

9 AUXILIARY ENGINE UNITS OVERHAULED IN 1-WEEK FOR ONE OF THE WORLD'S LEADING CONTAINER SHIPPING COMPANIES

QUICK TURNAROUND MAN B&W 9L27/38 COMPONENT OVERHAUL MINIMIZES DOWNTIME

Like all engines, auxiliary engines need a regular interval overhaul, but for a vessel with a tight operational schedule, the downtime of the engines needs to be limited to bare minimum to avoid auxiliary capacity issues.

All 9 units (Cylinder head, Liner, Piston, Connecting Rod) of one of the four auxiliary engines needed to be overhauled while the container vessel completed a voyage Rotterdam-Hamburg-Antwerp in 7 Days. With this tight schedule, the added value of Goltens' expert diesel repair capabilities were put to the test.

The day the vessel berthed in Rotterdam, all 9 units were offloaded and transported to Goltens Rotterdam's workshop. All units were dismantled and ultrasonically cleaned so all components could be measured and assessed. Measurement reports were set up and an overhaul plan made for all of the units.

AUXILIARY ENGINE OVERHAUL PROCESS

Exhaust and inlet valves and seats were ground/machined within maker's limits and all rejected valves and seats were replaced. All fuel injectors were overhauled in Goltens' fuel workshop and rejected items were replaced. All indicator cocks were overhauled. The connecting rods were overhauled with a crack test, lapping of landing surfaces and machining of big end bore to original diameter. The cylinder liners were honed and the landings crack tested. All cylinder heads were pressure tested and reassembled with new spares supplied by Goltens' Trading network and rocker arms adjusted to maker's specifications. The rejected piston crowns were reconditioned by laser cladding of the 1st and 2nd ring grooves and all pistons were assembled according to maker's specifications.

PROJECT FACTS: MAN B&W 9L27/38 OVERHAUL

- Ship type: Gross tonnage: Dead weight: Year built: Engine: Engine output: RPM:
- Container vessel 42,342 52,683 2006 MAN B&W 9L27/38 2.525 kW 750 RPM















Finally all nine units were completely reassembled and a final check was performed and after painting and preservation all units were packed in specially fabricated wooden boxes to assure safe delivery to the vessel in Antwerp.

After delivery on board the vessel in Antwerp, a Goltens supervisor joined the vessel to supervise the reassembling process of the engine on board. This process assured correct reassembly of the engine, accurate measurement, reporting and test run of the engine.

AUXILIARY DIESEL ENGINE REPAIRS CONSISTED OF:

- Collection of the units from the vessel
- Ultrasonic cleaning of all components
- · Measuring and reporting of all normal related parts
- Grinding of intake and exhaust valves and seats
- Overhaul and repair of fuel equipment
- Overhaul of all unit components (Cylinder head, liner, piston & connecting rod)
- Transportation back to vessel
- Supervision of engine reassembly and test run

FINAL RESULTS:

Only 7 days after collection from the vessel, all 9 units are overhauled by Goltens Rotterdam and returned to the vessel. The Goltens Engineer supervised the reassembly of the engine, and the engine was back running, only 12 days after project start.







