

# First radio remote for AT cranes launched

IN NOVEMBER last year, Patterson Crane Hire commissioned the first radio remote control for AT cranes in Australia with help from Microtec Engineering. After nine months of research and development, the Victoria-based company fitted a Hetronic Nova L Remote Control to a Terex/Demag AC25-1 crane. "We had seen a remote control GMK 2035 Grove 35t in Europe and thought that was a great way to work," says Laurie Patterson. Microtec made up a master control box and duplicated the controls to the transmitter. All safety systems and the crane's movement limiter were still in place but additional safety systems were set up in the crane. An easily accessible emergency stop button was fitted on the side of the crane.

Three-stage flashing Christmas tree lights (not LEDs) were fitted so that it could be seen in all light conditions, with an external alarm that comes on at 90 per cent. This gives the operator adequate notice of approaching limits. The slew lock



(L-R) Laurie Patterson, Danny Sittrop (Microtec), Paul Warren (Hetronic) commissioning Australia's first radio remote control for ATs.

comes on at 1.5 seconds after the release of the lever and the unit rechecks itself five times per millisecond. The transmitter consists of two joysticks the same as the crane controls, a button for high speed winching and luffing, a creeper switch that cuts all crane motions in half, a button to isolate the winch for rigging the fly jib and fixed hook indoor application work. There is also a horn and a throttle dial with full rev range. In case power or

signal are lost, the crane will shut down automatically. There is also an "estop", which is an emergency stop button on the transmitter.

The team carries three batteries and the crane has a built-in charger with one battery charging all the time. Patterson carries one battery in his pocket and the unit incorporates advanced low battery indication giving a ten minute warning before safe mode is entered. The battery has an operating time of between 10



Laurie Patterson placing 25 mm, 600 kg glass into frames using the remote control. The working space was 10 mil.

to 20 hours, depending on the work load. A tilt sensor frequency to avoid interference. The remote control has a high-gain flexible antenna giving a working range of 300m. "With the help of Luigi Ciampa from 3B6, we will be able to monitor hook loads by

using a telemetry load sensing shackle with a portable radio receiver," says Patterson. His first job with the remote control was for Theiss Services, placing power poles among trees. The operator was able to walk through the trees, up to the hole and lower the poles in. "It is easier to control the crane with the remote that from inside the crane itself. Our clients have accepted it very well and say 'why didn't you do this years ago'," says Patterson.