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## New dawn for train ferry

A New Zealand rail ferry has been through a major conversion.

**T**he New Zealand based ro-ro passenger rail ferry *Arahura* - which means "Pathway to Dawn" in the Maori language - has recently been significantly upgraded for its owner and operator, Interislander, at a yard in

Singapore. These modifications, designed by Lightning Naval Architecture (Australia), have ensured that the vessel complies with

Conversion of the *Arahura* underway in Singapore.





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the latest safety standards and have helped improve profitability by increasing freight cargo capacity.

According to Jennifer Knox, managing director of Lightning Naval Architecture (LNA), “The conversion project was an interesting one from a naval architectural point of view, in that it involved much detailed design work on the stability and longitudinal strength, before work could begin. Then we co-ordinated international suppliers, purchased owner’s materials and supervised the work in Singapore.”

The *Arahura* would have seen the maximum number of passengers permitted onboard drop from 997 to 350 after October 2010, if the vessel’s damage stability had not been improved. The conversion achieved a 250tonne increase in the ferry’s payload, an increase in lane-meter deck capacity of the equivalent of four road haulage trailers and delivered a maximum passenger capacity of 550.

The project involved the removal of about 300tonnes of superstructure and accommodation, the fitting of shell blisters to widen the upper trailer deck aft and amidships, and the relocation of the crew accommodation to create more capacity for passenger vehicles, including camper vans. Lifesaving equipment onboard was also



Shell blisters were fitted to widen the upper trailer deck.

improved with two new Viking chute systems and a new Hatecke fast rescue boat.

LNA thoroughly investigated the intact and damage stability, and the longitudinal strength to ensure the optimum design.

Materials were sourced from various maritime suppliers including from Korea, Canada, France and Germany and the conversion was undertaken at a shipyard owned by Drydocks World in Singapore. **SRCT**