



## At a glance

€ million	2008	2007	Change in %
<b>Order intake</b>	3,089	3,371	- 8
Germany	191	405	- 53
Abroad	2,898	2,966	- 2
<b>Revenue</b>	2,542	2,179	17
Germany	263	257	2
Abroad	2,279	1,922	19
<b>Order backlog <sup>1</sup></b>	4,102	3,866	6
<b>Headcount including temporary employees (No.) <sup>1</sup></b>	7,986	7,383	8
Germany	3,505	3,280	7
Abroad	4,481	4,103	9
<b>Headcount without temporary employees (No.) <sup>1</sup></b>	7,387	6,837	8
Germany	3,011	2,800	8
Abroad	4,376	4,037	8
			<b>Change in € mill.</b>
Operating profit	390	313	77
Earnings before taxes (EBT)	406	319	87
Net income	300	239	61
Investments	93	48	45
Depreciation, amortization, and impairment of noncurrent assets	37	31	6
R&D expenditures	156	129	27
Cash Earnings	337	270	67
Net cash provided by/(used in) operating activities	250	333	- 83
Net cash used in investing activities	- 90	- 39	- 51
Free cash flow from operating and investing activities	160	294	- 134
Cash and cash equivalents <sup>1</sup>	178	362	- 184
Net liquid assets <sup>1</sup>	176	229	- 53
Total equity <sup>1</sup>	627	531	96

<sup>1</sup> Year-on-year as of 31 December 2008 vs. 2007

<b>Company Logo</b>	<b>Company Brand</b>	<b>MAN Diesel</b>
	<b>Product Brands</b>	<b>MAN Diesel</b> <b>MAN B&amp;W</b> 
	<b>Service Brand</b>	<b>MAN Diesel   PrimeServ</b>

»WE WANT TO BE THE LEADING POWER SYSTEMS SUPPLIER FOR MARINE AND STATIONARY APPLICATIONS AND THE PREFERRED AFTER-SALES BUSINESS PARTNER OF OUR CUSTOMERS.«

## The MAN Group

### MAN Nutzfahrzeuge

is the largest MAN Group company and is a leading supplier of commercial vehicles and transport solutions.

- Trucks from 7.5 to 44 t for all uses
- Buses for scheduled services through to luxury travel
- End-to-end vehicle services
- Vehicle, marine, and industrial engines

#### MAN Nutzfahrzeuge

€ million	2008	2007
Order intake	9,130	12,684
Revenue	10,610	10,410
Operating profit	1,062	1,039
Headcount (at 31 Dec) <sup>1</sup>	36,251	36,591
ROS (%)	10.0	10.0

<sup>1</sup> including temporary employees

### MAN Diesel

is the global market leader in two-stroke marine engines and a world-leading provider of four-stroke diesel engines.

- Two-stroke diesel engines for marine and power plant applications
- Four-stroke diesel engines for marine propulsion systems, onboard power generation, and power plants
- Turnkey power stations
- Combustion ignition and spark-ignited engines
- Exhaust-gas turbochargers and propulsion systems
- MAN Diesel PrimeServ: worldwide after-sales services

#### MAN Diesel

€ million	2008	2007
Order intake	3,089	3,371
Revenue	2,542	2,179
Operating profit	390	313
Headcount (at 31 Dec) <sup>1</sup>	7,986	7,383
ROS (%)	15.4	14.4

<sup>1</sup> including temporary employees

### MAN Turbo

is a global leader in manufacturing thermal turbomachines with production plants in Germany, Switzerland, Italy, and China.

- Comprehensive product range of compressors, turbines, and chemical reactors
- Engineering, manufacture, installation, and servicing of complete machine lines and complexes for the oil and gas sector, primary materials and processing industry, and for power generation
- Testing centers for individual machines and complete machine units weighing up to 1,000 t

#### MAN Turbo

€ million	2008	2007
Order intake	1,426	1,454
Revenue	1,328	1,108
Operating profit	148	104
Headcount (at 31 Dec) <sup>1</sup>	4,493	4,011
ROS (%)	11.1	9.4

<sup>1</sup> including temporary employees

### RENK

is a globally recognized manufacturer of high-quality special gear systems, propulsion components, and testing systems and has production facilities in Germany, Switzerland, France, and the United States.

- Global market leader in vehicle transmissions for medium and heavy tracked vehicles
- Special gear systems for specialist marine and stationary applications
- Standard gear systems, primarily for merchant shipping and industrial applications
- Slide bearings and industrial couplings
- Turnkey testing systems for the automotive, rail, and aviation industries

#### RENK

€ million	2008	2007
Order intake	443	439
Revenue	527	430
Operating profit	80	68
Headcount (at 31 Dec) <sup>1</sup>	2,041	1,854
ROS (%)	15.1	15.7

<sup>1</sup> including temporary employees

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## The MAN Group

The MAN Group is one of Europe's leading industrial players in Transport-Related Engineering, with revenue of approximately €15 billion in 2008. As a supplier of trucks, buses, diesel engines, turbo machinery, and special gear systems, MAN employs approximately 51,300 people worldwide. Its business areas hold leading positions in their respective markets. MAN AG, Munich, is listed in the DAX (German Stock Index), which comprises Germany's thirty leading stock corporations.

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### Energy worldwide

Diesel power plants from MAN Diesel provide even the most far-flung regions of the globe with reliable electricity.



### Marine diesel engines

More than 80 per cent of the world's goods are transported by sea – MAN Diesel supplies the engines for the majority of the global merchant fleet.



Håkan Samuelsson

### **Supervisory Board of MAN Diesel SE**

(Status: 1 January 2009)

Dipl.-Ing. Håkan Samuelsson  
(Chairman)  
Per Damm \*  
Herbert Funk \*  
Prof. Dr. h.c. Karlheinz Hornung  
Jonny Jacobsen \*  
Leif Juul Jørgensen  
Jürgen Kerner \*  
Dr. Hermann J. Klein  
Dr. Peter Sunn Pedersen  
Oskar Ritsch \*

\* Labour representative



Dr. Stefan Spindler

Dr. Georg Pachta-Reyhofen

Dr. Stephan Timmermann

Jan Gurander

## Executive Board of MAN Diesel SE

(Status: 1 January 2009)

### **Dr.-Ing. Georg Pachta-Reyhofen**

(Chairman)

High Speed, Communications,  
Human Resources, Marketing,  
Strategy & Structure

### **Jan Gurander**

Marine Low Speed, Accounting,  
Controlling, Finance, Information  
Technology, Legal Affairs, Reporting

### **Dr.-Ing. Stefan Spindler**

Marine Medium Speed, Power Plants,  
Licensing, R&D Engineering Medium  
Speed, Systems Automation

### **Dr.-Ing. Stephan Timmermann**

Production, Turbocharger,  
After Sales, Purchasing, Quality  
Management



**Innovation campaign**

MAN Diesel has modernized its production locations at Augsburg, Frederikshavn, Saint-Nazaire, and Velká Bíteš and extended these locations to form a European production network.

## MAN DIESEL: WELL-FILLED ORDER BOOKS

The Diesel Engines business area of the MAN Group again surpassed the excellent business figures recorded in the previous year for revenue and earnings. The stronger positioning in the Power Plant division contributed to this growth.

The year 2008 was a very successful one for MAN Diesel. The company succeeded in securing many – in some cases spectacular – large-volume orders, especially in the Power Plant division, which made up for individual order cancellations in the Marine division. MAN Diesel secured a contract worth €150 million for the complete erection of a diesel power plant in Pakistan, for example. The contract for the power station in Narowal was awarded by Hub Power Company (HUBCO), one of the leading independent energy generating companies in Southeast Asia. From March 2010, eleven type 18V48/60 MAN Diesel engines will provide a reliable supply of electricity as the heart of the power plant. To maintain its presence in this growth market in the future, MAN Diesel established MAN Diesel Pakistan (Pvt.) Ltd., a subsidiary in Lahore that was inaugurated in November 2008.

### Success in power plant construction

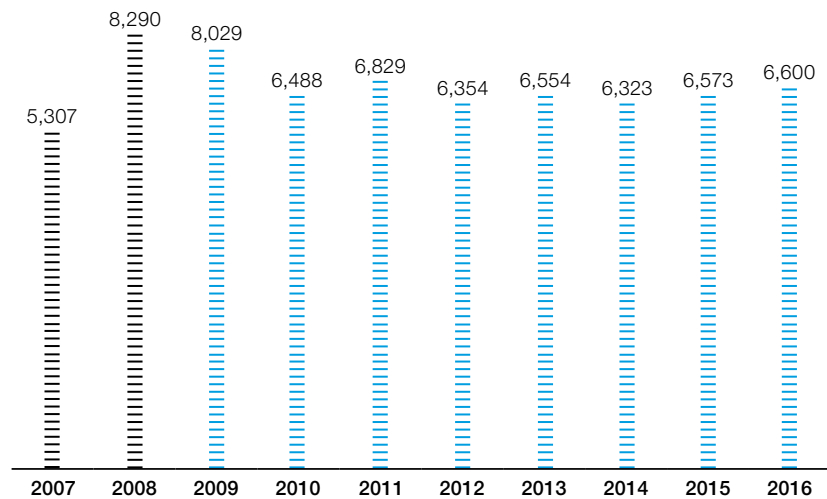
A contract received from Australia in July 2008 was a first in the Power Plant division. Energy utility Power and Water Corporation commissioned MAN Diesel to plan and build a power generation plant near Alice Springs. The contract is considered a milestone – it is the first time that MAN Diesel’s 51/60DF dual fuel engine will be deployed in a power plant. This type of engine can run on both heavy fuel oil and normal diesel fuel, or with gas.

The most important order came from Europe, however. In October 2008, MAN Diesel secured the largest contract in its history from the French energy group Electricité de France PEI SAS (EdF). MAN Diesel will build six turnkey diesel power plants: two on Corsica, and four in the overseas Départements of French Guyana, La Réunion, Guadeloupe, and Martinique. The contract has a volume totalling approximately €1.3 billion, with lead manager MAN Diesel accounting for over €750 million. Fifty-four type 18V48/60 large-bore diesel engines with a total output of 1,025 megawatts will be supplied. The

engines will be assembled in Saint-Nazaire, which will strengthen MAN Diesel’s French production plant in the long term. MAN Diesel’s ability to satisfy the requirements relating to fuel consumption, noise generation, and exhaust emissions using state-of-the-art engine and plant technology was the decisive factor in the award of the contract. The six diesel power plants will be connected to the grid between 2010 and 2012. With this and other contracts, MAN Diesel is reinforcing its position as a provider of turnkey diesel power plants – an area of business that it will continue to expand in the future.

### Strong diesel power plant market

Following a peak in global order intake for power plants in 2008 and 2009, business will stay flat at a relatively high level going forward (in MW).



Source: Power Systems Research, Diesel & Gas Turbine Worldwide

**Efficiency and lower emissions**

In the area of marine propulsion systems, 2008 was initially dominated by rising fuel prices and more stringent requirements regarding the environmental impact of marine diesel engines. For this reason, cutting emissions and fuel consumption was the theme of MAN Diesel's presence at the SMM in Hamburg, the world's most important shipbuilding fair. From 23 to 26 September 2008, MAN Diesel showcased state-of-the-art technologies for reducing fuel consumption and pollutants at sea to visitors. One of the highlights of the fair was a new version of the tried-and-tested MAN Diesel 48/60 four-stroke engine that debuted at a trade show as the 48/60CR common rail model. During the fair, MAN Diesel and British shipping line P&O Ferries signed a contract to equip two new ROPAX ferries with this type of engine.

**Further reduction of pollutants**

As a consequence of the high fuel prices, many ship owners are slowing down their ships, which significantly reduces fuel consumption. In the past, however, marine diesel engines have been optimized for full load, so this change results in higher emissions, relatively speaking. Electronically controlled injection systems like the highly successful common rail injection, as well as MAN Diesel's VTA turbo-charger technology, which was also showcased to experts for the first time at the SMM, are countering this effect. Now, the fuel and air supply can be optimally adjusted to the changed operating conditions. These technologies can also be retrofitted in many MAN Diesel engines. This is particularly important in view of the next stage in the

emission regulations (Tier II) of the International Maritime Organization (IMO), which will enter into force in 2011.

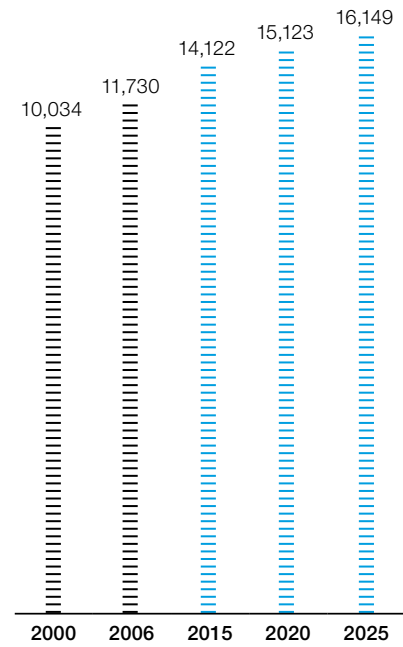
MAN Diesel also presented trade fair visitors the MAN B&W 8S35ME-B, the world's first electronically controlled two-stroke engine with a small bore of 35 centimeters. This engine is more powerful, lighter, and more compact than existing two-stroke engines of this size, and its electronically controlled injection system makes it ideally equipped to meet today's IMO Tier II requirements. Business with two-stroke engines was very encouraging in 2008 in any case. A.P. Møller-Maersk, the world's largest shipping company, ordered 22 MAN B&W 6S80ME-C9 engines and 16 MAN B&W 9S90ME-C engines for a series of container ships to be put into service in 2010/2011. The units already satisfy all requirements of the Tier II emission regulations. The "Green Ship of the Future" project, for which MAN Diesel has joined forces with Danish partners from the industry, has more distant objectives. The group, which



In September, MAN Diesel presented the world's first 35 cm-bore electronically controlled two-stroke engine.

**Ongoing demand**

The growing need for energy worldwide is continuing to boost demand for power plants (in millions of tons, based on oil).



Source: World Energy Outlook 2008, International Energy Agency (IEA)

comprises ship owners, shipyards, suppliers, and research institutes, has a common goal: To present new environmental technologies in the field of shipping in time for the Kyoto follow-up conference in Copenhagen at the end of 2009.

**Long-term strategic objectives**

MAN Diesel is well equipped to cater for future requirements and has set itself a clear goal on the basis of a long-term, structured strategy process: To become the world leader in all of its divisions. The instruments that will be used to achieve this goal are sustainable, flexible growth; structural improvements; and extending its innovation lead. Special emphasis will be placed on two-stroke engines, four-

### Encouraging two-stroke business

Møller-Maersk, the world's largest shipping company, ordered **38 MAN Diesel engines** for its fleet of container ships. The engines will be manufactured in Korea by licensees.



### Using common rail to reduce fuel consumption

A section model in its original size gives a unique insight into the 48/60CR four-stroke engine, which was presented at the SMM shipbuilding fair in September 2008. Its **common rail injection system** optimizes fuel efficiency.

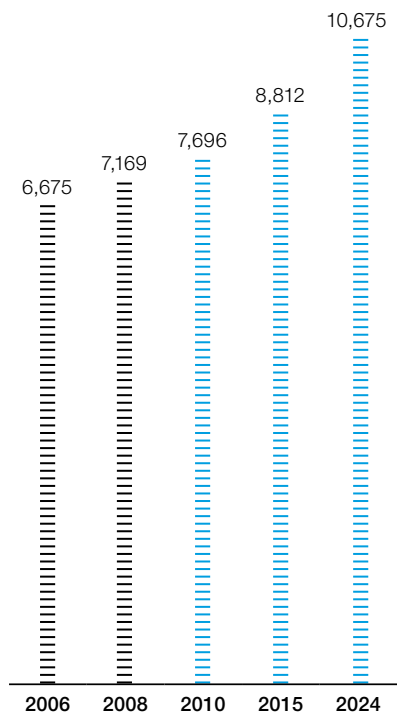
### Energy for La Réunion

On La Réunion, MAN Diesel is building one of six power plants for EdF. It has twelve **18-mega-watt (approx. 25,100 hp)** power generation units, each equipped with a catalytic converter that minimizes nitrogen oxide emissions.



**Maritime trade remains on track**

Trade on international sea routes will continue to increase sharply in the future (in millions of metric tons).



Source: Institute of Shipping Economics and Logistics (ISL)

stroke gensets and propulsion systems, turnkey power plants, and after sales. To achieve these goals, MAN Diesel launched an extensive investment package in 2008 that will see it invest over €100 million in its production facilities in Augsburg, Frederikshavn (Denmark), Saint-Nazaire, and Velká Bíteš (Czech Republic) by 2010. The “ten-day engine” is scheduled to become reality at the first three of these locations by 2010, cutting the throughput time for engine assembly and test system operation from a good 30 days to 10 days.

To achieve this goal, processes will be reviewed and modernization

measures initiated in all areas along the order value chain. Part of MAN Diesel’s strategy is also to expand its licensing business. In 2008, agreements in the two-stroke category were signed with four new Chinese licensees. In the future, engine manufacturers ZJCME, ZZD, RPM, and Yungpu will supply the Chinese market with state-of-the-art MAN B&W two-stroke engines. Licensing in the four-stroke category will be extended to include production under license of propulsion engines. To achieve this, MAN Diesel has entered into a licensing agreement with one of China’s largest engine manufacturers, Weichai Holding Group Co. Ltd, for the production of type 27/38 and 32/40 propulsion engines.

**Organic growth**

There is also considerable potential for growth in the after-sales business, which is operated under the MAN Diesel | PrimeServ brand name. This business, comprising maintenance and repair work, the supply of spare parts, and training, is growing as the global merchant fleet and the population of MAN Diesel power plants expand – largely independent of cyclical fluctuations. To ensure a presence wherever customers need its services, MAN Diesel plans to extend the service network by up to ten locations per year. By the end of

2008, the network of MAN Diesel service centers already comprised more than 60 locations.

MAN Diesel | PrimeServ opened a total of twelve service centers in 2008 alone, including in India, Dubai, South Korea, and the United States. The acquisition of service specialist Metalock Denmark A/S in August 2008 also gave a boost to the after-sales business. This move underscores MAN Diesel’s strategy of supporting its own organic growth drive – especially in the services area – by also buying highly profitable companies. The corporate structure changed further through the integration of Danish company MAN Diesel A/S into MAN Diesel SE effective 1 April 2008.

**New CFO at MAN Diesel**

Jan Gurander was appointed to the Executive Board of MAN Diesel SE in February 2008. As Chief Financial Officer, he took over responsibility for controlling, reporting, accounting, information technology, and legal affairs from Tage Reinert. At the end of 2008, Dr. Peter Sunn Pedersen left the Executive Board of MAN Diesel SE on reaching retirement age. Dr. Pedersen had been a member of the Board for over seven years, and has been a member of the Supervisory Board of MAN Diesel SE since 1 January 2009.

**MAN Diesel**

€ million	2008	2007
Order intake	3,089	3,371
Revenue	2,542	2,179
Operating profit	390	313
Headcount (No.) <sup>1</sup>	7,986	7,383
Return on sales (ROS) (%)	15.4	14.4

<sup>1</sup> including temporary employees as of 31 December

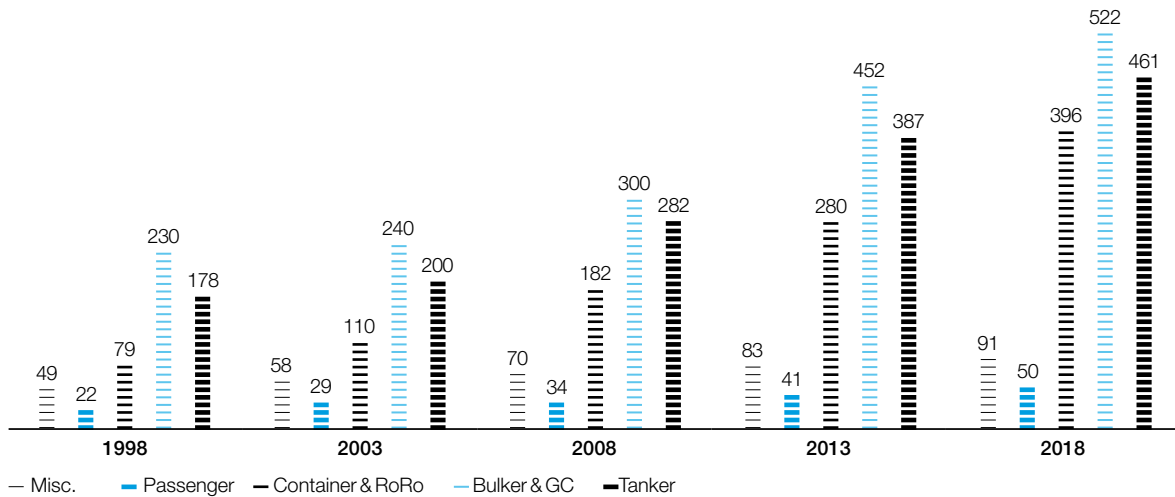


### XXL-sized order

The world's largest dredger was launched in early July 2008. MAN Diesel supplied the engines and the entire drivetrains. With a load capacity of 46,000 cubic meters, the "Cristóbal Colón" is the largest work ship of its kind.

### Ship fleets defy economic crisis

Global ship fleets are growing despite the current developments on the financial markets. Transportation volumes recorded by tankers and container ships in particular will continue to rise (in millions of gross registered tons).



Source: Lloyds Register Fairplay, November 2008

### Expansion of the service centers

MAN Diesel | PrimeServ delivers global services to its customers around the clock, 365 days a year. In 2008 alone, twelve new service centers were established worldwide, including in Busan, South Korea's primary port.





**MAN Diesel | PrimeServ**

## Customized services in Ravenna

The installation of a new crankshaft for the in-line engine on a ferry calls for a lot of finesse on the part of the mobile MAN service teams. On a mission in Italy, they installed the 10.5-metre-long, 22-ton machine part with millimetre accuracy.





## **Offshore business at MAN Diesel**

The offshore sector is an important field of business for MAN Diesel. MAN Diesel engines such as the types 32/40 and 32/44, are used in the anchor-handling tug and supply ships, which are used to supply, transport and anchor offshore installations – for example drilling rigs.

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# FINANCIAL REPORT

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## Management report

MAN Diesel Subgroup		
€ million	2008	2007
Order intake	3,089	3,371
Two-stroke	924	953
Four-stroke	2,165	2,418
Revenue	2,542	2,179
Two-stroke	752	650
Four-stroke	1,790	1,529
Operating profit	390	313
Two-stroke	204	144
Four-stroke	186	169
Headcount <sup>1</sup>	7,986	7,383
ROS (%)	15.4	14.4

<sup>1</sup> including temporary employees as of 31 December

Following a highly successful start to fiscal year 2008, the uncertainty on the financial markets and the related financing difficulties experienced by customers led to a sharp slowdown in demand at the end of the year, in particular in the marine business. At €3.1 billion, MAN Diesel's order intake therefore did not match the extremely high prior-year figure of €3.4 billion. However, its revenue increased significantly year-on-year from €2.2 billion to €2.5 billion (+17%). Operating profit improved to €390 million – up by 25% on the previous year – due to the substantial increase in revenue and the related utilization of production capacity. Despite the deterioration in the operating environment, the 2009 forecast is for more or less stable revenue and continuing strong earnings, based on the high order backlog and the resulting capacity utilization in all operational areas.

### Economic environment

The consolidation of the international shipbuilding market that had been forecast by experts in the previous year occurred in 2008. The slowdown in global economic and trade growth as well as the turbulence on the financial markets significantly reduced the number of ship orders starting in the second half of the year. With the exception of oil tankers, all ship types were affected by the recent negative development, although the drop in demand was more moderate for specialized ships and in the offshore sector. The center of shipbuilding activities was again Asia – in particular South Korea and China, followed at some distance by Japan. Shipbuilding in Europe declined faster than Asia, and focused mainly on specialized ships.

Demand on the power plant market remained high in 2008 despite the slowdown in global economic growth and the problems on the financial markets. The positive development was driven mainly by efforts to create more efficient, environmentally friendlier, and more fuel-flexible energy generation facilities. Infrastructure improvements in global gas supply and the greater use of renewable resources for energy generation, such as biofuels or biomass, supported the above trends and will continue to do so in the future.

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## Business developments

The drop in orders at shipyards impacted demand for marine diesel engines, resulting in a substantial decline in incoming orders starting in the second half of the fiscal year. The economic slowdown, global fears of recession, and the effects of the financial crisis unsettled shipowners and investors, which led to delays in project development and the cancellation of orders. Nevertheless, MAN Diesel recorded a satisfactory order intake.

The order situation for stationary engines, in particular for turnkey power plants, continued to improve despite the tougher market environment. The sharp decline in oil prices in the final months of the year and the recovery in the dollar gave an additional boost to demand. The market situation remains characterized by long delivery times – in some cases more than two years.

At €3.1 billion, the order intake at MAN Diesel was unable to match the extremely good prior-year figure. Revenue rose from €2.2 billion to €2.5 billion, and the order backlog increased from €3.9 billion in the previous year to €4.1 billion, despite a number of cancellations.

Orders for two-stroke engines were satisfactory in the first half of 2008, but deteriorated increasingly from the third quarter. A drop in transportation volumes from mid-2008 and concerns relating to possible overcapacity in bulk freighters and container ships in particular led to a slump in freight rates, which noticeably impacted project development and the award of orders for large new merchant ships. Despite the weak market, however, as things stand today shipyard order books are full up to the end of 2011. The global order backlog for two-stroke engines amounted to 99 GW at the end of the year under review, 84 GW of which was accounted for by MAN Diesel; this corresponds to a delivery volume at our licensees of approximately three years. As a result, MAN Diesel again achieved a market share well in excess of 80% and confirmed its exceptional market position as a leading developer of large low-speed diesel engines.

As expected, the order intake for four-stroke medium-speed diesels used as propulsion engines and for powering onboard equipment was below the record prior-year figure. A total of 3,028 original and licensed engines amounting to 5,644 MW were sold. The drop in demand affected all market segments, although the decline was more moderate in the offshore sector. Four-stroke propulsion engines were used primarily in specialized ships such as bulkers, dredgers, RoRo/cargo ships, multipurpose carriers, patrol ships, as well as offshore tugboats and supply vessels. The common rail 32/44CR and 48/60CR engines have established themselves extremely well in the marine engine market. Well over 100 engines have now been sold or delivered since these models were launched in the past year.

The order intake for four-stroke engines used in diesel power plants substantially exceeded the prior-year figure in the year under review. Together with its license partners, MAN Diesel sold a total of 147 engines amounting to 1,246 MW. A particular highlight this year was the largest order in MAN Diesel's history for a total of 54 large engines from the French energy group Electricité de France. Major orders from Brazil and Pakistan for a total of 51 engines in the 32/40 and 48/60 series also deserve special mention. In addition, orders were received from Western European countries, Caribbean islands, as well as Africa and Asia. For the first time, dual-fuel engines from the new 51/60DF series were sold for a power plant

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in Australia. All engines are designed to extend and secure public energy supply or for internal electricity generation at industrial companies. In a number of contracts MAN Diesel is the turnkey supplier, i.e., it is responsible for delivering an entire turnkey power plant. Its state-of-the-art diesel and gas engines that offer a broad range of outputs enable the company to optimally meet customers' wishes in terms of using the most efficient fuel type.

MAN Diesel increased its market share in medium-speed four-stroke engines in almost all areas of application, and with 35% is the market leader in this segment, too.

### **Operating profit**

MAN Diesel's operating profit increased by 25% year-on-year from €313 million to €390 million, due in particular to increased revenue volumes and the related high utilization of production capacity. At 15.4%, the return on sales again exceeded the prior-year figure of 14.4%.

### **Employees**

MAN Diesel employed 7,986 people as of 31 December 2008 (including temporary employees; previous year: 7,383). In addition to the initial consolidation of the companies in the Netherlands and Belgium, the growth in the headcount was driven in particular by the recruitment of additional staff in Germany and Denmark, as well as in our Engineering Center in India. Temporary employees, fixed-term employment relationships, and flextime accounts continue to be used to handle the high order backlog and ensure flexible staffing levels. The company's international presence, the existing offering of vocational training and continuing professional development opportunities for its staff, and the establishment of new locations make MAN Diesel an attractive employer.

### **Investment, research and development**

To meet the significant increase in unit sales, MAN Diesel again invested heavily in modernizing and rationalizing the production and assembly activities in fiscal year 2008. The Augsburg location made extensive investments to implement a synchronized moving assembly line for new engine construction and to modify its testing facilities. Expenditure also focused on facilities to produce injection components, in particular for the spare parts market.

As planned, the restructuring of the French production facility at Saint-Nazaire was driven forward to meet the greater demand for large stationary engines in the future. This location will also be expanded into a competence center for spare parts manufacture within the production network.

Significant investments in the company's Augsburg, Velká Bíteš, and Shanghai production facilities are being made to manufacture turbochargers, the business area's core components. These funds are being invested to increase production capacity and optimize processes.

In addition, Metalock Denmark, Copenhagen/Denmark was acquired in 2008 to strengthen MAN Diesel's after-sales business. Service and sales companies in Argentina, Pakistan, Portugal, Russia, South Africa, Turkey, and the United Arab Emirates were also established. Other service centers were also opened in Brazil, China, India, Sweden, Spain, South Korea, and the USA.

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In the past fiscal year, MAN Diesel's research and development activities focused on launching new or redesigned engine types that are able to meet the IMO Tier II emission requirements. The company is already working on complying with the much stricter requirements under the next stage, IMO Tier III. The limits are set by the United Nations' International Maritime Organization (IMO). MAN Diesel already has all the technical measures at its disposal to meet both the IMO Tier II limits that come into force in 2011 and the IMO Tier III limits that will be effective from 2016.

With these targets in mind, MAN Diesel's R&D activities will continue to focus strongly on developing technologies in-house to more flexibly leverage the key factors for optimum fuel combustion – an important task in engine construction in times of heightened ecological awareness and high fuel prices. This includes MAN Diesel's electronically controlled injection systems for two-stroke and four-stroke engines including its modular common rail system, the VTA variable nozzle ring for turbochargers that offers precise control of combustion air intake, the variable valve drive, and the SaCoS<sub>one</sub>, electronic control system that can be used to precisely tune these technologies to each other.

### **Outlook**

In the past four to five years, maritime traffic has profited exceptionally from the globalization of trade and experienced an unprecedented boom. This trend was halted in the third quarter of the year under review by the expected industry downturn and the international financial crisis, which is frequently impacting customers' financing plans. However, the boom years have enabled MAN Diesel to generate a record order backlog that will ensure a core level of capacity utilization at its production facilities for the immediate future. The turnkey diesel power plant business is much less affected by the turbulence on the financial markets. This business area, together with the less cyclically dependent after-sales segment, will play a key role in largely offsetting the expected ongoing decrease in new marine construction business. Growth potential also exists in high-speed diesel engines for use in yachts, energy generation, and other industrial applications.

Ongoing customer uncertainty with respect to financing and the weaker financial position of the shipyards are impacting the company and, to a certain extent, its licensees.

Nevertheless, the forecast for fiscal year 2009 is for more or less stable revenue and continuing strong earnings overall. However, it is expected that the order intake will decline from the exceptionally high level seen in recent years due to a slowdown in the marine market.



## MAN Diesel Subgroup Income statement Financial year 2008

in € million	2008	2007
Revenue	2,542	2,179
Cost of goods sold and services rendered	- 1,771	- 1,526
<b>Gross margin</b>	<b>771</b>	<b>653</b>
Other operating income	30	24
Selling expenses	- 156	- 148
General administrative expenses	- 99	- 83
Other operating expenses	- 156	- 134
Income from financial investments	0	1
<b>Earnings before interest and taxes (EBIT)</b>	<b>390</b>	<b>313</b>
Interest income	16	9
Interest expense	0	- 3
<b>Earnings before taxes (EBT)</b>	<b>406</b>	<b>319</b>
Income taxes	- 106	- 80
<b>Net income</b>	<b>300</b>	<b>239</b>
Net income attributable to noncontrolling interests	2	3
<b>Net income attributable to shareholders of MAN AG</b>	<b>298</b>	<b>236</b>

## MAN Diesel Subgroup Balance sheet: Assets Financial year 2008

<b>ASSETS</b>		
<b>in € million</b>	<b>31 Dec 08</b>	<b>31 Dec 07</b>
Intangible assets	41	35
Property, plant, and equipment	186	134
Investment property	3	4
Financial investments	24	19
Deferred tax assets	45	36
Other noncurrent assets	13	9
<b>Noncurrent assets</b>	<b>312</b>	<b>237</b>
Inventories	864	645
Trade receivables	514	473
Current income tax assets	8	1
Other current assets	59	23
Cash and cash equivalents	178	362
<b>Current assets</b>	<b>1,623</b>	<b>1,504</b>
	1,935	1,741

**MAN Diesel Subgroup**  
**Balance sheet: Equity and liabilities**  
**Financial year 2008**

**EQUITY AND LIABILITIES**

in € million	31 Dec 08	31 Dec 07
Subscribed capital	100	100
Capital reserves	8	8
Retained earnings	531	436
Accumulated other comprehensive income	- 20	- 21
<b>Equity attributable to shareholders of MAN Diesel SE</b>	<b>619</b>	<b>523</b>
Noncontrolling interests	8	8
<b>Total equity</b>	<b>627</b>	<b>531</b>
Pension obligations	7	8
Deferred tax liabilities	38	24
Other noncurrent provisions	15	13
<b>Noncurrent liabilities and provisions</b>	<b>60</b>	<b>45</b>
Current financial liabilities	2	3
Intragroup financing	0	130
Trade payables	361	282
Prepayments received	529	425
Current income tax payables	11	12
Other current provisions	210	190
Other current liabilities	135	123
<b>Current liabilities and provisions</b>	<b>1,248</b>	<b>1,165</b>
	1,935	1,741

### MAN Diesel Subgroup Statement of Cash Flows Financial year 2008

in € million	2008	2007
Earnings before taxes	406	319
Current income taxes	- 107	- 77
Depreciation, amortization, and impairment of noncurrent assets	37	31
Change in pension obligations	1	- 3
<b>Cash Earnings</b>	<b>337</b>	<b>270</b>
Change in inventories	- 226	- 91
Change in prepayments received	111	148
Change in trade receivables	- 30	- 117
Change in trade payables	63	64
Change in tax assets and liabilities	- 8	- 2
Change in other provisions	23	34
Change in other assets	- 22	- 1
Change in other liabilities	0	36
Elimination of gains/losses from asset disposals	- 1	- 6
Other changes in working capital	3	- 2
<b>Net cash provided by/used in operating activities</b>	<b>250</b>	<b>333</b>

## Statement of Cash Flows

Continuation

in € million	2008	2007
Payments to acquire property, plant, and equipment, investment property, and intangible assets	– 82	– 37
Payments to acquire investments	– 12	– 11
Proceeds from asset disposals	4	9
<b>Net cash used in investing activities</b>	<b>– 90</b>	<b>– 39</b>
<b>Free cash flow from operating and investing activities</b>	<b>160</b>	<b>294</b>
Intragroup dividend distributions	– 203	– 105
Change in current financial liabilities	– 2	3
Change in intragroup financing	– 141	– 9
Special pension fund endowment	0	– 63
<b>Net cash provided by/used in financing activities</b>	<b>– 346</b>	<b>– 174</b>
<b>Net change in cash and cash equivalents</b>	<b>– 186</b>	<b>120</b>
<b>Cash and cash equivalents at beginning of period</b>	<b>362</b>	<b>241</b>
Change in cash and cash equivalents due to changes in consolidated group structure	2	1
<b>Cash and cash equivalents at end of period</b>	<b>178</b>	<b>362</b>
<b>Composition of net liquid assets/ net financial debt as of 31 December</b>		
Cash and cash equivalents	178	362
Intragroup financing	0	– 130
Financial liabilities	– 2	– 3
<b>Net liquid assets as of 31 December</b>	<b>176</b>	<b>229</b>

## MAN Diesel Subgroup Key data Financial year 2008

in € million	2008	2007	Change in %
Order intake	3,089	3,371	- 8
Two-stroke	924	953	- 3
Four-stroke	2,165	2,418	- 10
Revenue	2,542	2,179	17
Two-stroke	752	650	16
Four-stroke	1,790	1,529	17
Order backlog <sup>1</sup>	4,102	3,866	6
Two-stroke	1,347	1,227	10
Four-stroke	2,755	2,639	4
Headcount including temporary employees (No.) <sup>1</sup>	7,986	7,383	8
Germany	3,505	3,280	7
Abroad	4,481	4,103	9

	in € mill.	in € mill.	Change in € mill.
Operating profit	390	313	77
Two-stroke	204	144	60
Four-stroke	186	169	17
Return on sales ROS (in %)	15.4	14.4	-
Return on capital employed ROCE (in %)	78.0	70.5	-

Investments	93	48	45
Depreciation, amortization, and impairment of noncurrent assets	37	31	6
R&D expenditures	156	129	27

<sup>1</sup> Year-on-year as of 31 December 2008 vs. 2007

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## Principles used in preparing the abridged subgroup financial statements

The abridged subgroup financial statements of MAN Diesel SE for the fiscal year 1 January to 31 December 2008 include the income statement, the balance sheet and the cash flow statement. We have not prepared a statement of changes in comprehensive income or notes to the abridged subgroup financial statements. The abridged subgroup financial statements of MAN Diesel SE have been prepared in accordance with the MAN accounting guidelines. These specify the use of the accounting, presentation and valuation principles of the IFRS as applicable in the EU.

The abridged subgroup financial statements include all major subsidiaries in which MAN Diesel SE has control over financial and business policy under articles of association, an affiliation agreement or contractual agreement. The major consolidated companies are listed in the annex.

The subgroup financial statements are based on the financial statements of MAN Diesel SE and the consolidated subsidiaries, which have been drawn up in accordance with MAN's Group-wide accounting and valuation principles.

### Revenue recognition

Revenue is recognized when the products or goods have been delivered, or the services rendered, and the risk has passed to the customer. It must be possible to measure the amount of revenue reliably, and collectibility of the receivable must be probable. Discounts, customer rebates, and other sales allowances are deducted from revenue.

Construction contracts are recognized using the percentage of completion method; details are contained in the explanations on construction contracts on pages 27-28.

If the sale of products includes a certain amount for future services (multiple-component contracts), the revenue attributable to these services is deferred and recognized in the income statement over the term of the agreement as the service is rendered.

### Operating expenses and income

Operating expenses are recognized when the underlying products or services are utilized. Advertising and sales promotion expenses, as well as other sales-related expenses, are recognized when incurred. Cost of sales comprises the production cost of products sold and the purchase cost of merchandise sold. In addition to direct material and labor costs, production costs also include production-related indirect costs, including depreciation of production facilities and write-downs of inventories. Warranty provisions are recognized when the products are sold. Research expenditures are recognized as expenses when incurred. Interest and other borrowing costs are recognized as expenses in the period in which they arise.

### Intangible assets

Separately purchased intangible assets are recognized at cost. Intangible assets acquired in the course of a business combination are measured at their fair value at the acquisition date.

Finite-lived intangible assets are amortized on a straight-line basis over their useful lives. The amortization period for software is mainly three years. Licenses and similar rights are amortized over the contractual terms. Intangible assets whose useful life cannot be determined are not amortized, but are tested for impairment at least once a year. An impairment loss is recognized if the asset is found to be impaired.

Expenditures incurred to develop new products and series are capitalized if completion of the products or series is technically and economically feasible, they are intended for own use or sale, the expenditures can be measured reliably, and adequate resources are available to complete the development project. Development expenditures that do not meet these criteria and also all research expenditures are recognized immediately as expenses. Capitalized development costs are amortized from the date of market rollout. They are generally amortized over five to ten years on a straight-line basis. While a development project is still in progress, the accumulated capitalized amounts are tested for impairment at least once a year.

#### **Property, plant, and equipment**

Property, plant, and equipment is measured at cost less accumulated depreciation and any impairment losses. The production cost of internally manufactured items of property, plant, and equipment comprises directly attributable production costs and proportionate production overheads. If items of property, plant, and equipment consist of significant identifiable components with different useful lives, such components are depreciated separately.

Maintenance and repair expenditures are recognized as expenses unless they are required to be capitalized. Borrowing costs are recognized as expenses in the period in which they are incurred.

Items of property, plant, and equipment are depreciated by the straight-line method over their estimated useful lives.

Depreciation is based on the following uniform Group useful lives:

	<b>years</b>
Buildings	20 to 50
Leasehold improvements	8 to 20
Production plant and machinery	5 to 15
Operating and office equipment	3 to 10

#### **Investment property**

Investment property consists of land and buildings held for rental and/or capital appreciation. In the same way as items of property, plant, and equipment, it is measured at cost less accumulated depreciation and impairment losses and (except for land) depreciated over its estimated useful life. The useful life of investment property is mainly between 5 and 25 years. The fair value of investment property is normally estimated by means of internal appraisals (using recognized valuation techniques).

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**Leases**

MAN Group companies are lessees in lease transactions for items of property, plant, and equipment (investment leases). If MAN Group lessees bear substantially all the risks and rewards incidental to ownership of the leased asset, the lease is classified as a finance lease. In such cases, the lessee recognizes the leased item as an asset in the amount of the present value of the minimum lease payments or the lower fair value of the leased asset. The leased asset is depreciated over the estimated useful life or the shorter lease term in subsequent periods. At the same time, the lessee recognizes a corresponding financial liability, which is reduced in the following periods using the effective interest method and adjusted correspondingly. All other leases in which MAN Group companies are lessees are accounted for as operating leases, and the lease payments are recognized as expenses.

**Impairment**

An impairment test is performed if there are indications that the carrying amounts of intangible assets, property, plant, and equipment, assets leased out, or investment property may be impaired. It has to be performed at least once a year for intangible assets whose useful life cannot be determined and for goodwill. The asset's recoverable amount is first estimated to determine the amount of any impairment loss that may need to be recognized. The recoverable amount is the higher of the asset's fair value less costs to sell and its value in use. The value in use is the present value of the future cash flows expected to be derived from the asset. The discount rate used is a current market rate of interest. If no recoverable amount can be measured for an individual asset, the recoverable amount is determined for the smallest identifiable group of assets to which the asset belongs (cash-generating unit). For impairment purposes, goodwill is assigned to the smallest cash-generating unit to which goodwill has been allocated. If an asset's recoverable amount is less than its carrying amount, an impairment loss is recognized immediately in profit or loss and reported in other operating expenses.

If the recoverable amount of an impaired asset or cash-generating unit increases in a subsequent period, the impairment loss is reversed up to a maximum of the carrying amount that would have been determined (net of depreciation or amortization) if no impairment loss had been recognized. Reversals of impairment losses are recognized in profit or loss and reported in other operating income. Goodwill impairments cannot be reversed.

**Inventories**

Inventories are measured at the lower of cost and net realizable value. Cost comprises directly attributable production costs and proportionate fixed and variable production overheads. Overheads are mainly allocated on the basis of the normal capacity of the production facilities. Selling expenses, general administrative expenses, and borrowing costs are not capitalized. Raw materials and merchandise are measured at average purchase costs.

**Construction contracts**

Construction contracts are recognized using the percentage of completion (PoC) method, under which proportionate revenue and cost of sales are recognized by reference to the stage of completion at the end of the reporting period, based on the contract revenue agreed with the customer and the expected contract costs. As a rule, the stage of completion is de-

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terminated by contractually agreed milestones; in other cases as the proportion that contract costs incurred by the end of the reporting period bear to the estimated total contract costs (cost-to-cost method). If the outcome of a dedicated construction contract cannot be estimated reliably, contract revenue is recognized only in the amount of the contract costs incurred to date. In the balance sheet, contract components whose revenue is recognized using the PoC method are reported as trade receivables, net of prepayments received.

Expected losses from dedicated construction contracts are recognized immediately in full as expenses.

#### **Nonderivative financial instruments**

Nonderivative financial instruments include in particular customer receivables, loans, financial investments and cash and cash equivalents, as well as financial liabilities and trade payables. Nonderivative financial instruments are initially measured at fair value, which generally corresponds to the transaction price, i.e., the consideration given or received.

Following initial recognition, nonderivative financial instruments are either measured at fair value or at amortized cost, depending on the category to which they are assigned.

Loans and receivables that are not held for trading are generally carried at amortized cost less impairment losses. Impairment losses are recognized if there is evidence that the asset is impaired. In the MAN Group, loans and receivables primarily include customer receivables, other receivables, and loans. Non- or low-interest-bearing receivables with a remaining term of more than six months are discounted.

Available-for-sale financial assets are measured at fair value. In the MAN Group, this category mainly includes marketable securities and financial investments. The difference between cost and fair value is recognized in other comprehensive income and reported as accumulated other comprehensive income, net of deferred taxes. An impairment loss is recognized in the income statement if there is a significant or prolonged decline in the fair value of an available-for-sale financial asset below its carrying amount.

The fair value of marketable securities is generally their quoted market price. Financial investments for which no quoted market price is available, and whose fair value cannot be reliably measured, are carried at cost. An impairment test is performed if there are indications of impairment, and any impairment loss is recognized in the income statement.

Assets held for trading are measured at fair value. If no price is available in an active market, fair value is estimated using appropriate valuation techniques, such as discounted cash flow methods. Such nonderivative financial instruments are rarely used in the MAN Group.

Held-to-maturity investments are measured at amortized cost and only occur in isolated instances in the MAN Group.

Financial liabilities other than derivatives are subsequently measured at amortized cost.

#### **Derivatives**

Derivatives are used in the MAN Group to hedge foreign currency, interest rate, and other

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risks resulting mainly from ongoing business operations. Derivatives are recognized initially and at the end of each subsequent reporting period at fair value.

In the case of derivatives with quoted market prices, fair value is the positive or negative fair value. If no quoted market prices are available, fair value is estimated on the basis of the conditions prevailing at the end of the reporting period, such as interest rates or exchange rates, and using recognized valuation techniques, such as discounted cash flow models or option pricing models. The fair value of certain derivatives is based on external valuations by our financing partners.

The recognition of gains and losses from fair value measurement depends on the classification of the derivative.

If the hedge accounting criteria described in IAS 39 are met, MAN designates and documents the hedging relationship from that date either as a fair value hedge or as a cash flow hedge.

A fair value hedge is a hedge of the MAN Group's exposure to changes in the fair value of recognized assets and liabilities, or unrecognized firm commitments. In a fair value hedge, changes in the fair value of the derivative and the related underlying (hedged item) are recognized in profit or loss. In the case of a perfect hedge, the changes in the fair value of the derivative financial instrument and the underlying recognized in profit or loss offset each other almost entirely.

A cash flow hedge is a hedge of the MAN Group's exposure to variability in the cash flows associated with recognized assets and liabilities, unrecognized firm commitments, and highly probable forecast transactions. In a cash flow hedge, the effective portion of the change in the fair value of the derivative is initially recognized in other comprehensive income and reported in accumulated other comprehensive income, net of deferred taxes. As soon as the hedged item affects profit or loss, the gains or losses recognized in other comprehensive income are reclassified as revenue in the case of sales transactions. If the hedge subsequently results in the recognition of a nonfinancial asset (purchase transaction), the gains and losses recognized in other comprehensive income from measurement of the derivative are included in the carrying amount of the hedged nonfinancial asset. The ineffective portion of the change in fair value is recognized immediately in profit or loss.

If the originally hedged forecasted transaction is no longer expected to occur, the cumulative gains or losses recognized in other comprehensive income until that point are also recognized in profit or loss.

Derivatives that do not meet or no longer meet the criteria for hedge accounting are reclassified as held for trading. Changes in the fair value of such derivatives are recognized immediately in profit or loss.

### **Deferred taxes**

Deferred tax assets and liabilities are recognized for temporary differences between the tax base of assets and liabilities and their carrying amounts in the consolidated financial statements, for consolidation adjustments recognized in profit or loss, for tax credits, and for tax loss carryforwards. Deferred taxes are measured using the tax rates enacted

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or substantively enacted at the end of the reporting period for tax assessment periods starting in 2009; the tax rate applied in Germany is 31.58% (previous year: 31.58%).

Deferred tax assets are only recognized to the extent that taxable income will be available to use deductible temporary differences.

Changes in deferred taxes in the balance sheet generally result in deferred tax income or expense. If the change in deferred taxes results from items recognized directly in equity or in other comprehensive income, the change in deferred taxes is also recognized directly in equity or in other comprehensive income.

#### **Pension obligations**

Pension obligations from defined benefit plans are determined using the projected unit credit method, under which the future defined benefit obligation is measured on the basis of the proportionate benefit entitlements acquired by the end of the reporting period and discounted to its present value. Measurement reflects assumptions about the future development of certain parameters that affect the level of future benefits. Differences between the assumptions made and the trends that actually materialized, or changes in actuarial assumptions, may lead to actuarial gains and losses. Such actuarial gains and losses are recognized in other comprehensive income, net of deferred taxes, and reported in total comprehensive income for the period.

Pension provisions are reduced by the fair value of plan assets used to cover benefit obligations. If plan assets exceed the defined benefit obligation, the excess is only recognized in other assets to the extent that it results in a refund from the plan or the reduction of future contributions.

The current service cost, which represents the entitlements of active employees in accordance with the benefit plan, is reported in the functional expenses in the income statement. The interest expense contained in the net benefit expense and the expected return on plan assets are included in net interest income.

Payments for defined contribution plans are recognized in the functional expenses in the income statement.

#### **Other provisions**

Other provisions are recognized for all identifiable risks and uncertain obligations that arise from past events, whose settlement is expected to result in an outflow of resources embodying economic benefits, and where the amount of the obligation can be estimated reliably. They are measured in the amount that represents the best estimate of the expenditure required to settle the obligation. Where the effect of the time value of money is material, the provision is discounted using a current market rate of interest at the end of the reporting period. If some or all of the expenditure required to settle a provision is expected to be reimbursed by a third party, the reimbursement is recognized as a separate asset if it is virtually certain that it will be received.

The carrying amounts of provisions are regularly reviewed and adjusted to reflect new knowledge or changes in circumstances. If a new estimate results in a reduction in the

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amount of the obligation, the provision is reversed in the corresponding amount and the income recognized in the functional expenses in which the expense from recognition of the provision was originally recognized.

Provisions for warranties are recognized at the time of sale of the products in question or the rendering of the corresponding services. These provisions are measured primarily on the basis of past experience. Individual provisions are also recognized for known claims. Provisions for restructurings are recognized if there is a detailed formal plan for the restructuring that has been notified to those affected by it. Provisions for unbilled costs and for other business-related obligations are measured on the basis of the goods and services still to be provided, usually in the amount of the expected production cost still to be incurred. Provisions for expected losses from executory contracts are recognized if the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received under it.

**Noncurrent assets held for sale**

These include both individual noncurrent assets and groups of assets together with liabilities associated with those assets (disposal groups), if their carrying amounts will be recovered principally through a sale transaction rather than through continuing use.

Noncurrent assets classified as held for sale, either individually or as part of a disposal group, are presented in separate line items in the balance sheet. They are measured at the lower of their carrying amount and fair value less costs to sell, and are no longer depreciated or amortized. If there is any subsequent increase in fair value less costs to sell, a remeasurement gain is recognized. The remeasurement gain may not exceed the cumulative impairment losses already recognized for that asset.

**Financial statement presentation**

The presentation of assets and liabilities in the balance sheet distinguishes between current and noncurrent items. Assets and liabilities are classified as current if they will be recovered or settled within twelve months after the reporting period or within a longer operating cycle. Deferred tax assets and liabilities, and assets and provisions related to defined benefit pension plans, are presented as noncurrent items. The consolidated income statement has been prepared using the cost of sales (function of expense) format.

**Estimates and management's judgment**

Preparation of the consolidated financial statements requires management to make estimates and exercise a degree of judgment in certain matters. The estimates applied were made on the basis of historical data and other relevant factors, including the assumption of the Group as a going concern. All estimates and assumptions represent the best of management's knowledge and belief in order to convey a true and fair view of the Group's net assets, financial position, and results of operations. Although estimation uncertainties are adequately reflected in the carrying amounts of assets and liabilities, future events may differ from these estimates. Estimates and assumptions are continuously reviewed.

The accounting estimates applied to the following matters at the end of the reporting period are of particular significance.

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Among other things, the goodwill impairment tests to be performed at least once a year require an estimation of future cash flows and their discounting. Such cash flows are based on forecasts contained in financial plans approved by management. Other material assumptions relate to the weighted average cost of capital and to tax rates. Equally, if items of property, plant, and equipment, investment property, assets leased out, or intangible assets are tested for impairment, the measurement of the recoverable amount of the assets is linked to estimates by management.

Long-term construction contracts are recognized according to the “percentage of completion method”. Depending on the methodology applied to measure the stage of completion, the key estimation parameters include contract revenue, total contract costs, costs to complete the contract, contract risks, and other estimates. Management at the operating units continuously reviews the estimates relating to such construction contracts and adjusts them if required.

Pensions and other post-employment obligations are measured using actuarial techniques. Such measurements are based primarily on assumptions relating to discount rates, the expected return on plan assets, pay and pension trends, and mortality. These actuarial assumptions may differ considerably from actual developments because of variations in the market and economic environment, leading to material changes in pension and other post-employment obligations.

Because the Group operates in many countries, it is subject to a variety of tax laws in a large number of jurisdictions. The expected current income taxes and the deferred tax assets and liabilities must be determined for each tax entity. Among other things, this requires assumptions about the interpretation of complex tax regulations and the ability to generate sufficient taxable income, depending on the tax type and tax jurisdiction involved. Any departure of these assumptions from the actual outcome of such tax uncertainties may affect tax expense and deferred taxes.

Depending on the underlying transaction, the measurement of other provisions and similar obligations may be complex and associated with a considerable degree of estimation uncertainty. Management’s assumptions about the timing and amount of settlement are based on historical data, available technical data, estimates of cost trends and potential warranty claims, possible recoverable amounts, and other factors.

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## **Note on the audit by KPMG**

The abridged subgroup financial statements of MAN Diesel SE for the fiscal year 1 January to 31 December 2008 comprising income statement, balance sheet and statement of cash flows have been derived from the consolidated financial statements of MAN Aktiengesellschaft for the fiscal year 1 January to 31 December 2008. KPMG AG Wirtschaftsprüfungsgesellschaft (formerly KPMG Deutsche Treuhand-Gesellschaft Aktiengesellschaft Wirtschaftsprüfungsgesellschaft) Munich, has audited the consolidated financial statements of MAN Aktiengesellschaft for the fiscal year 1 January to 31 December 2008 and issued an unqualified audit opinion on them on 30 January 2009.

### Major consolidated subsidiaries of MAN Diesel SE <sup>1</sup> as of 31 December 2008


	Capital share %	Total assets € million	Revenue € million	Headcount <sup>2</sup>
MAN Diesel SAS Villepinte/France	100	168	168	644
PBS Turbo s.r.o. Velká Bíteš/Czech Republic	100	26	23	184
MAN Diesel India Ltd. Aurangabad/India	73	7	7	197
MAN Diesel Ltd. Stockport/UK	100	62	92	259
MAN Diesel Australia Pty. Ltd. Sydney/Australia	100	15	15	41
MAN Diesel Canada Ltd. Oakville/Canada	100	74	23	74
MAN Diesel Singapore Pte. Ltd. Singapore	100	28	54	163
MAN Diesel North America Inc. New York/USA	0 <sup>3</sup>	37	73	145
MAN Diesel Benelux NV Antwerp/Belgium	100	18	21	55
MAN Diesel Benelux B.V. Wassenaar/Netherlands	100	6	13	49
Rostock Diesel Service GmbH Rostock/Germany	100	5	14	30

<sup>1</sup> The holding in MAN Diesel A/S, Denmark, declared in the previous year has been merged into MAN Diesel SE in the reporting year.

<sup>2</sup> including temporary employees

<sup>3</sup> The capital shares are being held by MAN Capital Corporation Inc., New York/USA.



A foundry worker in a silver heat-reflective suit is operating a ladle, pouring molten metal into a mold. The scene is dark, with the bright orange and yellow glow of the molten metal providing the primary light source. The worker is positioned to the right of the ladle, and the molten metal is being poured into a mold that is part of a larger industrial machine. The background is dark and industrial, with some structural elements visible.

## Precision at 1,350 degrees Celsius

In the company's own foundries at its sites in Augsburg and Frederikshavn, cast parts of all sizes are made – from small items to crankcases weighing almost 91 metric tons.

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# PRODUCTS AND SERVICES

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- Diesel engines in all performance classes from 450 kW to 97 MW
- Dual-fuel engines
- GenSets from 450 kW to 11,200 kW
- Complete propulsion systems

## TWO-STROKE MARINE ENGINES

**M**AN Diesel is the world market leader for large two-stroke diesel engines, with a market share of over 80 per cent. These engines are developed at the company's base in Copenhagen, Denmark, and have a range of outputs from 2 to 97 MW. In view of their size, the engines are manufactured by international licensees in the immediate vicinity of dockyards under the MAN B&W brand name, and propel large container vessels, freighters and oil tankers. Measured by the engine power produced, 91 per cent of two-stroke engine building is performed by Korean, Japanese and, increasingly, Chinese licensees. When developing of large two-

stroke engines, the focus clearly lies on reliability, efficiency and fuel flexibility. In recent years especially, emissions levels have become noticeably more of an important topic. While for low-speed engines, i.e. engines with a low rpm of 76 to 250, it was crucial in recent years to be able to burn heavy-fuel oil of virtually any quality, cleaner natural gas has now been adopted as a fuel for the two-stroke sector as well. This variant is of particular interest for use in LNG tankers, but can also be used in other types of ship. All MAN B&W two-stroke engines already satisfy the environmental regulations set by the International Maritime Organization (IMO) for 2011.



### MAN B&W 12K98MC-C

The MAN B&W 12K98MC-C is around 17 meters tall, weighs 2,000 metric tons and has a power output of 72,240 kW (approx. 98,200 HP).

Over 50 per cent of the world's trade is powered by MAN Diesel engines.



### Research and development

More than 160 engineers are employed at the Copenhagen facility, developing two-stroke engines.

### Global goods flows

From small freighters to the giants of the seas – engines from MAN Diesel provide the necessary power.



## FOUR-STROKE MARINE ENGINES

**M**AN Diesel offers a broad portfolio of medium-speed four-stroke engines that cover a power range from 450 to 21,600 kW and can be operated using liquid or gaseous fuels. They are employed to propel all types of merchant vessels, but are also used in passenger ships thanks to their compact nature and their suitability to flexible mounting. As well as cruise liners, other areas of use for medium-speed engines include special-purpose vessels such as tugs, dredgers or cable-laying ships. Smaller four-stroke engines are used in high-speed ferries and naval ships. Medium-speed four-stroke engines from MAN Diesel are particularly efficient and generate low emissions, making them well prepared for the second, more stringent tier of the emissions directives prescribed by the IMO.

### 51/60DF

MAN Diesel's new dual-fuel 51/60DF engine is designed to deliver the clean combustion of both gas and liquid fuels. After initial orders for LNG carriers – i.e. tanker vessels that transport liquefied natural gas – the 51/60DF is also attracting tremendous interest in other areas of the shipping industry such as the cruise liner sector, where emissions are a particularly important aspect. The 51/60DF delivers 1,000 kW per cylinder.



### GenSets

MAN Diesel offers an extensive range of marine auxiliary engines, known as GenSets, for the reliable and cost-effective generation of electrical power on board ships. Four-stroke engines delivering between 450 kW and 11,200 kW are used for these applications. In order to keep the installation outlay for the on-board fuel systems as small as possible, MAN Diesel offers complete fuel conditioning systems. These units are available in three standardized sizes for GenSet outputs up to 4,400 kW.

### 48/60CR

The common rail injection system from MAN Diesel allows optimum fuel injection throughout the whole operating area of large diesel engines, which has a positive effect on both fuel consumption and noxious emissions. A new version of the tried-and-tested MAN Diesel four-stroke 48/60 with common rail technology, the "48/60CR", has been available since 2008. It has an output of 1,200 kW per cylinder.



## PROPULSION SYSTEMS

### Propulsion from a single source

MAN Diesel supplies complete propulsion systems, comprising the main engine, gear, shaft and controllable pitch propeller.



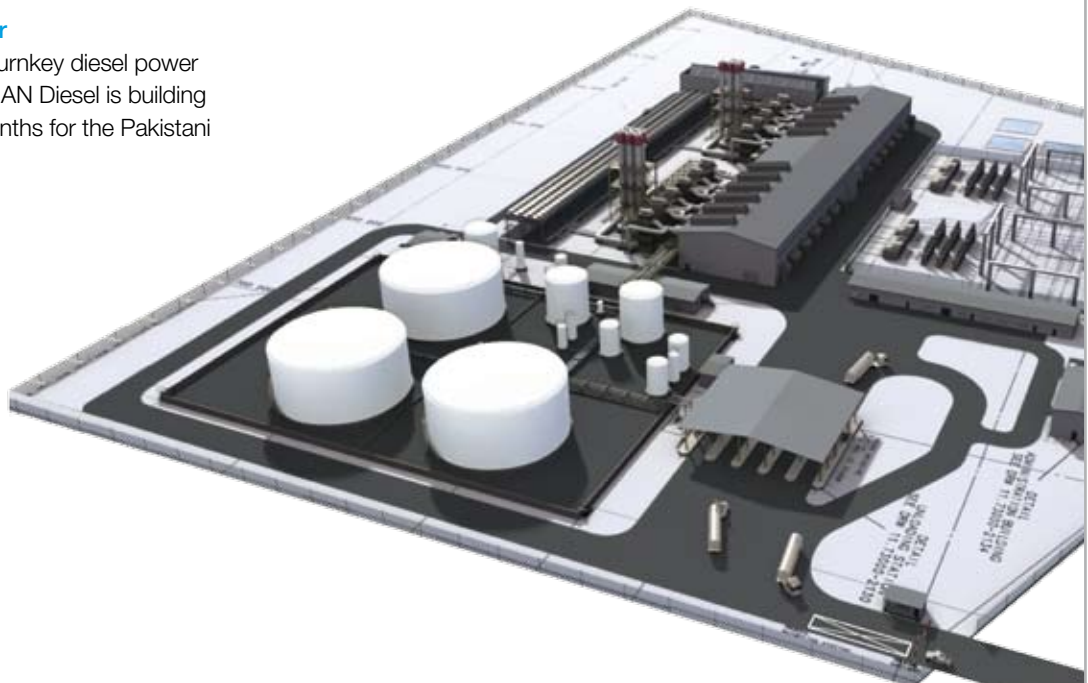
- Engine portfolio
  - Two-stroke and four-stroke engines
  - Engine outputs from 450 kW to 80 MW
  - Superlative fuel flexibility: heavy-fuel oil, diesel, bio-fuels and gas
  - Heat and power cogeneration systems
- Power plant technologies
  - Turnkey power plants
  - Scalable, modular concepts
  - Comprehensive service
  - Operation and maintenance

## STATIONARY ENGINES

In the stationary sector, MAN Diesel engines are primarily used in power plants and emergency power applications. In this sector, MAN Diesel delivers turnkey system solutions for land-based or floating power plants with outputs of up to 400 MW. Diesel engines are especially suited to generating electrical energy since they achieve the highest levels of efficiency, thereby attaining the most cost-effective conversion of primary energy into electrical energy. The range of stationary systems comprises four-stroke engines with outputs of 450 kW to 18,900 kW and two-stroke engines with outputs of up to 80,000 kW. MAN Diesel engines can be operated on heavy-fuel oil, diesel, gas or renewable fuels such as Jatropha oil, animal fat or recycled vegetable oils. MAN Diesel offers complete solutions from a single source right down to the electrical substation and including the processing of renewable fuels.

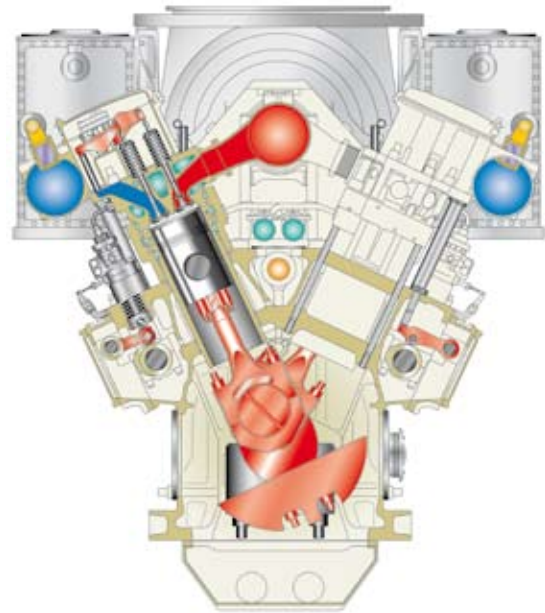
### Atlas Power

One of four turnkey diesel power plants that MAN Diesel is building in just 18 months for the Pakistani Atlas Group.



**32/40PGI**

Innovative gas engine without spark plugs.



**V51/60DF sectional drawing**

In the stationary sector too, the demand for flexible dual-fuel engines such as the 51/60DF or 32/40DF is growing.



**Power barges**

MAN Diesel also offers floating power plants, known as power barges. They can be positioned on water to remote locations if needed, such as in the Amazon area.



**Internal view**

MAN Diesel 18V48/60 engines in a power plant on Fuerteventura, Spain.

**Local power supply**

Efficient diesel power plants are the ideal solution for providing energy in remote areas or on islands.



## TURBOCHARGERS

- Axial and radial turbochargers for two and four-stroke engines
- For use in ships and power plants
- Turbo-compound systems up to 4,700 kW
- State-of-the-art technologies to reduce fuel consumption and emissions

## TURBOCHARGERS

**M**AN Diesel builds modern, high-efficiency exhaust gas turbochargers for high charging pressures with single-stage radial and axial turbines. The performance spectrum of these chargers, which are used both in two-stroke and four-stroke marine engines and on stationary systems, ranges from around 400 kW to 30,000 kW of engine power per turbocharger. The de-

grees of efficiency achieved, are in many cases higher than required for the turbocharging of a diesel engine, meaning that excess energy can be recovered from the charging system and used to boost the efficiency of the overall system. This led to the development of power turbines for turbo-compound systems. MAN Diesel supplies these power turbines in five sizes, with outputs from 850 kW up to 4,700 kW.

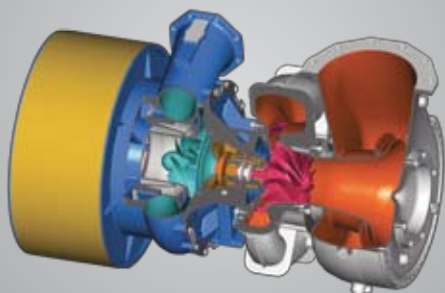
### More power

Turbochargers from MAN Diesel boost engine output by up to 300 per cent.



### Faster than sound

The speed of the compressor wheel can reach up to 2,000 km/h – as fast as a jet aircraft.



### Variable Turbine Area (VTA)

In the same way that the common rail system regulates fuel injection, so the new VTA system (Variable Turbine Area) ensures flexible, electronically controlled adjustment of the combustion-air supply. Instead of the nozzle ring with rigid guide vanes used to date in conventional turbochargers, this system features adjustable vanes to regulate the output of the turbocharger. This makes MAN Diesel the first and as yet the only manufacturer in the world to use variable geometry turbocharging in heavy-fuel oil engines. This not only results in improved dynamic response from the engine but also reduces fuel consumption and associated emissions.



## AFTER SALES

- Global service network
- Individual service agreements
- Availability 365 days a year, 24 hours a day
- Spare parts supply within 24 hours
- Online service in real time
- Initial and further training

## MAN Diesel | PrimeServ

**M**AN Diesel | PrimeServ provides global service in its role as MAN Diesel's after sales brand. It provides this service 24 hours a day, 365 days a year. As well as the central service facilities in Augsburg, Copenhagen, Stockport and Saint-Nazaire, the service network also comprises more than 60 PrimeServ centres and a large number of contracted partners on all continents. In this way the optimum supply of spare parts or services is always guaranteed.

### Retrofit solutions

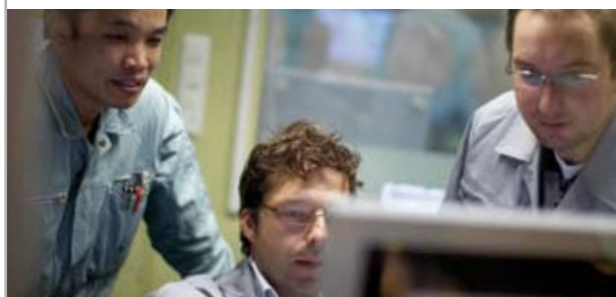
The retrofitting or conversion of existing engines is also part of MAN Diesel | PrimeServ's portfolio of products and services. Below are a few examples of the retrofit solutions on offer:

- Injection systems (CR, slide valve)
- Exhaust gas after-treatment
- Humid air motor (HAM)
- Alpha lubricator light
- Dual-fuel
- Online service



### Online service

The growing number of electronically controlled engines on the market is generating increased demand for MAN Diesel | PrimeServ's online service. With the aid of this technology, experts at the service centres are able to monitor engine parameters in real time via an internet connection and diagnose faults as necessary. Maintenance work is no longer carried out according to pre-defined intervals, but according to the engine's actual condition.



### Spare parts and service

MAN Diesel | PrimeServ guarantees customers the best possible supply of spare parts for engines or turbochargers. Experienced specialists from the company's technical service department are on hand at all times for maintenance work. The long service life of MAN Diesel engines requires OEM quality spare parts to be available for decades.

### PrimeServ Academy

As a result of innovations in technology, diesel engines are certainly becoming more efficient, but they are also becoming more complex. Professional training for technical personnel is thus becoming increasingly important. In the PrimeServ Academies, like the one in Augsburg, MAN Diesel technical personnel and customers' own technicians are provided with first-class training on engines and turbochargers.



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Further information about the MAN Diesel Group  
can be found on the internet at  
[www.mandiesel.com](http://www.mandiesel.com)

MAN Diesel – a member of the MAN Group

## MAN Diesel Group: Six-year overview

	2008	2007	2006	2005	2004	2003
<b>Order situation (in € million)</b>						
Order intake	3,089	3,371	2,619	2,203	1,872	1,460
Revenue	2,542	2,179	1,802	1,666	1,421	1,312
Order backlog <sup>1</sup>	4,102	3,866	2,800	1,991	1,449	1,003
<b>Headcount</b>						
Headcount including temporary employees (No.) <sup>1</sup>	7,986	7,383	6,862	6,749	7,000	6,787
Temporary employees (No.) <sup>1</sup>	599	546	454	326	269	162
Headcount without temporary employees (No.) <sup>1</sup>	7,387	6,837	6,408	6,423	6,731	6,625
Annual average headcount (No.)	7,163	6,685	6,378	6,651	6,670	6,748
Personnel expenses (in € million)	469	428	405	418	379	368
Personnel expenses per employee (in €)	65,475	64,024	63,481	62,774	56,806	54,535
<b>Capital expenditures and financing (in € million)</b>						
Capital expenditures on property, plant, and equipment and intangible assets	82	37	33	41	26	41
Capital expenditures on investments	11	11	16	2	1	1
Depreciation, amortization, and impairment of noncurrent assets	37	31	32	41	52	42
Cash Earnings	337	270	186	140	74	67
R&D expenditures	156	129	119	116	104	103
<b>Key performance indicators</b>						
Equity ratio (%)	32	30	28	31	30	25
Equity to noncurrent assets ratio (%)	201	224	170	173	150	98
Return on sales (ROS) (%)	15	14	13	7	4	4
Return on capital employed (ROCE) (%)	78	71	47	23	11	–
MAN value added (MVA) (in € million)	335	264	175	61	0	–
<b>Assets and equity (in € million)</b>	<b>31 Dec 08</b>	<b>31 Dec 07</b>	<b>31 Dec 06</b>	<b>31 Dec 05</b>	<b>31 Dec 04</b>	<b>31 Dec 03</b>
<b>Noncurrent assets</b>	<b>312</b>	<b>237</b>	<b>232</b>	<b>206</b>	<b>212</b>	<b>246</b>
Inventories	864	645	556	486	492	424
Trade receivables, income tax assets and other current assets	581	497	383	350	344	280
Cash and cash equivalents	178	362	241	114	14	22
<b>Current assets</b>	<b>1,623</b>	<b>1,504</b>	<b>1,180</b>	<b>950</b>	<b>850</b>	<b>726</b>
<b>Total assets</b>	<b>1,935</b>	<b>1,741</b>	<b>1,412</b>	<b>1,156</b>	<b>1,062</b>	<b>972</b>
<b>Total equity</b>	<b>627</b>	<b>531</b>	<b>394</b>	<b>357</b>	<b>318</b>	<b>241</b>
Pension obligations	7	8	85	172	125	122
Deferred tax liabilities, other noncurrent provisions and liabilities	53	37	34	22	26	38
<b>Noncurrent liabilities and provisions</b>	<b>60</b>	<b>45</b>	<b>119</b>	<b>194</b>	<b>151</b>	<b>160</b>
Current financial liabilities	2	133	139	0	41	167
Trade payables, prepayments received, current income tax payables, other current provisions and liabilities	1,246	1,032	760	605	552	404
<b>Current liabilities and provisions</b>	<b>1,248</b>	<b>1,165</b>	<b>899</b>	<b>605</b>	<b>593</b>	<b>571</b>
<b>Total equity and liabilities</b>	<b>1,935</b>	<b>1,741</b>	<b>1,412</b>	<b>1,156</b>	<b>1,062</b>	<b>972</b>
<b>Capital employed <sup>1</sup></b>	<b>646</b>	<b>477</b>	<b>458</b>	<b>472</b>	<b>466</b>	<b>–</b>
<b>Income statement (in € million)</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>	<b>2005</b>	<b>2004</b>	<b>2003</b>
Revenue	2,542	2,179	1,802	1,666	1,421	1,312
Cost of goods sold and services rendered	– 1,771	– 1,526	– 1,288	– 1,274	– 1,074	– 998
<b>Gross margin</b>	<b>771</b>	<b>653</b>	<b>514</b>	<b>392</b>	<b>347</b>	<b>314</b>
Other operating expenses and income	– 381	– 340	– 285	– 275	– 292	– 256
<b>Earnings before interest and taxes (EBIT)</b>	<b>390</b>	<b>313</b>	<b>229</b>	<b>117</b>	<b>55</b>	<b>58</b>
Interest result	16	6	– 1	– 9	– 15	– 14
<b>Earnings before taxes (EBT)</b>	<b>406</b>	<b>319</b>	<b>228</b>	<b>108</b>	<b>40</b>	<b>44</b>
Income taxes	– 106	– 80	– 63	– 34	– 16	– 36
<b>Net income</b>	<b>300</b>	<b>239</b>	<b>165</b>	<b>74</b>	<b>24</b>	<b>8</b>

<sup>1</sup> Year-on-year as of 31 December 2008 vs. 2007

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