

Project: Inspection and refurbishment of MLT 350SS crane boom

Location: UK

Date: 2015

Non OEM refurbishment saves time and money but still ensures quality with compliance to recognised standards.



CASE STUDY

Challenge/objectives

Our customer contracted us to carry out full blasting, inspection and refurbishment of a MLT 350 SS 125ft crane boom, while ensuring DNV review and approval of all work completed. We were awarded the work scope based on our extensive crane boom refurbishment experience and our ability to deliver on a tight time scale.

The boom was split into the following four sections:

- 1 x 40ft root section
- 1 x 40ft mid-section
- 1 x 20ft mid-section
- 1 x 25ft head section

Solution applied

- The full strip down of all mechanicals and wash-down of all boom sections was carried out.
- All boom sections were then blasted to allow for inspection.
- Full NDT inspection was carried out, followed by MPI (magnetic particle inspection) of all the welds and UT (thickness checks) on the boom structure, sheaves, shafts and other ancillaries along with straightness checks on all chords.
- Full fabrication repairs and line boring of the boom sections were performed as per the anomalies identified from the NDT inspection.
- Full NDT inspection was subsequently carried out on repaired areas.
- All boom sections were blasted and coated to Sparrows SOS 401 at 350µm.
- All boom mechanicals were then fully assembled with sheaves, replacement fasteners, bearings and seals.

Solution applied (cont.)

- Finally the complete boom was assembled for final inspection prior to offshore installation and load test.
- DNV reviewed, approved and witnessed the complete work scope performed and issued the relevant documentation.

Summary of services/equipment deployed

- Full NDT inspection
- Full fabrication repairs by qualified welders
- Supply of bearings and seals for wire rope sheaves
- Full coating of boom sections
- Project engineering

Outcome/benefits

The solution applied by the Sparrows Group provides a number of benefits:

- A non OEM refurbishment process that meets DNV specified criteria
- Qualified welders / platers for high strength steel fabrication
- Reactive workforce to ensure delivery date was met
- Full scope performed in-house to ensure quality



Blasted and inspected mechanicals



Root section undergoing inspection



The refurbished and rebuilt boom



Committed
Actively committed to ensuring one high standard of HSEQ globally



100%
of our people are staff



Experienced specialists
Decades of knowledge and skill with safety critical equipment