

African Port helps RAM Re-engineer MHC Spreader for a tough environment

Leading Angola terminal operator Sogester invests in new large MHC cranes & RAM's heavy duty spreaders to service container volume increase

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Critical to the success of the terminal is reliable spreaders. In 2019, RAM Spreaders supplied the terminal with four mobile harbour crane spreaders (MHC).

Given how busy the terminal is, the spreaders suffered some heavy impacts, so the terminal's engineering manager called RAM with some suggestions.

The changing face of Mobile Harbour Cranes

Traditionally, mobile harbour cranes are mainly considered for smaller ports with lower lifting capacity and speeds. This tradition is changing with the advent of big MHC cranes, such as the LHM 600 and more recently the giant LHM 800, with larger container terminals now using these types of crane.

Terminals are now able to work vessels harder and faster, and as a result, the traditional designs of the MHC spreader are becoming less suitable.

Listening to the customer

After delivering several spreaders to Sogester terminal in 2019, RAM's technical manager for Africa Louis Du Plessis made several upgrades to protect the spreaders integrity and further boost performance in a demanding environment.



Sogester Terminal engineering team and technical manager Adil Bennani identified some aspects of the design that required improvements to give the spreaders increased reliability.

After listening carefully to Sogester, spending time in the workshop and observing vessel loading, Louis and Adil came up with several changes to improve the performance of the spreaders. Louis and the RAM design team got straight to work to develop a new design for the 2750 model heavy-duty MHC spreader.

Adil commented after the consultation **"Louis arrived on site and we both carefully analysed the problems together. Louis listened to our concerns, and we are really pleased with the new heavy-duty design."**





Sogester engineers inspecting the RAM 2750 MHC Spreader

New heavy-duty design

The new design further maximises uptime and reduces maintenance costs, with upgrades including:

- **Structural design upgrade** to increase reliability and meet demanding conditions.
- **Heavy-duty thicker profile telescopic arms** for higher lifting capacity, achieved with vertically increasing the centre body section.
- **Stainless steel hydraulic cylinder rods** providing corrosion resistance to increase the lifespan of the hydraulic centre of gravity mechanism.
- **RAM 'ShockAbsorb'** designed to instantly absorb the high energy from the impact force of spreader landing on the container. It enables the spreader to land fast on containers while reducing noise without mitigating potential damage on the spreader. In turn, the shock absorber further improves operational efficiency and extends the component's life.
- **Wireless diagnostic system** that can be remotely accessed by an iPad or tablet. This empowers maintenance staff to quickly identify the fault to minimise spreader downtime.
- **Bigger bash/slide plates** to outer impact zones of the spreader twistlock housings on the end beams. RAM's consultation with Sogester revealed that side impacts occur by overswinging during high volume loading operations. This new design has proven to be successful in other terminals in reducing land pin damage effectively.
- **Electrical & Hydraulic Protection Plates** to minimise the damage to both hydraulic and electrical equipment on the spreader.

Putting the customer first

Communicating closely with Sogester has empowered RAM's after-sales and engineering team to make cost-effective operational upgrades to benefit the end-user.

After further discussions, RAM has secured a new order for five of the new 2750 heavy-duty MHC spreaders capable of lifting 1 x 45t or 2 x 32.5t.

With RAM's 2750 MHC track record for efficiency, high lifting capacity and robust structural design, it was a suitable option for an environment that is particularly arduous on lifting equipment.

"Listening to customers is a key part to RAM's success, as it not only allows us to develop a good relationship with our customer but also our products, ensuring the customer gets the best possible product and after-sales service support."

Louis du Plessis (RAM Technical Manager for Africa).



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RAM 2750 MHC



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