



## Case Study:

Tug

Niigata 8L28HX Main Engines

Port of Dunkirk, France

## Overhaul of Niigata Main Engines and Z-Peller Work

### Project Overview

A comprehensive overhaul project was successfully completed on a tugboat equipped with two Niigata 8L28HX main engines and Z-Pellers whilst the vessel was in dry dock in the Port of Dunkirk, France. The client required extensive 24,000-hour major overhauls, as well as replacements for the ZP-41 prop shaft and swivel seals on the 15-year-old tug which operates in the River Medway and Thames Estuary.

### Scope of Work

The major overhauls were conducted in accordance with the engine manufacturer's specifications. The process involved the removal, disassembly, cleaning, inspection/testing, and overhaul or replacement of various components, including:

- Cylinder heads
- Rocker assemblies
- Pistons and connecting rods
- Liners
- Camshaft lobes
- Fuel injectors and pumps
- Main bearings
- Fuel feed pumps
- Lube oil pumps
- Water pumps
- Charge air coolers
- Exhaust manifold

In addition to the engine work, the project also included the renewal of swivel and propeller shaft seals on the port and starboard Z-Pellers.

### Outcome

Upon completing the overhaul, comprehensive sea trials were conducted, meeting the satisfaction of the Superintendent and the vessel was returned to service without delay.

