

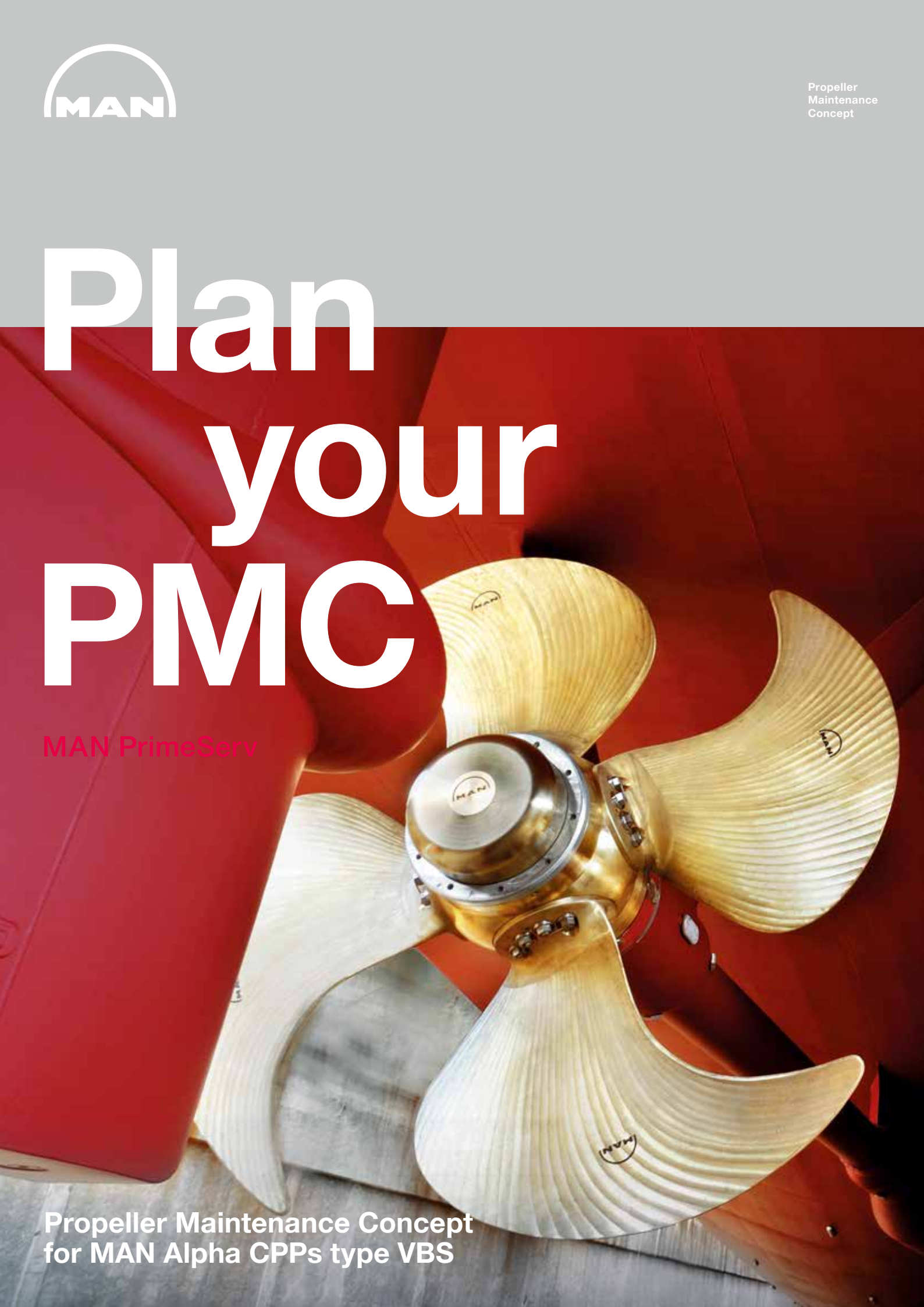


Propeller
Maintenance
Concept

Plan your PMIC

MAN PrimeServ

Propeller Maintenance Concept
for MAN Alpha CPPs type VBS



5 and 10 year

Propeller maintenance

To ensure the long-term peak performance and reliability of your MAN Alpha VBS propeller and Alphatronic propulsion control system – MAN Energy Solutions can now offer an extended package with after-sales services for new and existing systems.

Maintenance concept - VBS

The service package will typically include our standard VBS propeller maintenance performed in connection with the 5 and/or 10 year inspections – in accordance with the docking periods recommended by the classification societies.

5-year package

- A 5-year package includes control of the entire cp propeller system, with focus on the mechanical, hydraulic and electrical key parameters.
- Blade seals and filters will be exchanged.
- Tolerances on wearing parts will be control-measured and recorded.
- Guidance for the remaining lifetime will be given.
- A recommended spare part kit is prepared and available for quick delivery.

10-year package

- A 10-year package additionally includes an extended inspection and overhaul of the entire propeller hub.
- Wearing parts will be control-measured and recorded.
- Guidance for the remaining lifetime will be given.
- Also here a recommended spare part kit is available for quick delivery.

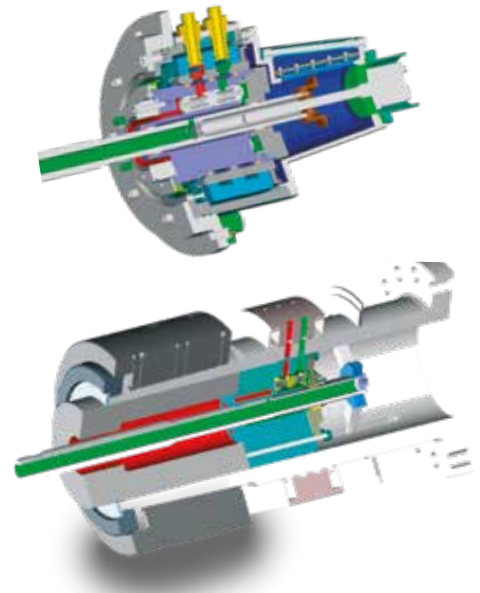
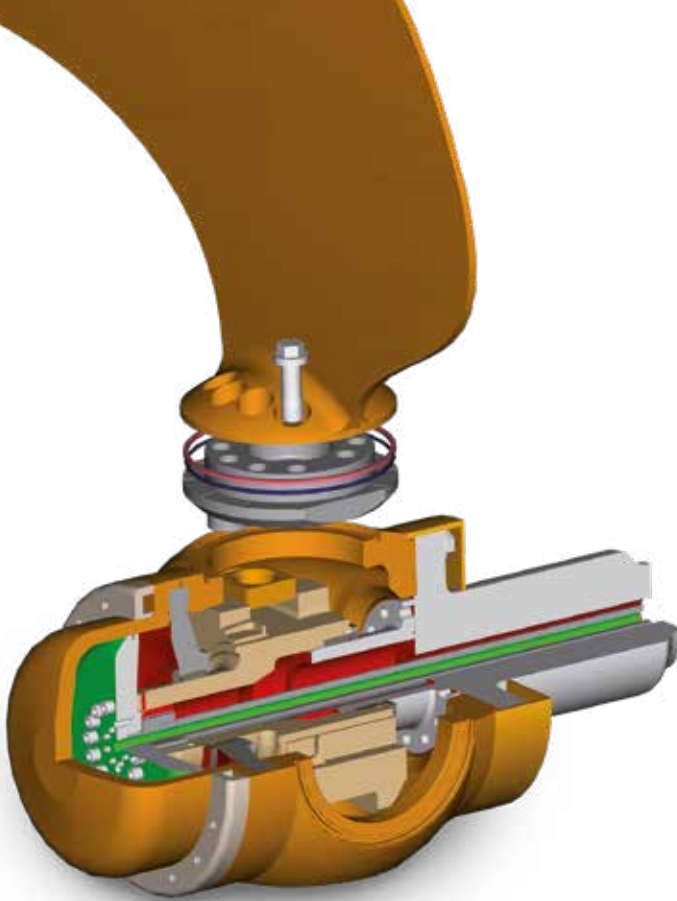




A Maintenance Concept

Tailored to your operational needs





MAN Energy Solutions



The extent of our service and scope of inspections are performed according to MAN Energy Solutions' accumulated experience and durability recommendations to the classification societies.

Customer advantages

Example of parameters checked:

Hydrodynamic

Blade surface, possible cavitation marks or impact damages. Blade shape, via 3-point geometrical measurements.

Mechanical

Clearance measurements of propeller hub, blade feet and pitch control head. Exchange of blade seals.

Hydraulic

Check of servo-oil system and stern tube sealing. Leak-test of hydraulic connections and the hub. Performance test of the OD-Ring, and re-adjustment of the hydraulic system.

Electrical

Adjustment of pitch feed-back system. Control of manoeuvre system response time. Check of remote, local and emergency manoeuvres.

Customer benefits and documentation

- Parts available via standardized kits.
- Optimal service and overhaul planning.
- Certificate and measuring reports supplied.
- Maximum reliability between scheduled dockings.
- Optimized operational economy.
- Service cost transparency.

Safe and accurate propulsion control



**From your
finger tips to
the propeller tips**

Final PMC functionality test

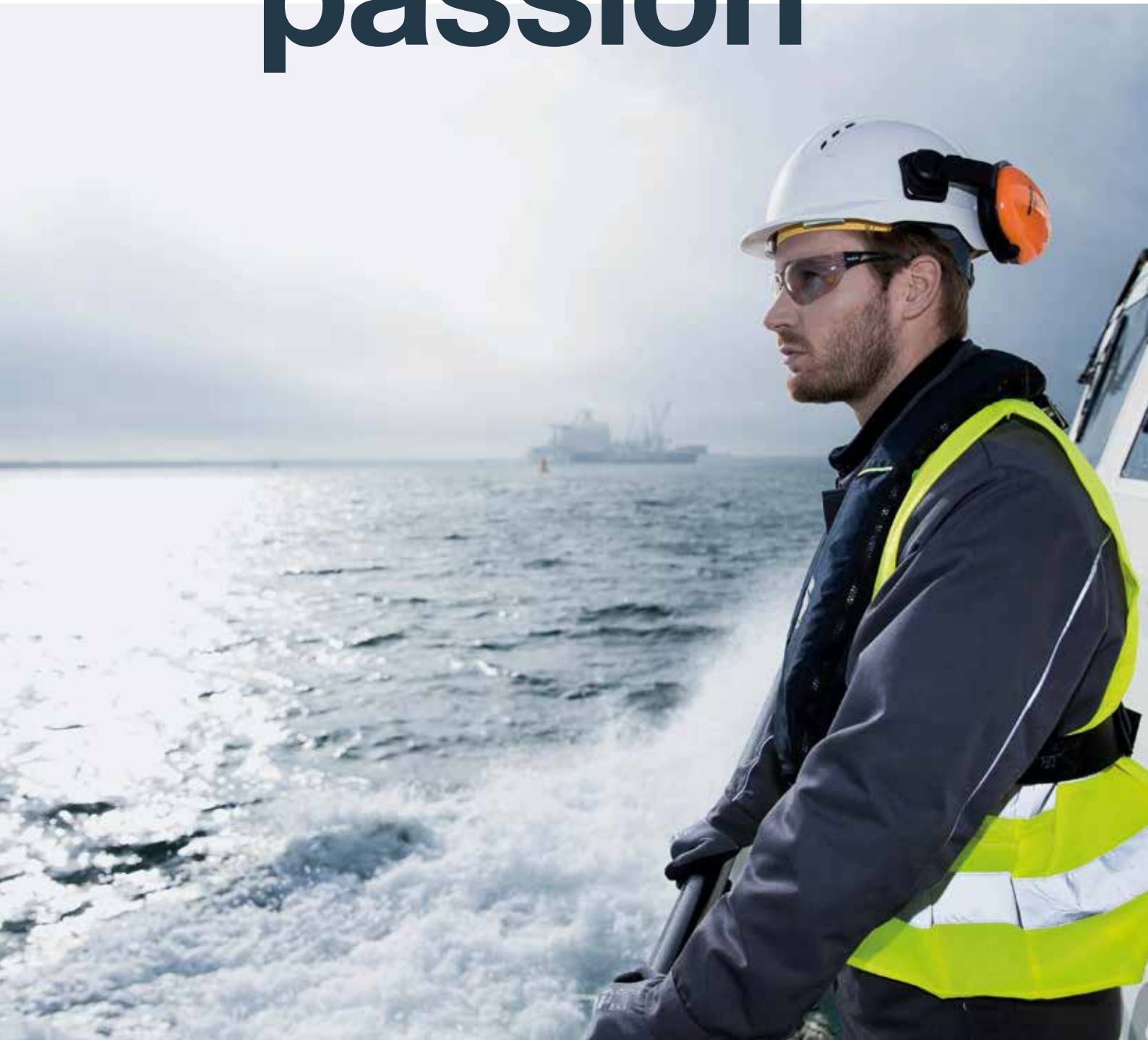
Alphatronic control system

Test of pitch manoeuvring functions from Bridge, Engine Control Room and local emergency control on the Hydraulic Power Unit (HPU).



MAN PrimeServ

Service with passion





hours a day



days a year

MAN PrimeServ is the dedicated MAN Energy Solutions service brand. Via a network of over 100 service centers worldwide, MAN PrimeServ provides 24/7 service across the globe. Our range of services includes technical support, consulting and OEM spares, as well as maintenance, repair and individualized service plans like our PMC, Propeller Maintenance Concept.

MAN PrimeServ's aim is to provide

- Prompt delivery of high-demand OEM spare parts within 24 hours
- Fast, reliable and competent customer support
- Individually tailored O&M contracts
- Ongoing training and qualification of operators and maintenance staff
- Global service, 24 hours a day, 365 days a year
- Diagnosis and troubleshooting with our MAN PrimeServ Assist online

Worldwide service

We offer retrofitting and upgrade services to bring propellers, propulsion systems, engines and turbochargers already in service up to the very latest standards of performance and efficiency.

Using the latest digital technology, we enable you to maximize the performance and availability of your MAN equipment by accessing real-time data analysis, remote support and rapid solutions. We also offer an extensive range of training courses at MAN PrimeServ academies around the world.

Our service does not vary according to location. We know that a vessel may be built in Asia, operated in Europe for ten years and then move to Africa for the next ten years. That does not alter our focus on fast delivery of strategic spare parts, a comprehensive approach, or our tailored maintenance plans like the PMC.

For more information please visit
www.man-es.com/primeserv



100

Services centers
worldwide



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