

Wärtsilä Controllable pitch propeller services



In order to thrive in competitive markets, shipping companies need solutions that increase reliability, reduce OPEX and ensure long-term visibility into costs. With Wärtsilä Controllable pitch propeller (CPP) services we can support you with scheduled inspections and unplanned repairs, and help you realise fuel-efficiency gains.

INSPECTION AND MAINTENANCE

The maintenance needs of a CPP vary according to vessel type and operation profile but classification societies require five and ten-year inspections. A five-year inspection includes general inspection and cleaning, condition evaluation and preventive replacement of critical parts, as well as an external inspection to check the CPP components for wear and damage. A more comprehensive inspection of CPP components is required after ten years to determine the need for refurbishment or replacement of key components.

As well as supporting you with all aspects relating to the inspections, Wärtsilä also provides maintenance guidelines for the entire lifecycle of your vessel's CPP system. We can supply a class-approved propulsion condition-monitoring system to increase the time between overhauls as well as services to increase the lifespan and efficiency of the CPP blades. For example, regular cleaning and polishing can improve efficiency by as much as 5%.

KEY BENEFITS

- Maximise vessel uptime and reduce operating costs for your controllable pitch propeller system
- Ensure safe, reliable performance and access to OEM spare parts
- Get greater visibility into lifecycle costs with long-term service agreements
- Benefit from a flexible maintenance approach and global maintenance support
- Increase time between overhauls



A change of mission profile or ageing of the existing system can require a change in the design of your CPP blades. A redesign of the existing propeller using the latest Computational Fluid Dynamics (CFD) tools – without optimising boundary conditions like propeller speed and diameter – can lead to fuel efficiency improvements of up to 5%.

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 a propulsion control system is quick and easy, and helps to reduce the risk of unexpected downtime for maintenance or repair; it can also help reduce fuel consumption.

PROPELLER REPAIR AND REFURBISHMENT – WITH NO DOWNTIME

Taking a vessel into dry dock to perform critical repairs or planned refurbishment on the CPP system costs time and money. Predictive maintenance is crucial in keeping the total cost low. With our Trident Underwater services, work can also be performed below the waterline by specialist diver technicians during scheduled port calls, reducing costs and eliminating downtime.

Our underwater and drydock solutions for propellers include:

- blade straightening and repair of damaged sections
- blade cleaning and polishing
- leading and trailing-edge repair and modification
- diameter and blade-area reduction
- repair and replacement of sterntube, replacement of CPP blade seals
- installation of energy-saving devices such as the Wärtsilä ErgoProFin
- installation of newly designed blades to improve fuel efficiency

PRODUCT TRAINING AND THE WÄRTSILÄ LAND & SEA ACADEMY

Ensuring that your crew are properly trained increases safety, reduces operational risk and unnecessary downtime and maximises your return on investment. Wärtsilä can offer professional training courses run by a specialised team of experienced training engineers.

We have special training centres around the globe dedicated to training ship crews in the operation of all our products. Training covers the machinery, hydraulic parts and controls, and our training staff can develop a custom-made training programme. Whenever possible, crew members are offered specially tailored training related to the actual installation. As an option, the training staff can also take part in onboard training.



SCOPE OF SUPPLY

- Services for five and ten year inspection intervals in accordance with class requirements
- Health check and preventive maintenance
- Retrofit of old installations to a new design
- Spare units as parts or complete sets with class approvals where needed
- Upgrades and retrofits of controls
- Energy efficiency improvement packages
- Audit services
- Long-term service agreements
- Original spare parts with extended warranty
- Service with complete care and peace of mind

WHY CHOOSE WÄRTSILÄ?

Thanks to our global service network we can support you wherever your vessels are located, with everything from emergency repairs to modernisation or complete replacement of CPP systems. Regardless of the type of vessels you operate, we serve you throughout the lifecycle of your equipment. Our decades of in-house experience of hydrodynamics is supported by the extensive use of the latest numerical techniques, such as Computational Fluid Dynamics (CFD).

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