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Railway Recovery Cranes Multi Tasking Cranes



Railway Recovery Cranes

Diesel hydraulic railway recovery cranes can be categorised into two types; those with single piece booms and rope derricking systems and those with two or three element telescoping booms elevated by derricking rams. Cowans Sheldon recommends the rope derrick crane where railway recovery or breakdown service is the prime operation. We design for capacities up to 250 tonnes.

Cranes are manufactured from standard proven assemblies to meet our customers' requirements and as such, our bespoke engineering approach allows all combinations of track gauges, permissible axle loads, hauling speeds, tail radii, speeds of operation etc, to be designed in. Reliable suspension systems provide for acceptable ride performance at speeds of up to 120 km/hr.



Cranes supplied of the type depicted include twelve 140 tonne models for Indian Railways and two 65 tonne models for Sudan Corporation; all with rope derrick systems.

Our customers, Freightrail of New South Wales, Australia, and CFM, Mozambique, have both recently chosen telescopic boom models in the 80 to 110 tonnes range. In the case of the telescoping boom crane, given the correct speed of operation, the functionality can be extended to general materials handling duties outwith and within depot. Telescoping boom cranes are provided up to 150 tonnes capacity. The most popular range within our customers is between 60 and 110 tonnes. These cranes work under isolated electrified catenary systems, without the need to dismantle.

factsheet



Railway Recovery Cranes – Multi Tasking Cranes

For faster handling of lighter loads our customers have a choice of auxiliary hoist or a two speed main hoist.

All recovery cranes are fitted with hydraulically powered swing outriggers for heavy lifting. A selection of outrigger positions provides for maximum lift from minimum propping base and each outrigger incorporates long stroke jacks, minimising packing and enabling crane side manoeuvre and re-railing in the event of accidental derailment.

Multi Tasking Cranes

The crane tail radii are normally shorter than for those cranes associated with recovery work. This enables operating overside without encroachment of the structural loading gauge of the adjacent track; in this way the adjacent track is kept open to traffic. Counterweights are permanently on board with a choice of fixed or moving type. This depends upon the required axle load distribution, to suit track conditions and bridge structures.

Maximum self travel speeds are increased up to 45 km/hr and slew, derrick and hoist speeds are also increased within safe limits. All cranes have high capacity shunting capability, useful both in depot and at worksite.

Multi-tasking cranes are generally similar in outline design to the recovery cranes but are more frequently used and usually faster

in operation. The design may cater for more arduous classes of utilisation and different load spectrum factors for structures and mechanisms. It is, therefore, necessary for our customers to carefully specify their the operational requirements. Primary importance is placed upon free on rail performance and a self-levelling mechanism is generally fitted to compensate for working on super-elevated track.

Duties include bridge erection, electrification installations, track panel, switch and sleeper laying work, heavy construction tasks and general railway depot duties.

The majority of multi-tasking cranes are of the telescopic boom type and noteworthy examples of our range are the 7.5 tonne capacity single and 10 tonne capacity twin boom types, supplied to London Underground; the 60 tonne capacity and 75 tonne capacity models supplied to New Zealand Railways and British Railways and, most recently, the 110 tonne capacity all purpose crane for Freightrail, New South Wales, also mentioned overleaf.

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