SLEEPER BULK HANDLING ATTACHMENTS Introduction Document



Options and Key Features for

Thomson Engineering Design

Handlers for Multiple Sleepers

Issue I

August 2022



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Issue Record

First Issue

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Introduction

Whatever your requirement for bulk handling of sleepers (ties) Thomson Engineering Design can provide a solution.

All our bulk sleeper handling grabs and beams are custom made to suit clients' individual requirements.

We have solutions for all types of crane, excavator, shovel, tele-handler and materials handler, all types of sleeper and all types of power source including the option to have a power pack built into the grab with either radio or pendant remote control.

All hydraulic models are fitted with pressure reducing valves to allow them to be fitted to almost any host machine and check valves on the cylinders to lock the grab in the event of a hydraulic failure. All types may also be specified with 'parachute' valve systems which lock the jaws when the device is lifted - preventing accidental release of the sleepers during the lifting operation.

All models designed for handling concrete sleepers incorporate hard wearing urethane pads wherever contact is made with the sleeper surface. These pads prevent damage to the concrete surface whilst improving grip. The pads are replaceable but have a very long design life in normal operation.

This document introduces the basic types we produce but it is intended as a guide only. We will be pleased to discuss your own requirements and to work with you to create an ideal handling solution.

Single Layer Sleeper Handlers

Our range of single layer sleeper handlers begins with light weight sleeper grabs primarily intended for use with self loading truck cranes for the delivery of small numbers of sleepers.

This range includes models for 2 to 6 sleepers per lift. All models are fully adjustable to suit all types of sleeper.



Our single layer hinged jaw sleeper handlers are extremely robust devices primarily intended as attachments for excavators and materials handlers.

Designed for full-time use in arduous operations such as sleeper manufacturing works or for use on site loading and unloading sleeper delivery trains the range includes models for 4 to 12 sleepers per lift.

All models are adjustable for different sleeper types.





Where sleepers of different lengths or random cut sleepers must be handled our sliding jaw sleeper handlers provide a safe and robust solution.

The range includes models for handling 2 to 12 sleepers per lift and can be adapted to suit almost all types of hydraulic machine including truck mounted cranes.

Where no hydraulic power is available our mechanically actuated range of sleeper handlers use a 'ballpoint pen' mechanism to latch and release the jaws each time the device is put down - automatically grabbing the sleepers to lift them and releasing them when they are put down again.





Powered either by batteries or a small combustion engine and controlled by either a radio remote controller or a plug-in pendant controller this system makes the handler completely self contained.

Multiple single-layer sleeper grabs can be linked together to provide massive handling capacity.

Linking them beneath a separate frame allows the device to cope with undulating layers of sleepers stacked on uneven ground.

Our largest model to date is the 56 sleeper MB21-04 Sleeper Handler, part of our unique Megabeam System of interchangeable attachments for high-output delivery operations.







Dual Layer Sleeper Handlers

Hinged jaws and thick urethane pads provide an ideal solution for handling two layers of sleepers at a time where only one sleeper length is ever handled.



Sliding jaws, mechanically synchronised allow different sleeper types to be handled. Models are available to handle any number of sleepers per layer limited only by the capacity of the host machine.

Whether hinged or sliding jaws are chosen, all models are adjustable for different sleeper heights and have room to carry a top layer of timber dunnage as well.

The location of the pads which rest on top of the upper layer can be tailored to suit individual requirements.

All models can be specified with built in power packs and sliding jaw models can be specified with mechanical actuation.





Multi-Layer Sleeper Handlers

Although hinged jaw models have been supplied our Muti-Layer Sleeper Handlers are more commonly equipped with sliding jaws.

We can supply handlers for any number of sleepers per layer and any number of layers per lift. Again, the limit is only the capacity of the host machine.

Mechanical actuation and built in power packs with remote control are offered where gantry cranes or mobile cranes are to be used.









a mechanical synchronising system. Hydraulic models have four independent hydraulic cylinders each of which has a check valve fitted to prevent loss of grip in the event of a hydraulic failure.



Contact Details

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PLEASE NOTE

Whilst every care is taken to ensure that the contents of this document are true and accurate, the specifications of our products and the scope of our services are constantly changing as part of our policy of continuous improvement.

We strongly recommend contacting the factory to ensure that details given are still current.

More than half our business comes from special products designed and built as one-off's and we are always pleased to discuss amended specifications should the product detailed here not meet your exact requirements.



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