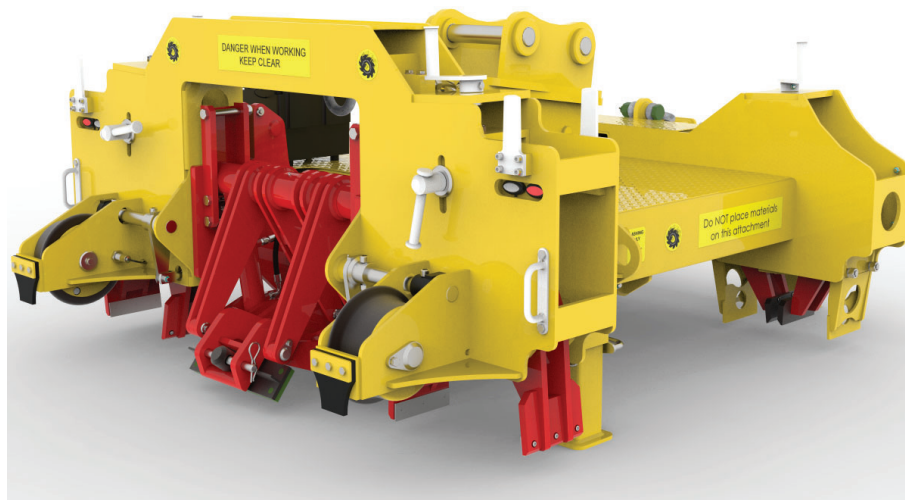


FC2I-03 FASTCLIP ATTACHMENT

Specifications



Key features and specifications for the
Thomson Engineering Design
Fastclip FC and FE Clipping and
De-Clipping Attachment

Issue 1

July 2022

Contents and Issue Record

Introduction	3
Key Features	4
Specifications	6
Contact Details	9

Issue Record

First Issue	July 2022
-------------	-----------

Introduction



The FC21-03 Fastclip Attachment from Thomson Engineering Design is the latest version of a product which first went on sale in 2001.

This latest model is now compatible with the new Fastclip FE clip series as well as the original FC clips and incorporates a number of upgrades to improve its efficiency and performance.

As with all previous models, maximising output whilst minimising operator fatigue are the guiding principles of its design so the semi-automatic sleeper lifting device has been retained but with a slightly increased grip force to take advantage of a new formulation of urethane grab pads.

Smaller cylinders and larger bore pipe work increase the speed of operation and help to combat heat build-up in the system and a new pressure control valve installation allows higher hydraulic flow rates.

The de-clipping paddle assemblies have been given a new adjustment locking system and their geometry altered to allow operation with both FE and FC clips.

The wheels have been moved beyond the ends of the chassis for better stability allowing the device to be used by lighter machines and a tilting axle installed to allow wheels with any required profile to be fitted meaning that the machine can be made suitable for any type of rail infrastructure including broad and narrow gauge railways.

Automatically switched red and white marker lamps with solar panel recharging, lamp irons, rail sweeps and automatic fail-safe brakes complete the specification.

All machines are supplied with an adapter head to connect to the client's machine and for hire owners adjustable heads can be supplied - removing the need to swap heads for different host machines.

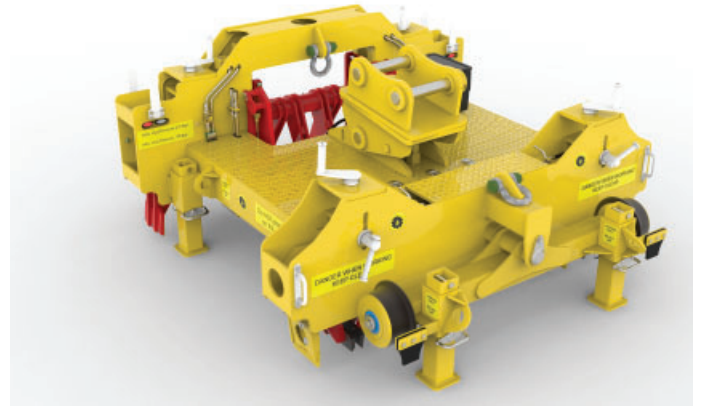
The FC21-03 can also be specified with an elevating sleeper lifting device allowing the machine to be used for rail changing and re-stressing work on DC fourth rail electrified lines.

Key Features

The new machine has its wheels moved outboard of the chassis with a tilting axle at the de-clipping end. Wheels of any profile may be specified

Four heavy duty transport legs built into the frame and sturdy lashing points make the machine easy to transport

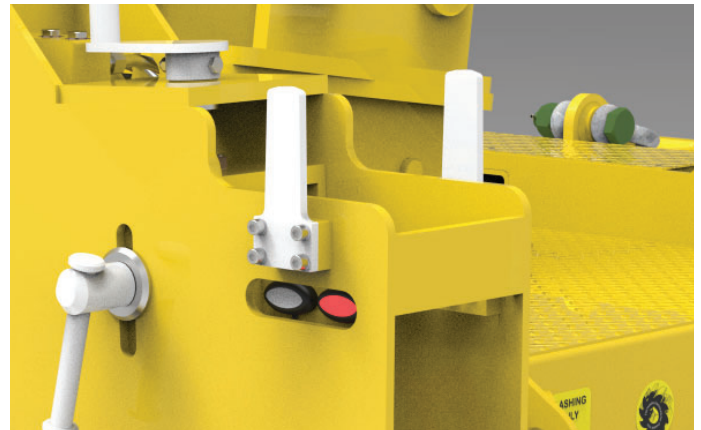
Two lifting points are provided with safety bow shackles for easy lifting of the machine onto wagons and trucks



Marker lamps automatically switch from red to white according to the direction of machine travel and back to red when the machine is stationary.

Lamp irons are fitted as standard

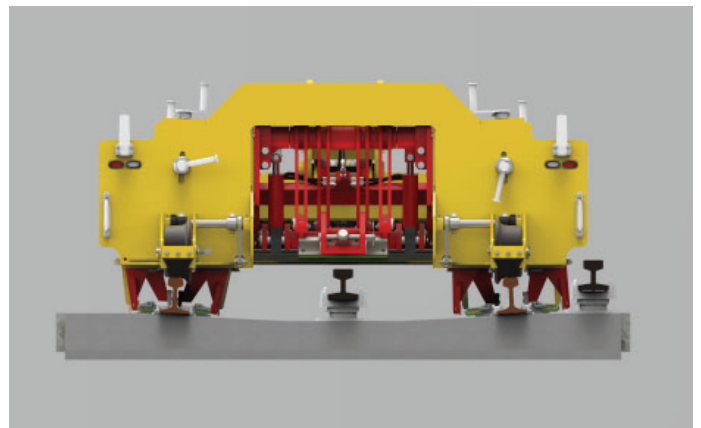
The clipping and de-clipping assemblies are quick and easy to set for different rail heights and are firmly locked at the correct setting by clamps



The sleeper lifting device can be hydraulically raised above DC fourth rails when renewing or re-stressing running rails

Our unique design of sleeper lifter requires only one hydraulic service and therefore only one control in the cab to operate, significantly reducing operator fatigue on track renewal operations

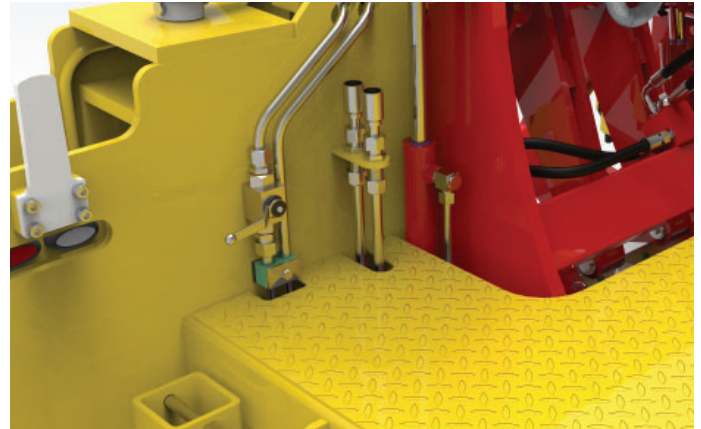
The two fixed wheels at the clipping end of the machine are equipped with fail-safe brakes which are automatically applied as the Fastclip Attachment is detached from its host machine. The brakes will hold the machine on a 1:20 slope



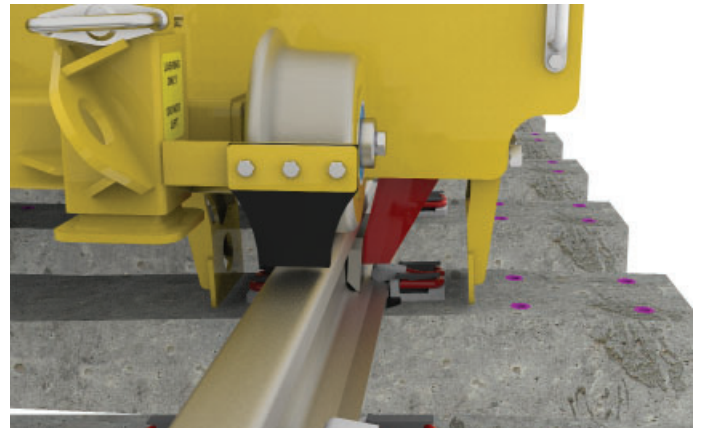
Each of the clipping and de-clipping mechanisms can be individually disabled allowing the machine to work on either one or on both of the rails

The machine requires just two hydraulic services: one to power the clipping and de-clipping system and one to power the sleeper lifter if working on new track installation

When used for rail replacement, re-stressing or transposition only one hydraulic service is required to operate the clipping and de-clipping mechanisms



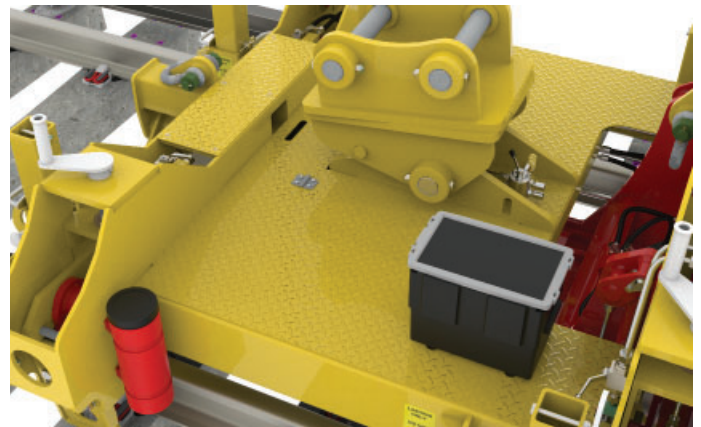
If fastclips are released after heavy rain they can occasionally open too far and fly from the housings. The FC21-03 machine prevents this by having clip catcher plates to limit the clip travel



The machine is fitted with a solar re-charged battery system to run the marker lights and a document container as standard.

A toolbox is provided beneath the deck for storage of spare sleeper lifting pads and equipment

Adapter heads can be provided to suit all types of excavator connection



The sleeper lifting device requires just one control to operate it and can be fitted with either urethane pads as shown for lifting concrete sleepers or with a hooked steel pad for lifting steel sleepers



Specifications

Tare Weight	2,375	kg
Application (clip type)	Fastclip FC	
	Fastclip FE	
Application (sleeper type)	Concrete	
	Steel	
Application (track type)	Plain line	
	DC 3rd Rail Electrified	
	DC 4th Rail Electrified	
	Overhead Catenary Electrified	
Transport Dimensions (L x W x H)	2544 x 2198 x 1090	mm
Wheel Profile (standard)	P1	
Wheel Profile (optional)	Any profile can be supplied	

Clipping and De-Clipping Systems

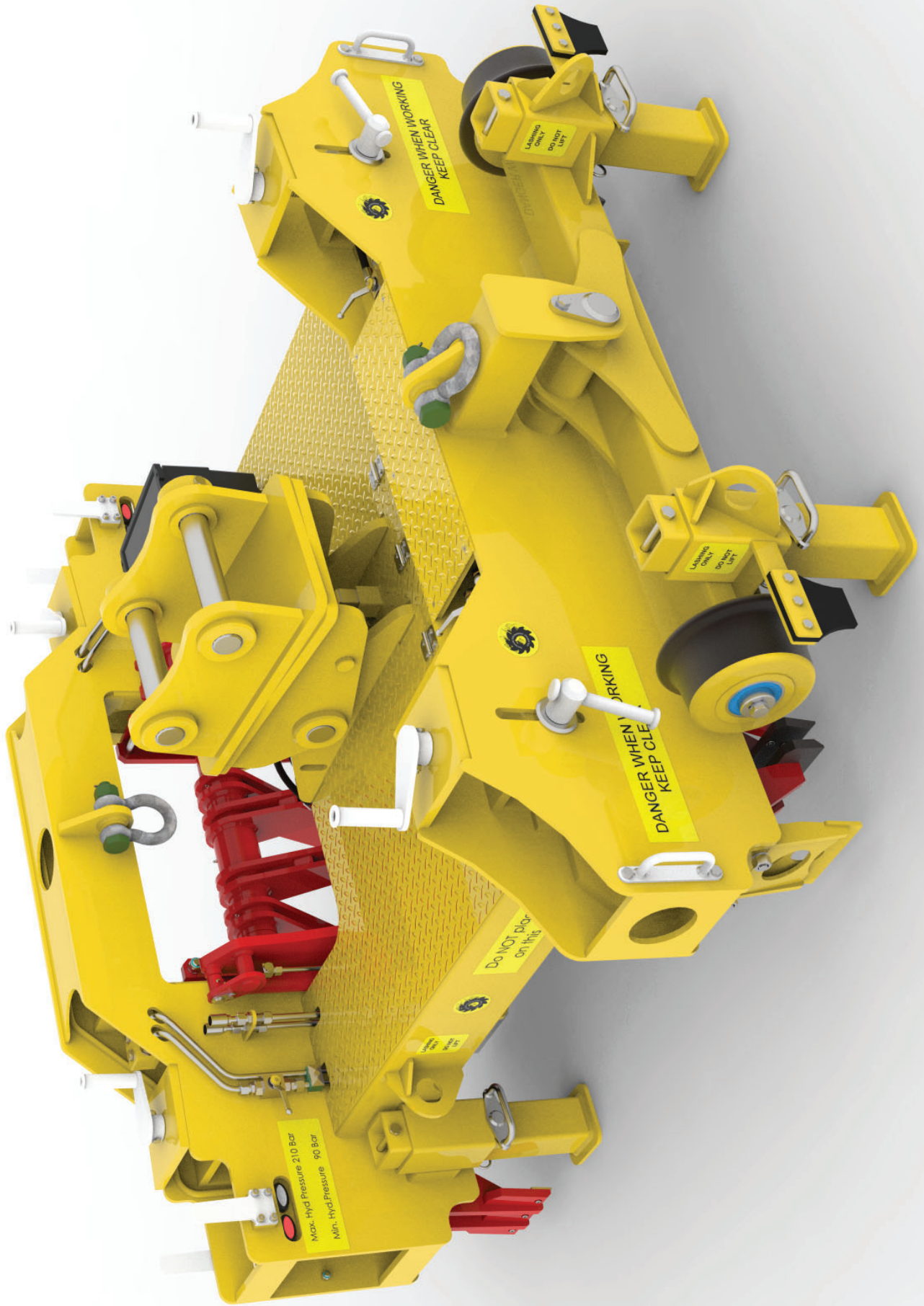
Maximum Hydraulic Pressure	210	Bar
Minimum Hydraulic Pressure	90	Bar
Pressure Control	Pressure Reducing Valves	
System Pressure	100	Bar
Adjustment	Leadscrew and Crank Handle	
Locking	Friction Clamp	

Sleeper Lifting System

Grip Force (typical)	40	kN
Maximum Hydraulic Pressure	210	Bar
Minimum Hydraulic Pressure	100	Bar

Chassis

Construction	All-Steel Fully Welded	
No. of Lifting Points	2	
No. of Lashing Points	4	
No. of Transport Legs	4	
Adapter Head	Adapters Available for All Machine Types	
Lifting Point Shackle Type	12 tonne Safety Bow	
Marker Lamps	12V LED	
Marker Lamp Operation	Automatic Directional Switching	



Contact Details



All technical and sales enquiries should be directed to Thomson Engineering Design.

**Thomson Engineering Design Ltd
Units 2a & 3 Crabtree Road
Cinderford
Gloucestershire
UK
GL14 2YN**

Tel: +44 (0) 1594 82 66 11

**Email: sales@thomsondesignuk.com
 technical@thomsondesignuk.com**

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.

