

IN-SITU STERN TUBE BORING FOR NEWBUILD

PANAMAX BULK CARRIER

Goltens had been engaged extensively with a new build project for a Panamax Bulk Carrier in India for the installation of shafting, steering gear and main engine systems on a turn-key basis. Having completed the tasking on time and to the yard's satisfaction, Goltens was requested to take on the line boring of the vessel's stern tube as well.

Time was a factor for the yard, so Goltens proposed parallel machining whereby Goltens proposed the use of two line boring set ups to undertake the machining of the 700mm diameter stern tubes to a finished diameter of 722mm simultaneously.

The yard reviewed and accepted the proposal and Goltens mobilized tooling and technical teams to the yard and successfully machined the stern tubes within the required timeline.

REPAIRS CONSISTED OF:

- Established the shaft line with optical sighting
- Bored the FWD stern tube housing to required size (+22mm). This was done in two steps to ensure quality of machining and maintain centerline.
- Bored the AFT stern tube housing to required size (+22mm). This was done in three steps to ensure quality of machining and maintain centerline.
- Measuring and checking the final dimensions.
- Finish polished stern tubes by machine.
- In-situ machining of the aft stern tube flange face.
- Machining of stern tube bushes to the final finished sizes and installation.
- Final verification of centerline of the entire stern tube installation.

RESULTS:

Goltens' In-Situ machining teams completed the machining to the full satisfaction of the owners, the shipyard's quality control and Class Society inspectors.

As a result of the successful job, Goltens has been engaged to perform similar machining on a second new build vessel within the shipyard.

PROJECT FACTS:

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|------------------------|----------------|
| Tonnage: | 74.5 K DWT |
| Length Overall: | 222 M |
| Molded Breadth: | 32.6 M |
| Stern Tube FWD Before: | 700mm x 420mm |
| Stern Tube FWD After: | 722mm x 420 mm |
| Stern Tube AFT Before: | 700mm x 1320mm |
| Stern Tube AFT After: | 722mm x 1320mm |

