

IN-SITU MACHINING KEEPS NEWBUILD OFFSHORE VESSEL ON SCHEDULE

JACK-UP WINDCARRIER VESSEL BOLD TERN

During the final construction and commissioning of Windcarrier jack-up vessel Bold Tern in the Lamprell Yard in Jebel Ali, vessel owners Fred Olsen noticed the jacking cylinders for the legs were being damaged during actuation by the scraper ring which had been installed to remove debris from the cylinder. The conclusion was that the scraper ring material was too hard and was retaining some of the debris between the scraper ring and the jacking cylinder. This debris was in turn causing scratch marks to the hydraulic cylinder on the longitudinal plane, each time the cylinder was actuated.

With no time for full disassembly of the cylinders as the vessel was due to sail in 3 days, Goltens Dubai installed a split frame orbital cutting machine onto the jacking cylinder and inverted the tool post ninety degrees and installed the modified tooling. Goltens removed a small section of the hydraulic jack body to allow the scraper ring to be removed intact for analysis.

The job required precision so as not to damage the jacking cylinder during rotation and also not to cut too far into the hydraulic jack body, but just enough to remove the retaining ring and allow the scraper ring to be removed.

IN-SITU MACHINING CONSISTED OF:

- Modification of split frame orbital cutting tools to meet the specifications
- Removal of scraper rings from the jacking cylinders.

RESULTS:

With the method of removal tried and tested, the vessel was able to sail as per schedule, with a new style scraper ring which had been developed and installed by the vessel owners in place of the old one.

The vessel owners appointed Goltens Oslo to remove the remaining scraper rings on the vessel, with the same tooling and procedure while the vessel was at station in Europe.

PROJECT FACTS:

Length:	BOLD TERN
Tonnage:	132M
Operating Depth:	9,033 DWT
Year Built:	7.5-45M
	2013

