

They've done it again

THE March issue of *Cranes & Lifting* carried a story on how Patterson Crane Hire's Laurie Patterson worked with Rod Cull from Artform Builders and engineer David Allison from Rosebud Engineering to increase the internal diameter of chimneys in a luxury house on the Mornington Peninsula, Victoria, using a core drill suspended from a crane.

The same trio was at it again recently, solving the problem of how to bore foundation holes in the middle of a sand cliff for an inclinor (inclined lift). The inclinor was to provide access between a house at the top of the cliff and a boat pier at its base. A long reach excavator (17m reach) excavated the piers at the top and bottom of the cliff (the latter being installed with the excavator resting on a sand pad built above the high tide level and topped with bog mats) but was unable to reach the location of the middle piers from either the top or the bottom of the cliff.

The chosen solution was to pivot a triangular truss from Patterson's Demag AC 25 city crane and transfer the auger attachment from the excavator to the truss, running hoses from the auxiliary circuit of the excavator to the auger to power it.

A template was fabricated to guide the auger into the correct location for the piers, with the excavation being 4.6m deep and 600mm in diameter. The template was similar in shape to a hole saw and was installed through a combination of initial hand digging to embed the template in the sand and rotation using the planetary drive of the auger attachment to drive it further into the sand. The holes were within



Truss suspended from Demag AC 25 at the top of the cliff, with excavator at the base providing hydraulic power for the auger attached to the truss.

50mm of the design location, and the variation at the connection point was reduced to 3mm by installing the reinforcing cage in an eccentric position in the hole.

The perimeter of the template provided a safe platform for the crane and auger operators and ensured they did not cause sand to collapse into the excavation when standing near the hole.

The holes were around 19m below the crane and Patterson used the remote control system installed on the crane to operate it from close to the hole, where he remained in visual and verbal contact with the auger operator.

The chosen solution was extremely cost effective compared to the alternative solutions that were offered by other parties.

Dellgale shows faith

ZOOMLION distributor Dellgale was scheduled to officially open its new headquarters in Yatala, Queensland, on May 29 (after this issue went to press). The opening of the facility represents a substantial investment by the distributor: the premises include a wash bay, undercover service facilities with overhead cranes and a large hardstand area, in addition to offices.

The opening of the premises coincided with the arrival of the first three Zoomlion Linmac AWD 420 articulated pick and carry cranes, which were pre-sold along with the following batch of 15 cranes, scheduled for June delivery. A modest target of 40 sales of this crane in the first year has been set. Externally the crane will be recognisable as a Linmac, with the main

changes being modernisation of the drivetrain and hydraulics. The cab also has additional glass area for improved sight lines.

A 176kW turbocharged six-cylinder diesel drives through a five-speed Allison box; a three-stage hydraulic pump delivers 120 litres/min at 2000rpm; twin externally adjustable 80mm steel-on-steel self-aligning, heavy-duty spherical plain bearings are used in the articulation joint; and a four-stage full-power boom is fitted – the third and fourth stages are connected by a chain system, with the fourth stage extending proportionally with the third.

The first of the second-generation Zoomlion 70-tonne and 100t crawler cranes have now been delivered in Australia. The cranes have

self-erecting capabilities and rig their own counterweight and boom without assistance. The 70t machine has widening tracks while the 100t has removeable tracks and onboard jacks. The cab of the 100t machine rotates to the front of the slew ring to reduce the width for transport.

Dellgale has also received the first shipment of Zoomlion truck loading cranes (see page 30) and has delivered the first Zoomlion topless electric tower crane to Queensland Self Erecting Cranes for work on a JM Kelly project in Rockhampton, Queensland.

There is little doubt that within three years there will be Chinese product available in Australia in almost all crane categories, and it seems Zoomlion may offer the broadest range.