools around the world.

\*PremAir<sup>®</sup> is a trademark of Engelhard Corporation

The logo for the Volvo S60 Bi-Fuel model, featuring the text 'S60' in a large, bold, sans-serif font above the text 'Bi-FUEL' in a smaller, all-caps, sans-serif font.

## **VOLVO BI-FUEL:**

### **GAS REDUCES CARBON DIOXIDE EMISSIONS**

Alternative fuels generating significantly lower emissions of carbon dioxide are important to minimising the greenhouse effect. We have opted to develop Bi-Fuel technology based on methane (CNG or biogas) or propane (LPG), with petrol as backup fuel. In terms of emissions of harmful substances, the environmental benefits are obvious – the net contribution of biogas to greenhouse carbon dioxide is basically zero.

Several of our best-selling models are available in Bi-Fuel versions, and are sold in Europe in markets with methane or propane refuelling facilities. We also work with communities and public bodies at local and regional level to encourage the use of gas, and the development of a natural gas and biogas infrastructure.

A total of 1,939 Volvo Bi-Fuel cars was sold in Europe in 2003. The biggest markets for the models were Sweden, the Netherlands, Great Britain and Italy.

## **VOLVO'S ENVIRONMENTAL TRADITION**

- |             |  |             |  |
|-------------|--|-------------|--|
| <b>1972</b> | Global environmental conference in Stockholm: Volvo raises critical role of the car in society | <b>1993</b> | Chlorofluorocarbons (CFCs or Freons) no longer used in climate systems of new Volvo cars                 |
| <b>1974</b> | Oxidising catalytic converter – forerunner of today's units                                    | <b>1994</b> | ECRIS – a new research plant for environmentally compatible recycling                                    |
| <b>1976</b> | Three-way catalytic converter removes 90% of noxious exhaust gases                             | <b>1995</b> | Volvo Bi-Fuel, Volvo's first generation of gas-driven cars   |
| <b>1982</b> | Torslanda plant begins to use waste heat from local oil refinery                               | <b>1995</b> | Introduction of standards to improve suppliers' environmental activities                                 |
| <b>1987</b> | Torslanda water treatment plant removes 90% of harmful effluents                               | <b>1996</b> | 'Dialogue on the environment' provides environmental training for all employees                          |
| <b>1988</b> | New, proactive environmental policy  | <b>1997</b> | Volvo diesel cars adapted to burn biodiesel  |
| <b>1989</b> | Life-cycle analysis using EPS (Environmental Priority Strategies in product design)            | <b>1998</b> | Introduction of PremAir® – a radiator coating which converts harmful ground-level ozone into pure oxygen |
| <b>1989</b> | Alcohol technology: Cleanest car ever tested   | <b>1999</b> | Air quality system for cleaner cabin air available as option   |
| <b>1989</b> | Introduction of environmental audits   | <b>2000</b> | ULEV engines available worldwide   |
| <b>1989</b> | Plastics in Volvo cars marked to facilitate recycling  | <b>2001</b> | New generation of Bi-Fuel cars   |
| <b>1989</b> | First award of Volvo Environment Prize   | <b>2002</b> | Volvo Young Environmentalist Award   |
| <b>1990</b> | Asbestos eliminated from car production  | <b>2002</b> | PZEV engine launched in California   |
| <b>1991</b> | Paintshop at Torslanda plant is world's cleanest   | <b>2002</b> | New technology permits 85% recycling of new Volvo cars   |
| <b>1992</b> | Volvo Environmental Concept Car (ECC)  | <b>2002</b> | 250th Volvo dealer achieves ISO 14001 certification  |
| <b>1993</b> | Mercury eliminated from car production   | <b>2003</b> | Volvo Cars achieves global ISO 14001 certification   |

## VOLVO CARS TODAY



In over 75 years of existence, Volvo has become one of the best-known car brands in the world. Our cars are sold all over the globe and we now enjoy a strong position in the premium segment. The biggest challenge facing us now – and in the future – is to build on the heritage entrusted to us by our founders and to make Volvo an even more attractive brand.

### THE WORLD OF VOLVO CARS

Of the 57 million or so cars\* sold worldwide in 2003\*\*, about 415,000 were Volvos. More than a quarter of all Volvos are sold in the USA. After the USA, the company's three biggest markets are Sweden, Great Britain and Germany. In global terms, Volvo Cars is a relatively small carmaker, with market shares of about 1-2% in its principal markets. However, an exception is Sweden, where approximately every fifth car sold is a Volvo.

About 28,100 people were employed by Volvo Cars at the end of 2003, the great majority (20,800) in Sweden. The company's global network of dealers and service workshops employs a further 22,500 people, including a small number of Volvo personnel. Our head office is located in Göteborg, Sweden,

\* Including 17.8 million light trucks

\*\* Source: Global Insight

together with our product development, marketing and administration functions. Sales are conducted through our national sales companies and about 2,400 local dealers. With a few exceptions, the dealerships are independent companies.

Volvo Cars has two car production plants in Sweden (Göteborg and Uddevalla) and one in Belgium (Ghent). Some components are manufactured in Sweden at our plants in Skövde, Floby and Olofström. The company also has small assembly plants in Malaysia, Thailand and South Africa.

### PART OF FORD MOTOR COMPANY

Since 1999, Volvo Cars has been a wholly-owned subsidiary of Ford Motor Company (FMC), the third biggest carmaker in the world. Together with Jaguar, Land Rover and Aston Martin, Volvo is part of the Premier Automotive Group (PAG), Ford's premium car division.

Volvo Cars is a 'Centre of Excellence for Safety' for Ford Motor Company, as well as a 'Centre of Excellence for Telematics' for PAG.

The 'Volvo' name is owned by Volvo Trademark Holding AB, which is owned jointly by Volvo Car Corporation and AB Volvo.



► Want to know more about Ford Motor Company?  
Visit [www.ford.com](http://www.ford.com)



## MARKETS AND SALES

Volvo now sells cars in over 100 countries. In 2003, we sold\* 415,046 cars – an increase of 2.2% over 2002. The USA accounted for the biggest increase (22%), due mainly to sales of the Volvo XC90. A strong increase in sales was also recorded in the growth markets of Russia (+69%) and China (+28%). However, sales in Europe declined by 6.5%, largely because of the weak German economy.

### SALES BY MODEL IN FIVE BIGGEST MARKETS, 2003. TOTAL: 415,046 (2002: 406,695)

VOLVO S80	
TOTAL: 38,644 (2002: 42,815)	
USA	14,642
SWEDEN	3,081
GREAT BRITAIN	2,976
GERMANY	2,519
CHINA	2,208

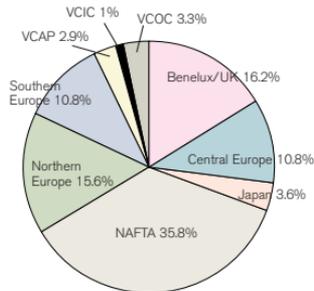
VOLVO S60	
TOTAL: 90,910 (2002: 107,463)	
USA	35,314
GREAT BRITAIN	7,768
SWEDEN	7,271
SPAIN	5,363
GERMANY	4,437

VOLVO V70	
TOTAL: 83,359 (2002: 94,729)	
SWEDEN	23,596
USA	11,774
GERMANY	10,047
GREAT BRITAIN	8,144
JAPAN	7,113

VOLVO XC70	
TOTAL: 35,146 (2002: 35,320)	
USA	17,225
SWEDEN	3,015
CANADA	2,001
JAPAN	1,565
ITALY	1,413

\* Sales are defined as cars delivered to end customers

### SALES BY MARKET AREA, 2003. TOTAL: 415,046



VCOC = Volvo Car Overseas Corporation  
VCIC = Volvo Car International Customer Sales  
VCAP = Volvo Car Asia Pacific

### SALES IN TEN BIGGEST MARKETS

	2003	+/- 2002
USA	134,620	+22%
SWEDEN	47,928	-1.5%
GREAT BRITAIN	39,135	-3.7%
GERMANY	30,285	-26.2%
ITALY	18,416	+1.6%
NETHERLANDS	16,204	-6.2%
JAPAN	14,755	-3.2%
SPAIN	14,034	+2.0%
CANADA	10,750	+13.9%
BELGIUM	9,426	-10.5%

VOLVO S40 CLASSIC	
TOTAL: 43,068 (2002: 51,388)	
USA	12,789
GREAT BRITAIN	6,225
SPAIN	2,980
SWEDEN	2,612
SOUTH AFRICA	1,454

VOLVO V40 CLASSIC	
TOTAL: 53,592 (2002: 61,475)	
GERMANY	8,256
GREAT BRITAIN	7,066
SWEDEN	5,516
ITALY	5,115
NETHERLANDS	4,526

VOLVO XC90	
TOTAL: 62,177 (2002: 5,040)	
USA	35,681
GREAT BRITAIN	3,934
GERMANY	2,604
SWEDEN	2,566
CANADA	2,283

VOLVO C70 CONVERTIBLE/COUPÉ	
TOTAL: 7,840/288 (2002: 6,148/2,208)	
USA	4,219/**
GREAT BRITAIN	1,761/**
GERMANY	556/**
SWEDEN	253/**
JAPAN	177/**

\*\* Sales of Volvo C70 Coupé: Great Britain (79), USA (51), Spain (27), Italy (17), Belgium (16)

## PRODUCTION

Including 2003, Volvo Cars has produced 12,830,470 cars since its foundation in 1927. Production is largely customer order-driven, imposing major demands on flexibility. In the context of production, 'flexibility' means that several models can be built on one and the same production line. To eliminate large stocks of parts, systems and components are delivered by suppliers on the just-in-time principle. The entire process of component manufacture, panel pressing, bodybuilding, surface treatment and final assembly is carried out using a combination of high-tech production technologies and highly-trained assembly operatives.

In 2003, 416,329 Volvo cars were built at the company's production plants in Torslanda, Ghent, Born and Uddevalla, and its assembly plants in Malaysia, Thailand and South Africa (the figure for 2002 was 398,631). In Sweden, Volvo Cars

manufactures components in Skövde (engines), Olofström (body pressings) and Floby (crankshafts and brake discs).

In 2003, Volvo Cars joined with Pininfarina SpA of Italy to form a company (Pininfarina Sverige AB) to develop and build the next generation of Volvo convertibles at the Uddevalla plant. The Skövde plant became the first engine manufacturer and the fourth company in the world to receive the prestigious TPM World Class Award for the year.

In 2004, gearbox production will be transferred successively from Köping to Getrag Ford Transmission in Cologne. The Köping plant will then become Ford Motor Company's 'Centre of Excellence for All-Wheel Drive' as part of Getrag All-Wheel Drive AB, a company owned jointly by Volvo Cars (with a 40% holding) and Getrag AG of Germany. The production of Volvo cars at the NedCar plant in Born, Netherlands will cease in May 2004.

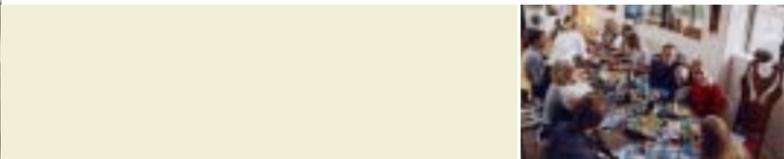
	NO. OF CARS PRODUCED, 2003	VOLVO S80	VOLVO S60	VOLVO S40 CLASSIC	NEW VOLVO S40/V50	VOLVO V70	VOLVO V40	VOLVO XC90	VOLVO XC70	VOLVO C70 CONVERTIBLE	TOTAL PRODUCTION
SWEDEN	TORSLANDA	38,889				15,458		68,476	35,561		158,384
	UDDEVALLA									7,885	7,885
OUTSIDE SWEDEN	GHENT		84,908		4,566/311	67,364					157,149
	BORN (NEDCAR)			38,854			50,337				89,191
	SOUTH AFRICA			1,206			162				1,368
	THAILAND	192	264	150		84	18	552	36		1,296
	MALAYSIA	120	120	156			84	576			1,056
	<b>TOTAL PRODUCTION</b>		39,201	85,292	40,366	4,566/311	82,906	50,601	69,604	35,597	7,885



### **CORPORATE CITIZENSHIP**

Good corporate citizenship relates equally to our cars and our actions. Our role is to market safe and attractive cars offering top-class environmental performance, which will enhance the quality of life of our customers. Our work must be carried out in a socially and environmentally responsible manner. Among other things, this means that we must:

- be a developmental and reliable employer and business partner;
- take account of environmental and social issues in purchasing, production and distribution;
- create employment;
- contribute knowledge;
- be honest, transparent and active within the communities in which we operate.



Through our involvement in the UN's Global Compact, we are committed to work for human rights and sustainable global development. This is an ongoing process which must permeate all of our activities and must be integrated in our business plans. Every manager and employee is responsible for its implementation.

An important development in 2003 was the initiation of stakeholder dialogues in Stockholm, London and Washington DC. The purpose of these is increase our understanding of society's demands and expectations of us as a company, and to further our cooperation with various interest groups.

Published since 2000, our annual Corporate Citizenship Report describes how we are contributing to sustainable development in terms of our core values (Safety, Quality and Environment) and in the context of our most important relationships (with customers, employees, business partners and society). The report also describes our performance in areas such as ecological sustainability and social responsibility, including key performance indicators. The 2003 report will be published in May 2004.

► **Want to know more about our stakeholder dialogue programme? Read this year's report in its entirety? Familiarise yourself with key performance indicators? Or simply air your views? Welcome to [www.volvocars.com/citizenship](http://www.volvocars.com/citizenship)**

## THE VOLVO FAMILY



Our operations include and influence a large number of people around the world in different ways. First and foremost, our aim is to create a safe and stimulating car-owning experience for our customers, while contributing in various ways to the development of our employees, dealers and suppliers.

### OUR CUSTOMERS

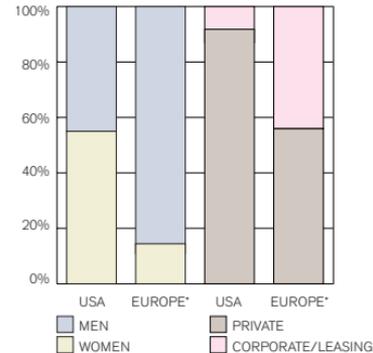
Our mission is to create the safest and most exciting car experience for the modern family. Customers who choose Volvo are people who respect and appreciate our values and value judgments – people all over the world who seek a balanced lifestyle and want a safe family car offering driving pleasure.

A customer's strongest motivation for buying a Volvo is provided by the values associated with the brand – safety, reliability and value for money. In recent years, attractive design has also become an increasingly important motivating factor.

The decision to buy a Volvo represents the start of a long relationship. Our responsibility is to make that relationship problem-free, uncomplicated and stimulating for the customer. At the same time, we must seek at all times to prevent and reduce the adverse impact of our cars on society.

To us, quality is synonymous with satisfied customers. This means that a customer's overall experience of Volvo Cars – the car itself, sales personnel, ownership and service – must be first class. Our aim is to be No. 1 in customer satisfaction.

### CUSTOMER STATISTICS, 2003



\*Defined as Germany, Great Britain, France, Spain and Italy



## OUR EMPLOYEES

Our corporate philosophy is built on 'medarbetarskap' (a Swedish concept which expresses the principle of being active and constructive, and accepting responsibility), combined with teamwork and leadership. As an employer, our aim is to provide our 28,000 or so employees with stimulating jobs in an organisation which affords scope for a good work-life balance. This also means offering all of our employees a good working environment, competitive remuneration and opportunities for personal development. The company provides a number of training and development programmes for improving both personal and professional skills in areas such as quality, leadership and project management.

### Commitment to diversity

The aim of our diversity programmes is to increase our competitiveness by dealing with our customers and meeting their needs in a more effective manner. Diversity within the company encourages creativity, and makes us better at valuing difference and utilising the skills of our employees. And, together with public agencies and other players, we are working nationally to generate job opportunities for immigrants and promote diversity at a number of levels.

NUMBER OF EMPLOYEES	2003	2002
SWEDEN	20,820	20,613
BELGIUM (GHENT)	3,956	3,770
MARKET COMPANIES*	3,383	3,607
TOTAL	28,159	27,990

Employee numbers in Sweden: Torslanda plant 5,451; Göteborg (excl. Torslanda) 7,738; Uddevalla 662; Skövde (incl. Floby) 2,852; Olofström 2,816; Köping\*\* 1,301.

\* Including employees of assembly plants in Thailand (417) and Malaysia (352), as well as small numbers of VCC personnel employed in Born, Netherlands (NedCar plant) and South Africa (Ford plant).

\*\* As of 2004, the Köping plant will no longer be part of Volvo Cars.



### **OUR DEALERS AND SERVICE WORKSHOPS**

Representing Volvo Cars in the marketplace, the dealer is the most important interface between us and our customers. For this reason, we work in various ways to constantly develop our relations with our dealers. Dealer development focuses on the delivery of customer care, service and rapid troubleshooting of the highest quality.

Our dealer network consists of about 2,400 sales outlets and service workshops around the world, including about 1,500 in Europe and 400 in North America.

In addition to new car sales, activities include the sale of accessories, parts, workshop services, pre-owned cars and financial services of various types. Sales and service personnel number about 22,500.

Our dealers undergo continuous development to ensure the best possible representation for the company in each market, with the overriding goal of being No. 1 in customer satisfaction.



## OUR SUPPLIERS

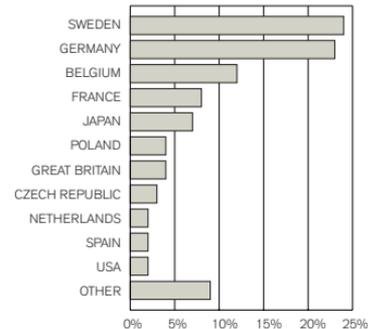
In terms of value, approximately 25% of the materials used in Volvo cars – including engines, manual gearboxes\* and body components – is manufactured by the company itself. The remaining 75% – including instrument panels, interior trim and electrical systems – is purchased from over 400 independent suppliers in about 20 countries.

Close cooperation with suppliers has played a major role in Volvo's success ever since the company's foundation. Many suppliers are involved in product development right from the new model design stage, shortening the development and production lead times. To ensure that the demands of quality, logistics and environmental care are met, the companies use the same tools during both the development and production stages.

More and more suppliers are locating close to Volvo Cars to reduce transport times and inventory levels. Several suppliers are delivering on a just-in-time basis with a maximum delivery time of four hours. In addition, several components are being supplied as complete assemblies, reducing the overall production time.

Volvo Cars places high demands on quality, product development, cost effectiveness, delivery capacity and environmental care. Among other things, all production-related suppliers with an annual turnover exceeding SEK5 million must hold ISO 14001 third-party certification. In 2003, Volvo Cars purchased materials to a value of over USD14 billion. Seventy percent of the company's total business is transacted in Euro.

**LEADING SUPPLIER COUNTRIES, 2003  
(AS PERCENTAGE OF TOTAL PURCHASES)**



\* As of 2004, the K oping plant will no longer be part of Volvo Cars



## OUR CARS



### **VOLVO RANGE**

The Volvo Cars model range comprises sedan (S), versatility (V), cross-country (XC) and convertible (C) versions. The designation 'R' is used for sporty, high-performance models. The product strategy is to offer a wide range of models for different customer groups, based on a number of shared technical platforms. This strategy took shape with the development of the Volvo S80 (which was launched in 1998).

The all-new Volvo S40 and V50 Sportswagon – our first cars to be based on the new, small platform developed in partnership with Ford and Mazda – were introduced in 2003. With features such as DSTC (Dynamic Stability Control), SIPS side-impact protection, IC inflatable curtains and WHIPS anti-whiplash protection, Volvo cars are among the safest in their respective classes. Volvos are also characterised by their functional and attractive design, stable, well-balanced handling, high comfort, practical features and high-torque engines delivering excellent fuel economy and environmental performance.

Volvo cars are built to order for most markets, enabling customers to specify their own, individual combinations of engine, finish, interior trim and options.

To ensure convenient and economical ownership, Volvo Cars offers factory warranties and a wide range of financing, leasing, insurance, roadside assistance and other services.

**S-RANGE** Elegant and dynamic sedans for different tastes.



Volvo S80



Volvo S80 Executive



Volvo S60



Volvo S60 R



New Volvo S40



Volvo S40 Classic

**V-RANGE** Inspiring and versatile estates for the active family.



Volvo V70



Volvo V70 R



Volvo V50



Volvo V40 Classic

**C-RANGE** Attractive and sporty cars for exhilarating driving.



Volvo C70

**XC-RANGE** Rugged and sophisticated all-road vehicles.



Volvo XC90



Volvo XC90 Executive



Volvo XC70



A range of exterior trim products and a DVD-based entertainment system known as RSE (Rear Seat Entertainment) were introduced with the Volvo XC90 in 2003. Several new accessories were introduced with the new Volvo S40 and V50, such as a completely new range of wheels and an exterior styling package, including spoilers, a sports chassis kit and 18" wheels.

## EXTRAS

All optional extras and accessories for Volvo cars are styled, developed and tested to work in harmony with the car. These fall into three categories:

**For driving freedom** – Equipment which enhances driver comfort and driving pleasure on long journeys, such as a trip computer, power seats, an automatic anti-dazzle rear-view mirror, park assist and Bi-Xenon headlamps.

**For those most important** – Equipment which enhances the comfort of everybody in the car, plus Volvo child safety equipment. Examples are sunblinds, cupholders, rear-facing child seats, child booster cushions, play tables, dog cages, and an electric cooler and heater box.

**For leisure and pleasure** – Equipment which makes the car more versatile and increases its load capacity. Examples include roof boxes, ski/bicycle/kayak holders, towbars, load securing equipment, luggage compartment mats and shopping bag holders.

The range of extras also includes audio and in-car entertainment systems which are among the best in the world, advanced navigation, telephonic and communications equipment, and improved anti-theft protection and personal security features.

In most markets, combinations of extras are available as attractive packages when the customer orders his or her new Volvo. Many can also be retrofitted.



## VOLVO SPECIAL VEHICLES

An autonomous unit of Volvo Cars, Volvo Special Vehicles produces and markets specially-adapted vehicles based on standard Volvo models. Examples include the Volvo S80 Executive, Volvo XC90 Executive, police cars, taxis and service vehicles, as well as special and jubilee versions of standard models. Annual sales of special vehicles total about 15,000.



# CONCEPT LAB VOLVO

## OUR CONCEPT CARS

Volvo has unveiled a number of concept cars since the 1930s. The purpose of these is – and always has been – to research and test new designs and technologies which will work in practice.

Embodying new environmental technology, the ECC (Environmental Concept Car) foreshadowed the design of today's Volvo models, while the SCC (Safety Concept Car) showed that a small car can offer the highest standard of safety. Some of the innovations, such as IDIS (Intelligent Driver Information System) and BLIS (Blind Spot Information System), were launched in 2003/2004 in Volvo's latest models.

Unveiled in 2003, the VCC (Versatility Concept Car) is a smart, luxurious versatility model equipped with the infotainment system, power train and environmental technology of the future, and featuring world firsts such as VAAC (Volvo Ambient Air Cleaner), a system which purifies the surrounding air even when the engine is not running.

The YCC (Your Concept Car) was premiered at the Geneva Motor Show in March 2004. The car is the product of a project in which all of the decisions were taken by women on the premise that whatever meets women's expectations will exceed those of men.



Volvo Safety Concept Car (SCC)



Volvo Versatility Concept Car (VCC)



Your Concept Car (YCC)

## DESIGN AND PRODUCT DEVELOPMENT



**“GOOD DESIGN** IS NOT ONLY A MATTER OF STYLING THE SURFACE. IT IS JUST AS IMPORTANT TO MAKE THE PRODUCT EASY TO UNDERSTAND AND USE. IF THE PRODUCT IS NOT FUNCTIONAL, IT CAN'T BE BEAUTIFUL.”  
(VOLVO DESIGN PHILOSOPHY)

### DESIGN WITH FUNCTIONALITY

Together with safety, design is one of our most powerful competitive weapons. Volvo design has always conveyed style with function. With our roots in classic Scandinavian design and Volvo's own design tradition, we seek to design cars offering maximum functionality, appeal and user-friendliness. Distinctive styling elements of today's Volvo cars include the vertical grille, and the V-shaped line which starts with the bonnet and extends backward along the car's characteristic shoulder section before ending in a distinctively shaped rear end. We also draw inspiration from other design influences, as exemplified by the 'free-floating' centre stack in the new Volvo S40 and V50.

To identify global trends at an early stage and to attract the best designers, we have established three international design centres employing over 200 people in Göteborg, Barcelona and Camarillo (California). Each of these is involved in the development of new Volvo models and submits its own design proposals. These are then evaluated internally and by various reference groups. The chosen design undergoes further development by all three design centres and is tested on an ongoing basis in customer clinics held in our most important markets.





### DEVELOPMENT OF TECHNOLOGIES AND PRODUCTS

Our product strategy is based on technical platforms which enable a wide range of models to be developed efficiently from the same basic concept to meet the needs of various customer groups.

Quality and environmental activities begin on the drawing board. To assure quality at every stage of product development, the system is based on a number of gates which must be passed before the next stage can be commenced. And to minimise the lifetime environmental impact of the car, our product developers are equipped with purpose-designed analytical tools for evaluating the effects of different designs and selecting the most environmentally compatible option.

Volvo's product developers work in system teams to ensure maximum compatibility between all of the on-board components and systems. Those working in a specific area, such as the electrical system, are based in a single location and carry out development work for all models in their own area of specialisation.

Crash safety, emissions, fuel consumption, durability, climate control, aerodynamics and other parameters are tested in advanced laboratories. A high proportion of testing and product design is performed by virtual simulation using sophisticated computers, improving the accuracy of the results and minimising the development lead time.

The model's final characteristics are then evaluated by practical testing and thousands of kilometres of tough test-driving under the most extreme conditions. Most testing is carried out at Volvo's test centres in the south and far north of Sweden, and in Phoenix, Arizona.

Finally, a pre-production series of cars is built in the Volvo Cars 'pilot plant'.

About 4,000 people are engaged in product development at the Volvo Cars Technical Centre in Göteborg.

## MILESTONES, 1927-2003



- 1924** Assar Gabrielsson and Gustaf Larson decide to found Volvo
- 1927** Volvo's first series-built car – the ÖV4 'Jakob' – leaves the factory in Göteborg on Thursday 27 April
- 1929** Volvo makes first profit
- 1930** Volvo buys its engine supplier, Pentaverken of Skövde
- 1933** Unveiling of Volvo's first concept car, the Venus Bilo
- 1935** Volvo listed on Swedish stock exchange
- 1936** Gustaf Larson formulates core value of Safety
- 1942** Volvo buys Köpings Mekaniska Verkstad, which has supplied gearboxes since 1927
- 1944** Volvo PV444 is Volvo's first 'people's car'
- 1953** Volvo Duett is Volvo's first 'genuine' estate model
- 1955** Exports to USA initiated with PV444
- 1956** Volvo P120 (Amazon) astonishes motoring world
- 1956** Gunnar Engellau succeeds Assar Gabrielsson as MD

- 1959** Volvo becomes world's first carmaker to fit three-point safety belts as standard
- 1961** Volvo P1800 sports car unveiled and becomes 'TV star' (in The Saint)
- 1964** Torslanda plant inaugurated
- 1964** Millionth Volvo car produced
- 1965** Inauguration of car plant in Ghent, Belgium
- 1966** Volvo 144 is 'World's safest car'
- 1967** First rear-facing child seat
- 1969** Volvo buys Svenska Stålpresnings AB of Olofström, which has supplied body components since 1927
- 1970** Volvos Accident Research Team established to investigate traffic accidents
- 1971** Pehr G. Gyllenhammar becomes MD and head of Volvo Group
- 1971** Volvo 1800 ES – a much sought-after sports coupé
- 1972** Volvo buys DAF in the Netherlands, with its plant in Born

- 1972** Volvos first environmental policy formulated by Pehr G. Gyllenhammar
- 1974** Inauguration of 'the human car plant' in Kalmar
- 1974** Volvo 240 premiere
- 1976** Launch of Dutch-built Volvo 340
- 1976** Volvo becomes world's first carmaker to fit catalytic converter and oxygen sensor (Lambdasond)
- 1978** Establishment of Volvo Car Corporation with Håkan Frisinger as head
- 1982** Volvo 760 a world success
- 1985** Dutch-built Volvo 480 ES sports coupé is first front-wheel-drive Volvo
- 1985** Volvo decides to build model plant in Uddevalla, where cars will be built by group assembly
- 1990** Launch of luxury Volvo 960 and Volvo 940
- 1990** Volvo and Renault conclude alliance with view to eventual merger
- 1991** Volvo 850 – the company's safest and most advanced model ever – is launched and becomes world success
- 1993** Production of Volvo 240 ceases after 19 years and over 2.8 million cars
- 1993** Collapse of proposed merger with Renault
- 1995** Volvo S40 and V40 – tough newcomers from Volvo's Dutch plant in Born and products of joint venture with Mitsubishi
- 1996** Volvo C70 Coupé is built in Uddevalla in collaboration with TWR
- 1996** Volvo 850 updated and renamed Volvo S70/V70
- 1997** Launch of Volvo V70 XC and C70 convertible
- 1998** Volvo S80 becomes first product of Volvo's large car platform
- 1999** Volvo Cars bought by Ford Motor Company in March
- 2000** New Volvo S60 and V70 based on large car platform are instant successes
- 2001** Volvo's first diesel car receives enthusiastic reception
- 2002** Volvo celebrates 75th anniversary
- 2002** Volvo XC90 SUV unveiled in Detroit and becomes one of company's best-sellers
- 2002** New Volvo S60 R and V70 R offer high performance in a family car
- 2003** Volvo forms Pininfarina Sverige AB with Pininfarina SpA of Italy to develop and build next Volvo convertible in Uddevalla
- 2003** New Volvo S40 and V50 are first models to be built on Volvo's small car platform, which is shared with Ford and Mazda

## SPONSORSHIP



To us, sponsorship is a means of strengthening both our customer relationships and our brand. Volvo has been a consistent sponsor of regular international sporting and cultural events since the 1970s. Volvo Cars, together with the AB Volvo, is title sponsor of several golf and sailing events.

In professional golf, Volvo sponsored the Volvo PGA Championship, Volvo Masters Andalucía, Volvo China Open and Volvo Masters of Asia in 2003. In partnership with our sales companies and dealers, we also sponsored the Volvo Masters Amateur/Volvo Klassik amateur tournament.

In sailing, Volvo was also title sponsor of the 2003 Volvo Baltic Race for the SEB Trophy. The event will be held again in 2004.

In the cultural field, Volvo has been a sponsor of the Gothenburg Symphony Orchestra and the Göteborg Opera for many years.

The next around-the-world Volvo Ocean Race will start in Galicia, Spain in autumn 2005. Held every four years, the Volvo Ocean Race is one of the most extreme team sports in the world. The 2005-06 event will cover nine legs and will take seven months to complete. Held in 2001-02, the inaugural Volvo Ocean Race was seen by a worldwide TV audience of almost 900 million viewers, making it one of the leading sports events in the world.

## CALENDAR OF EVENTS

Event	Location	Press	Public
Motor show	Detroit	4-6 Jan.	7-8 Jan.
Motor show	Brussels	13 Jan.	15-25 Jan.
Volvo Sports Design			
Forum at ispo	Munich	–	31 Jan.
Official Car of the Sports Community at ispo	Munich	–	1-4 Feb.
Motor show	Chicago	4-5 Feb.	6-15 Feb.
Motor show	Toronto	11 Feb.	11-22 Feb.
Motor show	Melbourne	27 Feb.	27 Feb.-8 March
Motor show	Geneva	2-3 March	4-14 March
Motor show	Zagreb	18 March	19-28 March
Motor show	Bangkok	25 March	26 March-4 April
Motor show	New York	7-8 April	9-18 April
Gothenburg Horse Show	Göteborg	–	8-11 April
Motor show	Copenhagen	15 April	15-25 April
Motor show	Leipzig	17 April	17-25 April
Motor show	Lisbon	30 April	30 April-9 May
Motor show	Madrid	20 May	21-30 May
Motor show	Birmingham	25 May	27 May-6 June
Volvo PGA Championship	Wentworth	–	27-30 May
Motor show	Beijing	9 June	10-16 June
Volvo Baltic Race	Göteborg-Stockholm	–	18 June-8 July
Official Car of the Sports Community at ispo	Munich	–	4-6 July
VROOM Int. club meeting	Göteborg	–	6-8 Aug.
Volvo China Open	Shanghai	–	4-7 Sept.
Motor show	Paris	23-24 Sept.	25 Sept.-10 Oct.
Motor show	Sydney	15 Oct.	16-26 Oct.
Motor show	Johannesburg	26 Oct.	26-31 Oct.
Volvo Masters Amateur	Costa del Sol	–	27-31 Oct.
Volvo Masters Andalucía	Valderrama	–	28-31 Oct.
Motor show	Singapore	11 Nov.	11-21 Nov.
Motor show	Bologna	4 Dec.	4-12 Dec.
Volvo Masters of Asia	Malaysia	–	11-14 Dec.

Some of the dates in this calendar may be incorrect due to changes which may have occurred since printing.