

# Smart maintenance

Taking uptime to new heights with high quality spare parts and field services

## BUSINESS WHITE PAPER



### CONTENTS

#### BENEFITS OF A SMART MAINTENANCE APPROACH

- **Transparency** – long term visibility of lifecycle maintenance costs
- **Flexibility** – tailored solutions and the ability to handle all maintenance needs anywhere in the world
- **Technical expertise** – quality and performance guaranteed
- **Innovation** – new products and services that maximise uptime and reduce operating costs

I. Introduction .....	2
II. Reducing risk with OEM spare parts .....	3
III. Reducing risk with high-quality field services .....	4
IV. Ensuring flexibility through tailored solutions.....	5
V. Conclusion .....	5

# I. Introduction

Every year  
we serve  
**12,000**  
customers

The marine and energy market landscapes are constantly evolving, and as companies continue to grow and expand the global reach of their operations, the need for truly global service and maintenance networks is increasing. In addition, there is growing demand for solutions that help companies optimise their operations by increasing asset uptime and ensuring long-term visibility of maintenance costs in increasingly competitive markets.

This means looking beyond short-term cost savings and seeking ways to ensure longer-lasting, safer and more reliable performance and greater lifecycle cost efficiency as well as compliance with environmental legislation. In both the energy and marine sectors, preventive maintenance is vital to ensure smooth day-to-day operations and cost-effectiveness, while high-quality reactive maintenance enables quick repairs and therefore reduces unplanned downtime.

Instead of relying solely on their own staff or multiple suppliers, owners and operators are increasingly looking for a reliable end-to-end provider who can handle all their maintenance needs. A smart maintenance approach combines spare parts and field services from a reliable original equipment manufacturer (OEM) to enable better maintenance planning and execution, supporting customers in achieving their business goals. In addition to offering expertise, field service capabilities should also continuously evolve to meet the needs of the increasingly complex nature of the systems used by customers. This type of model, where the supplier takes full responsibility for service quality regardless of where an asset may be in the world, can help owners and operators realise significant savings in operating costs and enable them to focus on their core business.

---

## II. Reducing risk with OEM spare parts

Combining the use of quality spare parts from an OEM supplier with field services to enable smart maintenance can bring considerable benefits throughout the asset lifecycle by maximising uptime. Another benefit is lowering fuel costs – as fuel costs account for a major part of total operating costs, the cost of properly planned and executed maintenance can quickly be compensated for through the resulting savings.

### EXPERT SERVICES HELP OPTIMISE OPERATIONS

The knowledge and expertise that the OEM supplier can offer is invaluable when identifying ways to optimise operations. As well as knowing which parts to use and how the installation has been modified over time, the supplier can also ensure compliance with regulations and the compatibility of parts with current product specifications and future upgrades. Furthermore, they can also offer services such as troubleshooting, technical assistance and performance analysis as well as root-cause analysis and component traceability in breakdown cases.

### THE KEY ADVANTAGES OF USING OEM SPARE PARTS

#### Safety

OEM spare parts ensure the safe and predictable performance of critical systems. They have undergone extensive laboratory and field tests in order to ensure that they comply with the required specifications and with emission regulations and legislation.

#### Reliability

In order to deliver optimum performance throughout their entire lifecycle, new and old assets alike should be managed using parts that meet the latest applicable standards and specifications. With OEM spare parts you benefit from high-quality up-to-date parts that are manufactured to strict tolerances to ensure reliable performance.

#### Availability

Acquiring spare parts for complex installations can be a time-consuming and frustrating task as the correct parts for different equipment need to be identified and delivery schedules coordinated in order to minimise unnecessary delays during maintenance breaks. An original equipment manufacturer can offer end-to-end service and fast, reliable delivery for spare parts whenever they are needed, ensuring that routine maintenance processes and unexpected situations alike can be dealt with quickly and efficiently.

#### Durability

A quality spare part from an OEM supplier can have a considerably longer lifetime compared to a non-original part. They are made of high-quality materials, and strict quality management during the manufacturing process ensure that they can be delivered with a full warranty.

#### Cost efficiency

Spare part costs account for a relatively small part of the total operational expenditure of an asset – approximately three to six per cent. However, from a lifecycle cost perspective the shorter service life and possible unreliability of non-original parts may lead to repair costs that far exceed the cost of the parts themselves over the asset's lifecycle. And frequent downtime for repairs means lost revenue and potential financial penalties. What's more, using inferior spare parts can also result in problems such as higher lube oil or fuel oil consumption, leading to an increase in total operating costs. A cost-efficient spare parts agreement with the OEM supplier can offer considerable savings in fuel costs and overall lifecycle costs of the equipment.



### FAST, COST-EFFECTIVE PARTS DELIVERY 24/7

Wärtsilä ensures fast response times and cost-effective on-time delivery of spare parts to customers around the globe. Customers have one contact point for the full range of OEM spare parts, tools and consumables for all Wärtsilä brands. Original spare parts can be ordered 24/7 through our global service network or Wärtsilä Online services.

# III. Reducing risk with high-quality field services

Qualified maintenance expertise is critical to ensure an asset can perform optimally. In all operational phases, the benefit of a partner with rapid response capabilities and a global presence cannot be overstated.

Global field services ensure that the correct competences, skills and technical solutions are available for maintenance, overhaul, repair and troubleshooting onsite or in local workshops. An OEM supplier's service work also employs the latest techniques and complies with QEHS standards and specifications.

The end result is that an asset delivers optimum performance after repair or maintenance work. An OEM supplier can also offer a range of complementary services such as machining and services for reconditioning/remanufacturing, in-situ machining and alignment as well as expertise for audits and upgrades of mechanical, electrical, automation and environmental systems.

Our  
**3,600**  
field service  
professionals perform  
**100,000**  
field service jobs  
per year

## THE KEY ADVANTAGES OF USING HIGH-QUALITY FIELD SERVICES

### Global expertise, local presence

Using a global OEM supplier for field services gives customers access to expert engineering knowledge and certified maintenance and repair methodologies wherever an asset is in the world. In addition, OEM suppliers can offer the latest upgrades, technologies and repair methods. Owners and operators also benefit from greater procurement and contracting flexibility with global quality standards.

The use of global workshops equipped with high-quality machine tools and equipment that are operated by highly trained personnel cuts back on overhaul times and guarantees quality, reducing the risk of breakdowns.

### Competences that ensure quality

Any supplier should ensure that only highly qualified personnel with the necessary skills and experience are allowed to work on a customer's installation. Regardless of where maintenance, repairs or upgrades are undertaken, the work needs to be done according to the requirements of the relevant international standards, including the International Maritime Organization and ISO 9001, ISO18001 and ISO14001 international standards.

Training that enables personnel to perform specialist tests and diagnostics in accordance with the above standards is key. Professional management tools for field service and workshop resources can help to ensure that the skill level is the same globally.

### Taking responsibility to minimise risk

The latest model for field services involves offloading of risk onto the supplier – essentially, an agreement is created where the field service team guarantees performance and takes the necessary steps to ensure that agreed service levels are met. The field service team assumes responsibility for customer assets and manages spare parts and service in an optimised manner on the customer's behalf.



## WHAT WÄRTSILÄ OFFERS

Wärtsilä gives you the widest range of services in the industry combined with a deep understanding of energy and marine operations. Our Services offering includes:

- Global coverage with 75 fully owned workshops in over 60 countries
- Preventive maintenance including scheduled and unscheduled maintenance, standard overhauls and predictive maintenance using condition-based monitoring systems
- Component and product repairs onsite and in workshops using the latest techniques
- Installation audits, measurements, troubleshooting and upgrades
- Environmental services including NO<sub>x</sub> and SO<sub>x</sub> reduction, ballast water management and emissions monitoring

## IV. Ensuring flexibility through tailored solutions

When it comes to creating a tailored service agreement, gone are the days when a customer needs to select from a lengthy and confusing menu of options or buy bundles that may include services and parts they simply do not need. A modern approach to smart maintenance begins with a comprehensive discussion of customer needs to lay the groundwork for building a tailored package. The goal is to create a customer-first experience that minimises risk while maximising uptime. In this model, the supplier may carry the responsibility for ensuring agreed targets are met.

### **KEY BENEFITS OF SMART MAINTENANCE**

#### **Transparency of lifecycle maintenance costs**

Combining spare parts and field services from a reliable OEM supplier gives much greater visibility into maintenance costs. In cases where a performance guarantee is part of the agreement, customers can offload risk and gain peace of mind that preventive and reactive maintenance will be done as needed to ensure that targets are met.

The end result is optimised operations that cut fuel consumption and increase safety and improve reliability, predictability and cost-efficiency.

#### **Flexible maintenance offering**

Combining spare parts and field services into a single model enables a smoother maintenance cycle due to improved planning and implementation. Instead of fixed packages that include unnecessary elements, tailored agreements address the customer's real needs.

#### **Technical expertise to ensure smooth operations**

An extensive support organisation is needed to help with technical issues and ensure efficient troubleshooting, root cause analysis and component traceability around the globe – and around the clock. The result of such expertise is better availability and reliability throughout the installation lifecycle.

#### **Innovative solutions to improve efficiency**

New developments ensure innovative ways of delivering spare parts including remanufacturing or reconditioning solutions, online services and fixed-price overhaul packages. Agreement-based services can include such elements as parts planning, an annual spare parts budget and performance indicators to improve operational efficiency and availability.

---

## V. Conclusion

When choosing a maintenance supplier, it is important to ensure the availability of a full range of OEM parts, tools and consumables, as well as expert advice, installation, and maintenance – whenever and wherever needed.

This enables optimised performance and cost efficiency throughout the lifecycle of an asset. A single, global and reliable OEM supplier can reduce risks by ensuring agreed levels of performance. Owners and operators also benefit from a dedicated partner who can offer the same quality parts and service anywhere in the world.

## **Ensuring your lifecycle operations**

Wärtsilä creates lifecycle services for its customers, enhancing their business – whenever, wherever. We provide industry’s broadest range of services for both shipping and power generation. Our solutions range from spare parts and basic support to ensuring maximised lifetime, increased efficiency and guaranteed performance of customer’s equipment or installation – in a safe, reliable, and environmentally sustainable way.

**wartsila.com**

© 2019 Wärtsilä Corporation – All rights reserved.

No part of this publication may be reproduced or copied in any form or by any means (electronic, mechanical, graphic, photocopying, recording, taping or other information retrieval systems) without the prior written permission of the copyright holder. Neither Wärtsilä Finland Oy, nor any other Wärtsilä Group Company, makes any representation or warranty (express or implied) in this publication and neither Wärtsilä Finland Oy, nor any other Wärtsilä Group Company, assumes any responsibility for the correctness, errors or omissions of information contained herein. Information in this publication is subject to change without notice.

No liability, whether direct, indirect, special, incidental or consequential, is assumed with respect to the information contained herein. This publication is intended for information purposes only.

