

DP World lifts automation profile at port of Brisbane

A \$250M automation project at DP World's Brisbane container terminal reached a milestone with delivery of the first shipment of automatic stacking cranes late last week.

DP World Australia managing director Ganesh Raj commented that the project at the port of Brisbane had entered its "final phase", with the delivery of the four new cranes.

DP World is developing an automated terminal comprising eight modules, which will drive operational performance and productivity. Over the last 12

months the stevedore has been working with construction firm York Civil to deliver the project.

DP World will develop a new yard area and will use a combination of automatic stacking cranes to interact with shuttle carriers to maximise terminal capacity and operational efficiency.

The Kalmar automatic stacking cranes, manufactured at Cargotec's Shanghai facility, are fully-automated, rail-mounted gantry cranes that perform container moves within each 300 metre-long module.

Two further shipments of these cranes from Cargotec are due in July and October and will be assembled on site over the next three to six months.

Once fully operational, DP World will operate a total of 14 such cranes at the Brisbane terminal.

DP World earlier this year received 14 manual shuttle carriers which will interact between the quayline and the automated stacking cranes.

The first stage of development will take capacity to approximately 850,000 teu and are scheduled to become operational by the final quarter of 2013. Further expansion is planned to keep pace with customer demand.

Port of Brisbane CEO Russell Smith said that DP World's automation will result in greater efficiency and increased productivity through the port.

"DP World's transition to an automated terminal will position the port of Brisbane as one of the most modern, state-of-the-art ports in the world. We are very supportive of the work DP World is undertaking to streamline the logistics supply chain and enhance trade

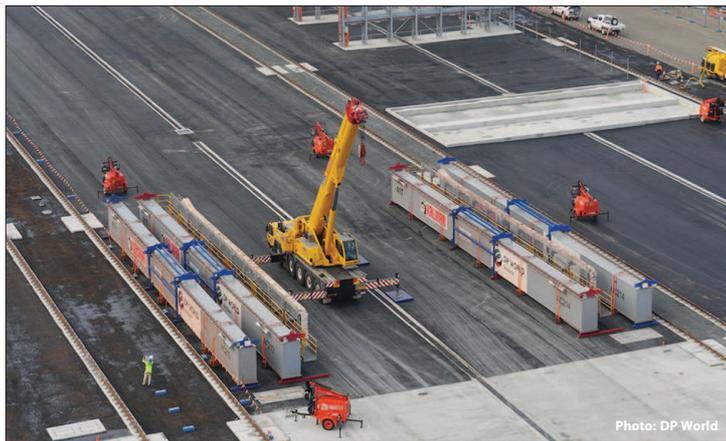


Photo: DP World

MOVING IN: Automated stacking cranes will increase productivity at the port of Brisbane.

grow through the port.

"By 2014, Brisbane will be the first port in Australia where all three stevedores have automated container-handling equipment."

Peter McLean, vice president Cargotec Oceania said that the new crane system "maximises performance, regardless of external factors such as weather

conditions, with sharply restricted potential for human error. Highly-secured operations and fully integrated systems minimise unexpected errors and maximise safety."

Concurrent with the assembly of the automated stacking cranes is the implementation of a new SN4 Terminal Operating System. This will bring DP World Bris-

bane into line with the stevedore's three other Australian container terminals in Sydney, Fremantle and Melbourne.

DP World is working with Cargotec and other technology companies, including Navis, Camco, 1- Stop and Now Solutions to install the new system, which will run operations around the clock.

Auto stacking cranes at a glance

- 8 modules to be developed (with seven initially operational)
- 14 Kalmar automated stacking cranes
- 2 automated stacking cranes per module
- Rail span is nine containers wide
- Stacking height is one over five containers
- Hoisting speed is 40metres/min loaded, 70metres/min (empty)
- Trolley speed 60metres/min at rated load
- Gantry speed 270metres/min
- Safe working load is 40 tonnes
- Crane weight is approximately 220 tonnes

Art of glass and historic photos celebrate life at sea



Bill Romney and Don Hossack enjoying the Melbourne event.

AN EXHIBITION of stained-glass windows and historical photographs from Mission to Seafarers was recently opened at the World Trade Centre in Melbourne.

According to curators, the exhibition, entitled *Reflections of the Sea*, provides a selection of stained glass windows with historical photographs from the Mission in order to "capture a glimpse of some of the people and scenes integral to this relationship".

An opening night last month attracted many people keen to have a look at the special pictures.

The exhibition ends this week.



Laura Escuder and Katherine Krocak get a taste of maritime art.

Navigation system celebrates 20 years of growing sophistication

Cameron Boggs

OMC INTERNATIONAL is celebrating the 20th anniversary of its first Dynamic Under Keel Clearance (DUKC) navigation system.

Managing director Peter O'Brien said the current DUKC navigation system is almost unrecognisable to the ship-motion model trialled in Queensland's Hay Point coal terminal in 1993. "It's now quite significantly different. As we moved further into the various aspects of the logistics chain, there was a requirement to develop the technology, expanding functionality to meet different user needs.

"DUKC is much more expansive and sophisticated than its initial versions, which were more focused on short-term advice to the port authority," said Mr O'Brien.

Rather than providing advice to one user, OMC has integrated into the port systems. Around 80,000 ships had sailed under DUKC advice

by 2012, according to the company.

Mr O'Brien said OMC has expanded on its technology so that it works from both the long-term planning sense for the port users, through to short-term planning by port authorities. And then, forward on to the water, so that pilots taking the

ship out can ensure they operate safely at all times.

In 1998, OMC was awarded its first research and development grant for a berth warning system and upgrade of DUKC system to series II.

Four years later it won a second grant for the development of a

portable pilot unit. In 2006, a third R&D grant funded the development of OMC's ground warning system, later renamed DUKC VTS.

Executive director Dr Terry O'Brien said a significant turning point for the company was in 2004 when New Zealand's Marsden Point became the first port to have DUKC installed purely on safety grounds.

The installation was prompted by the grounding of two tankers within three months of each other in the channel leading to NZ's only oil refinery.

Dr O'Brien said there had been no grounding in the preceding 30 years of operation under the static rule.

"Unfortunately, people often think that existing practices are safe because no incidents have previously occurred.

"I believe it will become increasingly difficult for port and waterway authorities to defend themselves in the event of a future grounding under static rules, given that a more accurate, and

therefore safer, DUKC management system developed by OMC exists and has been operating safely in ports for the past 20 years," Dr O'Brien said.

Responding to an expanding global workload, OMC recently moved its Melbourne headquarters to larger premises nearby to house its rapidly growing staff.

The company's employee headcount has doubled in the past five years to more than 40, including 27 maritime and software engineers.

In the past five years OMC has won contracts for customised DUKC systems in the port of Melbourne, Cape Lambert and the international waters of Torres Strait.

Dr O'Brien said the web-based DUKC series 5, installed by AMSA for the Torres Strait, will become operational this year.

The series 5 'platinum package', incorporating a DUKC chart overlay and optimiser, is currently being rolled out at Port Hedland.



Photo: OMC International

BIGGER DIGS: OMC International is taking on staff.