

Refurbishment of two PCM 120 AS cranes

**ASSET
LOCATION**

Jack-up drilling rig
Abu Dhabi

Complete crane refurbishment ensures the reliability and integrity of your equipment without expensive OEM support

BENEFITS

Multi-skilled offshore personnel for fault finding

Fast response time to minimise disruption

Onshore engineering support to reduce offshore costs

Technical support regardless of Original Equipment Manufacturer (OEM)



DELIVERY ASSURED

CHALLENGE

While in dry dock our customer's rig required refurbishment of its two PCM Marathon Le Tourneau 120 AS cranes. Due to our extensive experience in major crane refurbishments they requested that we submitted a bid for the work and we were awarded the contract.

The project had to be completed in a tight time scale to fit in with the Rig Assets Integration Plan (RAIP) while it was in dry dock. The scope included complete refurbishment of both cranes along with additional modifications (aux hoist bracket installation on the boom) and the delivery of an extensive quality dossier.

SOLUTION

- Both cranes were removed from the rig at Dubai Drydocks World and transferred to Sparrows Group's facility in Abu Dhabi by road.
- An inspection test plan was issued to the customer for the various activities involved in the refurbishment of all the sub-assemblies of the crane.
- We completed the strip down of the cranes into elementary components such as four electrical motors, two motor generator sets, four gear boxes, crane wiring, winch drum and drive shaft, and swing rollers.
- Non-Destructive Testing (NDT) inspections were carried out on the machinery house, king post seating area and the king post cap components.
- We supplied and installed new complete rewiring kits consisting of control boards, new cables, contractors and circuit breakers.
- From the two crane booms one was rejected for refurbishment due to extensive corrosion on the main chords and other required a modification for the installation of an auxiliary hoist gear box and motor assembly and aux hoist sheave brackets.
- A replacement boom assembly was then supplied by the customer and this was inspected, refurbished and installed in addition to the original scope of inspection.
- Sourcing spares parts was a challenge as the crane OEM no longer supported the product but we were able to source all spares parts in Abu Dhabi.

SUMMARY

- Disassembly and inspection of complete crane
- Fabrication and delivery of new crane cabin
- Supply of complete bearings kit and seal kit for gear boxes and winch drums
- Supply of slew pinion shaft
- Supply of a frame pin assembly
- Supply of king post liners and boom mounting liners
- Supply of load link plates
- Supply and installation of new crane wire ropes (main, boom, aux) and boom pendant ropes
- Supply and install of new swing rollers
- Refurbishment of motor generator sets and motors
- Refurbishment and calibration of existing Pat-Krüger load indicating system

1.



2.



3.



1.
Load test

2.
Load test readings

3.
Installation of refurbished crane

Please visit www.sparrowsgroup.com/contact to find your nearest office

