

Long distance remotes

Radio remote control company, Cavotec has designed and fitted a heavy duty remote control system to heavy construction equipment that can be operated from a distance of up to three kilometres.

The Cavotec RRC units have been adapted to allow the drivers of two dump trucks, two excavators and a bulldozer to operate their vehicles from steel booths at a distance of between two and three kilometres.

The concept has been devised by Norwegian heavy equipment specialist Brødrene Gjermundshaug Anlegg. Drivers control the vehicles from specially constructed chairs equipped with joysticks and a radio link. Large wall-mounted TV screens relay images from cameras

mounted on the vehicles. Shorter distance operations are carried out by standard MC-3300 hand held terminals.

The system is being used to clear mines and munitions from a training range used by NATO forces and the Norwegian army and air force in the Hjerkin area of central Norway.

Norwegian national television recently broadcast a report on the application, available on www.nrk.no/netttv/distrikt/ndtl/verdi/111264



A remote controlled excavator and dumper



The two operators



The operators view the machines on screen.

Compact versatile receiver

HBC-Radiomatic has launched the FSE 510 a compact flexible wireless control receiver designed for industrial cranes and other mobile hydraulic machinery with CANopen Safety interface.

In addition to the CAN-controlled range of functions, the FSE 510 incorporates eight black and white outputs, allowing accessories or additional devices without CAN interface to be controlled with the crane or machine. A category 3 emergency stop (category 4 via CANopen Safety) certified to EN 954-1 is also included.

Options include full feedback via CANopen Safety, enabling the display of crane and machinery data, error messages or warnings on the remote controller, either via LED or LCD. Other features include the tandem operation for long loads as well as Radiomatic's Automatic Frequency Selection to avoid frequency conflicts. In addition, FSE 510 can be used for Multi-Receiver-Concepts (MRC). By the simultaneous operation of several receivers on one crane, The FSE 510 is housed in a robust plastic-composite case to IP 65,

with overall dimensions of just 165 x 165 x 70 mm allowing it to be installed easily where space is limited. The receiver is connected via cable glands or a Harting plug to either a 42 to 240 Volt AC supply or a 10 to 30 volt DC power pack. The FSE 510 receiver can be combined with most HBC radio transmitters/controllers.

The new HBC-Radiomatic FSE510 remote control receiver.



Ring of Safety

Oil&Steel has launched a new patented remote control option, for its Octopussy Evo spider lifts, the 'Safety Ring'. Oil&Steel engineers, working in partnership with remote control company Imet, set out to find a solution that ensures that the machine can only be operated with the remote lower controls when the operator is at a safe distance and not distracted.

It works through line-of-sight infrared transmitters mounted to the chassis that must connect with the controller within a preset distance band, for it to work.

If the controller is too close the controls will not operate, the same applies if it is too far away. The idea being to avoid the risk of the machine toppling over onto the operator should it tip while travelling or loading. And to prevent unintended operation while the operator is taking a break.

The systems transmitters and receiver must not only be within the safe range, but also be facing each other. If a person or vehicle should pass between the remote controller and the machine, operation will cease until the obstacle has passed - avoiding operation when the operators view is obstructed. The same applies should the operator

turn away from the machine, once again breaking the line of sight connection between transmitter and receiver. The idea here is that should the operator be distracted, his control of the machine will stop.

A three stage LED panel alerts the operator to the status of the Safety Ring, so that he is aware if a controller shut down is due to the Safety Ring or another issue.



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