

HYUNDAI MAN B&W 6L28/32H CRANKSHAFT REPAIR AND REPLACEMENT

BENT CRANKSHAFT REPAIRED IN WORKSHOP

Not all crankshaft repairs can be performed in-place inside the engine. Such was the case on the BW Trader, an LPG Tanker which had suffered damage to crankpin #3 on one of its Hyundai MAN B&W 6L28/32H auxiliary generators. Goltens was asked to inspect the damage during the vessel's stay at Keppel Shipyard in Singapore.

Upon inspection of the damage, Goltens' specialist determined that the bend in the crankshaft was too large to remove by in-place machining. Goltens advised that the crankshaft needed to be removed and taken to Goltens' facility for straightening and journal repairs. Goltens reviewed the repair procedure with the attending superintendent and mobilized teams to the vessel to begin the job.

CRANKSHAFT REPLACEMENT AND REBUILD:

- Disassembly of engine and rigging of crankshaft from engine room and re-assembly of engine components.
- Full inspection of crankshaft including MPI test on all journals to ensure no crack
- Straightening of crankshaft and machining crankpins to undersize
- Full inspection of engine block and other components
- Laser alignment checks on all main bearing pockets
- Overhaul of pistons and honing of liners
- Installation of repaired crankshaft and rebuild of engine
- Blue fit of all machined journals
- Laser alignment of engine and generator

REPAIR RESULTS:

Once the engine was flushed and alarms were tested, the engine was commissioned and successfully tested under operational load. Goltens Singapore completed the job ahead of schedule and handed over the engine to a very satisfied customer.

PROJECT FACTS: CRANKSHAFT REPLACEMENT

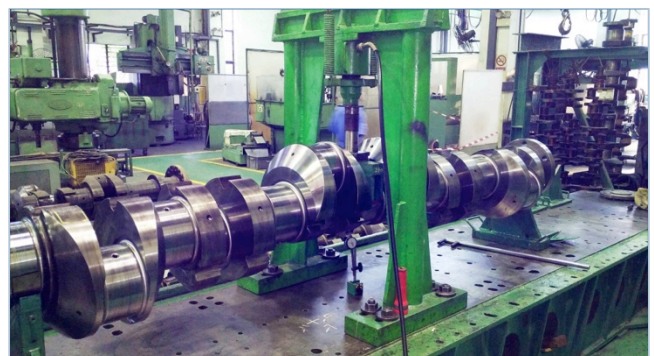
Engine:	Hyundai MAN 6L28/32H
Output:	1,348kW
Location:	Singapore
Vessel:	BW Trader
Tonnage:	53,151 DWT
Vessel Type:	AHTS/DP2



Damaged crankshaft rigged for transport to shop



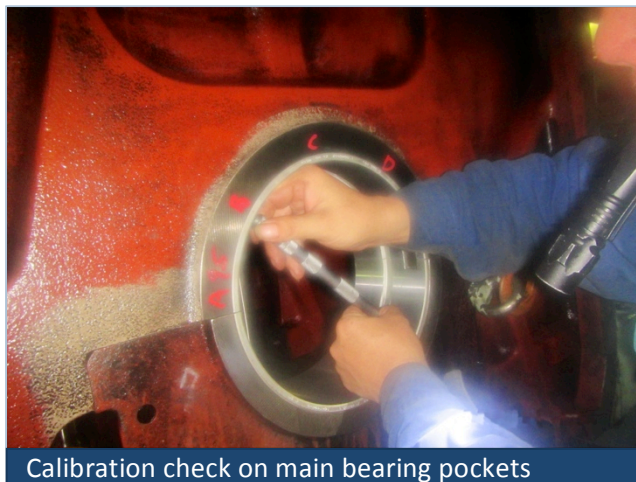
MPI crack tests performed on all journals



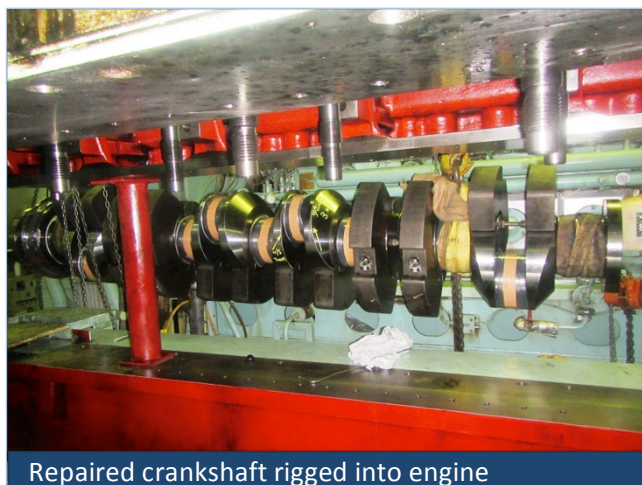
Straightening of crankshaft in Goltens' workshop



Inspection of work by vessel superintendent



Calibration check on main bearing pockets



Repaired crankshaft rigged into engine



Reassembly of engine



Reassembled and repaired auxiliary generator