Spare Parts
Why choose spare parts from MAN PrimeServ?
MAN Diesel & Turbo has been designing engines for more than 100 years, but this does not mean that we rest on our laurels regarding innovation. The pride in our products ensure that development and optimisation never stops. Our innovative products will therefore always be with the latest design updates according to your needs.

When choosing MAN PrimeServ, you will receive spare parts from:

- The largest global network of sales and service offices in the market
- The only class-approved supplier to all MAN-designed two-stroke engines
- The engine designer with all the know-how
- The largest availability of spare parts for MAN-designed two-stroke engines
- The world’s most experienced engine designer
- The innovator and designer of the large two-stroke diesel engine
- One contact point regardless of engine builder
- Free technical support 24/7.
Exhaust Valve W-Seat
Original spare parts from MAN PrimeServ

MAN Diesel & Turbo has a standard called the W-seat technology, which improves the overall conditions of the seat contact area, leading to increased time between overhaul (TBO).

The successful introduction of the W-seat is confirmed by many years of research and development, both in scientific tests and long-term in-service trials.

Features of the W-seat
The key to the superior performance of the W-seat is the two narrow concentric contact areas. The effect of these narrow contact areas is to crush and squeeze out all carbon particles, which might get trapped between the spindle and the bottom piece. This is actually achieved without giving rise to any appreciable dent marks.

In order to meet the requirements for high strength, the W-seat is made from a forged ring, low-alloy steel, with a hardened seating surface. This innovation also results in a considerable economical advantage – saving the expense of welding a costly, hard-facing material onto the seat.

Benefits
- Reduced price compared to previous designs
- Less risk of gas leakage
- Crushes all carbon particles without increasing the risk of dent marks
- Increased TBO.

Minor dent marks are no longer to be considered harmful, and can be disregarded when evaluating the condition of the seats. So far, running hours of up to 40,000 hours have been obtained without needing to grind the seat.

The W-seat can be used on all types of MC/ME engines as well as the majority of earlier designs of MAN B&W two-stroke engines, regardless of the spindle type.
MAN Diesel & Turbo always strives to focus on the customers’ demands and how to improve the running of the engine. This naturally includes the exhaust valve as it is an essential component exposed to extreme working conditions. The DuraSpindle design was introduced because it is better at withstanding these conditions. All scientific research as well as the actual production of the DuraSpindle are performed at our Copenhagen facilities.

**Features of the DuraSpindle**

Developing the welding of the DuraSpindle has been a focus area for MAN Diesel & Turbo for a long time. The result is the Inconnel 625 welded DuraSpindle. It is a high-temperature resilient Ni-Cr alloy that is welded onto the stainless steel spindles. This production method results in a substantial price reduction compared to the previous design with Nimonic 80A. Furthermore, the lifetime of the exhaust valve spindle is also increased.

**Benefits**

- Reduced price compared to previous designs
- Increased lifetime of the exhaust valve spindle
- TBO increased by 50%
- Reliability increased compared to previous designs
- Decreased maintenance costs.

A combination of the DuraSpindle and exhaust valve W-seat will result in removal of all carbon deposit and thereby further improve all benefits mentioned above.
CPR-POP Piston Rings
Original spare parts from MAN PrimeServ

MAN Diesel & Turbo always strives to stay innovative and to optimise the product portfolio, which is why we always try to further research and develop our products. The CPR-POP ring (Port-On-Plane) is a perfect example of this, as this new standard for small bore engines (26 to 50 bore) is an optimisation compared to previous CPR-CL designs.

Features of the CPR-POP piston ring
As the POP ring wears down, the pressure relief area increases due to the design of the rings and ensures a continuous pressure distribution throughout the lifetime of the ring.

Another design feature of the CPR-POP ring is that the underside shape of the ring ensures a constant and equal pressure drop across the rings, which means a reduction in the wear on the top ring.

Benefits
- Reduced risk of ring breakage compared to previous designs
- Increased TBO
- Security of a fast, safe and reliable running-in period
- Substantial reduction in piston ring groove and liner wear.
Over the past 15 years, the piston ring packs have been developed into unique products with alu/cermet coatings that optimise the overall quality of the piston rings and increases TBO. These new designs are now standard on all new engines.

Features of cermet layer
Our piston rings with the cermet layer will also be introduced as standard (on 1st and 4th rings). Using a cermet coating on the running surface, as well as hard, chrome plating on the ring underside, decreases the wearing of the cylinder liner (80 bore and up). Furthermore, the cermet coating also increases the margin against scuffing.

Features of alu-coating
The old design of piston rings without alu-coat will be phased out in the near future, and it will only be possible to buy the old version for engines of a certain age.

Even in an old cylinder liner, the new alu/cermet coated rings will generate an open-grained structure of the liner and thereby improve the cylinder liner lifetime.

For certain engine types, it is an advantage to get chrome layers on the underside of the rings, which means a substantial reduction in the underside wear, which also prolongs the lifetime at the piston crown.

Benefits
- Increases cylinder liner lifetime
- Safe and reliable running-in time
- Prolongs piston lifetime
- Improved TBO
- The cermet coating increases the margin against scuffing.
Stuffing Box Ring Pack
Original spare parts from MAN PrimeServ

With MAN Diesel & Turbo’s new lamella-type top-ring design of the stuffing box, the system oil consumption is decreased and the cleanliness of the system oil is improved. This means that it successfully optimises the performance of the stuffing box and reduces future maintenance costs.

Features of the top ring
Extensive service tests have shown that the lamella-type top ring scrapes off soot, coke, etc., from the piston rod and leads it to the scavenge box drain. Today, the innovative lamella-type top ring is standard on all new two-stroke MAN B&W diesel engines.

Features of the new scraper rings
Furthermore, the scraper rings in the three lowermost grooves in the stuffing box will also be changed to lap-joint design, which minimises the system oil content in the drain. This will be done automatically for all new engines. All in all, this will be an optimisation of the design.

Benefits
- Reduced cost in system oil consumption
- Overall maintenance cost of the stuffing box, reduced by up to 15%
- Improved cleanliness of system oil
- This new design successfully optimises the performance of the stuffing box.
MAN PrimeServ Maintenance Kits are an all-in-one maintenance solution for overhaul of components, such as exhaust valves and fuel pumps. Each MAN PrimeServ Maintenance Kit contains all necessary parts in genuine MAN PrimeServ quality as well as an installation guide for the specific engine, based on simple-to-understand visual diagrams. This enables engineers/mechanics to perform the service correctly and in the shortest time possible.

Maintenance Kits are designed specifically for each MAN engine configuration which extends TBO. All in all, by using Maintenance Kits, you will provide an even better service to your fleet.

**Save up to 30 per cent**
A maintenance kit costs up to 30 per cent less than multiple ordering of individual parts.

**Benefits**
- Greater procurement, handling and installation efficiency
- All-in-one maintenance solution
- Effective servicing
- Simple installation
- Lower costs.

**The following Maintenance Kits now available:**
- Exhaust Valve
- Fuel Pump/Fuel Pressure Booster
- Alpha Lubricators for MC/ME Engines
- Cylinder Liner Overhaul
- Sealing Air Unit
- Junction Boxes
- Stuffing Box
- Piston and Piston Rod
- Retrofit Stuffing Box.
MAN PrimeServ
Your strong and reliable partner

We are always ready to assist in any matters regarding spare parts for MAN B&W two-stroke engines. This includes technical service 24/7.

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We have the largest global network of sales and service offices in the market and will always be in close proximity to our customers.