



# SPECIALIST PROPULSION SERVICE

AEGIR-Marine's Propulsion Service can handle everything 'behind the main motor'. This includes the power pack, OD box and coupling; all the way down the shaft to the seals, propeller hub and blades. In fact, that's everything except your engine and gearbox.

## CPP BLADES

We repair damaged blades and grind or polish blades for efficiency improvement.

## HUB

Dismount the hub. Replace all rubber parts and blade foot O-rings before mounting it again, complete overhaul.

## COUPLING

In order to withdraw the shaft, the coupling has to be removed. We do this carefully and by the book to avoid any problems.

## CONTROLS

## POWER PACK

## OIL PIPES

After the coupling has been removed, you can access and detach the oil pipes. Different brands require different solutions and working methods. That's why our knowledge of multiple systems is our big plus.

## SEALS

Overhaul or replace stern tube seals by vulcanizing. We offer all our seals from stock.

## SHAFT

Shaft withdrawal in case of problems or because of class requirements.

## OD BOX

The OD box plays a small but essential part in the adjustment of the CPP. It sometimes has to be removed in order to withdraw the shaft. It's also possible that the OD box requires a complete overhaul.

## THE CPP SPECIALISTS

Whether it's about a scheduled inspection or docking because of damage, Propulsion Service can help you with any CPP issue. We cover the entire process of maintenance and repair.

## MAKE-INDEPENDENT, SKILLED AND EXPERIENCED

Propulsion Service inspects your installation thoroughly. We report back in detail, also with an adequate solution for any problems we have found.

If the work has to be done on the spot and local facilities are insufficient, our service is what you need. You don't want to take any risks with your propulsion installation. Because of our extended field experience, any dock will do. We adjust easily to the circumstances. And last but not least: we can often deliver the spares needed for the job.

## MAINTENANCE SCHEDULE

Most vessels follow a predictable maintenance schedule with pre-defined jobs. For example, new build vessels have their first docking after five years. Required actions include:

- Blade foot O-rings replacement
- Stern tube seals replacement

The 10-year docking calls for more action:

- Blade foot O-rings replacement
- Magnaflux of the propeller shaft flange
- Shaft survey
- Stern tube seals replacement



We withdraw the propeller shaft, service the OD box, update the controls, inspect and overhaul the (bow) thrusters, grind, modify and cast the propeller blades.

## WE ARE A PURE SERVICE PROVIDER

This means that we will service your ship(s) in the best way possible. When a superintendent contracts us, you can count on a job well done within the scheduled time and to the required level of compliance. We love ships and like to be challenged. What distinguishes us is our passion for our job; going the extra mile is how we work.

## WE OFFER TURNKEY SOLUTIONS

An efficient dry-docking combines numerous jobs; for example, working on the bow thruster, stern seals and propeller at the same time as servicing the OD box and updating the controls. However, getting it all done in time takes some skilled planning.

Leaving everything to just one company is much more convenient. AEGIR-Marine's Propulsion Service offers you one-stop-shopping.

## PROPULSION SERVICE OFFERS

- CPPs: inspection, maintenance and overhaul
- FPPs & Blades repair and modification
- (Bow) thrusters: inspection, maintenance and overhaul
- Controls: service, reset adjustments and retrofit
- Stabilizers: maintenance, overhaul and repair
- Underwater repair
- Steering gear: maintenance and repair
- Underwater repairs



### TUNNEL THRUSTER SERVICE BY AEGIR-MARINE

For a long time, tunnel thrusters were 'forgotten' during maintenance. This is quite surprisingly really because it's very easy to inspect the bow thrusters while docking. AEGIR-Marine's propulsion service can maintain, repair or overhaul your bow thrusters.



# BOW THRUSTER & THRUSTER MAINTENANCE

We know that there are so many variables when it comes to (bow) thruster maintenance. That's why we offer highly flexible service. Whatever you need, whatever the situation, we can deliver peace of mind as well as expert craftsmanship. Your (bow) thrusters are in safe hands.

#### IF REPAIR IS NECESSARY: IN DOCK OR IN-HOUSE

There are two options. If docking is scheduled and there's no urgency, dry dock is the most sensible choice. If time, spares and facilities are available, Propulsion Service can inspect and do the regular maintenance in dock. If there are no or poor facilities, or if the ship's time schedule doesn't allow docking, we work in-situ when possible.

#### IF POSSIBLE WE DO THE NECESSARY REPAIRS ON BOARD.

For a bow thruster, we can remove it, blind the mount hole and ship it to our workshop for repairs. After repair, it will be mounted back with the vessel trimmed or below the waterline. This offers a big advantage since the vessel can continue her journey according to schedule.

#### UNDERWATER PROPULSION SERVICE

If docking or on-site repair is not an option, we offer underwater servicing. We work with highly qualified, skilled and experienced diver engineers. It goes without saying that a Propulsion Service supervisor will be present to coordinate and support the work. We offer you this service regardless of make or type.

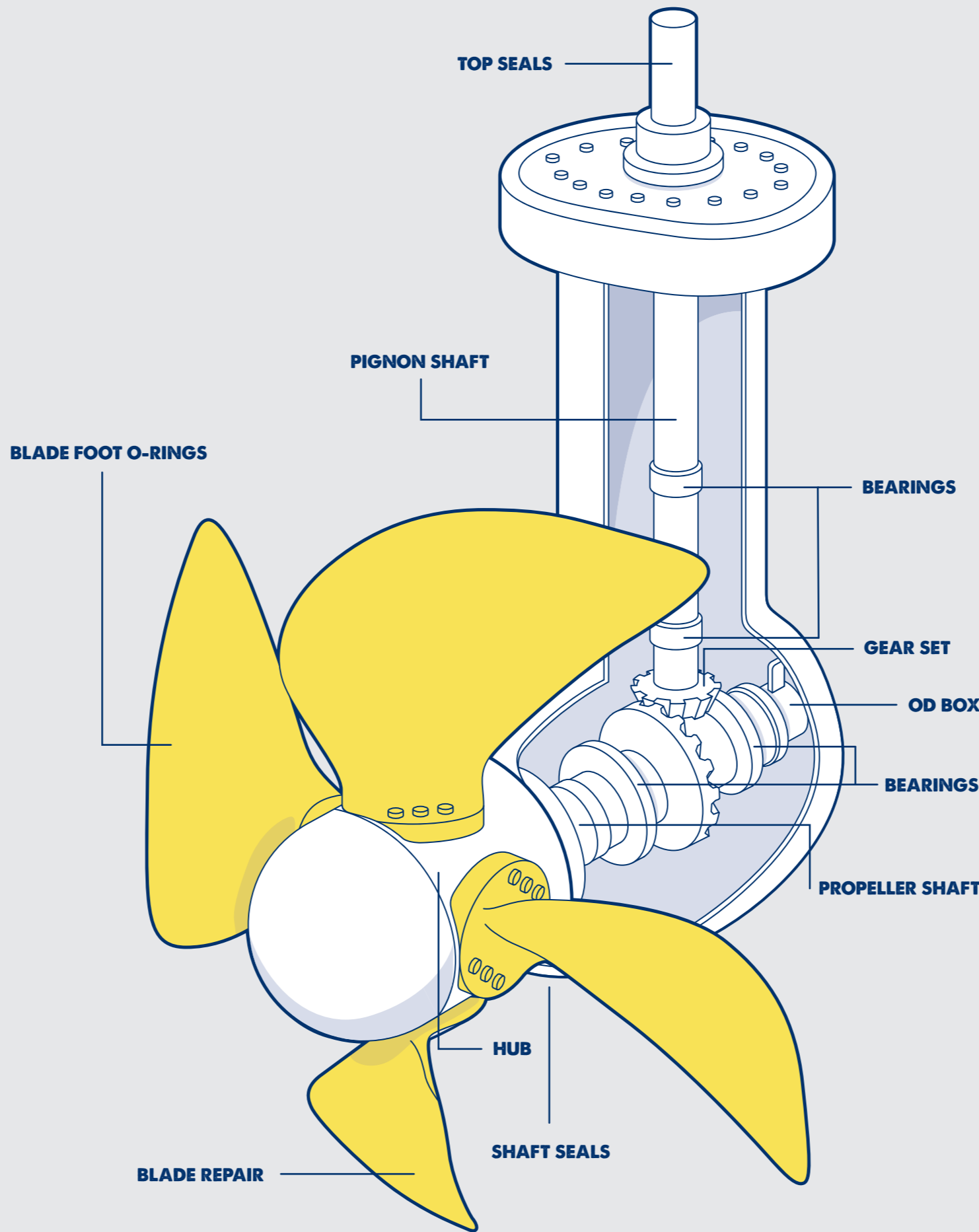
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VERSION 1



# IN-HOUSE REPAIR WORKSHOPS

Some jobs can be done on location. Some can't, either because the job is too big or more time is required. In that case we take your components back to our specialist workshop in the Netherlands.

We can work on:

- (Bow) thruster repairs and overhauls
- FPP and CPP repairs
- Controls

#### IN-HOUSE REPAIR

Our fully-equipped workshops have the necessary space, cranes and specialised tools. We are OEM-independent and work in close cooperation with our clients and their classification society. Our engineers are experienced experts with knowledge of all major installations.

#### METALLURGIC REPAIR

Damaged propeller blades need to be repaired. Since a propulsion installation is a delicate and balanced system, random cropping will damage the propulsion as a whole. A coherent, well-thought-out repair is always the better option.

Propulsion Service offers a thorough inspection and a report-based solution. Our hydrodynamic engineer will give you advice that minimizes efficiency loss and fits your propulsion installation.

FPP repair will be done afloat or while docking. CPPs and bow thruster blades can be repaired afloat, at a shipyard or in-house. If the repair has to be done in-situ, we will send our metallurgical experts.

#### THE BENEFITS OF IN-HOUSE REPAIR:

- Metallurgical repairs such as welding, straightening, grinding & polishing, diameter reduction & trailing edge cutting
- Propeller & blade inspection
- Hydrodynamic calculations before repair
- Casting parts
- 3D scanning/reverse engineering