Refurbishment Project

Job Report

Pascagoula/Mississippi
2 × BOS 75/1300

Situation
The Liebherr TTL Control System was designed and first used in an offshore crane in 1977. Since then, the system has proven itself to be a very reliable system. However, more and more sourcing problems have arisen as most of the former suppliers do not produce original components any longer. For that reason, two Liebherr BOS offshore cranes required an update of their crane control system in Pascagoula, USA.

Task
After the removal of both BOS cranes from the platform, Liebherr service engineers installed the new Litronic® Master 4 Control System. The crane electrics were completely renewed. The engineers also exchanged drive motors, winches, all rope pulleys, bearings and bolts. New boom walkways with handrails were mounted. The slewing bearing was inspected and refurbished. A new operator's cabin was installed. In a last step, the overhauled cranes were re-installed on the platform. Continuously changing weather conditions challenged the engineers. Close coordination was required as other work was done on the rig at the same time.

Solution
The existing TTL system was exchanged with the new Litronic®. The in-house developed crane control system is used in all our new offshore cranes. Litronic® is also used in our maritime cranes, earthmoving machineries and other heavy duty applications, underlining its suitability. The cranes were completely removed from the rig and were modified in a separate area of the shipyard. This strategy saved installation time and helped to avoid any interruptions. The commissioning of the two upgraded cranes was successfully carried out in due time. All project goals were achieved in compliance with the highest quality and safety standards.

Crane Specification

Year of construction	1985
Rig location	Canadian Atlantic
Type	2 × BOS 75/1300
Max. SWL (t)	75
Boom length (m)	46.8

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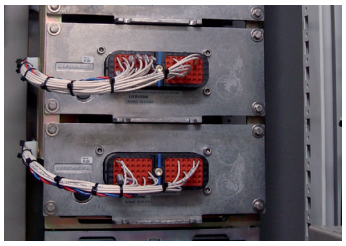
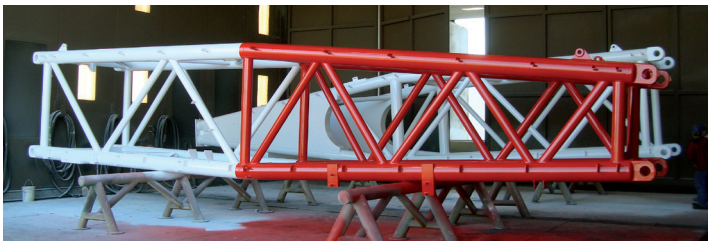
Control System
The Litronic® crane management system, incorporates all crane controls, system diagnosis and recording functions. Specially designed for demanding environments, the system can be adopted to project-specific requirements and customer needs. In this refurbishment job, the complete electric and control components were exchanged with new state-of-the-art components to ensure reliable operation and spare parts availability for the next 20 years.

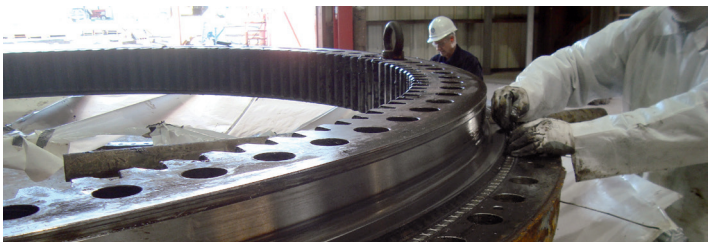


Operator's Cabin
A new state of the art operator's cabin was fitted to the crane. The cabin fulfils the new offshore standards in regards to ergonomics and operator comfort. This includes a fully adjustable chair with control elements, as well as climate control and sun protection.

Steel Structure
The slewing column and boom steel structure were fully repaired, sandblasted and repainted according to offshore standards, to ensure long-lasting corrosion protection.



Slewing Bearing
The slewing bearing of the crane was opened and inspected for any damages, corrosion and wear. After the detailed inspection and the exchange of the rollers and spacers, the bearing was re-assembled, protected against corrosion and re-installed on the crane.



Project

Project duration (month)	20
Team on site (person)	23
Project planning (h)	1,500
Total working hours (h)	19,800
Weight of delivered material (t)	60.4

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