MAIN ENGINE BEDPLATE & INTERMEDIATE BLOCK REPLACEMENT ABOARD 30 YEAR OLD LIVESTOCK CARRIER

MAK 6M551AK BEDPLATE REPLACEMENT

Goltens was contacted by the insurance surveyors for a 30-year-old livestock carrier laid up pier side at a shipyard in Delaware, to evaluate and propose a solution to replace the bedplate on a badly damaged MaK551AK main propulsion engine. The engine suffered a catastrophic connecting rod failure, damaging the intermediate block and bedplate beyond repair.

Goltens inspected the engine and determined that, although space was extremely limited, the engine could be disassembled and that sufficient space and supports could be put in place to allow for the crankshaft and bedplate to be removed through an access cut in the forward bulkhead. The rigging proposed avoided the need to cut accesses in the ship's bottom in drydock as was previously being contemplated.

After the marine diesel engine repair proposal was accepted, Goltens technicians completed the disassembly, rigging, shop work, reassembly and testing of the engine.

DIESEL ENGINE REPAIRS CONSISTED OF:

- Complete disassembly of the engine
- Rigging of the damaged intermediate block, bedplate, crankshaft and engine components out of the engine room
- Inspection & polishing of crankshaft in Goltens workshop
- Overhaul, clean and balance ABB-320 Turbocharger
- Complete overhaul and testing of cylinder heads
- Clean, calibrate pistons and cylinder liners
- Rigging all engine components back into engine room.
- Reassembly of the engine and operational testing
- Alignment and chocking of the engine with ITW Polymers Chockfast product

RESULTS:

All work was completed and tested to the satisfaction of the Owner's Representative, Chief Engineer, Insurance Surveyor and the Bureau Veritas class surveyor.

PROJECT FACTS:	FALCONIA
Engine Make/Model:	**MaK 6M551AK**
Output:	**2,400HP/1,765kW @ 300 RPM**
Vessel Tonnage:	**1,859 DWT**

Damaged piston and sheared connecting rod

Upper block raised and supported to allow for removal of intermediate block, bedplate and crankshaft

Rigging replacement bedplate and inspected crankshaft aboard for installation