

IN-SITU MACHINING AND COMPLETE OVERHAUL AND REBUILD OF YANMAR 6N330 MAIN ENGINE & GEARBOX

PRODUCT TANKER

The ability to rely on Goltens for a full range of onboard diesel engine services, workshop-reconditioning services, In-Situ machining services and spare parts supply is valued by customers all over the world. So when the owner of a product tanker was undertaking a drydocking period in China prior to turning the vessel over for sublease to a new operator, Goltens was the logical choice.

The vessel had been experiencing issues with its starboard main engine and the owner decided to thoroughly eliminate these issues and perform a wide range of additional work inclusive of overhaul and rebuild of the main engine gear box, intermediate shaft and bearing work, governor and turbocharger overhauls, piston crown and other component reconditioning as well as various other jobs prior to the new operator taking control of the vessel.

As a Yanmar authorized workshop, Goltens has a deep level of experience with this type of engine and was prepared for whatever conditions were discovered. Upon inspection, it was discovered that the engine required line boring and had damage to the crankshaft. As the crankshaft would need to come out of the engine to allow Goltens to line bore the engine, Goltens proposed to machine the crankshaft in its workshop in parallel with the other engine repairs.

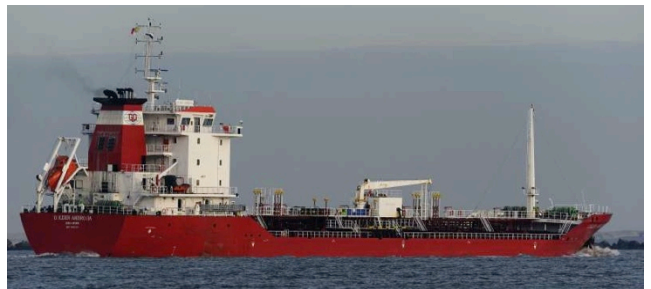
Goltens deployed a comprehensive team that included diesel, laser alignment & chocking, in-situ machining and afloat mechanical technicians to undertake the large work scope.

YANMAR DIESEL ENGINE AND OTHER ONBOARD REPAIRS PERFORMED:

- Removal and replacement of crankshaft
- Overhaul of starboard main engine and gear box
- Alignment and chocking of main engine foundation using ITW Polymers Chockfast compound
- Commissioning and operational testing of main engine
- Deck compressor overhauling and commissioning
- Repair of steering gear rams
- Spare parts supply

PROJECT FACTS:

Vessel Type:	Chemical/Products Tanker
Tonnage:	13,168 DWT
Engine:	Yanmar 6N330 × 2 units
Engine Output:	2,007KW



Overhaul of Main Engine Gear Box

In-Situ machining of the intermediate shaft



Removal of damaged crankshaft for repair



IN-SITU MACHINING REPAIRS PERFORMED:

- Laser alignment check and line boring of main bearing pockets.
- Laser alignment check of stern tube to main engine prior to rechecking of main engine;
- Machining of intermediate shaft journal.

WORKSHOP RECONDITIONING REPAIRS PERFORMED:

- Intermediate shaft bearing inspection and remetalling;
- Complete inspection & grinding of Yanmar crankshaft at Goltens' workshop;
- Piston crown reconditioning
- Governor overhaul
- Turbocharger overhaul

RESULTS:

Goltens service teams completed the entire work scope within 22 days despite the occurrence of the Chinese Spring Festival during the project. The successful project resulted in an expanded relationship with the new operator's fleet of vessels.

Line Boring of Yanmar 6N330



Workshop crankshaft grinding



Rebuilding the Yanmar 6N330 main engine

