



Lovemore Bros.

MACHINE MOVING AND RIGGING CONTRACTORS

July 2011

Simply getting on with it.

A THOUSAND TONS OF MACHINERY SHIFTED IN EMERGENCY OPERATION AT RICHARDS BAY HARBOUR

Richards Bay harbour authorities were faced with a lot more than simply replacing a crane that was rendered inoperable because of an electrical fire whilst offloading alumina from a vessel onto a quayside conveyor belt.

The emergency entailed removing a total 1 000 tons of machinery comprising amongst other equipment a hopper and a condemned ship-loader before enabling the crane to be removed and replaced with another unit from a neighbouring berth.

When fire broke out the crane operator had to be evacuated by helicopter as he was in danger of asphyxiation from the billowing clouds of smoke caused by the blaze.

Authorities from Transnet Port Terminals (TPT) were called in to assess the situation. Glanny Naidu, Procurement Manager, said the most important aspect was to resume normal offloading operations.

"Lovemore Bros had helped us about two years ago when it recovered a



The condemned 460 ton Hitachi crane (centre) that Lovemore Bros had to remove before the burnt out crane could be replaced. Note the two booms (one extended and one upright) weighing 40 tons each that had to be cut off

boom that accidentally fell into a vessel that was being offloaded.

"Bruce Lovemore was here early the following morning (a Saturday) to assess the situation and we were satisfied that they could do the job given their past performance at a satisfactory price."

In a matter of hours the assessment was undertaken and, with timing being of the essence, the necessary salvage equipment started arriving over the course of the weekend and without further delay the emergency job commenced.

"It was certainly not simply a matter of picking up the crane and replacing it with an adjacent one," said Bruce Lovemore, CEO of Lovemore Bros.

"First we had to dismantle the condemned ship-loader's two booms.

One was in the extended position and the other in the upright position.

"We brought in two mobile cranes and, using oxyacetylene torches, cut the booms off the housing and lowered them onto our low bed trailers. The booms alone weighed 40 tons each."

The biggest challenge was removing the condemned ship-loader.

Weighing 460 tons, it had to be raised using hydraulic gantries in a "jack and slide" manoeuvre.

The problem though was that the structure is so old that it could not take point loads and started to buckle as soon as upward pressure was applied.

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Bruce Lovemore "not simply a matter of picking up a crane and replacing it"

Rigging

Machine Moving

Abnormal Loads

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This meant that the loading had to be evenly distributed to prevent it from collapsing.

"Once it was jacked high enough we lowered it onto temporary rails and slid it backwards about 12 metres well out of the way. Contractors were then brought in to remove the concrete rail end stoppers to move the hopper out of the way.

Liebherr technical staff then brought an independent power source and towed the burnt out crane off the wharf allowing the replacement crane to be towed into place and resume offloading.

"In the hands of inexperienced operators this could have been an extremely dangerous undertaking. The ship-loader could have collapsed onto the vessel leading to injury or worse and multimillion rands worth of damage.

"As engineers we know what we are



The condemned crane - in danger of collapsing

doing such as accurately distributing imposed loads on the structure. This entailed carrying out surveying work ensuring everything was perfectly level before endeavouring to move the loader."

Lovemore says it was the heaviest single piece of equipment his company has ever moved complicated further by adverse weather conditions such as gale force winds and limited to space

to work in.

"The project made use of Lovemore Bros' full range of operations from low bed transport, rigging and heavy duty jacking.

"We are building a reputation for carrying out high level marine work such as this emergency operation and pride ourselves on being able to deliver solutions based on our expertise affordably," added Lovemore.

He pointed out that the company's marine operations extended from Namibia on the west coast right up to Mombasa, Kenya on the east coast.

In complimenting Lovemore Bros on a job well done, Naidu added that a project leader was appointed to monitor the operation and communicate with Transnet executives.

"They kept within the project time resulting in a very successful operation in getting the job done. We were very impressed," added Naidu.

'They kept within the project time resulting in a very successful operation in getting the job done.'



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