

WÄRTSILÄ WATERJETS SERVICES

Enhance the performance,
efficiency and reliability of
your waterjet propulsion
systems



Whether you operate high-speed passenger ferries, workboats or naval vessels, the performance, reliability, safety and availability of your assets should never be a concern. With a reliable global service and maintenance network behind you, you can be assured of world-class support throughout the lifecycle of your equipment. Wärtsilä's offering covers everything from emergency repairs to modernisation or even complete replacement of your vessel's waterjet system.

Wärtsilä Waterjets services are applicable to both Wärtsilä and third-party systems and are based on our decades of experience in designing, maintaining and modernising waterjet propulsion systems onboard vessels of all kinds. Our services follow carefully defined maintenance schedules throughout the waterjet lifecycle, with predefined maintenance kits providing long-term cost predictability of parts and associated services.

Technical concept

The operation and maintenance needs of vessels with waterjet propulsion systems are generally subject to similar legislation to vessels with traditional propeller propulsion systems. However,

due to their faster speed of travel there are also regulations specific to these types of vessels that need to be taken into account. Classification societies provide guidelines on vessel maintenance, including preventive inspections, routine maintenance and modifications.

Wärtsilä Waterjets services aim to achieve and maintain optimal performance and efficiency of your waterjets throughout their entire lifecycle. They cover everything from routine inspections of external and internal components and scheduled maintenance and repairs to refurbishments and upgrades.

KEY BENEFITS

- Maximise vessel uptime and reduce operating costs
- Ensure safe, reliable performance and fast access to original Wärtsilä spare parts
- Get greater visibility over lifecycle costs with long-term service agreements
- Benefit from a flexible maintenance approach and global support
- Increase time between overhauls

Specialised services for impellers and jetavators

We can provide class-approved repair services to address cavitation damage on various types of stainless steel impellers – including grinding, welding and re-profiling. We also offer additional services to help avoid further cavitation, such as tuning of the control system set points. We can also perform repairs on impact-damaged outboard assemblies.

Propulsion control system upgrades

We can support you with upgrades to the propulsion control system throughout the vessel's lifecycle to ensure you benefit from the latest advances in electronics and automation technology. Upgrading is quick and easy, removes the risk of component obsolescence and helps to reduce the risk of unexpected downtime for maintenance or repair. It can also reduce fuel consumption due to more accurate control and operation.

Class-approved condition monitoring

With our class-approved propulsion condition monitoring services (PCMS), data on your propulsion equipment is analysed at a Wärtsilä Expertise Centre to determine its condition without the need for internal visual inspections. The data gathered includes continuous vibration measurement of the stator bowl, thrust bearing and gearbox. By monitoring component-specific frequencies, we can detect defects such as cracks or damaged bearings early and help you plan repair activities well in advance.

You will receive monthly condition status reports including maintenance recommendations. PCMS maximises vessel availability by ensuring that maintenance and overhauls are performed only when needed.

Scope of supply

Our services offering for waterjet propulsion systems covers complete reinstallation, repowering, repair, replacement and overhauls, all including the applicable classification approvals:

- Planned and unplanned maintenance
- Replacement of wear components such as shaft seals, water-lubricated shaft bearings, radial and axial roller bearings, and anti-corrosion anodes
- Hydraulic cylinder and hose services
- Impeller repair, overhaul and replacement
- Outboard assembly reconditioning
- Upgrade of older waterjets to the latest technologies
- Upgrade of sealing solutions
- Upgrade and retrofit of propulsion controls
- Audit services such as underwater inspection, repair and alignment including analysis of results
- Condition monitoring

Why choose Wärtsilä?

Thanks to our global service network we can support you wherever your vessels are located. Our offering includes everything from emergency repairs to modernisation or complete replacement of waterjet systems – regardless of the type of vessel you operate. Our services are supported by the use of modern modelling methods such as Computational Fluid Dynamics (CFD) and Finite Element Analysis (FEA).



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