RHBI6-02 RAIL HANDLING BEAM
Specification Document

KEY FEATURES AND SPECIFICATIONS FOR THE RHBI6-02 RAIL HANDLING BEAM

Issue 2

July 2022

Document Number: RHBI6-02-SPEC Issue: 02 Date: JULY 2022

THOMSON ENGINEERING DESIGN
A CAV SYSTEMS COMPANY

Contents

Issue Record

First Issue	March 2017
Issue 2: New branding and Address	July 2022

Introduction

The Thomson RHB16-02 Rail Handling Beam is a heavy-duty device designed for continuous use in rail delivery, haulage and handling operations.

A key feature of the RHB16-02 is the jaw design which allows it to handle and stack rails in foot-to-foot stacks whilst still applying a heavy grip force for safety. These features make it an ideal solution for use with truck mounted cranes in delivery operations and with rail cranes in scrap recovery operations.

The beam can be configured with a wide range of adapter heads to suit any type of machine.

Rails are gripped below the rail head allowing the beam to be used for lifting rail sections in and out of sleepers (ties) without fouling on any clippling system.

This device is fitted with a full suite of safety features including a parachute safety valve, built-in pressure control and pilot operated check valves on the jaw cylinders making this a top-specification rail handling product.

Specifications

Overall Transport Dimensions	1430mm (L) x 500mm (W) x 1275mm (H)		
Overall Weight (with typical head)		325	kg
Transport Weight (inc stillage)		425	kg
Maximum Working Load (lift)		1,250	kg
Maximum Hydraulic Supply Pressure		250	Bar
System Pressure		100	Bar
Cylinder bore		40	mm
Cylinder rod diameter		25	mm
Cylinder extension force		18.85	kN
Cylinder retraction force		11.2	kN
Jaw force at point of grip		18.2	kN
Standard Rotator	Baltrotor GR603		

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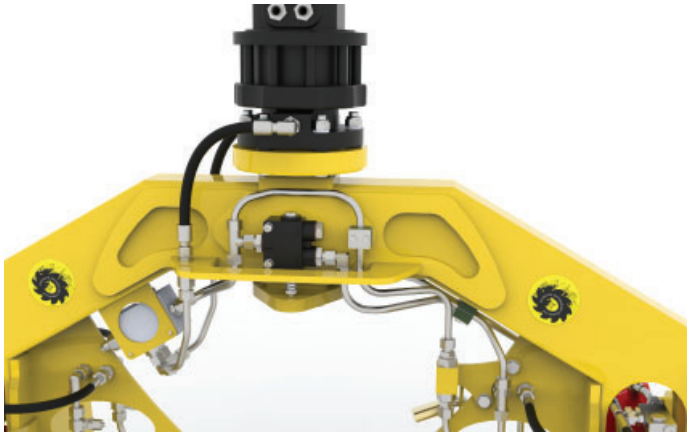
Key Features

A full range of adapter heads are available to configure the device for almost any hydraulic lifting machine from truck mounted cranes to excavators, material handlers and loaders

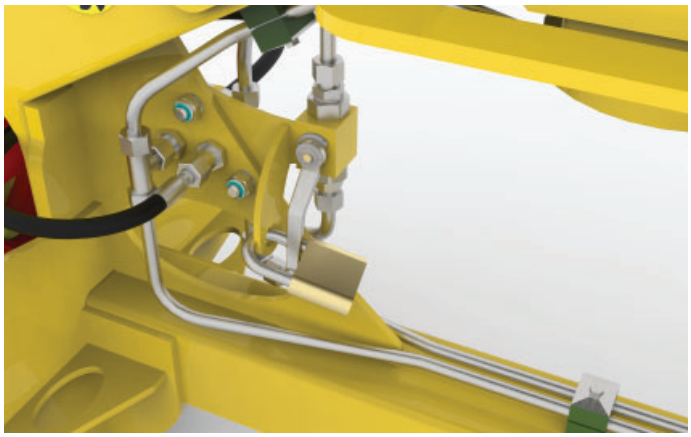
The 6,000kg capacity rotator provides powerful and precise control of the beam alignment

A rise and fall rotator mount operates a load sensing 'parachute' valve which automatically shuts off the connection to the jaw cylinders during the lifting operation - preventing inadvertent release of the load



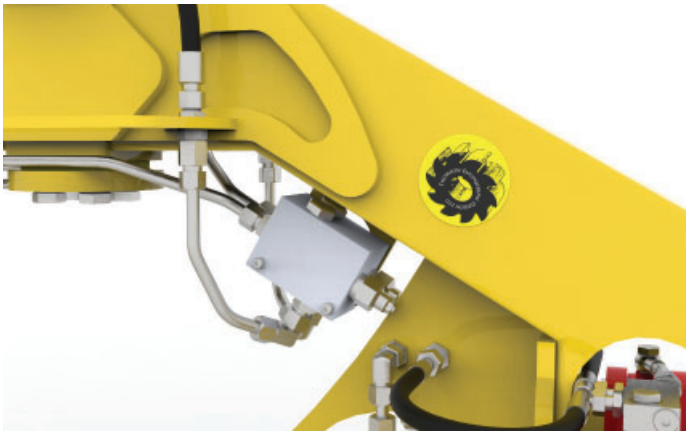
In special circumstances it may be desirable to disable the parachute valve system, for example when dropping scrap rails into a truck. To cope wiht this eventuality a bypass tap is provided

In normal operation the tap is padlocked in the 'safe' position as shown



A precision, double-acting pressure reducing valve controls the pressure within the hydraulic system of the RHB16-02 allowing it to be fitted to different host machines without needing to adjust the host machine pressures

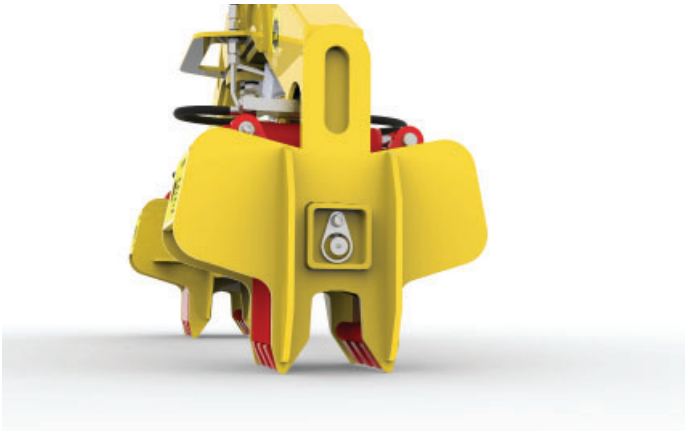
Any auxiliary hydraulic service with a pressure between 90 Bar and 250 Bar may be used



The jaw cylinders are fitted with pilot operated check valves which lock the cylinders in the event of a burst hose or a host machine hydraulic failure

The unique design of the jaws keeps the moving parts protected from impact damage whilst maintaining a narrow profile

All joints and pivots are fitted with replaceable bushes and grease nipples



The jaw design allows rails to be stacked foot-to-foot and to be removed from tight stacks without having to prise the rails apart first

Adapter Heads and Options

The RHB16-02 Rail Handling Beam is designed with an industry standard 6-bolt flange adapter allowing it to be specified with the widest range of adapter systems.

The beam may be specified with a hydraulic rotator. A 6 tonne capacity unit is supplied as standard but heavier capacity units may be specified for special applications.

Rotator adapter heads are available to suit excavators, quick couplers of all types and truck mounted cranes.

Thomson Engineering Design holds an extensive drawing library of adapter head designs for many different machines and coupling systems allowing us to produce accurately fitting adapters for almost any host machine configuration.

Two Pin Head for Excavator Quick Coupler

Single Pin Head for Direct Fitting to Excavator Boom

Adapter Links for Connecting to Truck Cranes

Special Adapter Heads for Proprietary Quick Coupling Systems

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The Swivel Head adapter may be specified in place of a hydraulic rotator where a second hydraulic service is not available from the host machine.

This free running swivel head may be suspended from a fixed crane hook. The device has a safe working load capacity of 10,000kg and is fitted with a 12 tonne safety bow shackle.

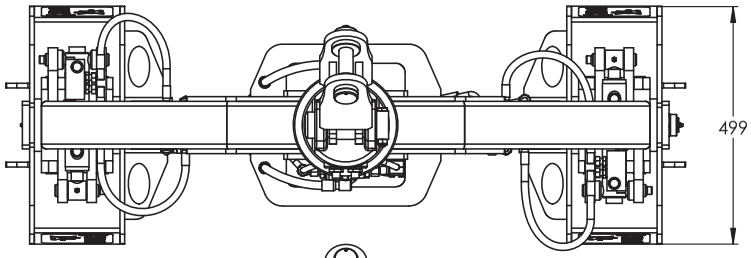
Where weight is an issue or where the maximum lift height is required our Low Headroom adapter head may be specified.

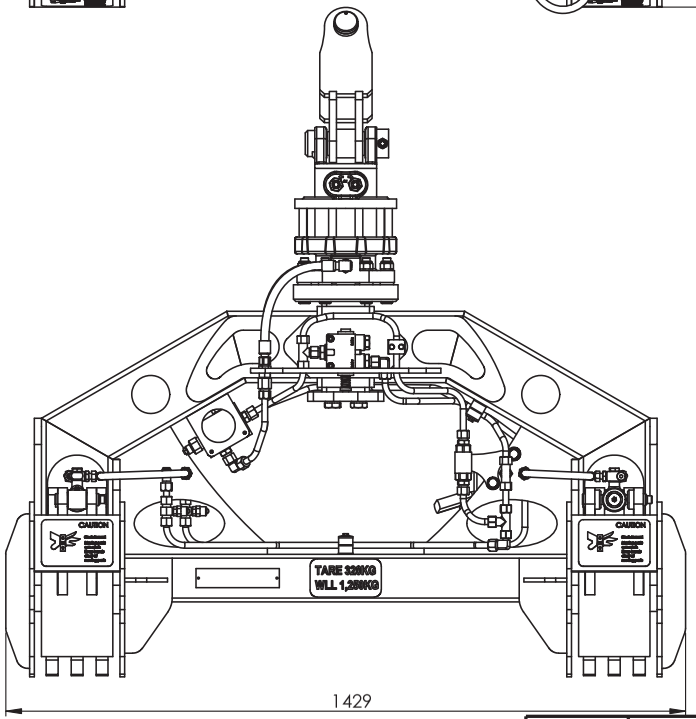
This adapter head has a rated load capacity of 10,000kg and is fitted with a 12 tonne safety bow shackle for connection to a standard crane hook.

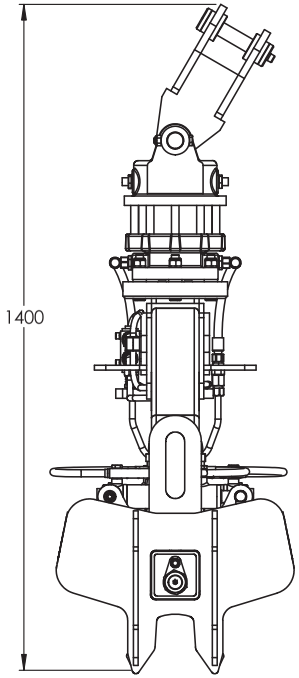
This adapter head must be used with a free swivel crane hook.

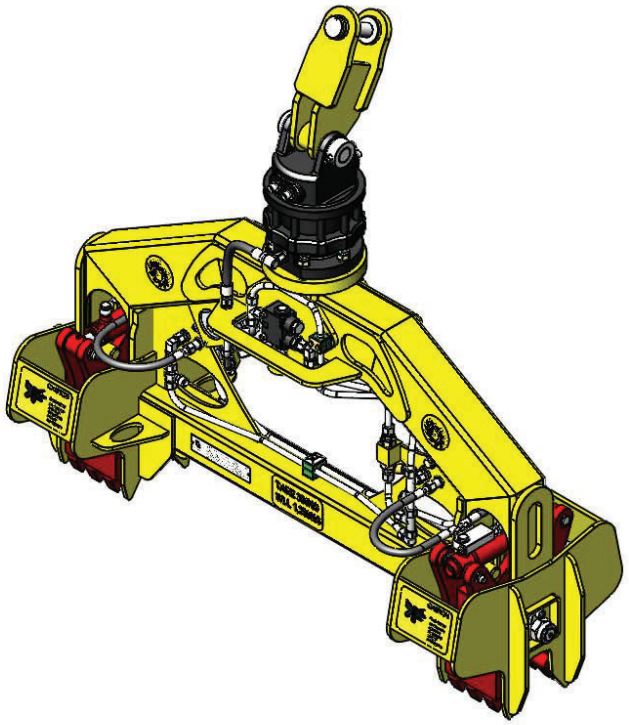
Our truck crane quick change system is ideally suited to the RHB16-02 Rail Handling Beam. This system allows one rotator to be used for multiple attachments and for those attachments to be swapped in a matter of minutes.

A broad range of other attachments are available from Thomson Engineering Design for use with truck cranes including a number of specialised rail, sleeper and parts handling grabs.









	PROJECT RHB16-02 RAIL HANDLING BEAM	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: +0.5 / -0.5mm ANGULAR: +/- 0.5deg	FINISH: AS PARTS COLOUR: SOURCE:	DEBUR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING	REVISION 01			
					The information contained in this drawing is the sole property of THOMSON ENGINEERING DESIGN Ltd. Reproduction in part or as a whole is prohibited				
Stock Size			NAME	ORGANISATION	DATE				TITLE:
Stock Length		DRAWN	D. Thomson	Thomson ED Ltd	30/04/2016				GENERAL ARRANGEMENT
Vendor		CHK'D							
Vendor No.		APPV'D							
Cost		MFG							
Configuration	Default	Q.A						MATERIAL:	DWG NO. RHB16-02-01 A3
Q'TY REQ'D	1 PER BEAM								
Client	THOMSON ENGINEERING DESIGN LTD	Third angle Projection						WEIGHT: 317.83	SCALE:1:10 SHEET 1 OF 2

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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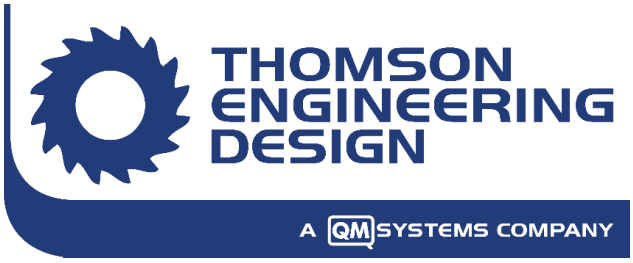

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