TD15-01 Threader Dragger
Product Specification

Technical guide to the TD15-01 Threader Dragger

Issue 1

June 2015

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Introduction

The Thomson Engineering Design TD15-01 Threader Dragger is designed to improve safety, improve output and improve efficiency in long welded rail installation operations by combining rail dragging and threading attachments into one compact unit.

Traditionally, when installing long welded rail using a Road Rail Machine (RRV), a Drag Clamp is used to position the rail string ready for threading then a Rail Thimble is used to thread the rail into position. Changing from one attachment to the other takes time and usually involves the RRV travelling back and forth between the work location and an equipment stabling point.

Combining the two functions into one unit allows the operator to switch immediately between dragging and threading and vice-versa without releasing the rail.

The TD15-01 Threader Dragger can be used for:

- Dragging Rail
- Threading Rail
- Lifting Rail
- Pick-and-Placing Rail
- Fine Positioning of Rail

This document is intended as a brief introduction to the use of this product but is not intended as a substitute for the Operating Instructions supplied with the device.

Operating and Maintenance Instruction documents may be obtained from Thomson Engineering Design Ltd and from our authorised agents.

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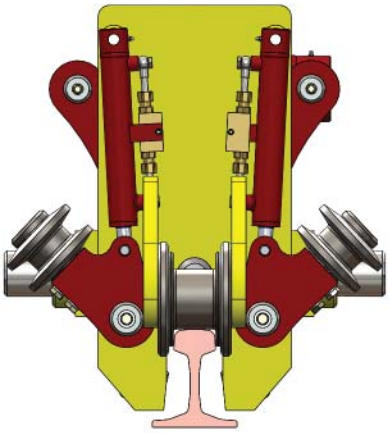
Principle of Operation

Two hydraulic services are required to operate the TD15-01 Threader Dragger - one to operate the threading roller arms and one to operate the drag jaws.

In normal operation the TD15-01 Threader Dragger is suspended from a swivel hook on the boom of the RRV and the hydraulic services connected to auxiliary connections.

The TD15-01 Threader Dragger is lowered onto the rail with the Drag Jaws in the open position and the Threader Roller Arms raised. The specially shaped rail-head rollers allow it to be set on either running rail or conductor rail without adjusting the device.

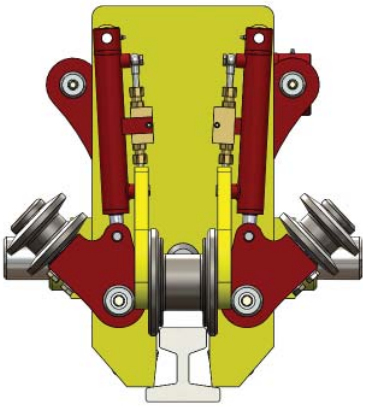


TD15-01 Threader Dragger lowered onto running rail

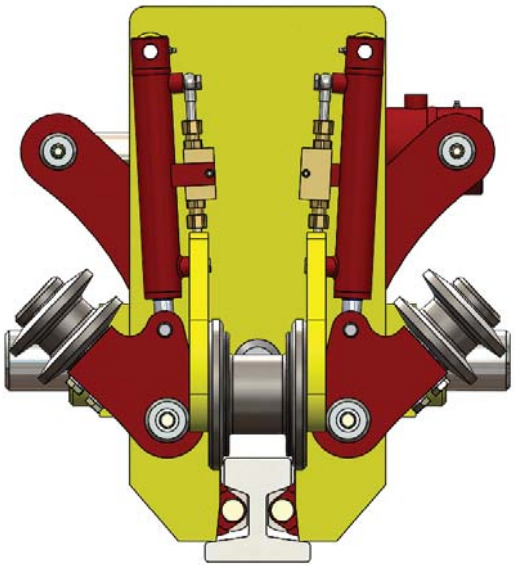
Once in position the Drag Jaws are closed onto the rail. The rail may now be lifted and dragged as required.

Once the rail is in position, whilst still gripped in the Drag Jaws and held a little way above the ground, the Threading Rollers are lowered onto the rail foot.

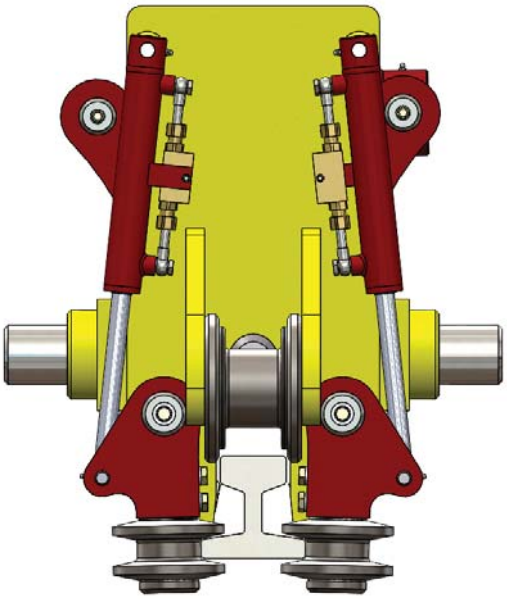
The Drag Jaws may now be released and the TD15-01 Threader Dragger is ready for use in Threading Mode.



TD15-01 Threader Dragger lowered onto conductor rail



The Drag Jaws close onto the web of the rail exerting a huge grip force to allow up to 10 tonnes drag force to be applied to the rail

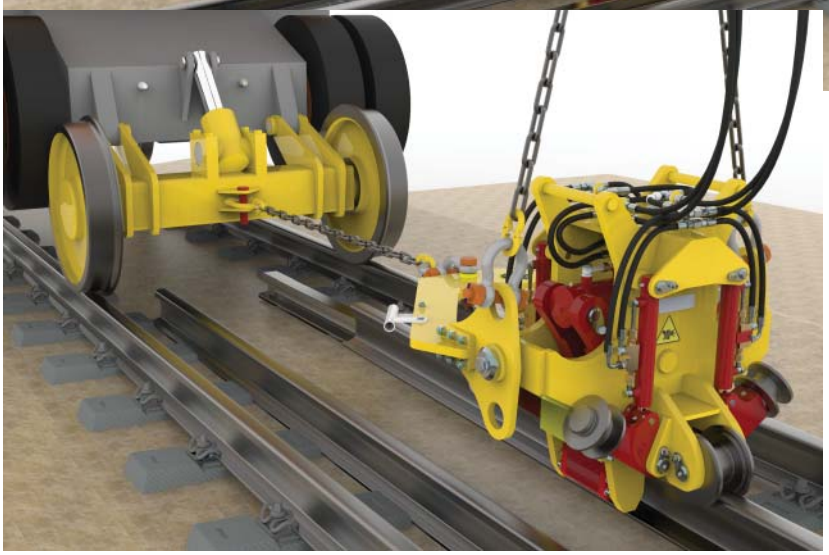


Threading rollers securely support the foot of either running or conductor rail to allow efficient threading

Heavy Duty Operation

Normally both dragging and threading operations will be carried out with the TD15-01 Threader Dragger suspended from the boom hook.

However, where rail must be dragged over distances greater than the reach of the boom, the device can be set up as illustrated below with a drag chain connected to the RRV towing point and a pair of lifting chains used to lift the device to prevent the end of the rail catching on sleepers and other obstructions.



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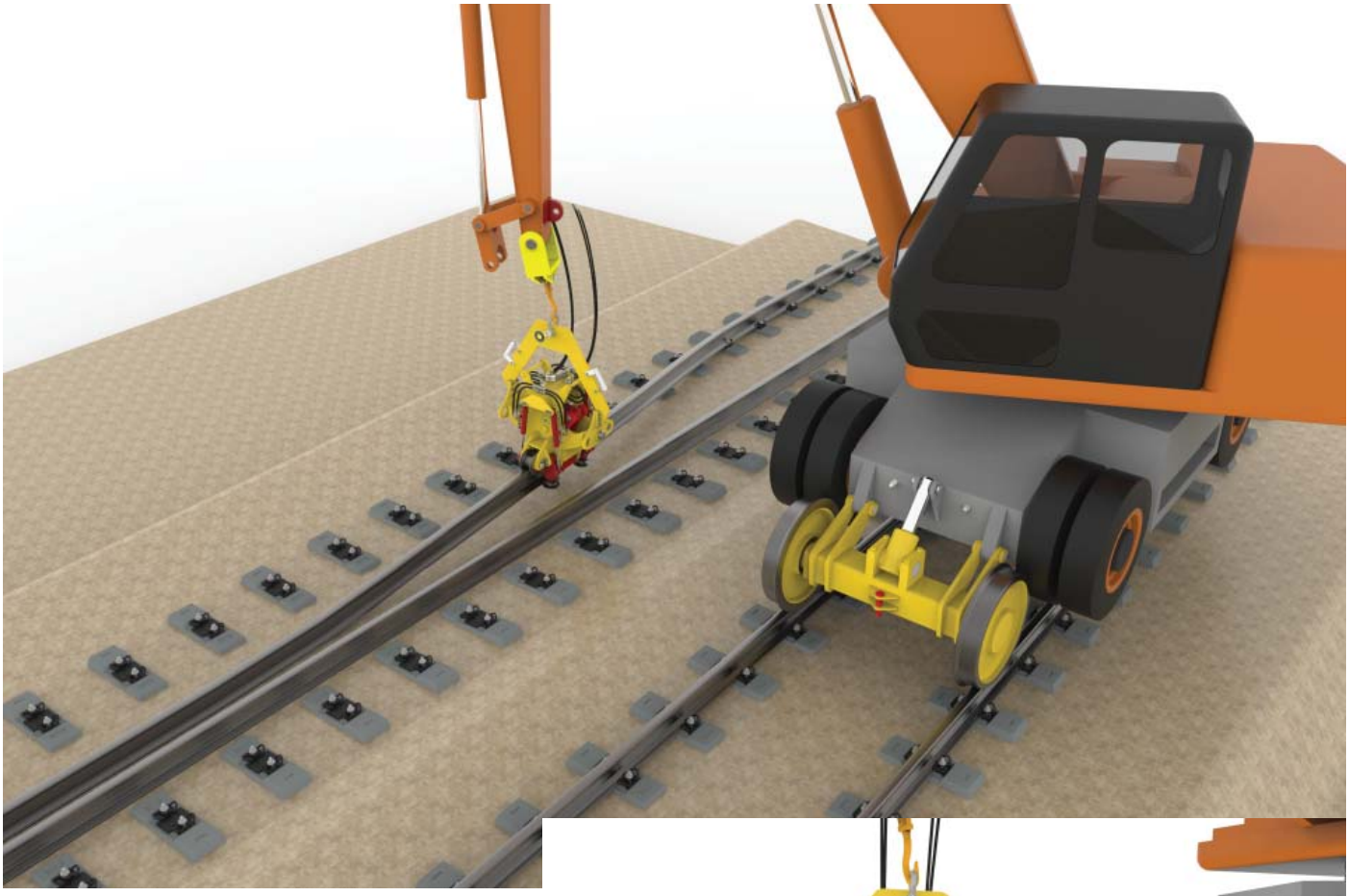
Accurate Threading

Precision handling of long welded rails is assured through the rigid, heavy-duty construction of the TD15-01 Threader Dragger.

Constructed entirely of steel with all wearing parts case hardened, the TD15-01 Threader Dragger is designed and built for a long, hard working life with minimal maintenance.



Improved Efficiency, Improved Safety

The TD15-01 Threader Dragger improves efficiency by allowing the instant changeover of Threading and Dragging functions without the need to swap attachments.

With long welded rail which has to be moved laterally by more than 1 metre it is often neccessary to perform multiple threading operations and this makes it particularly difficult to position it accurately first.

By being able to swap immediately from Threading Mode to Drag Mode and vice-versa the operator can reposition the rail at will without changing attachments.

This leads directly to tangible safety benefits as, once the TD15-01 Threader Dragger is positioned over the rail, there is no need for anyone to enter the work zone throughout the rest of the rail handling sequence.

The hinged suspension plate on the TD15 Threader Dragger allows the device to be lifted or pulled in any direction as required

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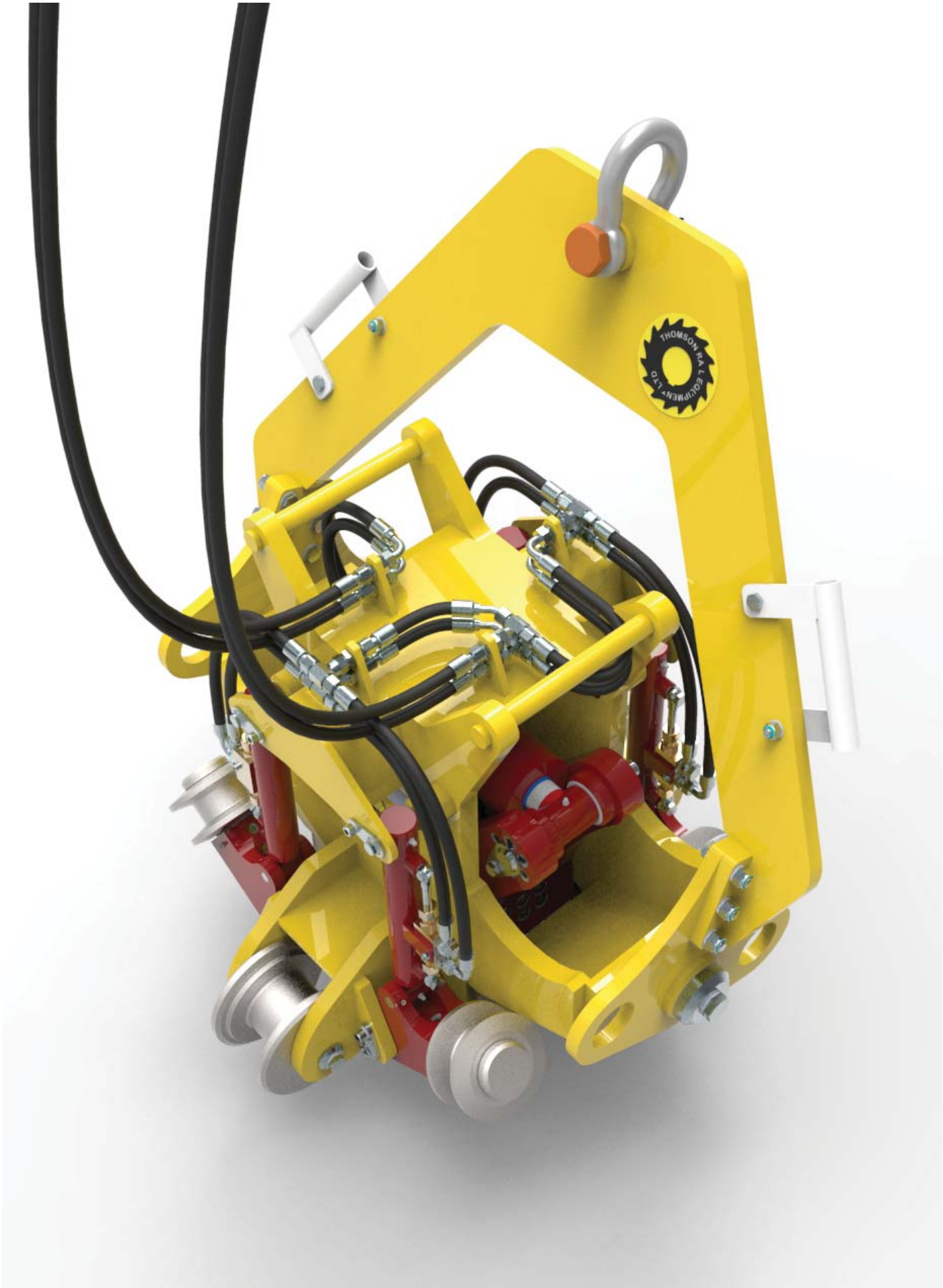

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