

Refurbishment & Upgrades

RAM Spreaders Refurbishes Revolvers for Port Kembla

LINX Port Services Pty Ltd in Port Kembla Australia has used containerised bulk handling to load copper concentrate for 10 years. They pioneered the use of ship cranes for loading with the lightweight design of Revolver. In 2022 after 10 years of operation, they approached RAM about refurbishment and modernisation.



RAM aftersales engineer with Port Kembla employee

Decline in Performance

When it comes to port operations, reliability is key. As the equipment got older the reliability decreased. LINX Port Services recognized this when they decided to refurbish and upgrade their two Revolvers, which were approaching a decade of service.

The aim of the project was:

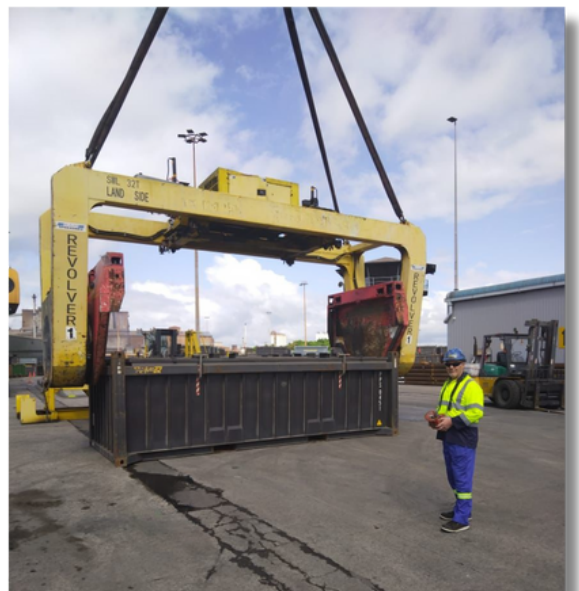
- Refurbish and replace old worn parts
- Modernise the equipment with newer more reliable technology like remote diagnosis
- Train the technical team to become more familiar with the equipment and solve problems quicker

The result? A significant increase in the reliability of the Revolvers.

Modernized 10-Year-Old Machine

The refurbishment process was not just about replacing worn-out parts. It was also an opportunity to modernize the decade-old Revolvers. Upgrades included an improved lid lifter, which now requires less maintenance and enhances efficiency in removing the lid. The encoders were also upgraded for better rotational efficiency and durability.

Furthermore, the introduction of the Virtual HMI upgrade now allows for wireless diagnostics and fault findings, reducing unnecessary downtime and enhancing the uptime of the spreader. RAM Spreaders manager, Bala Balakrishnan, noted “Identifying the problem is 90% of the issue solved. Our virtual HMI diagnostics accelerates this.”



RAM Revolver testing after completion of refurbishment

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Site Training

The refurbishment and upgrade process also provided an opportunity for RAM Spreaders to provide comprehensive training to the port staff. This included operational training, maintenance training, and upgrade system training.

The operational training focused on improving the handling of the Revolver, such as identifying feedback from the crane and removing the container from the vessel before it has fully completed the 360 degrees rotation. The port now saves 20 seconds each cycle during the unloading process.

The maintenance training refreshed the original team's knowledge and brought new members of staff up to speed on the correct maintenance of the RAM Revolver. They also received training on how to take advantage of the upgrades such as fault findings through the Virtual HMI Diagnostics.

Outcome

The outcome of the refurbishment and upgrade process has been overwhelmingly positive. The LINX Port Services' asset manager, Adrian Moore, said "Since the refurbishment, the reliability of the Revolvers has increased significantly. Having the RAM team at the site for two weeks meant our team had hands-on training and using the new fault diagnosis system, we can solve problems faster."

For Port Kembla, this investment meant their operations can continue more efficiently for years to come without re-purchasing new equipment at higher costs.



RAM Revolver refurbishment

To learn more

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