UNIPART

Performance in motion

THOMSON ENGINEERING DESIGN

Durable, Reliable and Safe

Rail Handling

Product Application Guide - Issue 4

INTRODUCTION

Thomson Engineering Design Ltd has been designing and building rail handling equipment since 1999. We now offer an unrivalled range of standard products and are frequently called upon to construct custom solutions for individual clients around the world.

Today, our range of standard rail handling products includes devices for most applications. This short guide offers advice on selecting the best product for your specific requirements and we hope you will find it informative. This fourth edition has been produced following the development of a range of products for rail delivery during 2020 / 2021 and once again demonstrates our commitment to continuously advancing our product range.

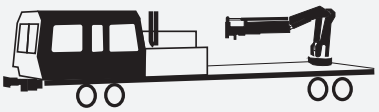
QUALITY & SAFETY BUILT-IN

Thomson Engineering Design Ltd has an unrivalled reputation for the quality and reliability of its products.

Thomson Engineering Design Ltd is accredited to ISO9001:2015 for design, manufacture, testing and documentation of machinery and equipment and holds a number of other rail industry supplier qualifications.

APPLICATIONS

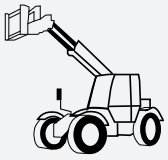
SUITABLE FOR USE WITH KNUCKLE BOOM CRANES ON BOTH ROAD AND RAIL VEHICLES. WHERE AN ATTACHMENT IS SUITABLE FOR RAIL MOUNTED MACHINES BUT NOT ROAD VEHICLES THE ICON ON THE RIGHT IS USED.



SUITABLE FOR USE ON ROAD RAIL EXCAVATORS

SUITABLE FOR USE WITH TRACKED EXCAVATORS / WHEELED EXCAVATORS / HEAVY CONSTRUCTION MACHINES

SUITABLE FOR SPECIAL PURPOSE MATERIALS HANDLERS



SUITABLE FOR USE WITH GENERAL PURPOSE CRANES

SUITABLE FOR USE WITH GANTRY / YARD CRANES

APPLICATION MATRIX

PRODUCT	PAGE No.	MULTI-RAIL	<4m RAIL	4m - 20m RAIL	>20m RAIL						
MRH14 MULTI-RAIL HANDLER	8	☐		☐	☐					☐	☐
MRL18 MULTI-RAIL HANDLER	10	☐		☐	☐					☐	☐
RLB20 RAIL BEAM	12		☐	☐		☐	☐	☐	☐		
TRLB20 TELESCOPIC RAIL BEAM	14			☐		☐	☐	☐	☐		
HDRB18 HEAVY-DUTY RAIL BEAM	16						☐	☐	☐		
RHB16 RAIL BEAM	18			☐		☐	☐	☐	☐		
RG17 RAIL GRAB	20		☐	☐		☐	☐	☐	☐		
TELE-HANDLER ADAPTER	22								☐		
RT10 THIMBLE	24				☐		☐	☐	☐		
RFT16 RAIL FOOT THIMBLE	26				☐		☐	☐	☐		
TD15 THREADER DRAGGER	28		☐	☐	☐		☐	☐	☐		
DC06 DRAG CLAMP	30			☐	☐		☐	☐	☐		
RT211 RAIL TURNER	32		☐	☐	☐		☐	☐			
UB02 UNIVERSAL BEAM	34		☐	☐		☐	☐	☐	☐		
ARG08 AUTOLOK	36		☐	☐	☐	☐	☐	☐	☐	☐	☐
BEAM AND CLAMP SYSTEMS	38		☐	☐		☐	☐	☐	☐		
GPU RAIL BEAM	40			☐	☐		☐		☐		
RS16 RAIL STILLAGE	42										
RLU19 RAIL LOADER / UNLOADER	44			☐	☐		☐	☐	☐		
TTD19 TWIN THREADER DRAGGER	46				☐		☐	☐	☐		
RR19 RAIL ROLLER	48				☐						
RIGID RAIL BEAMS	50	☐	☐	☐						☐	☐

All our attachments can be supplied with custom built adapter systems to suit any host machine.

Download our Adapter Head Selection Guide for full details of fixed, rotating, quick change and all other types.

The guide includes details of what measurements we will need from your machine in order to ensure a perfect 'plug-and-play' fit.

Email railplant@unipartrail.com for more details.

KEY FEATURES & OPERATION

Our range of products includes models for use with a wide variety of host machines. All our products are designed to withstand much more than normal use can throw at them but some items also include extra safety features as described below and listed in the table on page 5.

All excavator and crane attachments are operated using the hydraulic systems of the host machine but some of our rail handling products can also be specified to be manually operated or to be powered by pneumatic systems or even with a built in electro-hydraulic power pack.

FITTED WITH 'PARACHUTE VALVE PROTECTION'. LOAD CANNOT BE RELEASED WHEN LIFTED. ON SOME DEVICES THIS CAN BE OVERRIDDEN IN SPECIAL CIRCUMSTANCES BY OPERATING A VALVE ON the DEVICE (USUALLY SECURED IN the SAFE POSITION WITH A PADLOCK).

FITTED WITH A PRESSURE CONTROL VALVE TO LIMIT the HYDRAULIC PRESSURE WITHIN THE DEVICE SYSTEM REGARDLESS OF THE PRESSURE FROM THE HOST MACHINE. ATTACHMENTS FITTED WITH THIS SYSTEM HAVE A WORKING PRESSURE RANGE OF 90 TO 275 BAR INLET PRESSURE.

WORKING LOAD LIMIT - THE MAXIMUM RATED LOAD TO BE LIFTED BY THE DEVICE

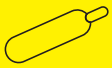
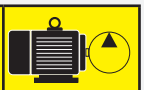
HYDRAULICALLY OPERATED FROM AUXILIARY SERVICE(S) ON THE HOST MACHINE

MANUAL OPERATION FOR GRIP / RELEASE OF THE RAILS WITH SAFETY INTERLOCKS

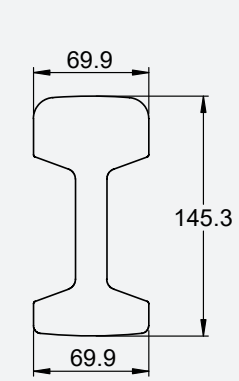
OPERATED PNEUMATICALLY

ELECTRO - HYDRAULIC OPERATION. ATTACHMENTS WITH THIS SYSTEM ARE POWERED BY A BUILT-IN ELECTRO-HYDRAULIC POWER PACK WHICH MAY BE SPECIFIED IN 24V DC, 110V AC, 240V AC OR 415V 3 PHASE AC

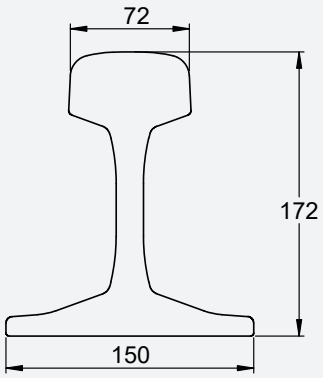
FEATURES & OPERATION MATRIX

PRODUCT	PAGE No.			WLL				
MRH14 MULTI-RAIL HANDLER	8	☐		2,000 - 12,000kg (4,400 - 26,400lbs)	☐	☐	☐	☐
MRL18 MULTI-RAIL HANDLER	10	☐		2,000 - 6,000kg (4,400 - 13,200lbs)	☐	☐	☐	☐
RLB20 RAIL BEAM	12	☐	☐	1,250kg (2,750lbs)	☐			
TRLB20 TELESCOPIC RAIL BEAM	14	☐	☐	1,250kg (2,750lbs)	☐			
HDRB18 HEAVY-DUTY RAIL BEAM	16	☐	☐	2,050kg (4,500lbs)	☐			
RHB16 RAIL BEAM	18	☐	☐	1,250kg (2,750lbs)	☐			
RG17 RAIL GRAB	20	☐	☐	2,500kg (5,500lbs)	☐			
TELE-HANDLER ADAPTER	22	☐	☐	1,000 - 6,000kg (2,200 - 13,200lbs)	☐	☐		
RT10 THIMBLE	24			2,500kg (5,500lbs)	☐			
RFT16 RAIL FOOT THIMBLE	26		☐	2,000kg (4,400lbs)	☐			
TD15 THREADER DRAGGER	28		☐	2,000kg Lift (4,400lbs) 10,000kg Drag (22,000lbs)	☐			
DC06 DRAG CLAMP	30			10,000kg Drag (22,000lbs)	☐			
RT211 RAIL TURNER	32		☐	2,000kg (4,400lbs)	☐			
UB02 UNIVERSAL BEAM	34	☐	☐	10,000kg (22,000lbs)	☐			
ARG08 AUTOLOK	36			2,000kg (4,400lbs)	☐	☐		
BEAM AND CLAMP SYSTEMS	38			UP TO 100,000kg	☐	☐	☐	☐
GPU RAIL BEAM	40	☐	☐	UP TO 1,800kg	☐			
RS16 RAIL STILLAGE	42				☐			
RLU19 RAIL LOADER / UNLOADER	44		☐		☐			
TTD19 TWIN THREADER DRAGGER	46		☐		☐			
RR19 RAIL ROLLER	48					☐		
RIGID RAIL BEAMS	50					☐	☐	

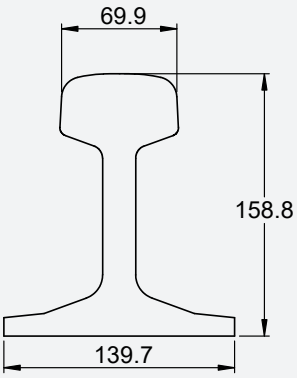
RAIL TYPES



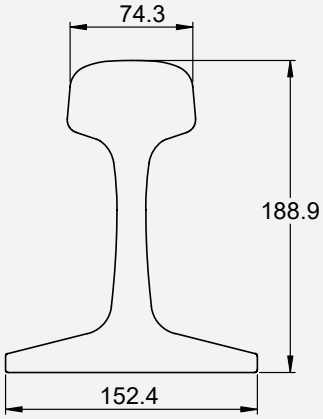
95lb BULLHEAD



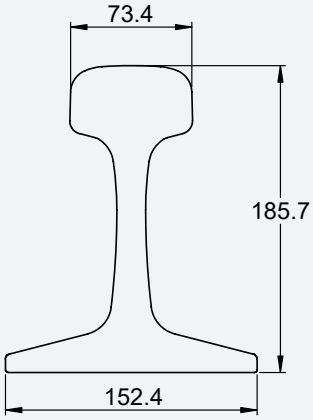
CEN/UIC60



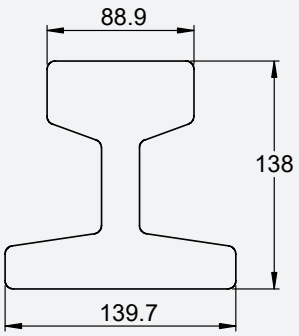
BS113A



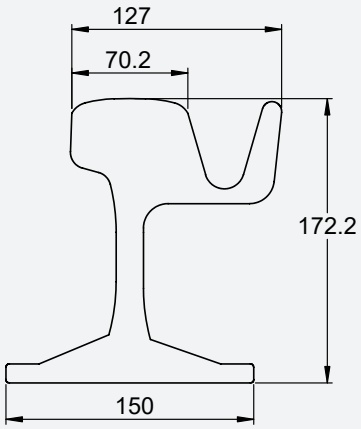
AREMA141LB



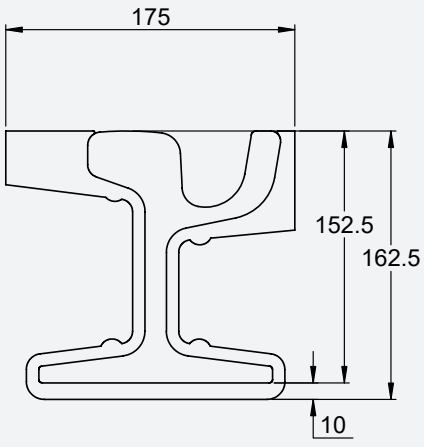
AREMA136LB



150lb CONDUCTOR



UIC60 GROOVED RAIL



41GPU GROOVED RAIL

More than 50 different rail cross sections are in use throughout the world and Thomson Engineering Design Rail Handling products can be specified to suit almost any of them. The rails detailed above however are by far the most common types found in Europe and America. Most of our products will handle one or more of these rail types as standard.

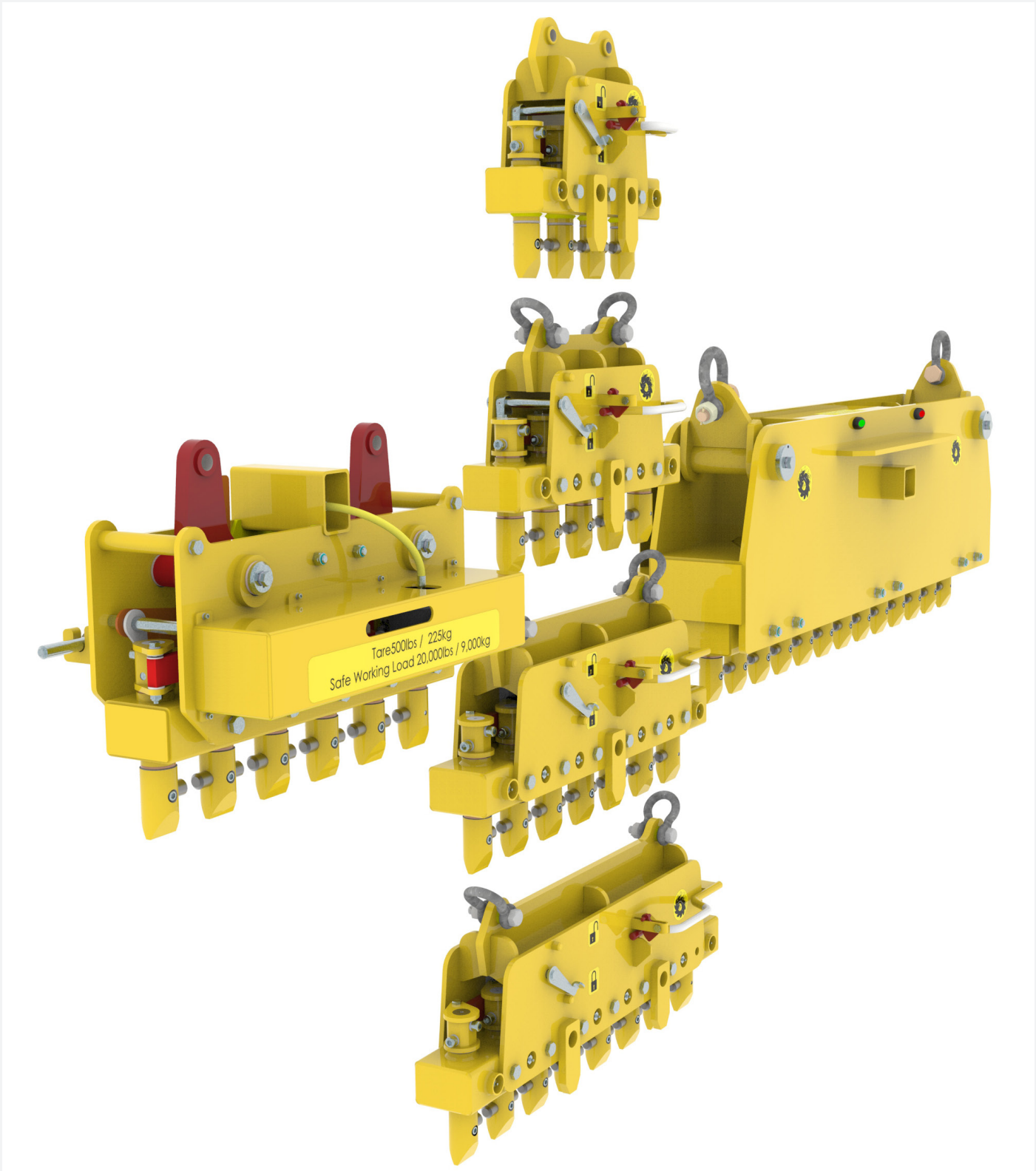
RAIL TYPES APPLICATION MATRIX

■ Standard model is compatible

□ Rail type to be specified at time of order

PRODUCT	PAGE No.	CEN60 UIC 60	BS113A	A141LB	A136LB	B/HEAD	150LB CONDUCTOR	UIC60 GROOVED	COATED RAILS
MRH14 MULTI-RAIL HANDLER	8	□	□	□	□	□	□		
MRL18 MULTI-RAIL HANDLER	10	□	□	□	□	□	□		
RLB20 RAIL BEAM	12	■	■	■	■	■	□	□	
TRLB20 TELESCOPIC RAIL BEAM	14	■	■	■	■	■	□	□	
HDRB18 HEAVY-DUTY RAIL BEAM	16	■	■	■	■	■	□	□	
RHB16 RAIL BEAM	18	■	■	■	■	■	□	□	
RG17 RAIL GRAB	20	■	■	■	■	■	□	□	
TELE-HANDLER ADAPTER	22	□	□	□	□	□	□	□	□
RT10 THIMBLE	24	■	■	■	■	■			
RFT16 RAIL FOOT THIMBLE	26	■	■	■	■		■		
TD15 THREADER DRAGGER	28	■	■	■	■		■		
DC06 DRAG CLAMP	30	■	■	■	■				
RT211 RAIL TURNER	32	■	■	■	■	■	□	□	
UB02 UNIVERSAL BEAM	34	■	■	■	■	■			
ARG08 AUTOLOK	36	■	■	■	■	■	□	□	
BEAM AND CLAMP SYSTEMS	38	□	□	□	□	□	□	□	
GPU RAIL BEAM	40	■	■	■	■	■		■	■
RS16 RAIL STILLAGE	42	■	■	■	■	□	□		
RLU19 RAIL LOADER / UNLOADER	44	■	■	■	■	□	□		
TTD19 TWIN THREADER DRAGGER	46	■	■	■	■	□	□		
RR19 RAIL ROLLER	48	■	■	■	■		■	■	□
RIGID RAIL BEAMS	50	■	■	■	■	■	■	■	

MRH14 MULTI-RAIL HANDLERS



KEY FACTS

MRH14 MULTI-RAIL HANDLERS are designed for lifting bundles of rails in bulk rail handling applications such as dock yards, rail welding yards and stockholders.

Models are available for handling 2 to 12 rails at a time and each model may be specified with manual, hydraulic, pneumatic, electro-mechanical or electro-hydraulic actuation.

A variety of optional extras increase the attractiveness of this product range including built in warning switch and light systems, mechanical status flags and parachute valve protection to prevent inadvertent release of the load.

All manual versions have a double-interlocked closure system for full safety.

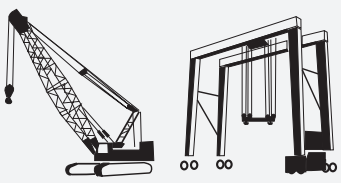
MRH14 MULTI-RAIL HANDLERS are rail specific: a multi rail lifter can normally only be used with a small range of different rail sections. Typically they are rated at 1,000kg per rail so, for example, a 3 rail unit will have a working load limit of 3,000kg.

ALTERNATIVE PRODUCTS

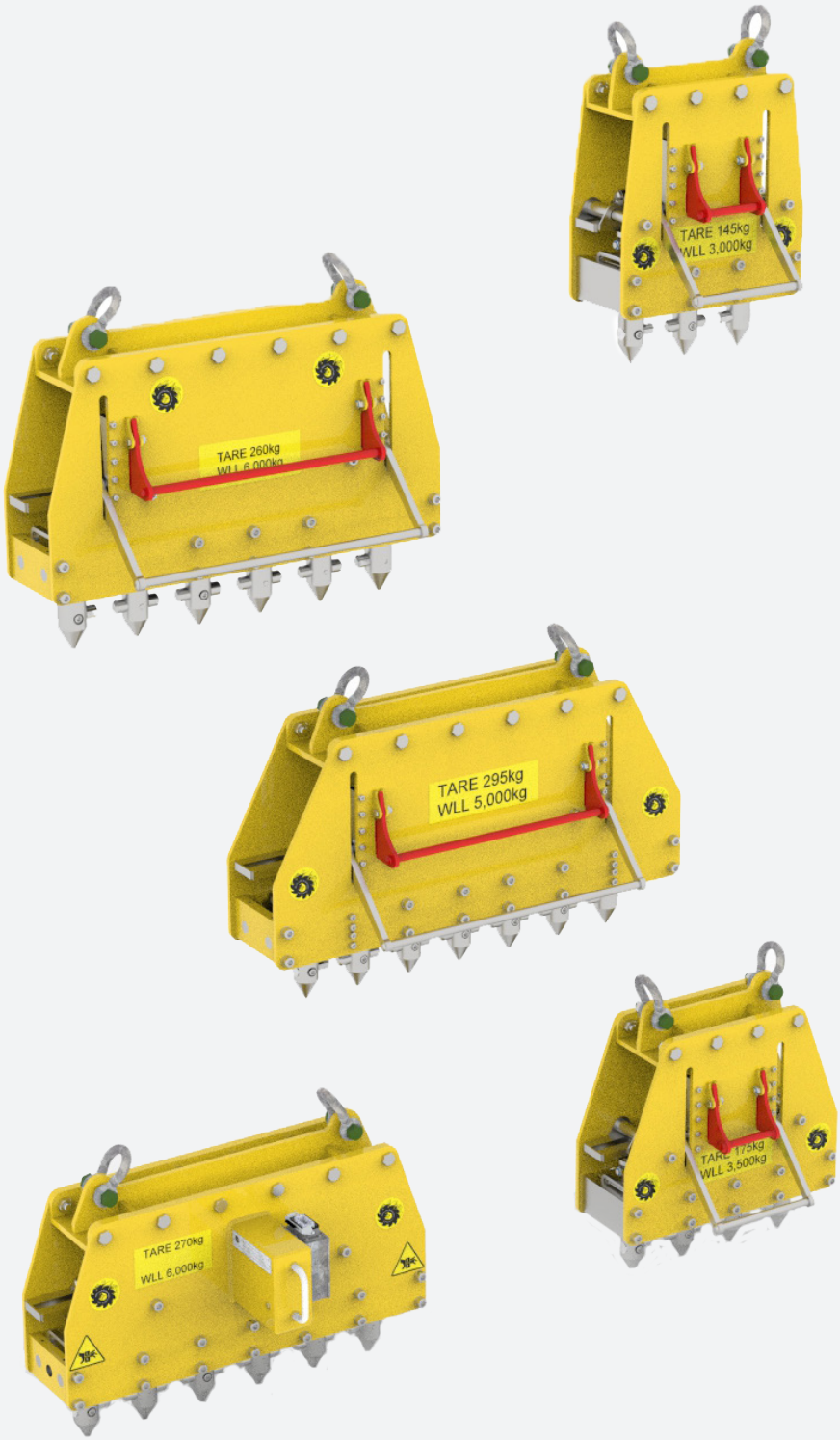
MRH14 MULTI-RAIL HANDLERS are most commonly supplied for retro fitting to existing spreader beams but we can also supply complete beam and handler systems if required.

Where rails of different weights must be handled our MRH18 Adjustable Rail Handlers are recommended.

Spreader beams can be made in sections for easier shipping.



MRL18 ADJUSTABLE MULTI-RAIL HANDLERS



KEY FACTS

MRL18 ADJUSTABLE MULTI-RAIL HANDLERS are designed for lifting bundles of rails in bulk rail handling applications such as dock yards, rail welding yards and stockholders. They differ from MRH14 Rail Handlers by being adjustable to cope with a range of rail sections.

Models are available for handling 2 to 6 rails at a time and each model may be specified with manual, hydraulic, pneumatic, electro-mechanical or electro-hydraulic actuation.

A variety of optional extras increase the attractiveness of this product range including built in warning switch and light systems, mechanical status flags and parachute valve protection to prevent inadvertent release of the load.

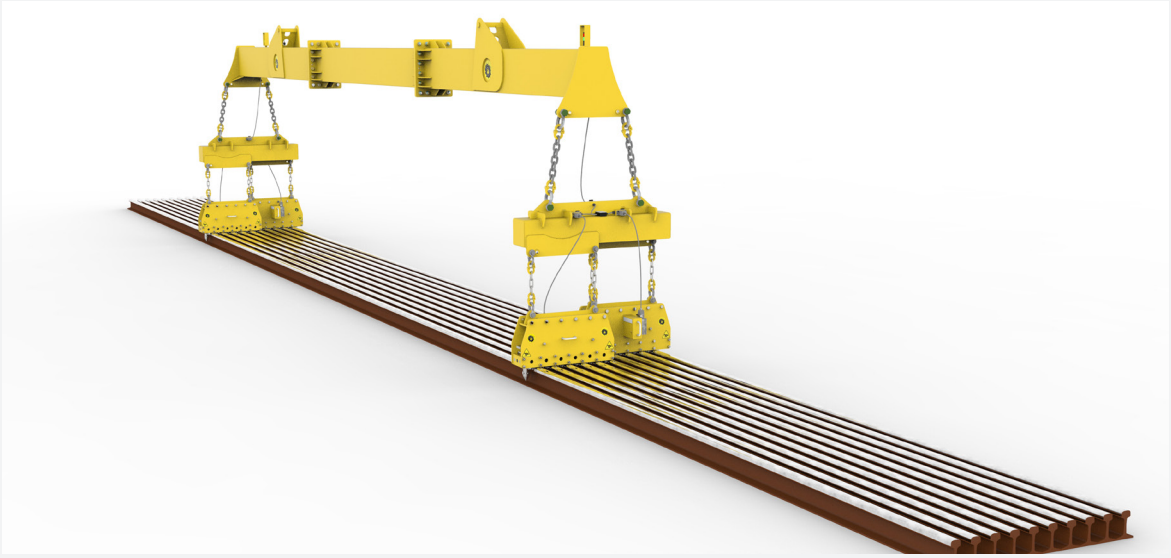
All manual versions have a double-interlocked latch system for full safety.

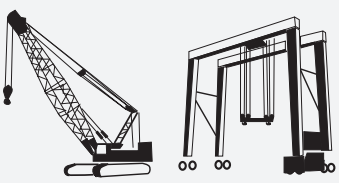
MRL18 MULTI-RAIL HANDLERS are adjustable for different rail sections. As standard they will handle running rail sections with foot widths from 139mm to 153mm (4.5" to 6"). Adjustment is a simple manual operation which may be carreid out in less than one minute per unit.

ALTERNATIVE PRODUCTS

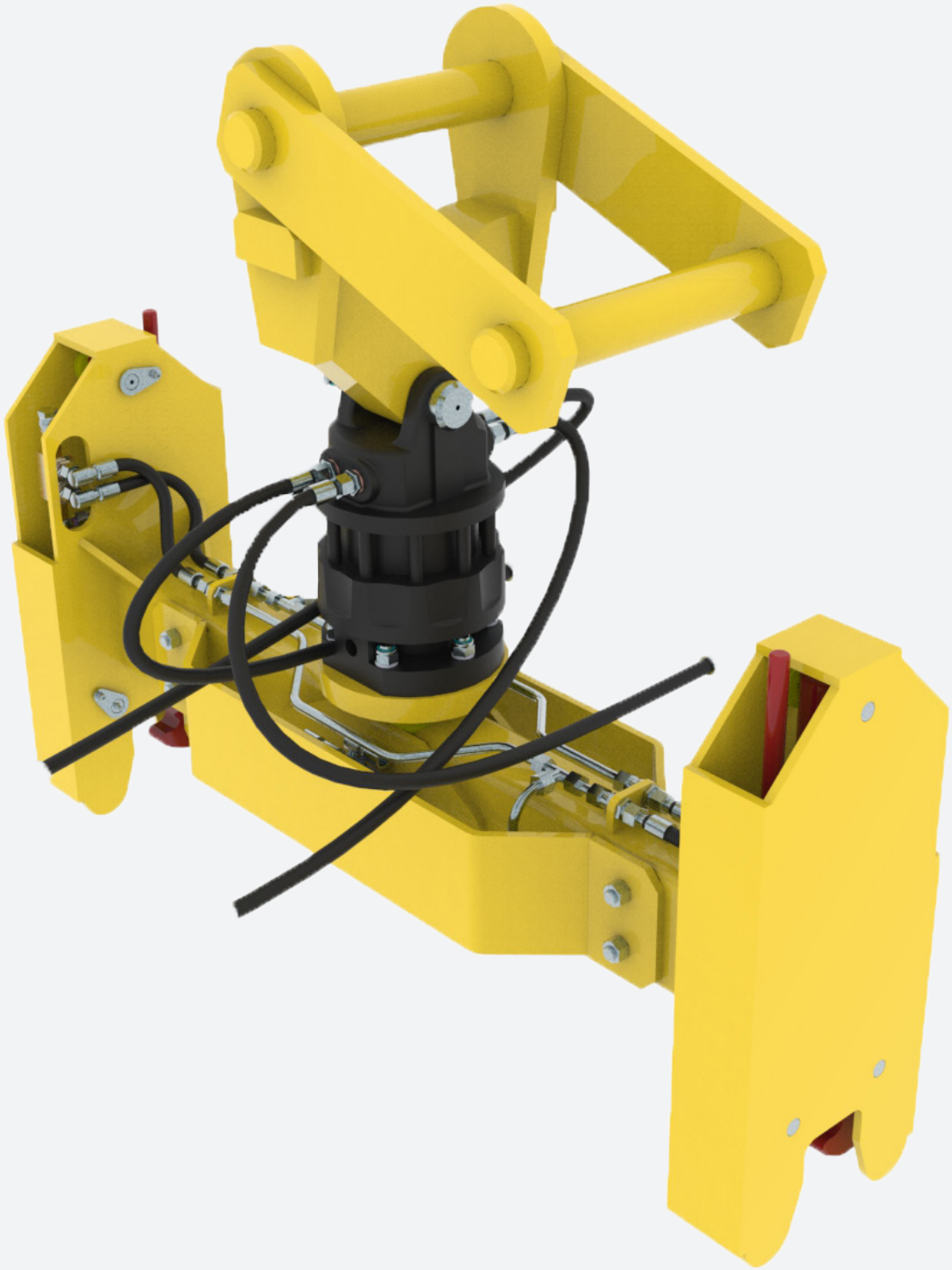
MULTI RAIL HANDLERS are most commonly supplied for retro fitting to existing spreader beams but we can also supply complete beam and handler systems if required.

Spreader beams can be made in sections for easier shipping.





RLB20 RAIL BEAM



KEY FACTS

The RLB20 RAIL LIFTING BEAM is our basic rail handling beam with applications in haulage and handling operations.

In its standard form it handles running rails (CEN60, BS113A, Bullhead, A141lb and A136lb) from 1m long to 20m long. The jaw mechanism is a highly robust cam system operated by hydraulic cylinders and is fully enclosed within the sturdy steel end sections.

Maintenance is minimal and the beam is available with a full range of adapter heads and rotator systems. A built-in pressure control valve protects the cylinders and check valves from high pressure systems up to 275 Bar.

Typical applications include fitment to truck cranes for rail delivery, fitment to rail mounted maintenance machines for rail delivery or for light duty scrap rail recovery.

The beam is fitted with a parachute valve system so that rails cannot be dropped once the beam has been lifted.

This beam is not suitable for handling Insulated Block Joints and cannot stack rails tightly together 'foot-to-foot': a gap of around 40mm between rails is required to fit the jaws to the rail.

The RLB20 is a highly reliable, robust, durable solution to the majority of rail handling tasks.

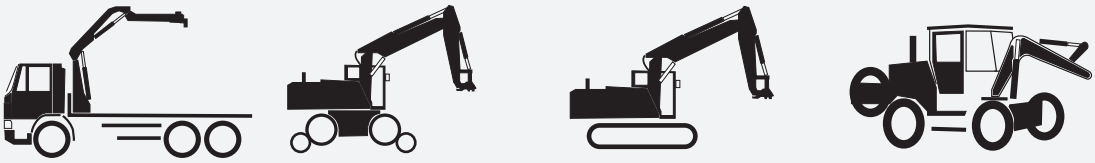
OPTIONS

The RLB20 RAIL LIFTING BEAM is also available with a modified jaw arrangement making it suitable for both running and conductor rails.

A conversion is also available for swapping out the jaw set to fit a grooved rail jaw set.

ALTERNATIVE PRODUCTS

The RHB17 RAIL HANDLING BEAM is the beam of choice for heavy duty scrap recovery and where foot-to-foot rail stacking is a firm requirement.



TRLB20 TELESCOPIC RAIL LIFTING BEAM

KEY FACTS

The TRLB20 TELESCOPIC RAIL LIFTING BEAM is our most popular rail handling beam with applications in haulage, general handling and rail maintenance operations.

In its standard form it handles running rails (CEN60, BS113A, Bullhead, A141lb and A136lb) from 4m long to 20m long. The jaw mechanism is a highly robust cam system operated by hydraulic cylinders and is fully enclosed within the sturdy steel end sections.

Maintenance is minimal and the beam is available with a full range of adapter heads and rotator systems.

Typical applications include fitment to truck cranes for rail delivery and fitment to road rail machines for rail maintenance operations. The beam is fitted with a parachute valve system so that rails cannot be dropped once the beam has been lifted. A built-in pressure control valve protects the cylinders and check valves from high pressure systems up to 275 Bar.

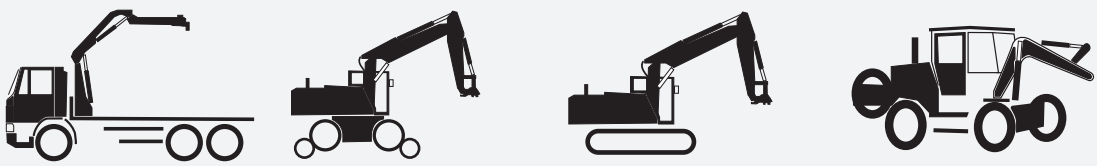
This beam is suitable for handling Insulated Block Joints. With an extended length of 6m, flexure of the rail section is significantly reduced during handling.

OPTIONS

The TRLB20 TELESCOPIC RAIL LIFTING BEAM is also available with a modified jaw arrangement making it suitable for both running and conductor rails.

TRLB20 TELESCOPIC RAIL LIFTING BEAMS can also be produced for handling grooved rail to special order. With this option the beam is fitted with a conversion kit which can be removed and the beam restored to running rail configuration in approximately 1 hour.

As standard, the beam is manually extended and retracted to the desired length then hydraulically clamped in position. An optional system can be fitted to give the beam a hydraulic telescoping function. With this option, when the beam is lifted, the operator can 'level the load' by hydraulically extending one end of the beam whilst simultaneously retracting the other end.



HDRB18 HEAVY-DUTY RAIL BEAM

KEY FACTS

The HDRB18 HEAVY-DUTY RAIL LIFTING BEAM has been designed in response to a demand for a robust rail handling solution for use with large excavators and materials handlers.

This beam has a jaw system developed from our RHB16 Rail Handling Beam and can pick up and place rails in tight, foot-to-foot stacks.

The length of the beam is hydraulically adjustable and a load levelling feature is included making this beam ideal for handling rails up to 25m (80ft) in length.

The beam is fitted with a parachute valve system so that rails cannot be dropped once the beam has been lifted. A built-in pressure control valve protects the cylinders and check valves from high pressure systems up to 275 Bar.

This beam is suitable for handling Insulated Block Joints. With an extended length of 6m, flexure of the rail section is significantly reduced during handling.

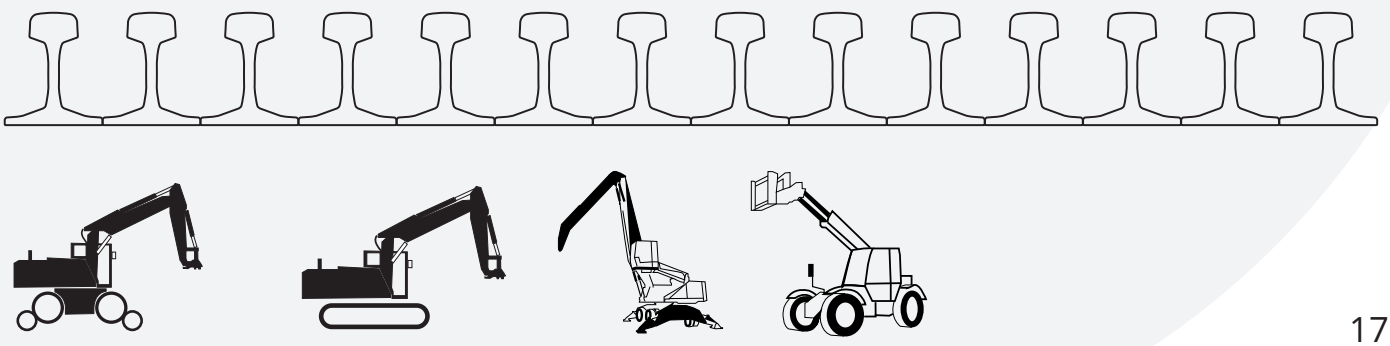
OPTIONS

The HDRB18 HEAVY-DUTY RAIL LIFTING BEAM is available with a rull range of adapter heads to suit all types of excavators and materials handlers.

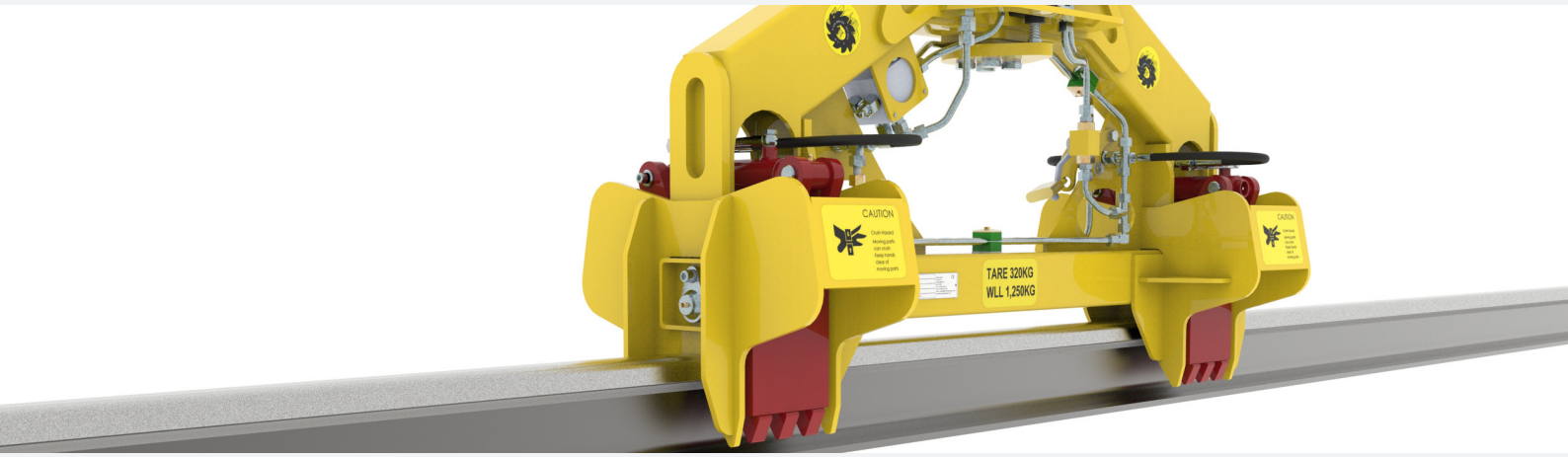
As standard a 16-tonne capacity rotator is fitted but a 30-tonne capacity rotator is available for the heaviest applcations.

ALTERNATIVE PRODUCTS

The TRLB20 TELESCOPIC RAIL BEAM is an ideal solution for lighter excavators and truck cranes.



RHB16 RAIL HANDLING BEAM



KEY FACTS

The RHB16 RAIL HANDLING BEAM is the gold standard for handling running rails (CEN60, BS113A, Bullhead, A141lb, A136lb).

This beam is of heavier construction than the RLB20 to give a much higher jaw grip force and has a stronger frame making it ideal for heavy duty scrap rail collection tasks as well as the handling and delivery of new rails.

RHB16 beams can be used on truck cranes, excavators and rail mounted machines.

Safety features include parachute valve protection which can be overridden by releasing a padlock-secured valve when rail sections must be dropped into bins.

A 6,000kg capacity rotator is fitted as standard to give the beam the power to control long rail lengths and a full range of adapter heads is available to suit any host machine. A built-in pressure control valve protects the cylinders and check valves from high pressure systems up to 275 Bar.

The unique jaw design of this grab allows rails to be stacked tightly together 'foot-to-foot'.

The beam is not suitable for handling conductor rails or grooved rails as standard.

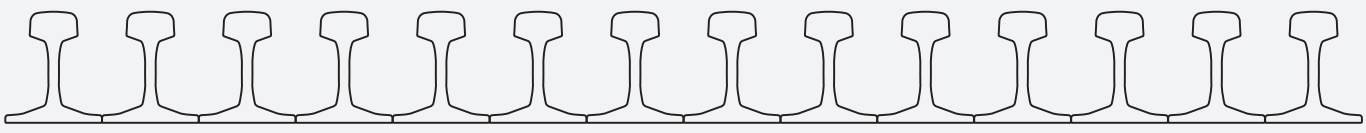
OPTIONS

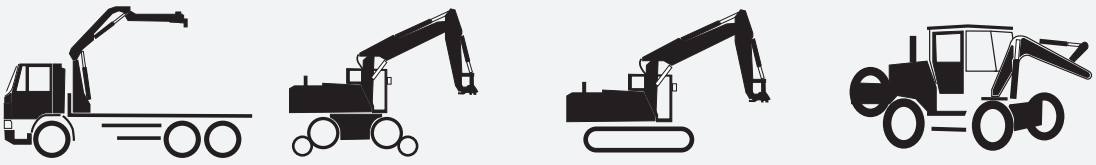
The RHB16 RAIL HANDLING BEAM can be manufactured to special order to suit either conductor rails or grooved rail if required. However, the beam will only handle a single rail type.

ALTERNATIVE PRODUCTS

The RLB20 RAIL LIFTING BEAM provides a lower cost alternative to the RHB16 with most of the same features.

Foot-to-foot stacking of rails is not possible with the RLB20.





RG17 RAIL HANDLING GRAB

KEY FACTS

The RG17 RAIL HANDLING GRAB brings the advantages of the jaw design used in the RHB16 Rail Beam to a compact, heavy-duty rail grab for all running rails (CEN60, BS113A, Bullhead, A141lb, A136lb).

This grab provides a high jaw grip force and has a heavy-section frame making it suitable for handling heavy section rails up to 18m (60ft) long whilst the compact design makes it equally suitable for handling very short off-cuts or repair rails.

The RG17 RAIL HANDLING GRAB can be used on truck cranes, excavators and rail mounted machines.

Safety features include parachute valve protection which prevents inadvertent release of the load and a pilot operated check valve to protect against hose failure.

A 6,000kg capacity rotator is fitted as standard to give the grab the power to control long rail lengths and a full range of adapter heads is available to suit any host machine. A built-in pressure control valve protects the cylinder and check valve from high pressure systems up to 275 Bar.

The unique jaw design of this grab allows rails to be stacked tightly together 'foot-to-foot'.

The grab is not suitable for handling conductor rails or grooved rails as standard.

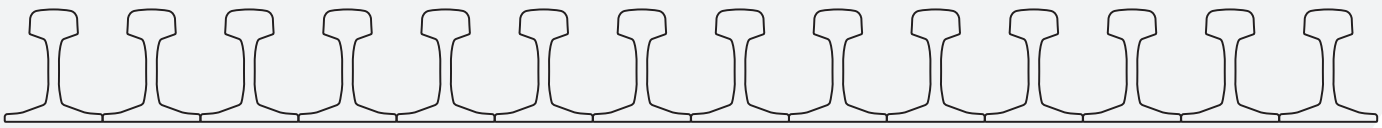
OPTIONS

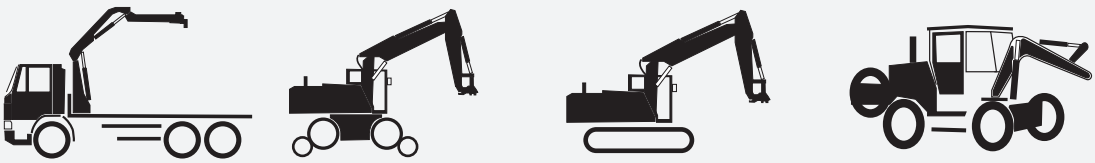
The RG17 RAIL HANDLING GRAB can be manufactured to special order to suit either conductor rails or grooved rail if required. However, the grab will only handle a single rail type.

Compatible weld-on lifting points can be provided allowing this grab to be used for handling machines, equipment and stillages up to 2,500kg

ALTERNATIVE PRODUCTS

The ARG08 AUTOLOK RAIL GRAB provides a low cost alternative for rail handling with cranes which do not have auxiliary hydraulic services.





TELEHANDLER RAIL BEAM ADAPTER

KEY FACTS

THOMSON Rail Beams may be specified for use with specialised material handlers such as telehandlers and Speedswings by specifying the appropriate adapter system.

Shown here is a beam and clamp system (using Autolok Manual Rail Grabs) adapted to fit a JCB Telehandler but adapters are available for all machine types and hydraulic beams such as the HRBB18 and RHB17 may also be specified with this system.

Using these systems allows for the safe and secure handling of rail sections in storage loading and unloading operations.

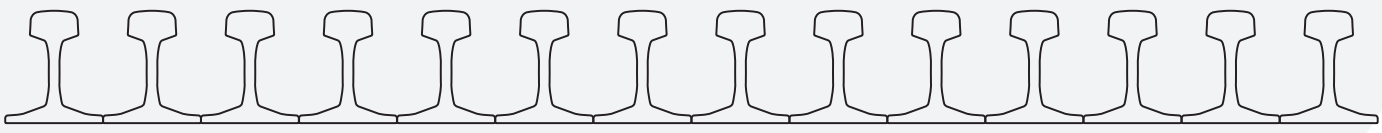
Wheeled machines running on rough ground can induce high dynamic forces. We design our materials handler adapter systems to withstand these forces over a long service life.

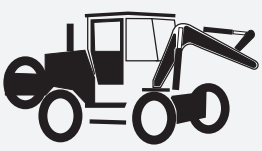
OPTIONS

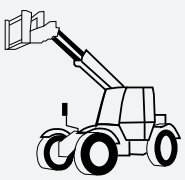
ADAPTER systems can be provided for all types of telehandlers and materials handlers and may be specified for almost all the rail handlers in our range.

Please contact our sales office (details on rear cover) for details of individual combinations.

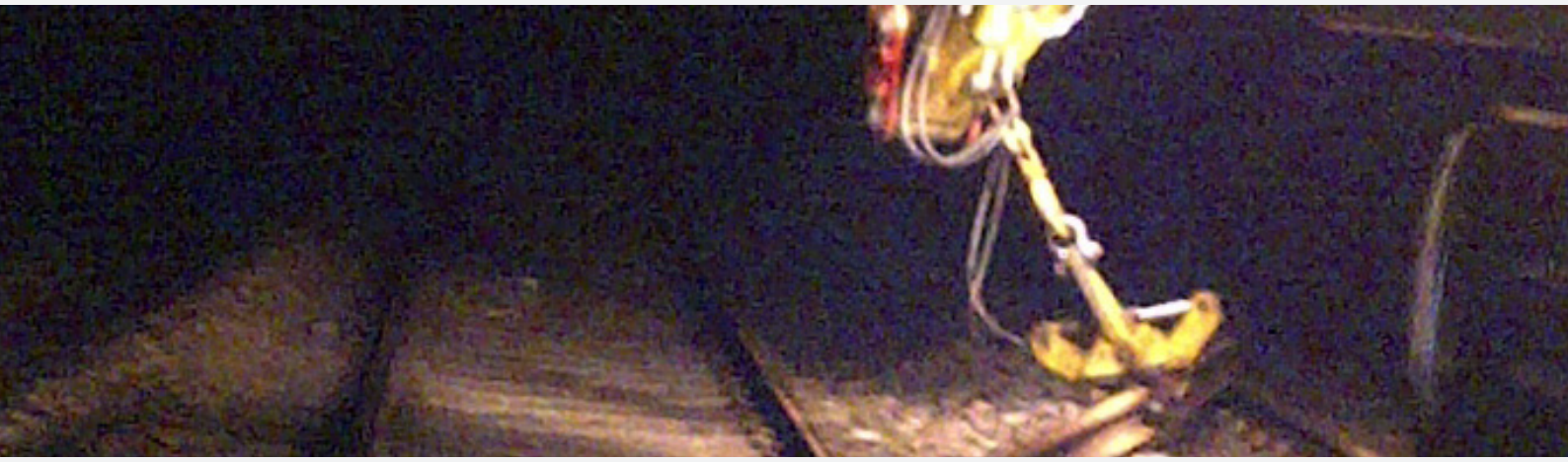
For the largest handlers, systems with multi-rail handlers may be specified providing an efficient solution for the handling of rail bundles.







RT10 RAIL THIMBLE



KEY FACTS

The RT10 RAIL THIMBLE is the solution to handling long welded running rails (CEN60, BS113A, A141lb, A136lb).

Four rollers support the rail below the rail head requiring no adjustment between different running rail types. The hydraulic cylinder is fitted with a pilot operated check valve to protect against leakage or burst hoses.

The Thimble can also be used to lift rails for installing under-rollers during rail stressing operations.

Lateral movement of long rail sections ('thimbling' or 'threading') can be carried out at up to 5,000m per hour.

The Thimble is normally suspended from the boom of an excavator or road rail machine, the rollers clamped below the rail head and the rail lifted and moved laterally. The machine then travels along the track threading the rail into place in one continuous movement.

OPTIONS

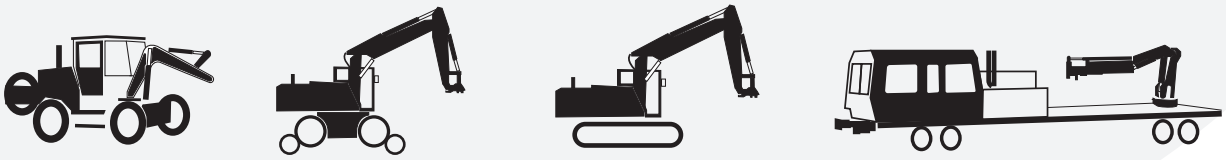
The RT10 RAIL THIMBLE is supplied as standard with hardened steel rollers for standard rails.

As a special order the Thimble can be fitted with soft tyred rollers for use with pre-painted rail sections.

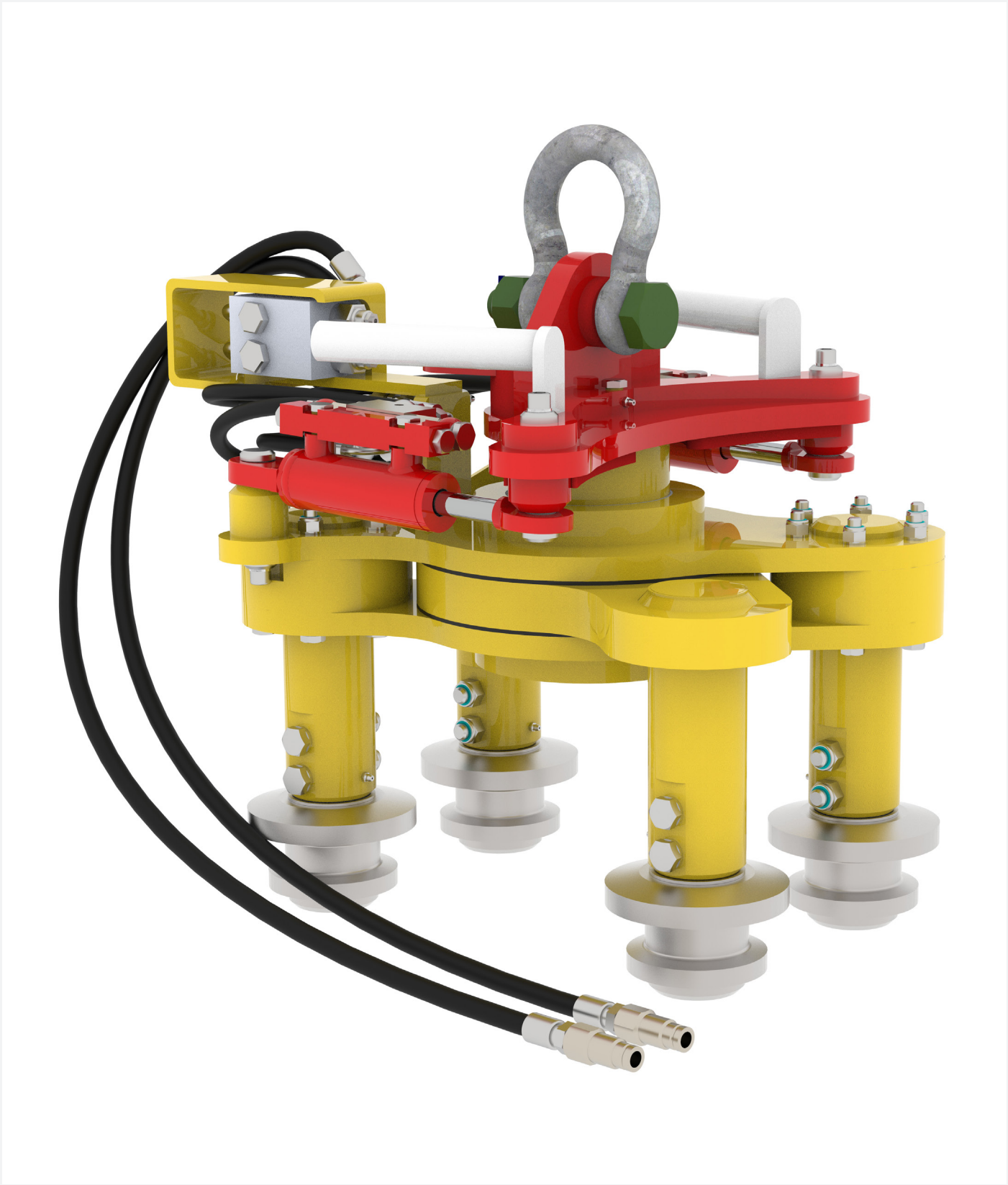
ALTERNATIVE PRODUCTS

The RFT16 RAIL FOOT THIMBLE can be used in the same application but can also be used for threading conductor rails.

The TD15 THREADER DRAGGER combines a rail foot thimble with a hydraulic drag clamp feature for a complete long welded rail handling solution.



RFT16 RAIL FOOT THIMBLE



KEY FACTS

The RFT16 RAIL FOOT THIMBLE is designed to handle both running rails and conductor rails and this gives it an edge over the RT10 Rail Thimble in terms of versatility.

Gripping the foot of the rail between the rollers this thimble is very smooth in operation and gives great control of the rail.

Rail has to be lifted onto blocks to allow the thimble to grip the rail foot but this can be done using the Rail Foot Thimble by closing the rollers under the head of the rail to grip it initially.

The ability to handle both running and conductor rail without having to adjust or alter the device at all makes it a popular choice for metro and other electrified areas.

A pressure control valve and check valves on the cylinders allow this device to be used with almost any host machine.

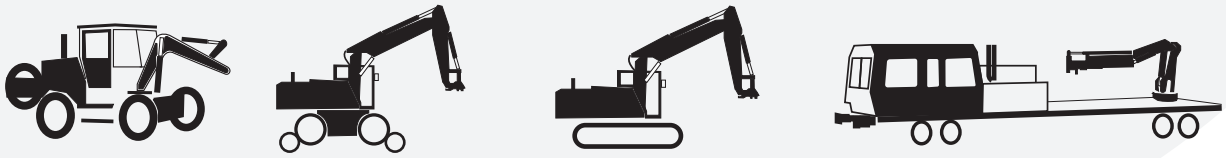
OPTIONS

The RFT16 RAIL FOOT THIMBLE is supplied as standard with a transport / storage stillage.

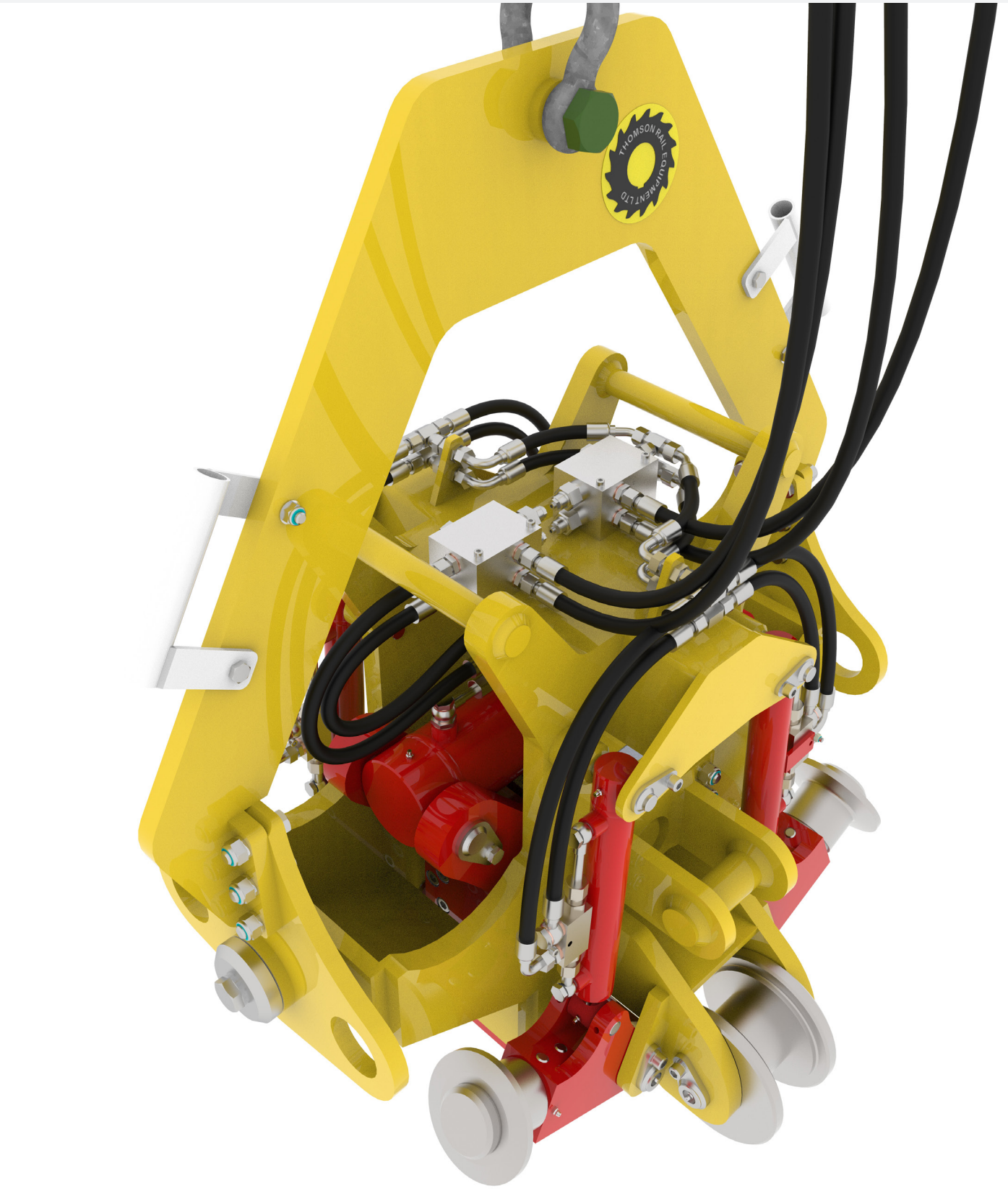
ALTERNATIVE PRODUCTS

The RT10 RAIL THIMBLE is a lower cost option for running rails only.

The TD15 THREADER DRAGGER combines a rail foot thimble with a hydraulic drag clamp feature for a complete long welded rail handling solution.



TD15 THREADER DRAGGER



KEY FACTS

The TD15 THREADER DRAGGER combines a robust rail foot thimble with a powerful hydraulic drag clamp into an all-purpose long welded rail handling device.

This device can handle running rails and conductor rails without adjustment and is fitted with pressure control, check valves and comes as standard with a transport / stowage stillage.

In normal operation the device is simply suspended from the host machine boom by a hook and chain and the two hydraulic services coupled to the host machine auxiliary supplies. For greater stability when pulling rails over long distances, chains can be fitted between the device and the towing point on the host machine.

The jaws of the dragging system also allow the TD15 Threader Dragger to be used as a rail grab for lifting and handling short lengths of rail.

Where possession time is tight the ability to swap from threader mode to drag mode and back again instantly from the cab of the host machine is a significant bonus in rail replacement operations.

OPTIONS

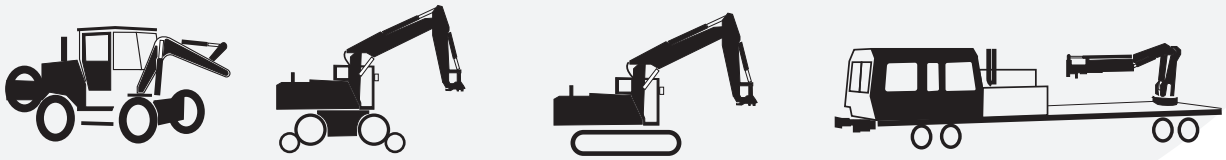
The TD15 THREADER DRAGGER is supplied with a transport / stowage stillage as standard.

A tow-chain assembly is available as an optional extra.

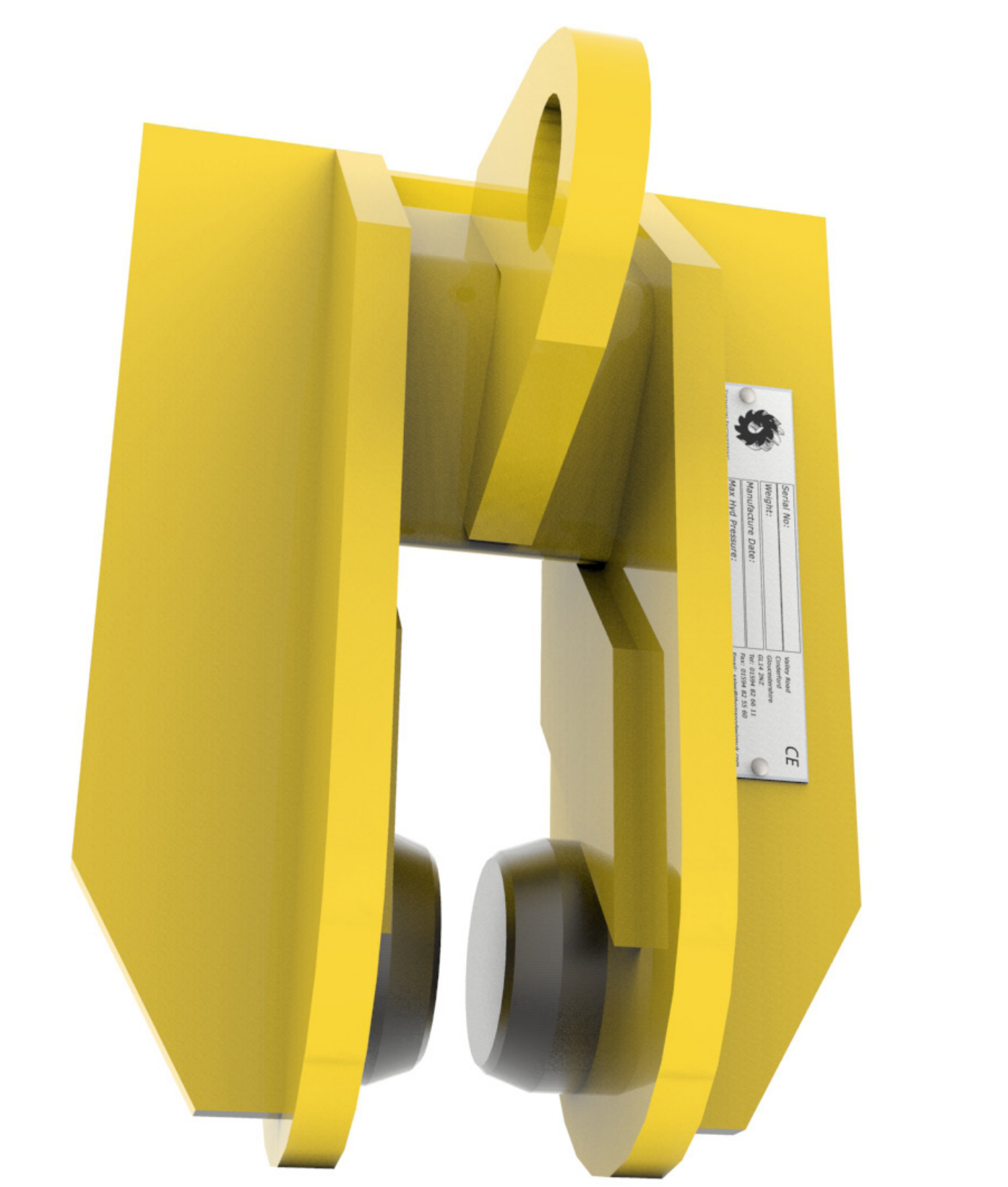
ALTERNATIVE PRODUCTS

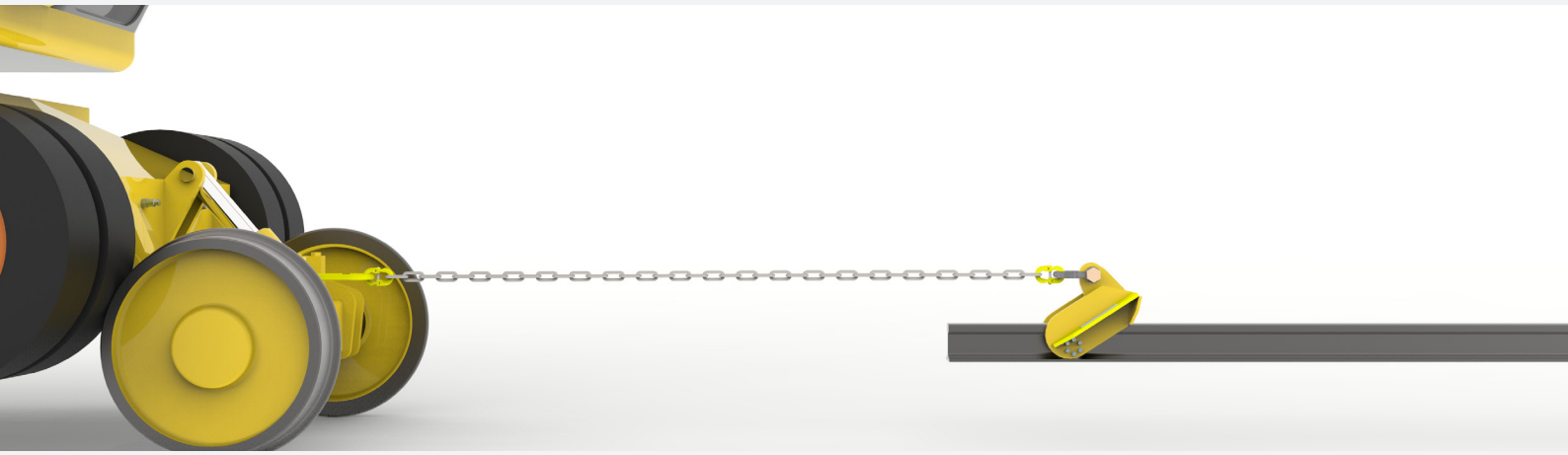
The RFT16 RAIL FOOT THIMBLE can be used for threading running and conductor rails.

The DC06 DRAG CLAMP offers a low cost solution for dragging running rails.



DC06 DRAG CLAMP





KEY FACTS

The DC06 DRAG CLAMP is a cam-action rail dragging device used for towing long welded rail sections. The device is rated for up to 10,000kg (22,000lbs) of rail.

Slide the device onto the end of the rail and the action of towing tightens the device between the rail foot and the underside of the rail head. The harder the pull, the harder the grip.

DC06 DRAG CLAMPS are suitable for the most common running rail types: CEN60, BS113A, A141lb and A136lb.

OPTIONS

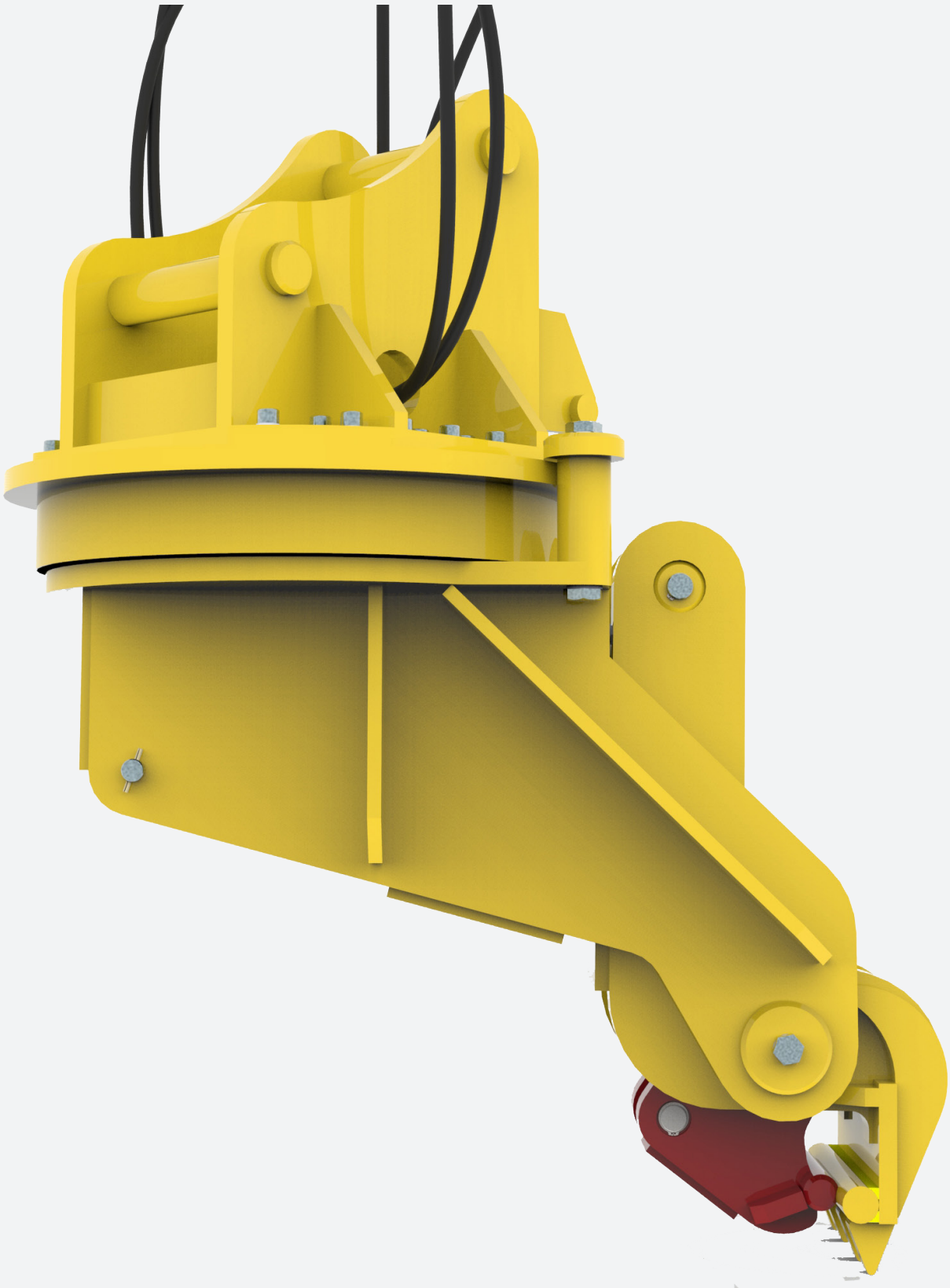
The DC06 DRAG CLAMP can be supplied complete with tow chain if required.

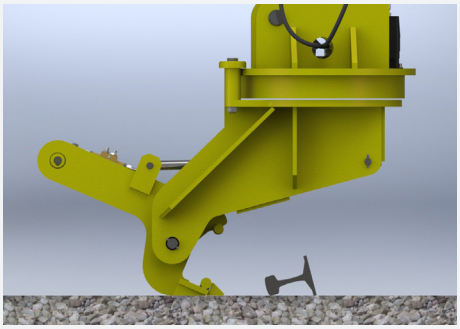
A 10,000kg (22,000lb) shear link is also available to automatically limit the maximum pull force.

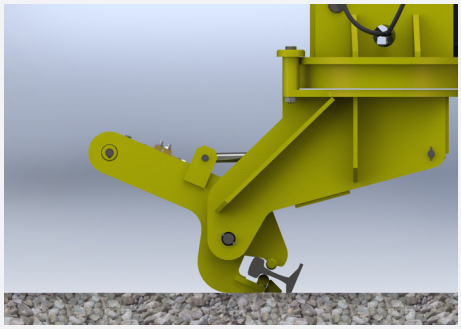
ALTERNATIVE PRODUCTS

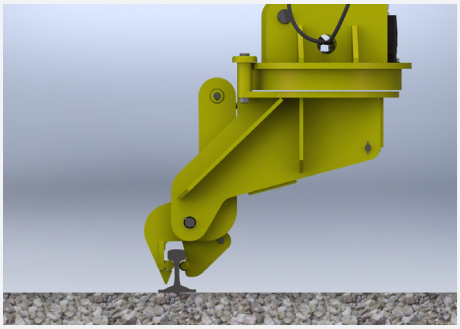
The TD15 THREADER DRAGGER incorporates a hydraulically operated drag clamp function and can also be used with conductor rails.

RT211 RAIL TURNER









KEY FACTS

The RT211 RAIL TURNER is the ultimate solution to scrap rail and long welded rail recovery.

Its unique tilting action jaw arrangement allows the operator to grab rail at any angle, drag the rail into position and finally stand the rail upright ready for collection by train-based recovery systems.

A single RT211 RAIL TURNER on an excavator can turn rails up to 210m (700ft) long in a single operation.

Rails can be stacked foot-to-foot for maximum use of space on site.

OPTIONS

The RT211 RAIL TURNER is supplied with a two-pin adapter head for fitting to a quick coupler. Removable pin adapter heads for direct fitting to the host machine boom are also available.

A transport / stowage stillage is available.

ALTERNATIVE PRODUCTS

The ARG08 AUTOLOK RAIL CLAMP can be used for moving and turning running rails up to 80m (260ft) long.

UB02 UNIVERSAL LIFTING BEAM

KEY FACTS

The UB02 UNIVERSAL LIFTING BEAM is a combination lifting device for handling rail, track panels and switch and crossing components.

This unique functionality is achieved by mounting the grab jaws on turntables in each end of the beam allowing them to be aligned with all rail arrangements.

Used singly for handling rail sections or in pairs for tandem lifting of track panels up to 20m (66ft) long the UB02 has a safe working load of 10,000kg (22,000lbs).

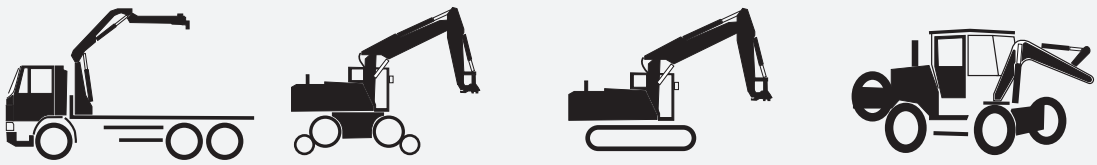
OPTIONS

The UB02 UNIVERSAL LIFTING BEAM is available with a full range of adapter heads including hydraulic rotator options.

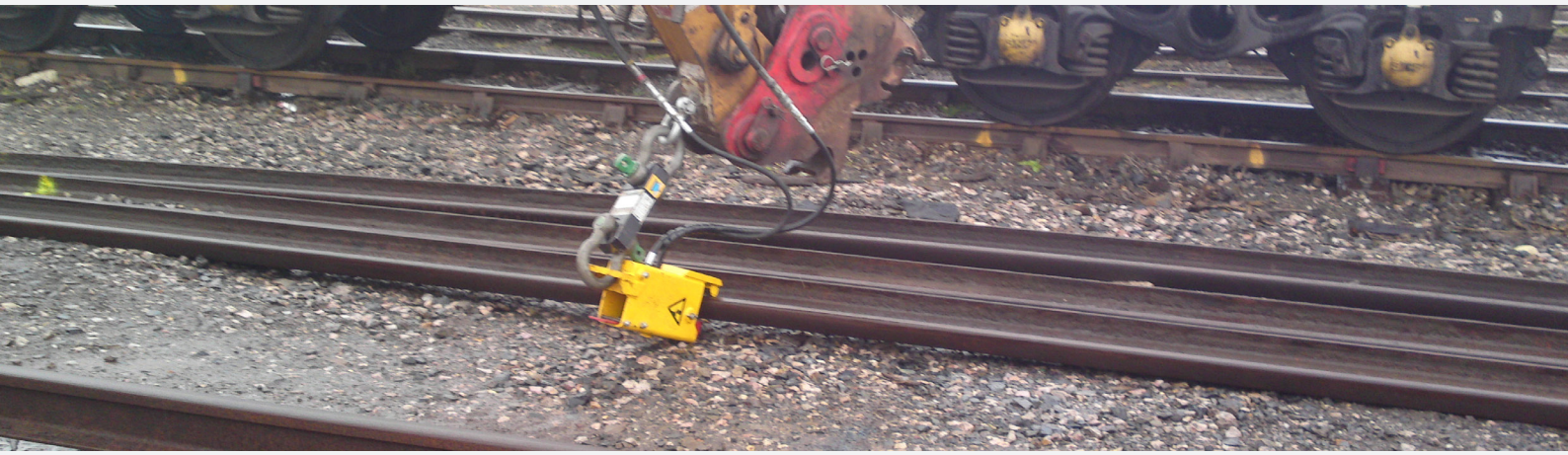
A transport / stowage stillage is also available.

ALTERNATIVE PRODUCTS

See our Panel Handling Product Application Guide for full details of our other rail panel handling products.



ARG08 AUTOLOK



KEY FACTS

The ARG08 AUTOLOK RAIL CLAMP is available in a wide range of configurations to suit almost any rail handling task.

The most robust device of its type, the ARG08 AUTOLOK RAIL CLAMP has been tested to over 8,000kg and has proved to be extremely reliable and durable in service.

Manual and hydraulically operated versions are available as standard and the device can be supplied for either running rails, conductor rails or grooved rails. Note however that devices are rail-type specific i.e. the running rail version cannot handle conductor or grooved rails, etc.

The unit weighs 25kg (55lbs) and is small enough to fit in the tool box of most machines. It is most commonly used as a general purpose rail grab carried with the host machine for occasional use.

Autolok Rail Clamps are commonly supplied with spreader beams for handling rail in rail yards and welding plants.

OPTIONS

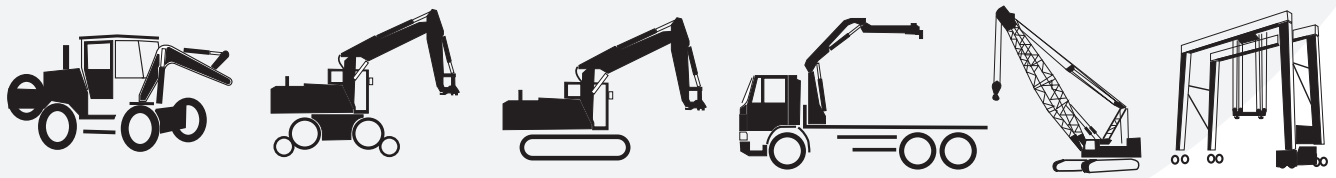
The ARG08 AUTOLOK RAIL GRAB is available singly or as part of a complete beam and grab assembly.

ARG08 AUTOLOK RAIL GRABS are available in manual, hydraulic, electric and automatically (ARG20-06) operated versions.

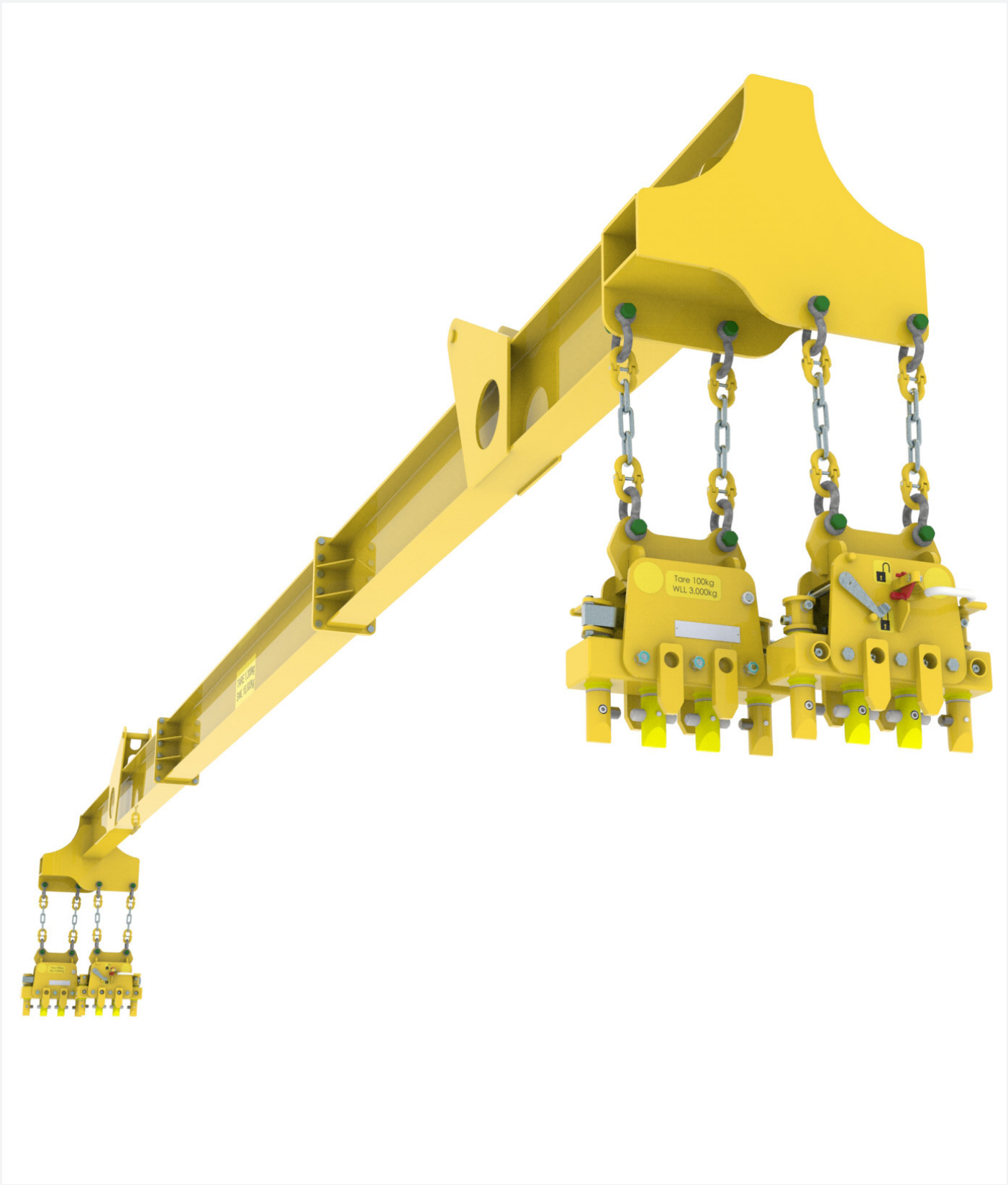
ALTERNATIVE PRODUCTS

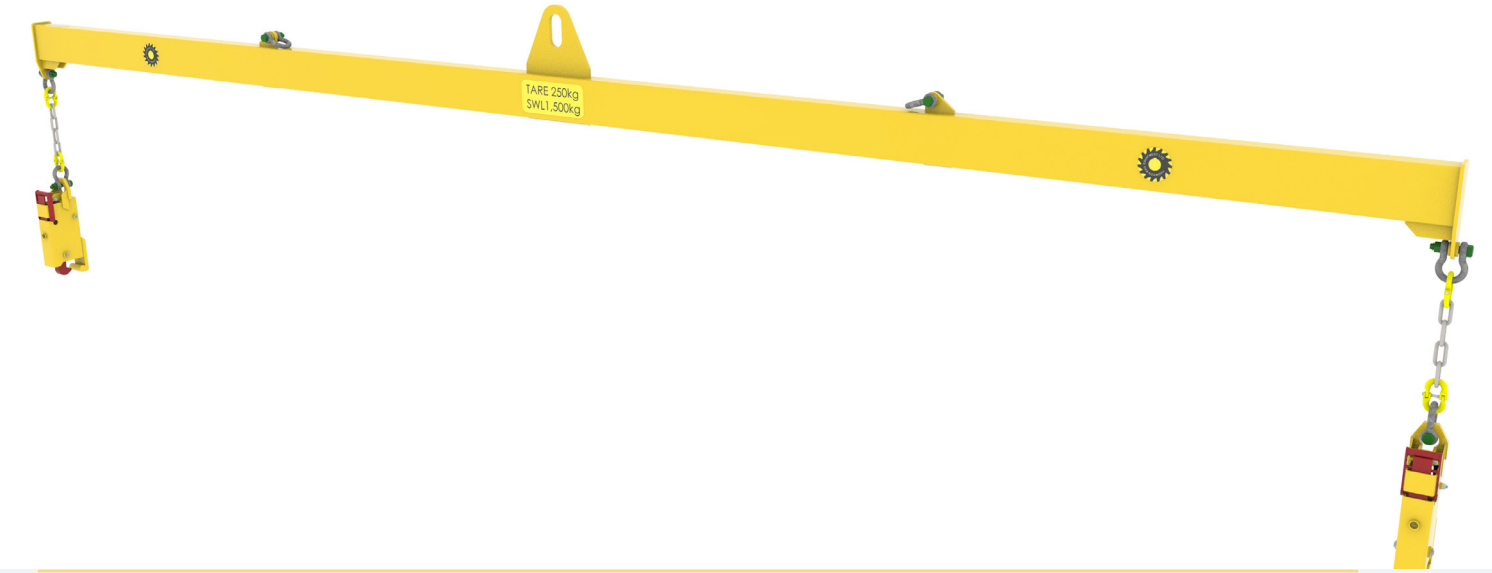
Where no power system is available the ARG20-06 is a fully automatic rail clamp.

For full-time rail handling with an excavator or rail machine we normally recommend a hydraulic rail beam such as the RLB20 or RHB16.



BEAM & CLAMP SYSTEMS





KEY FACTS

Thomson Engineering Design products can be assembled in a wide array of different configurations for handling all types of rail either singly or in bundles.

Spreader beams can be custom designed to suit any application and made in sections for easy shipping.

Whatever the application, our engineers are on hand to provide a robust, reliable, cost-effective solution.

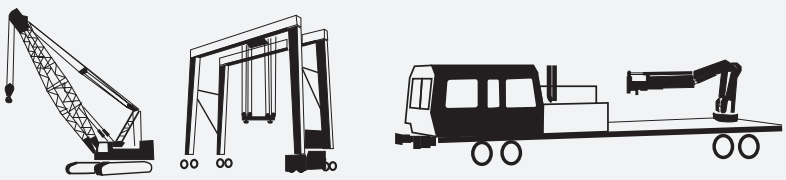
OPTIONS

Where a retro-fit option is required, Thomson Engineering Design rail handling products can often be tailored at the factory to suit existing lifting beams and machinery.

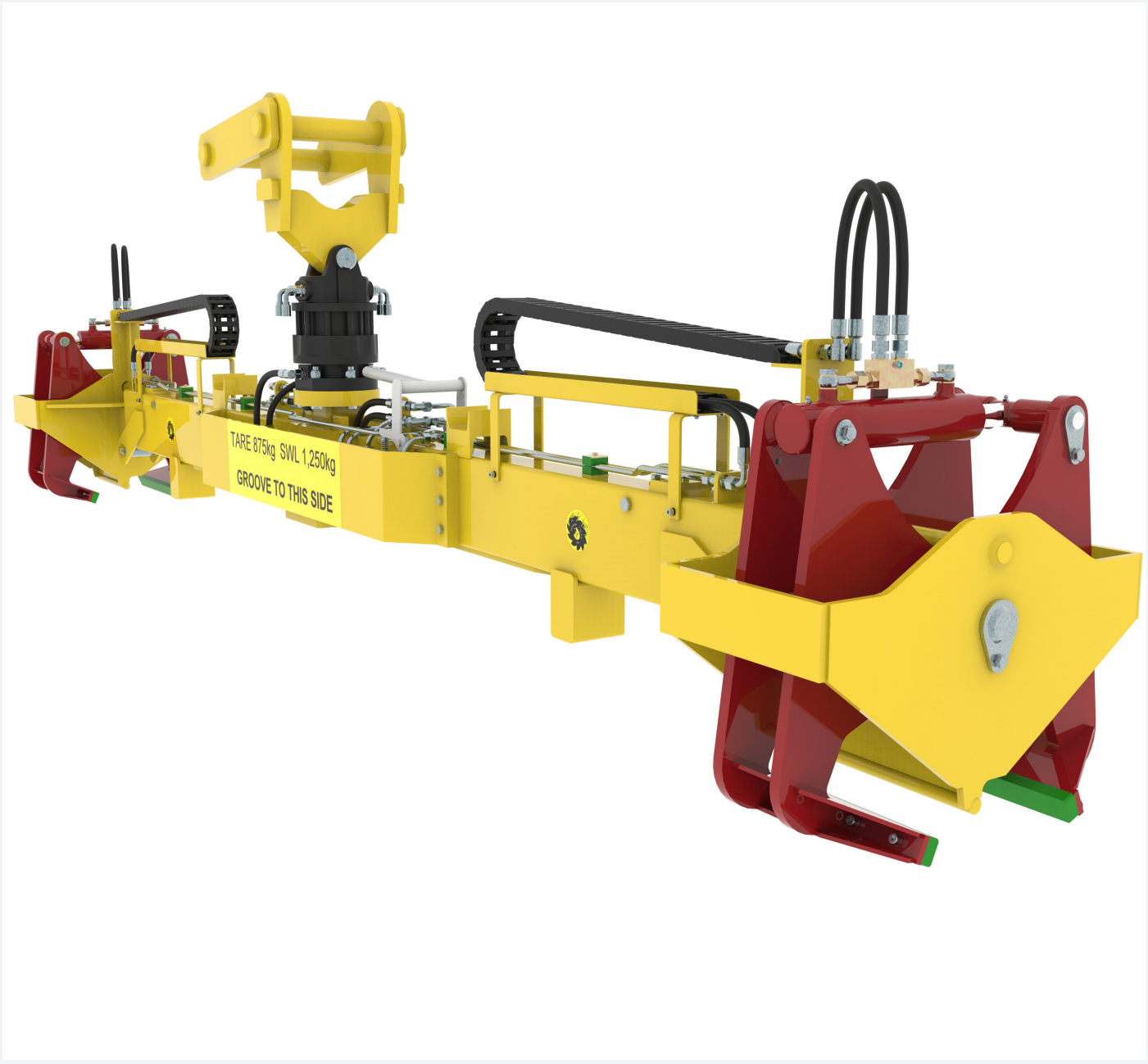
CUSTOM BUILT SOLUTIONS

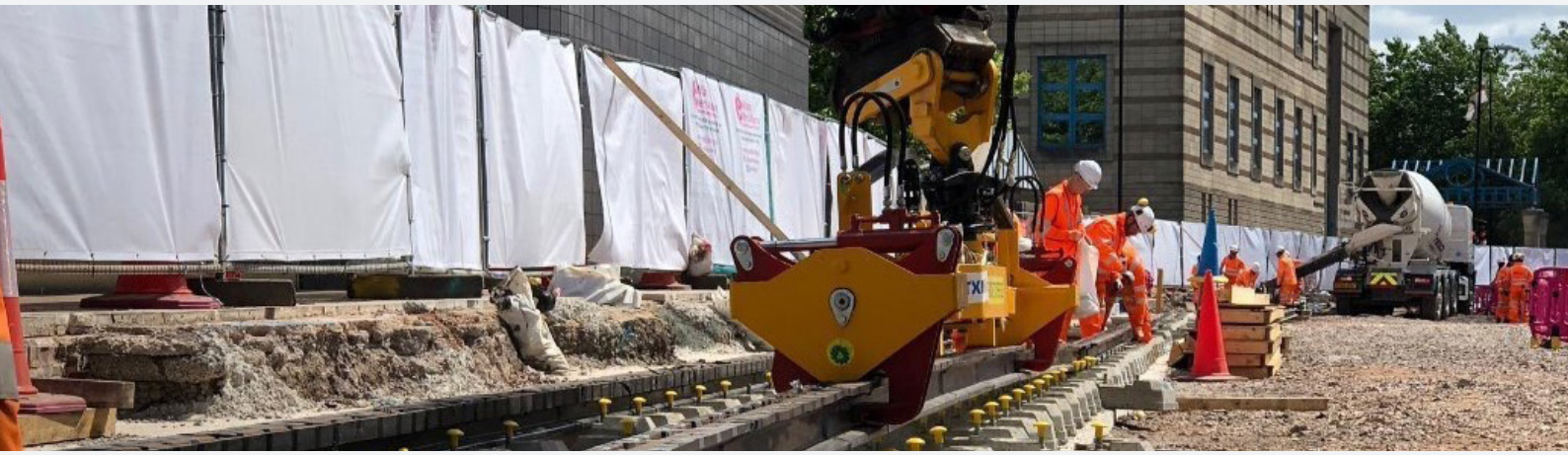
Custom designed and manufactured handling equipment represents approximately 40% of our business world wide and Thomson Engineering Design has invested heavily in our design and development facilities to ensure that one-off products are built to the same high standards as our production equipment.

Our design and build systems have been accredited to ISO9001:2008 and all products are tested and certificated in-house on calibrated precision test equipment to ensure that performance promised is performance guaranteed.



GPU RAIL BEAM





KEY FACTS

The GPU RAIL BEAM is available in a wide range of configurations to suit almost any rail but is particularly suited to the handling of coated rails and rails fitted with elastomeric covers when fitted with the optional soft jaw pads.

The GPU RAIL BEAM was developed from our TRLB20 beam series specifically for handling grooved tram rails fitted with elastomeric covers and for that application is supplied with soft urethane coated jaws. The beam can lift 20m coated rail lengths with minimal risk to the coating.

The GPU RAIL BEAM has a high grip force but, because of the large pad area, a low grip pressure preventing damage to delicate coatings whilst still providing a safe and secure hold on the load.

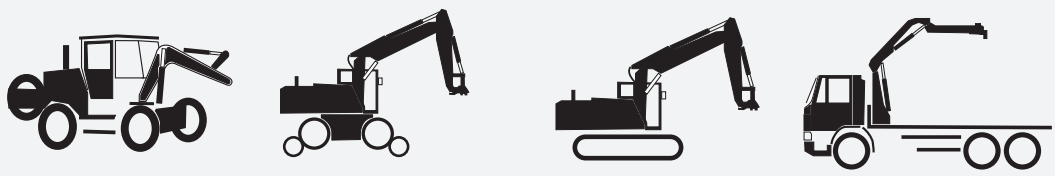
OPTIONS

The GPU RAIL BEAM is available configured for running rails, grooved rails and with either hard or soft grab jaw pads for uncoated or coated rail sections.

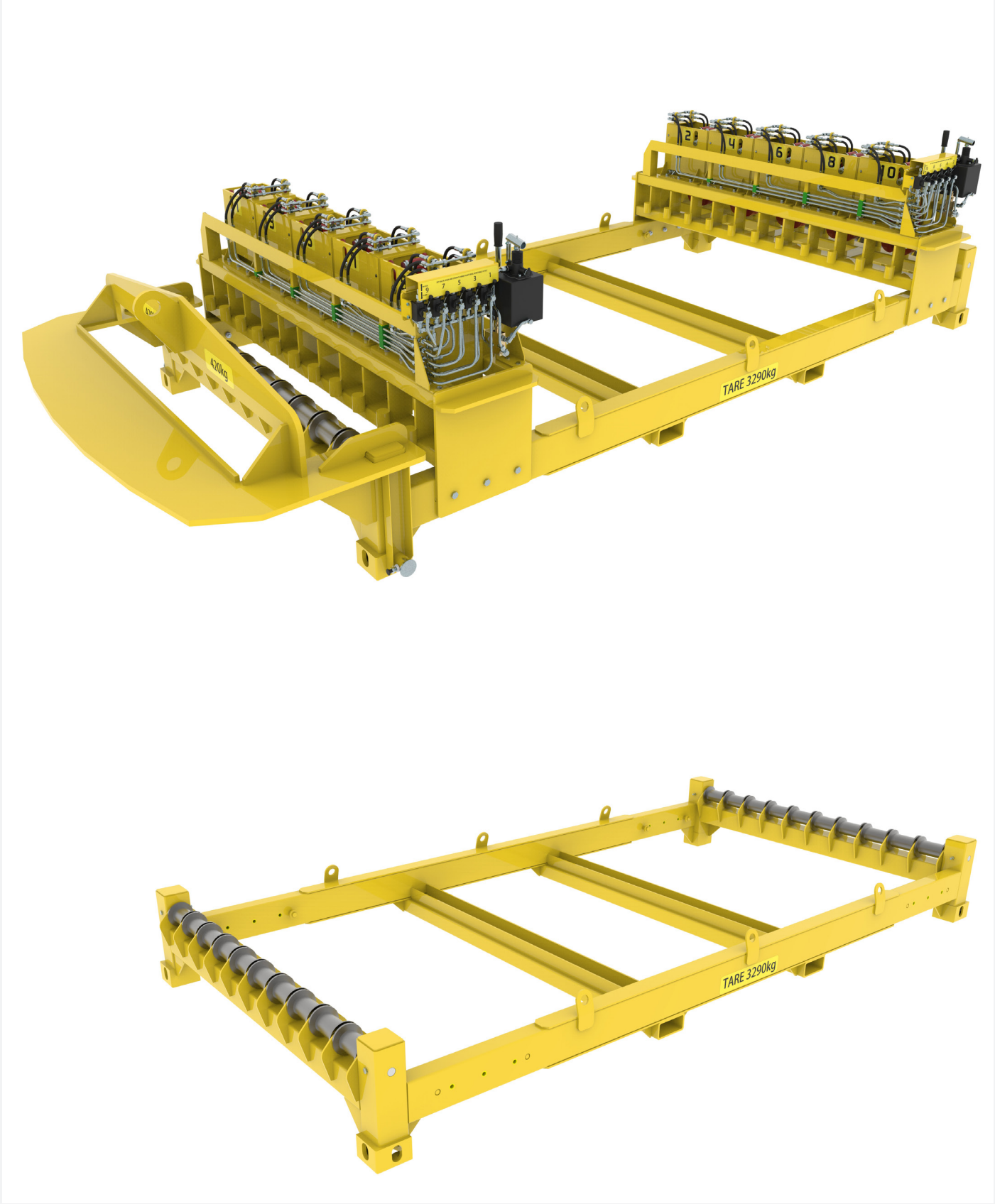
Further options include fixed length, manually telescoping extendable and hydraulically telescoping extendable versions.

ALTERNATIVE PRODUCTS

For handling of non-coated rails our TRLB20 beam provides a lower cost alternative.



RS16 RAIL STILLAGE SYSTEM



KEY FACTS

The RS16 RAIL STILLAGE SYSTEM is a modular transport system for use on standard rail trailers. Towed behind a road-rail excavator or Unimog the RS16 RAIL STILLAGE SYSTEM allows the delivery of new rails and recovery of used rails without the need for a specialised train.

Rails are supported on rollers and clamped with spring applied, hydraulically released clamps on the front stillage which also incorporates a massively strong rail end buffer plate.

OPTIONS

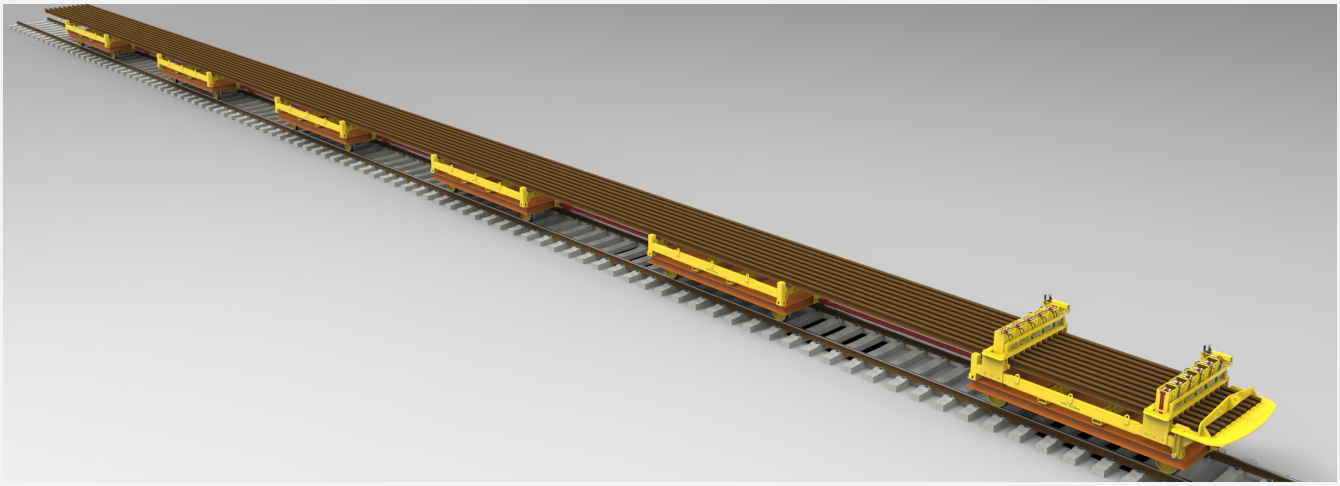
The RS16 RAIL STILLAGE SYSTEM is available to suit all rail trailer types.

A multi-layer stillage option is available.

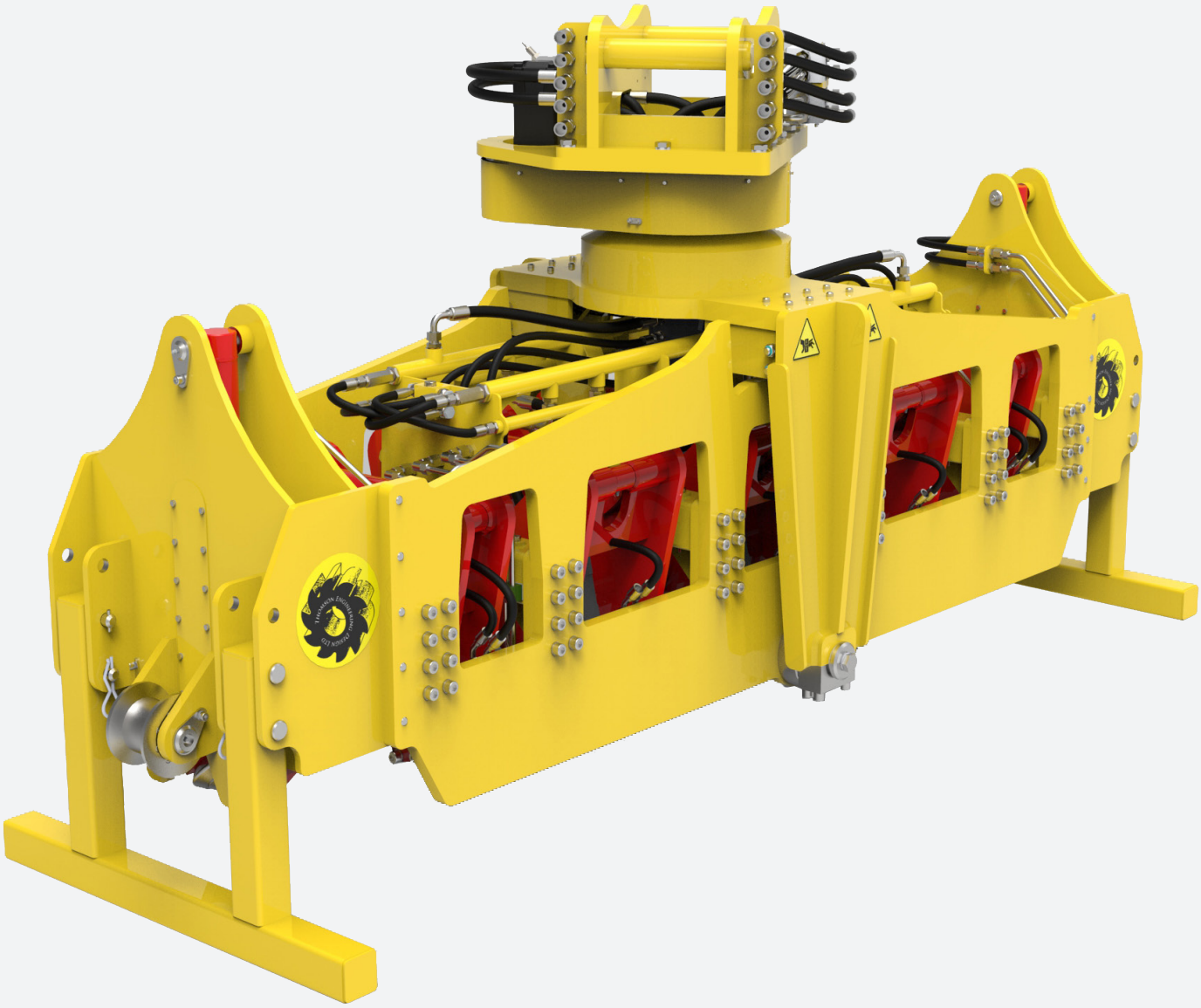
ASSOCIATED PRODUCTS

The RLU19 Rail Loader / Un-Loader and the TD15 Threader Dragger are ideally suited to loading and unloading rails.

The TTD19 Twin Threader Dragger is an ideal companion device for quickly laying out new rails ready for later installation.



RLU19 RAIL LOADER / UN-LOADER



KEY FACTS

The RLU19 RAIL LOADER / UN-LOADER combines a rail threader, two powerful rail grabs and three powered roller grabs into one multi-purpose attachment for handling long welded rail strings of running rail.

This device is particularly suited to working with rail delivery and scrap rail collection systems for loading and unloading the rails.

The powered rollers deliver up to 1.75 tonnes tractive effort to the drive rail at approximately 20m/min. These rollers grip the web of the rail using large hydraulic cylinders and this system is fitted with an accumulator which allows the rollers to pass over rail welds without damage.

For heavy rail pulls, the rail grabs allow long rails to be pulled with a force of up to 3 tonnes. These grabs can also be used to lift and handle shorter lengths of rail (up to 20m)

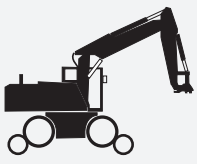
At each end of the device is a rail threader which allows the RLU19 to be used to thread long welded rail into position.

OPTIONS

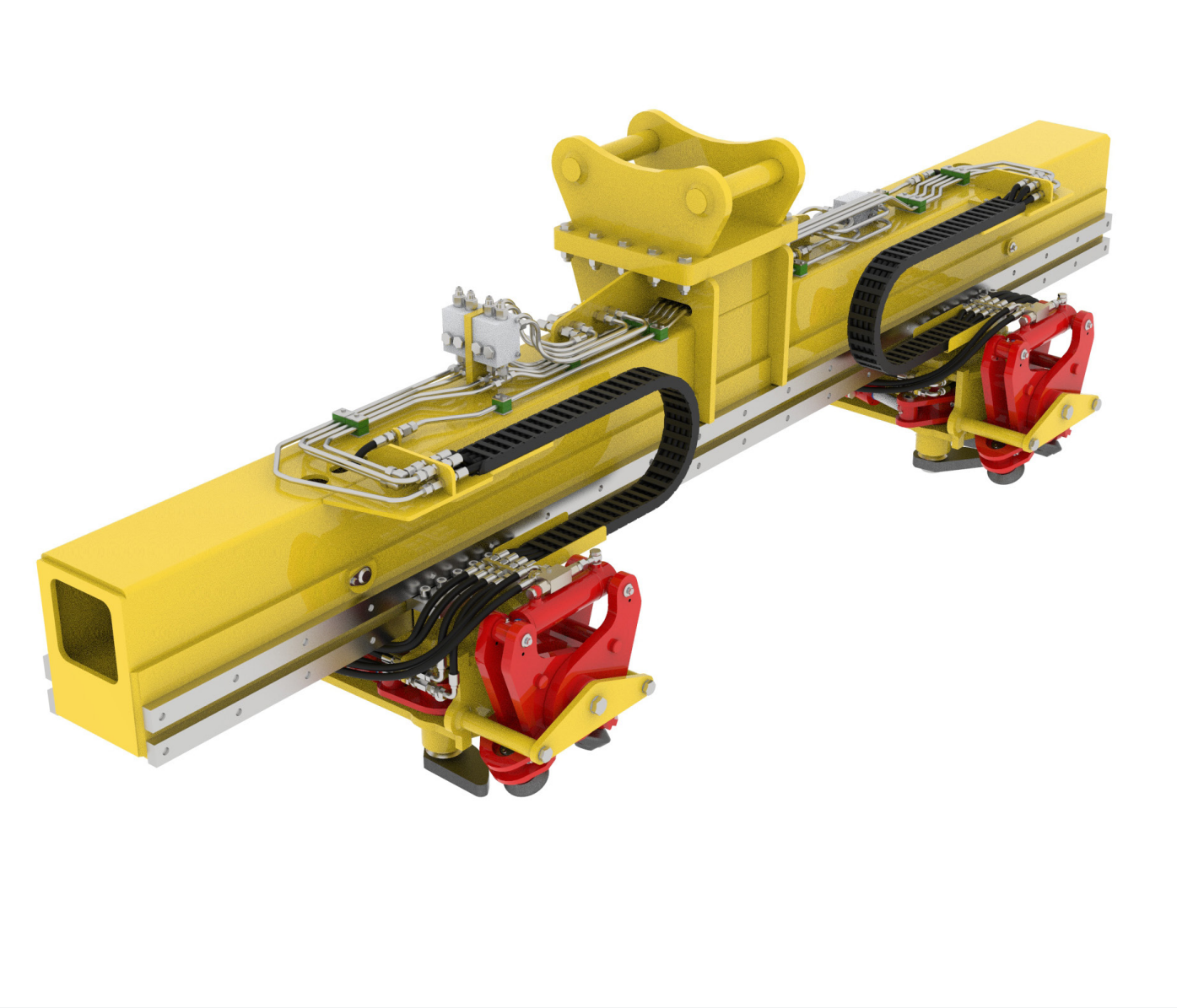
Adapter heads can be supplied to suit all machine types.

ALTERNATIVE PRODUCTS

The TD15 Threader Dragger has a maximum rail pulling force of 10 tonnes and can also thread rails but does not incorporate the powered roller function of the RLU19.



TTD19 TWIN THREADER DRAGGER



KEY FACTS

The TTD19 TWIN THREADER DRAGGER is an excavator or road rail machine attachment for use in the delivery of long welded rails to rail renewals sites.

Gripping two rails at a time the device is used either to drag rails off the delivery vehicle or to hold the rail ends whilst the delivery vehicle draws away from beneath them.

Once a sufficient length of rail has been pulled from the rear of the delivery vehicle, the rails may be spread and threaded to beyond the sleeper ends either to provide temporary gantry rails or simply to ready them for installation later on.

This device can provide up to 3 tonnes pull force on each rail.

OPTIONS

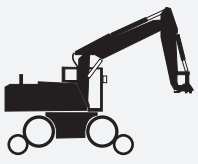
Adapter heads can be supplied to suit all machine types.

The device can be made to handle either running or conductor rails.

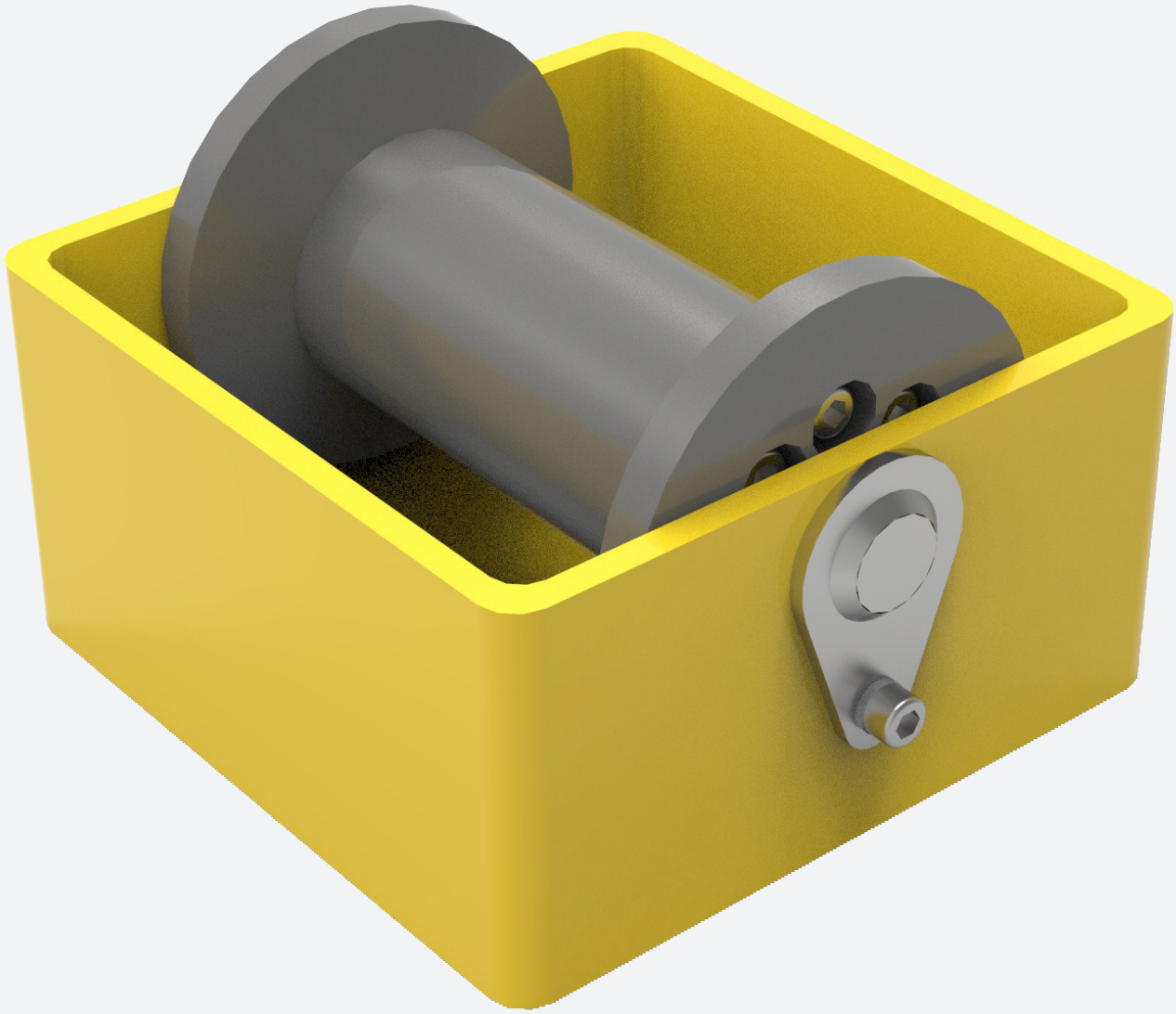
ALTERNATIVE PRODUCTS

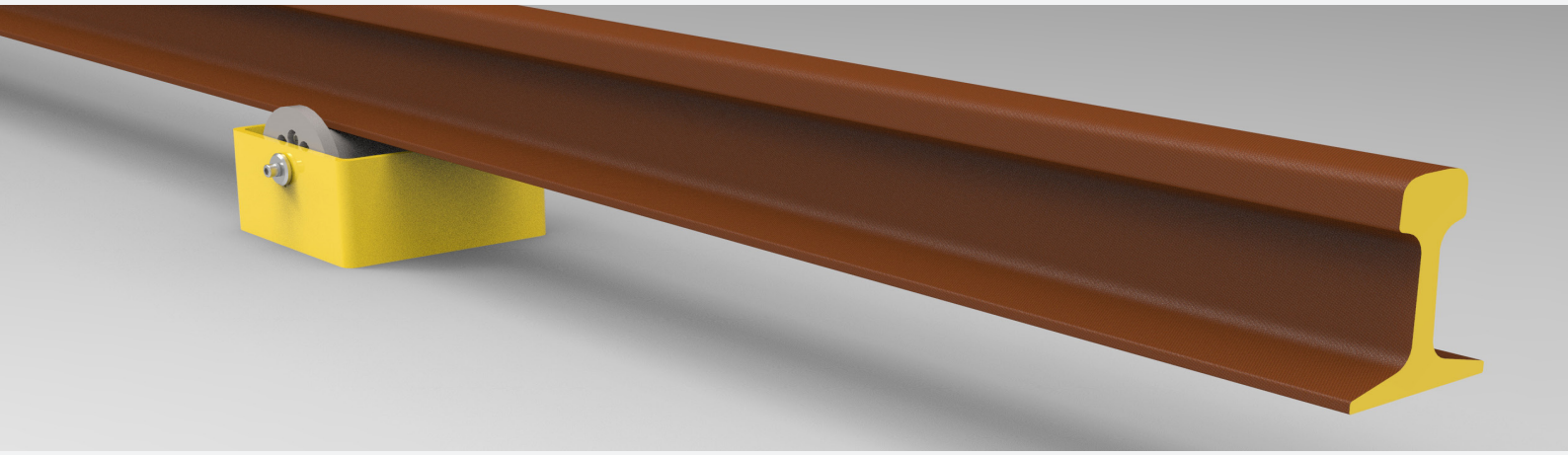
The TD15 Threader Dragger has a maximum rail pulling force of 10 tonnes and can also thread rails but only operates on one rail at a time.

The RLU19 Rail Loader / Unloader incorporates powered rollers for fast unloading of single rails.



RR19 RAIL ROLLER





KEY FACTS

When long welded rails have to be moved over considerable distances the power required may be significantly reduced by first lifting them onto RR19 RAIL ROLLERS.

An ideal accompaniment to the TD15 Threader Dragger, these robust roller units will handle heavy loads and high impacts but are light enough to be hand portable.

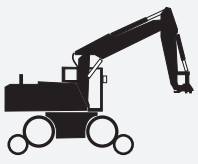
The roller is mounted on maintenance-free teflon bushes and all parts can be supplied as spares direct from the factory.

OPTIONS

Rails may be lifted onto the rollers using most Thomson Engineering Design rail handling devices.

ADVISORY NOTE

Care must be taken to use only enough rollers to ease movement of the rails without allowing rails to run away. The manufacturer will be pleased to advise.



RIGID RAIL BEAMS

KEY FACTS

Thomson Engineering Design provide a wide range of rigid spreader beams to complement our range of rail handling devices.

Our catalogue of rigid beam designs is always expanding and we are pleased to accept orders for custom designs.

All beams are designed and tested to exacting standards and are supplied with certificates of proof load testing.

Computer aided design and finite element analysis systems allow our engineers to minimise weight whilst maximising strength and rigidity for long-term efficiency

OPTIONS

Custom design enquiries are welcomed.

Rigid beams may be made in sectional designs for shipping and full assembly instructions provided.

Contact us today to learn how we are revolutionising global rail operations with innovative solutions.

UNIPART

Click or scan to contact us