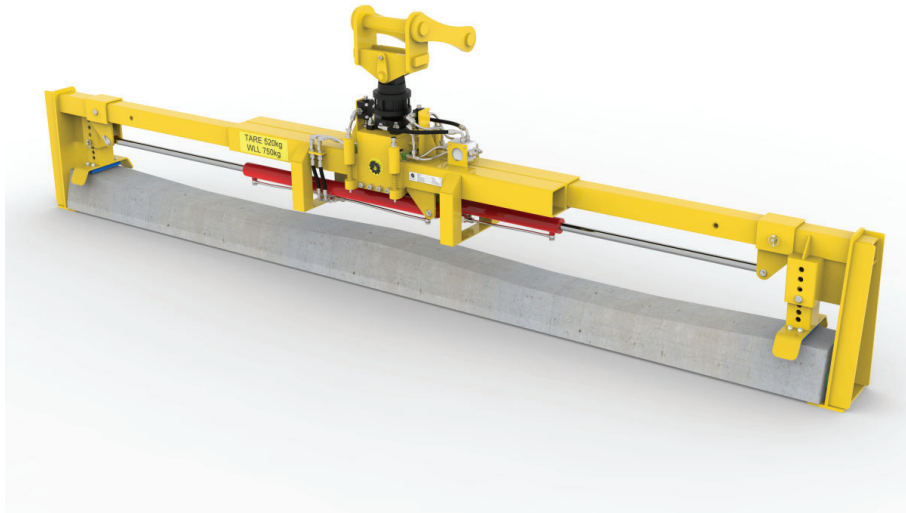


# LBB20-02 LONG BEARER BEAM Specifications



Specifications for the LBB20-02 Long Bearer Beam

Issue 1

April 2020

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# Introduction

**The Thomson Engineering Design LBB20-02 Long Bearer Beam is designed for handling individual sleepers and bearers in the construction of switch and crossing panels.**

The device is primarily designed for fitment to an excavator but, using the THA20 adapter, may also be fitted to telehandlers.

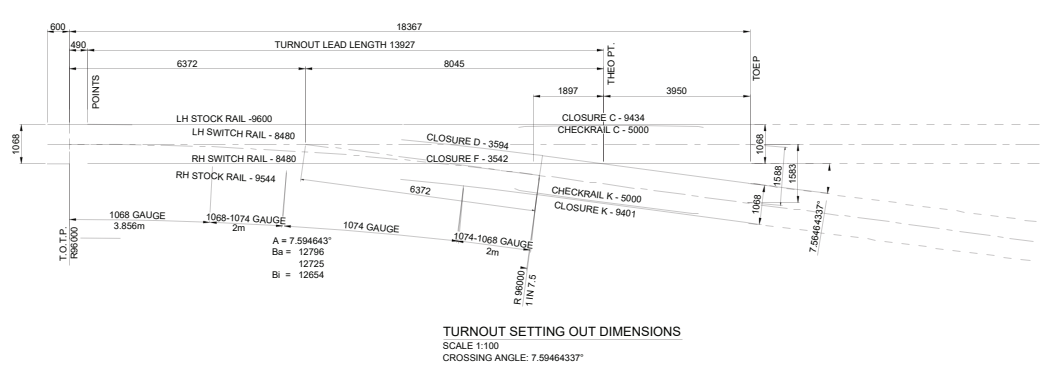
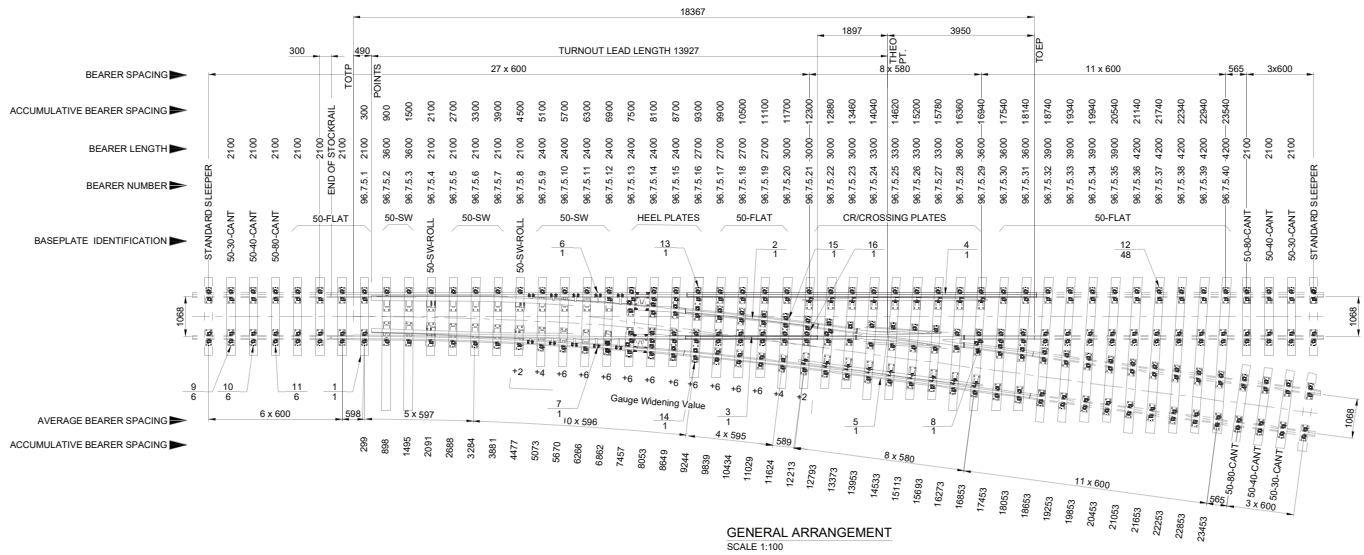
Bearers up to 4,850 mm long and weighing up to 750 kg are delicately handled and precisely placed using this precision attachment which features soft urethane gripper pads and a host of other features all designed to ensure that the bearers are handled swiftly and safely.

A load-levelling feature is built into the hydraulic system which allows the operator to pick up a bearer then shift it along the length of the beam so that unbalanced bearers can still be carried perfectly level. The load levelling feature engages automatically when a bearer is lifted and uses the same control as is used to grip and release the bearer.

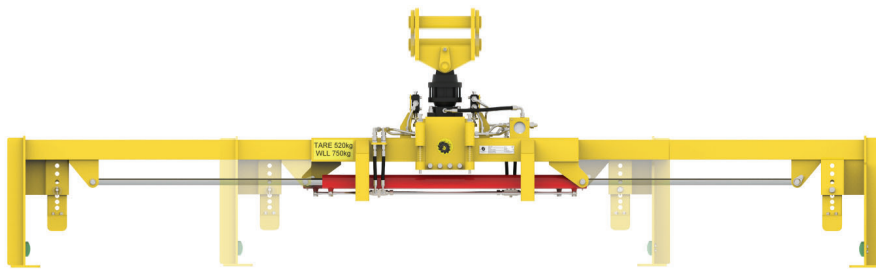
A second automatic system disconnects the grab control once the bearer is lifted preventing release of the load until it is lowered onto the ground or a firm support.

The frame of the device is a fully welded steel construction painted yellow as standard (other colours to order).

The LBB20-02 Long Bearer Beam is one of a range of sleeper handling devices from Thomson Engineering Design. Please enquire or see our website for details of the full range.



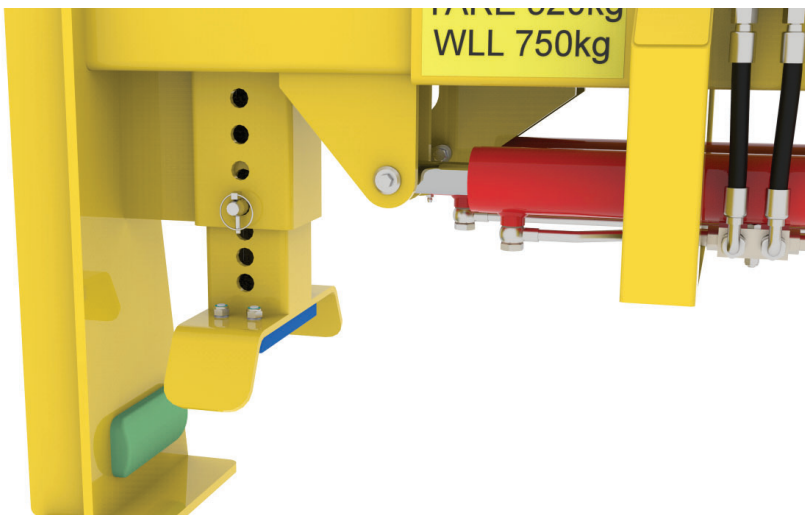
# Key Features



## Carries all Bearers

Long stroke hydraulic cylinders allow for a wide range of bearer lengths to be handled by a single device.

Fully controlled from the cab of the host machine the LBB20-02 can safely handle bearers from 2,050 mm to 4,300 mm long.



## Adjustable for all Types

Bearers of different depths can be accommodated by a simple adjustment of the landing pad position at each end of the beam.



## Delicate, Precise Handling

When the LBB20-02 is placed on the bearer its weight is supported by a hard delrin pad which protects the top surface of the bearer as the jaws slide to grip the load.

The grip force is transmitted into the bearer using soft urethane pads which, as well as being highly durable, improve the friction grip and help to secure the load.



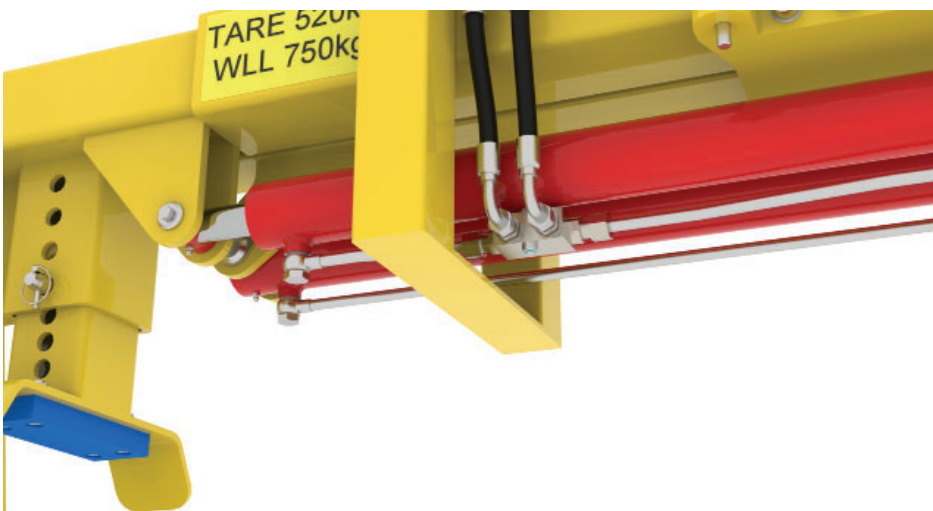
### Load Levelling

Once the beam is carrying a bearer it can be shifted along the beam length to achieve perfect balance of the beam and load.



### Load Detection

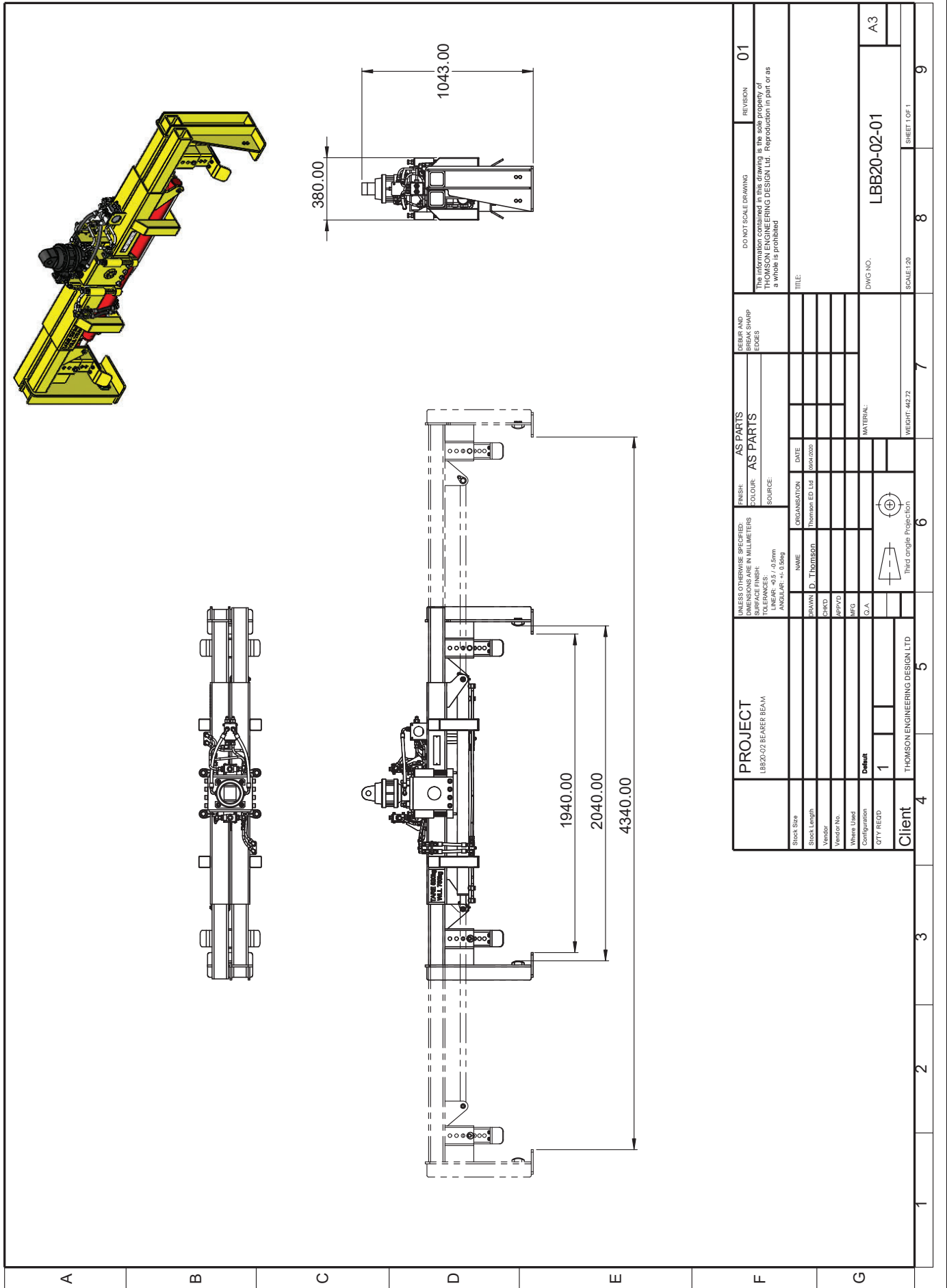
Springs on the rotator mount check the weight of the beam and when it is laden with a bearer actuate valves to prevent release of the load and transfer control to the load levelling system.



### Hose Burst Protection

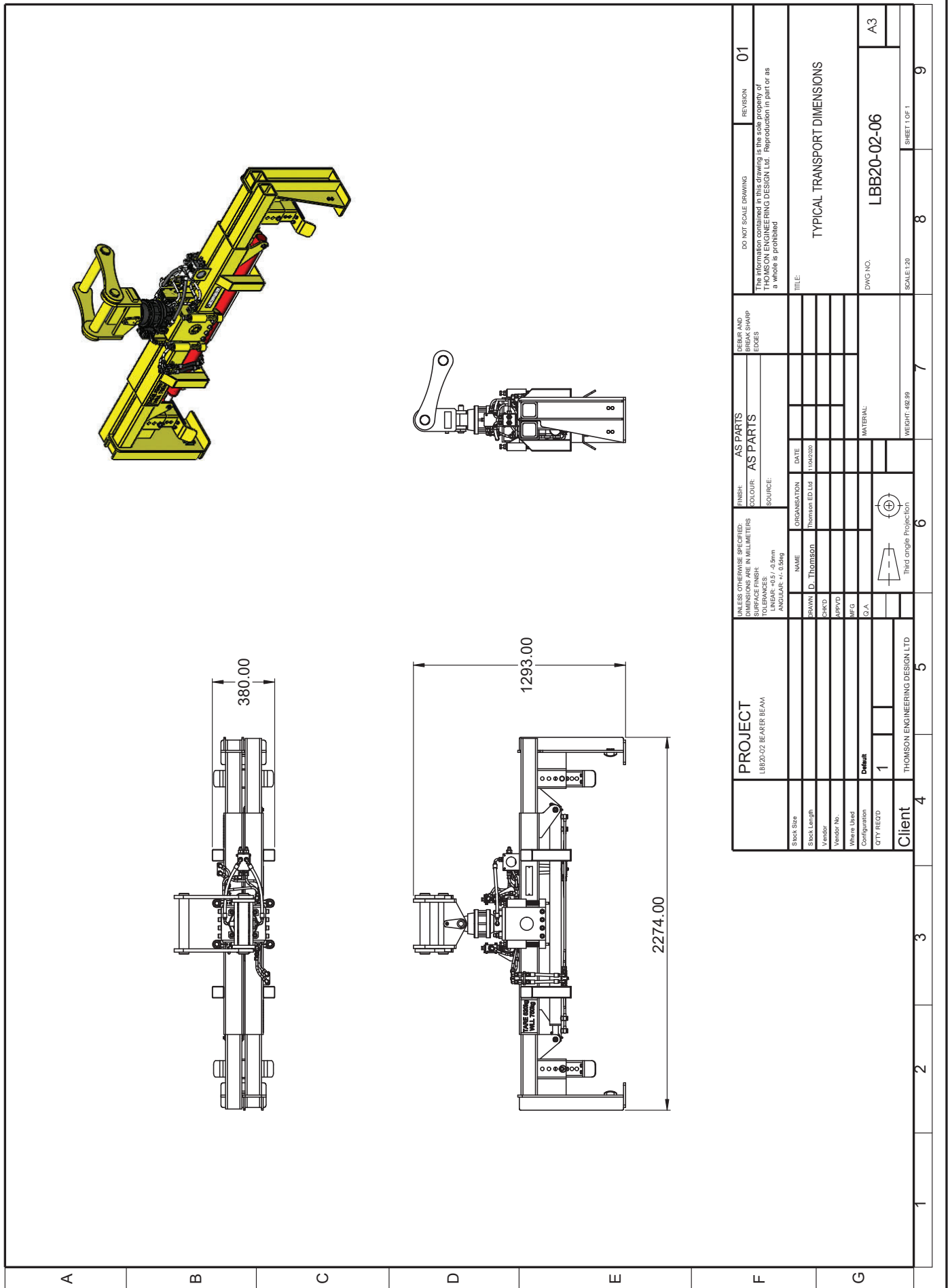
Failure of a hose on the device or failure of the hydraulic system on the host machine will cause the cylinder mounted check valves to automatically lock the cylinders in place securing the load.

# General Arrangement Drawing



Stock Size						Stock Size				DO NOT SCALE DRAWING	REVISION	01
Stock Length						Stock Length				The information contained in this drawing is the sole property of THOMSON ENGINEERING DESIGN LTD. Reproduction in part or as a whole is prohibited.		
Vendor						Vendor						
Vendor No.						Vendor No.						
Items Used						Items Used						
Configuration	Default					Configuration						
QTY REQD	1					QTY REQD						
Client	THOMSON ENGINEERING DESIGN LTD.				Client							
	1											
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	7											
	8											
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	A3											
	LBB20-02-01											
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	SHEET 1 OF 1											

# Typical Transport Dimensions



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.		FINISH: AS PARTS COLOUR: AS PARTS SOURCE:		BREAK AND BREAK SHARP EDGES		TITLE: TYPICAL TRANSPORT DIMENSIONS	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: LINEAR: ±0.3 / +0.5mm ANGULAR: ±0.5deg		NAME: ID Thomson ORGANISATION: Thomson ED Ltd DATE: 11/06/2020		DRAWN: ID Thomson CHECKED: [ ] APPROVED: [ ] MFG: [ ] Q.A: [ ]		DWG NO.: LBB20-02-06 SCALE: 1:30 SHEET 1 OF 1	
PROJECT: LBB20-02 BEARER BEAM		DRAWN: ID Thomson CHECKED: [ ] APPROVED: [ ] MFG: [ ] Q.A: [ ]		MATERIAL:		WEIGHT: 462.99	
Stock Size Stock Length Vendor Vendor No. Where Used Configuration QTY REQD		Detail: 1		Third angle Projection		Client: THOMSON ENGINEERING DESIGN LTD	

# Specifications

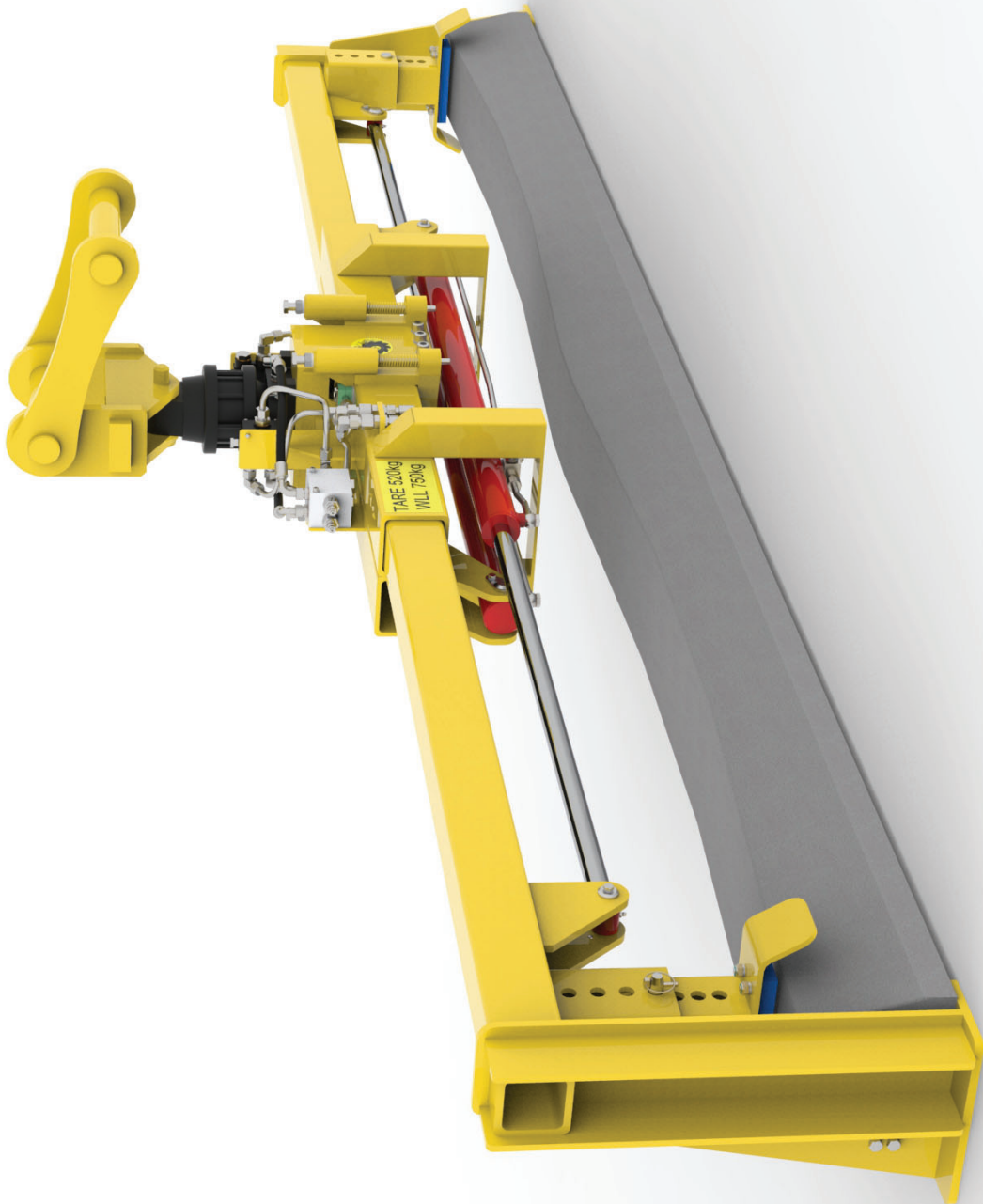
Tare Weight (beam with typical 2-pin adapter head for quick coupler)	520 kg
WLL	750 kg
Proof Load (factory test)	1,500 kg
Minimum Bearer Length	2,050 mm
Maximum Bearer Length	4,300 mm
Maximum Bearer Depth	300 mm
Grip Pads	Polyurethane
Slider pads	Nylon / Delrin
Maximum Hydraulic Pressure (grab circuit)	250 Bar
Minimum Hydraulic Pressure (grab circuit)	75 Bar
Rotator Maximum Axial Load	2,500 kg
Rotator Maximum Hydraulic Pressure	250 Bar
Rotator Torque (at 250 Bar)	1,200 Nm
Recommended Flow Rate (both circuits)	20 l/min
Grip Force	9.3 kN
Cylinder Stroke	1,200 mm
Hose Burst Protection	Pilot operated check valves - cylinder mounted
System Pressure Control	Pressure reducing valve
System Pressure (factory set)	50 Bar
Transport Dimensions (with typical adapter head)	
Length	2,274 mm
Width	380 mm
Height	1,293 mm

## Accessories

The LBB20-02 Long Bearer Beam can be supplied with adapter heads to suit all machine types including the THA20 range of telehandler adapters.

A purpose built transport stillage is also available.







# Contact Details

**A**ll technical and sales enquiries should be directed to Thomson Engineering Design.

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                      technical@thomsondesignuk.com**

## **P**LEASE 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.

