

# Cargo hoppers bound for overseas

Sue Russell

Designing and constructing large bulk cargo hoppers has developed into a significant export business for Bay of Plenty engineering company, Page Macrae Engineering.

Last year the company built one of Australasia's largest cargo hoppers for Sun Metals Corporation in Townsville, Queensland and which was freighted out of Port of Tauranga on a specially commissioned project ship.

Port Equipment Manager, Bruce Ennis, said the sheer logistics and complexities of the project created some challenges for the company.

"The Townsville project had very specific requirements. It is used to discharge zinc concentrate and load zinc ferrite.

"There is a lot of very complex equipment installed, including pumps and fans which create the hopper's huge vacuum capacity.

"It's powered by a 300KVA generator," Bruce says.

The hopper, which took 10 months to build, showcased Page Macrae Engineering's ability to compete against the best in the world in securing the contract.

Weighing in at over 220-tonnes and standing 17 metres high, it is the largest single item Page Macrae Engineering has built.

"We were competing against European suppliers which made it a unique and exciting project," says Bruce.

Beyond its sheer size, Bruce says the Townsville Hopper had some unique features, including its ability to backload product into a ship. The hopper's wheels are computer controlled allowing it to be positioned next to the ship by remote control.

Standard clamshell type grabs unload the zinc concentrate from the ship's hold into the hopper.



• to page 53 Page Macrae Engineering Port Equipment Manager, Bruce Ennis, as the Townsville Hopper is loaded onto the ship at Port of Tauranga.



The hopper loading a triple road train for Sun Metals at Port of Townsville.





Loading hoppers at Port of Tauranga - three hoppers set to depart for Peru.

## Cargo hoppers big business

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While this is taking place any lead contaminated dust is contained by the hoppers' dust encapsulation containment and filtration system.

When Business North spoke with Bruce, he had just returned from commissioning three more dust control hoppers in Port of Callao, Peru.

"The hoppers are a variation of our standard Enviro-Max 50e design, customised to meet the port's specific requirements, but were well within our capabilities and met CE Certification standards."

A team of engineers including Bruce spent six days in Peru commissioning the hoppers and ensuring they were put through their paces, testing them thoroughly.

"Initially we had to ensure they survived the sea journey.

"Now they have been commissioned there is an extensive period of testing and training of port staff with Page Macrae Engineering supplying support if needed."

To date, Page Macrae Engineering have built a dozen hoppers for their primary market Australia, however, Bruce says the company is actively seeking business with New Zealand ports and further afield.

Bruce says New Zealand is under increasing environmental pressures for control of

**"Now they have been commissioned there is an extensive period of testing and training of port staff..."**

contaminants and pollutants when bulk product is being handled.

He expects in time that the company will be designing and building more product for our local ports.

Page Macrae Engineering has been in business since 1955 and has evolved from repairing ships and general engineering for local industry into large scale engineering projects.

The company delivers to a wide range of sectors including power generation and pulp and paper.

Now returned from South America, Bruce and General Manager Mike Lehan's next trip away is to Australia's East Coast, from Geelong to Brisbane.

"I enjoy engineering and the challenge of providing solutions," says Bruce.

"The engineering industry is a great sector to work in and there are some exciting developments in port equipment taking place."



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