

DIESEL SERVICE



The all-in-one Service



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original spare parts are safe parts

The all-in-one MAN B&W Diesel Service



For over 160 years the MAN B&W Diesel Works have supplied top quality products to customers all over the world. This high quality has ensured our leading position in the market.

The designers and engineers at MAN B&W Diesel continually aim to improve all aspects of our diesel engines. Inventions for new engines are whenever feasible implemented on older designs. This development enables you to modernise your engine, simply by installing original spares.

At one end of the scale, we still supply parts for engines that are over fifty years old. At the other end, we are still developing spare parts that meet the demands of the future.

Why buy original spare parts? In my long experience, I have seen the benefits of fitting original spare parts – the peace of mind gained from fitting such tried and trusted equipment from the original engine designer, has become more and more important.

Our unmatched worldwide service network always has the latest specification of MAN B&W Diesel spare parts and, together with unsurpassed knowledge, we are there to support you and your vessels 24 hours a day, every day of the year.

We now offer an extended guarantee of 24 months for all major original spare parts.

All of our Service Centers are backed-up by state-of-the-art Technical Support and experience gained from over 18,000 engines.

So all-in-one we are prepared to support your business by offering First Class Service at any time and any where.

A handwritten signature in blue ink, appearing to read 'Otto Winkel'.

Otto Winkel

Vice President, Diesel Service



MAN B&W Diesel Service in Copenhagen is a modern service organisation – providing technical support and spare parts.

We offer, on a 24 hours a day basis, original spare parts to every MAN B&W Diesel engine regardless of engine builder or age of engine. These original spare parts can be delivered worldwide, they are of the latest design and are mainly produced in-house.

The Technical Service Department deals with supervision, consultancy, reconditioning, conversions, modernisation and other technical customer support.

More than 18,000 diesel engines designed by MAN B&W Diesel are today sailing the seven seas.

Over the years and still today one of the most important tasks of the MAN B&W Diesel Service is to ensure that the ships do not lie idle because of engine problems.

MAN B&W Diesel makes sure that service and support are available globally 24 hours a day, 365 days a year – this is ensured by highly qualified and experienced specialists to deliver vital spare parts wherever they are needed and to troubleshoot and support vessels around the globe.

We attach great importance to meeting the customers' service needs. A number of our staff travel daily to deal with tasks all over the world.



meeting the customers service needs

First class service
from a world leader





global service network 24 hours a day, 365 days a year

The world within reach



Stores

Copenhagen – Our new large warehouse in Copenhagen houses more than 20,000 items.

Heavy items are stocked at various strategic worldwide locations in order to minimise transportation costs.

Kobe – Two-stroke cylinder liners

Singapore – Two-stroke and four-stroke parts

New York – Two-stroke parts

Dubai – Large parts for 80MC engines

Global Logistics

With our 24 hour service, your parts can be sent to any destination worldwide without delay.



**Original spare parts**

There are many good reasons to buy original MAN B&W Diesel spare parts.

Original spare parts are supplied from MAN B&W Diesel or directly from one of our licensees. This guarantees that the spares have gone through a certified inspection department in order to secure the quality.

The use of original MAN B&W Diesel spare parts assures a number of benefits such as consistent high quality, guarantees, availability for older engine designs, long lifetime and free technical advice and support.

In short, we can put it all into one line:
Original spare parts are safe spare parts!

Order tracking

We offer a free Extranet Service to all customers buying original MAN B&W Diesel spare parts.

<http://manbw.com>

- › SERVICE
- › Service Headquarters
- › Copenhagen
- › Order Tracking

The system enables you to track any spare parts order and allows you to change the delivery address.

You can also see the size and weight of any shipment.

Extended guarantee

All our major spare parts are covered by an extended guarantee of 24 months.

By this measure we want to support ship owners using original MAN B&W Diesel spare parts, so they can rest assured that our service organisation will support if any failure should occur.

If defects in the parts should be experienced, we will deliver or exchange the parts without any delay.

Our wish is to ensure the vessel and crew on board the safety and security they need.



original spare parts are safe parts

Original spare parts produced by
the original engine designer

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State-of-the-Art technical support

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Technical Service

In Copenhagen, and in our Worldwide Service Network, you will find a number of highly skilled engineers, who with dedication and extensive knowledge are prepared to assist you around the clock every day of the year.

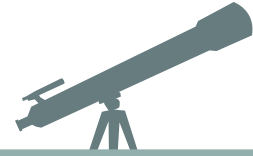
We are able to plan and perform repairs, maintenance and re-building of all kind of MAN B&W Diesel engines, based on our unmatched experience and extensive databases as Licensor, covering service experience and history of engines through the years.

Also modernisations and upgrades of older engines are key elements in our work, and you are welcome to contact us for further discussions about the possibilities for your engines.

This includes environmental aspects, such as fuel valves, cylinder lubrication systems, and also upgrading in terms of engine power.

Always feel free to contact us for advice regarding your operation of your engines and let us assist you in trouble free running, which will support your goal of keeping the vessels sailing.

Research for all our futures



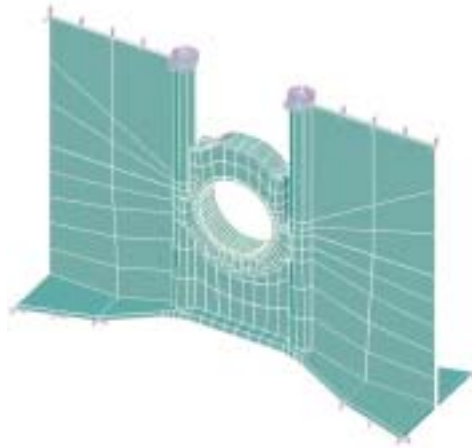
R&D Centre

All of our innovations are thoroughly tested at our Research & Development Centre in Copenhagen.

This state-of-the-art facility has been in operation since 1992, during which time MAN B&W Diesel invested US\$ 20 million in the Centre.

The 1,100 square metre Research & Development Centre is staffed by highly skilled research engineers and technicians. The staff are assisted by other specialists from MAN B&W Diesel's Engineering Department.

In addition to the vast test-bed facility, the building also houses workshops for instrumentation work on components as well as accommodating the facilities for the Marine Engineers' training courses.



spare parts for the present and future



Production

The MAN B&W Diesel Works in Copenhagen produces high-technology engine components and spare parts for two-stroke engines.

The production departments are equipped with modern high-technology numerically controlled machine tools.

The components include fuel injection equipment and high pressure piping for fuel injection, cylinder covers, pistons, exhaust valve spindles and valve seats.

At the Copenhagen Works, which carry an ISO Certificate, all parts are subjected to rigorous quality control. Only spare parts that have passed this quality test are original MAN B&W Diesel spare parts.

The quality can be documented through our extensive archives of inspection and measuring protocols.

You are always very welcome to visit our comprehensive works here in Copenhagen.

From this can also be concluded that only MAN B&W Diesel spares can be considered as original, and should not be compared with third party spares on the market.

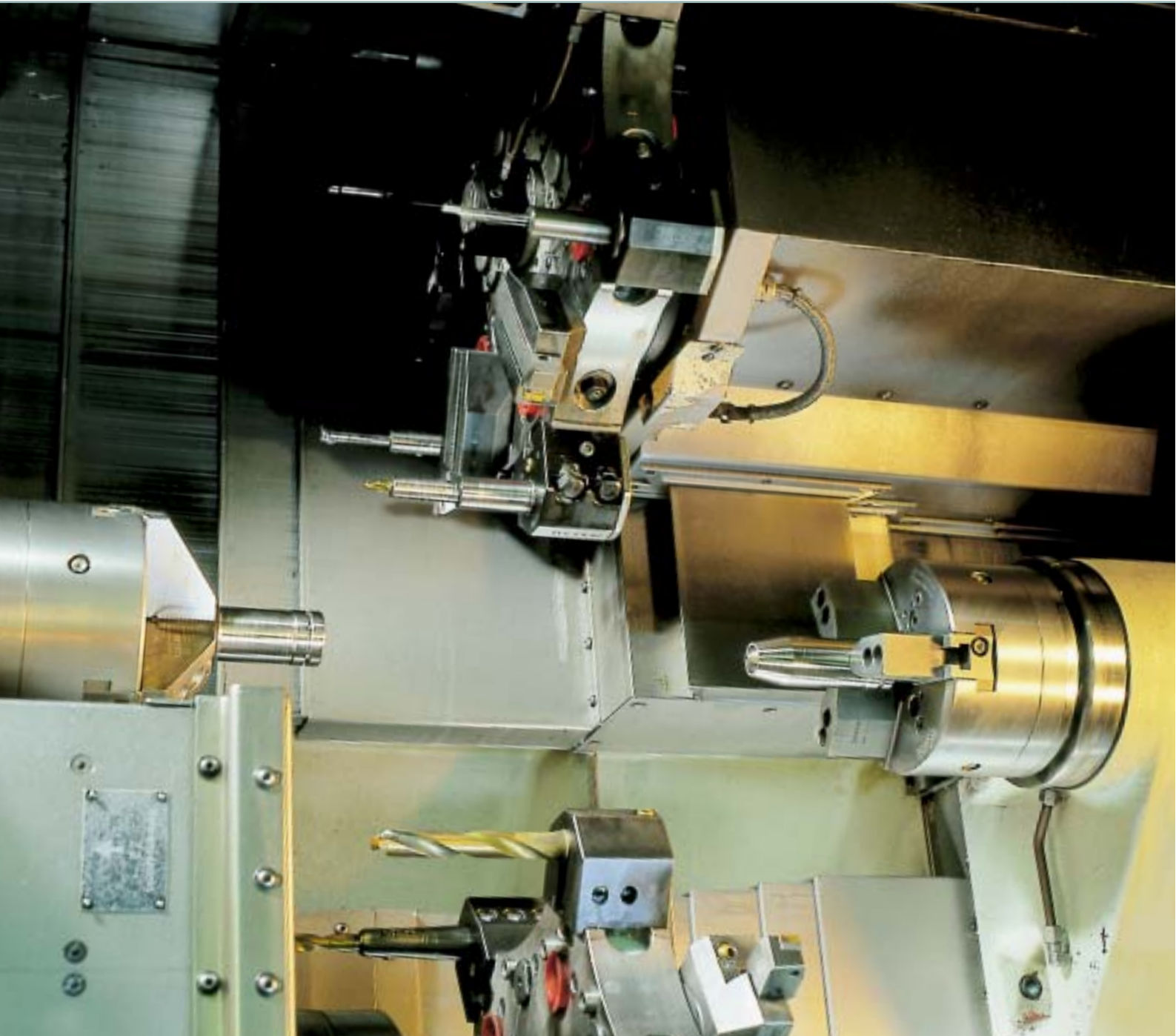
top quality products for centuries past and present

Quality assured production



Latest high-tech solutions from MAN B&W Diesel

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Innovations

As a consequence of our continuous development in all aspects of engine design, new possibilities also arise for older engines. Just a few of which can be seen below.

Alpha Lubricator System

MAN B&W Diesel has introduced several notable innovations in recent years, high among these successful and rapidly industry-accepted solutions is the Alpha Lubricator System.

This electronically managed lubricating system, now fitted as standard on all new MAN B&W Diesel engines, is available for retrofitting on existing MAN B&W Diesel engines. The lubricators are far more efficient and effective than previous designs.

Alpha Adaptive Cylinder oil Control (Alpha ACC)

The Alpha ACC can be specified on all MAN B&W Diesel engines, both new and retrofitted to engines with the Alpha Lubricator System.

The system is based on an algorithm, which controls the cylinder oil dosage across all engine loads proportional to the sulphur level in the fuel. The control

is also conditioned so that the basic duties of the lubricating oil are also fulfilled, thus optimising lube usage at all times.

W-seat

The aim of the new geometry of the exhaust valve housing is to further increase the TBOs. The design increases the pressure at the contact points in order to better eliminate carbon particle escapes. The higher pressures experienced at the contact points has also led to material improvements and cost savings.

The W-seat is made from a solid low-alloy steel with an induction hardened seating surface. Savings also result by the fact that the welding previously required with the hard-facing material is no longer required.

Slide Fuel Valves

Results have shown that the introduction of the slide fuel valve has produced cleaner engines, with reduced emissions (up to 30% reduction in HC emissions) and lower fuel consumption.

Please contact us for details regarding your specific engines.

introducing several notable innovations



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