

Heavy lifting company assists with Namibian smelter

Hheavy-lifting specialist Vanguard has completed a project involving the transportation and rigging into position of a cold box and exchanger for use in a smelting plant in Tsumeb, in Namibia.

The company collected the items from Walvis Bay harbour and transported them to site.

A modular trailer configuration was used, which was 40 m long and featured a custom-made lightweight deck.

“While the cold box was only 29 m long and weighed approximately 50 t, the added length on the trailer allowed us to correctly position it on the trailer in order to make on-site manoeuvring easier. We were also able to transport the cold box on a continuous deck without the use of a turntable,” says Vanguard project engineer **James Robinson**.

The modularity and hydraulic suspension of the trailer worked to the company’s advantage once on site, because there were a number of obstacles to overcome.

Vanguard had to work around machinery and foundations on site, especially some narrow foundation bolts that could not be driven over.

“Our modular trailer is extremely



STABILISED

A trailer crane was used to stabilise the cold box during the lift



FINAL POSITION

When the lift was completed, the box was turned into the final position

versatile and we basically mimicked a caterpillar in moving over the bolts. It was a slow and precise undertaking in which we would use the hydraulic suspension to lift one tyre at a time, straddling the bolt, moving over it and then lowering the axle – in effect, climbing over the bolts,” says Robinson.

The trailers were then accurately steered into position, beneath gantry towers which Vanguard used in conjunction with its strand jacks to lift the cold box and turn it 90° into its final position. Vanguard transported and lifted the cold box first, then brought its gantry towers forward and rigged the 17-m-long, 40-t exchanger into position.

Robinson notes that it was a seamless project, in part owing to Vanguard having the correct equipment, and, in part, owing to the company’s experience in similar jobs.

“Our past projects include the transportation and positioning of a number of similar pieces of equipment, including a 49-m cold box for a Zambian copper mine. We are also very familiar with the route from the harbour to the site, so we were well aware of the obstacles and how to avoid or overcome them,” concludes Robinson.

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29 M LONG

The cold box was precision lifted using strand jacks