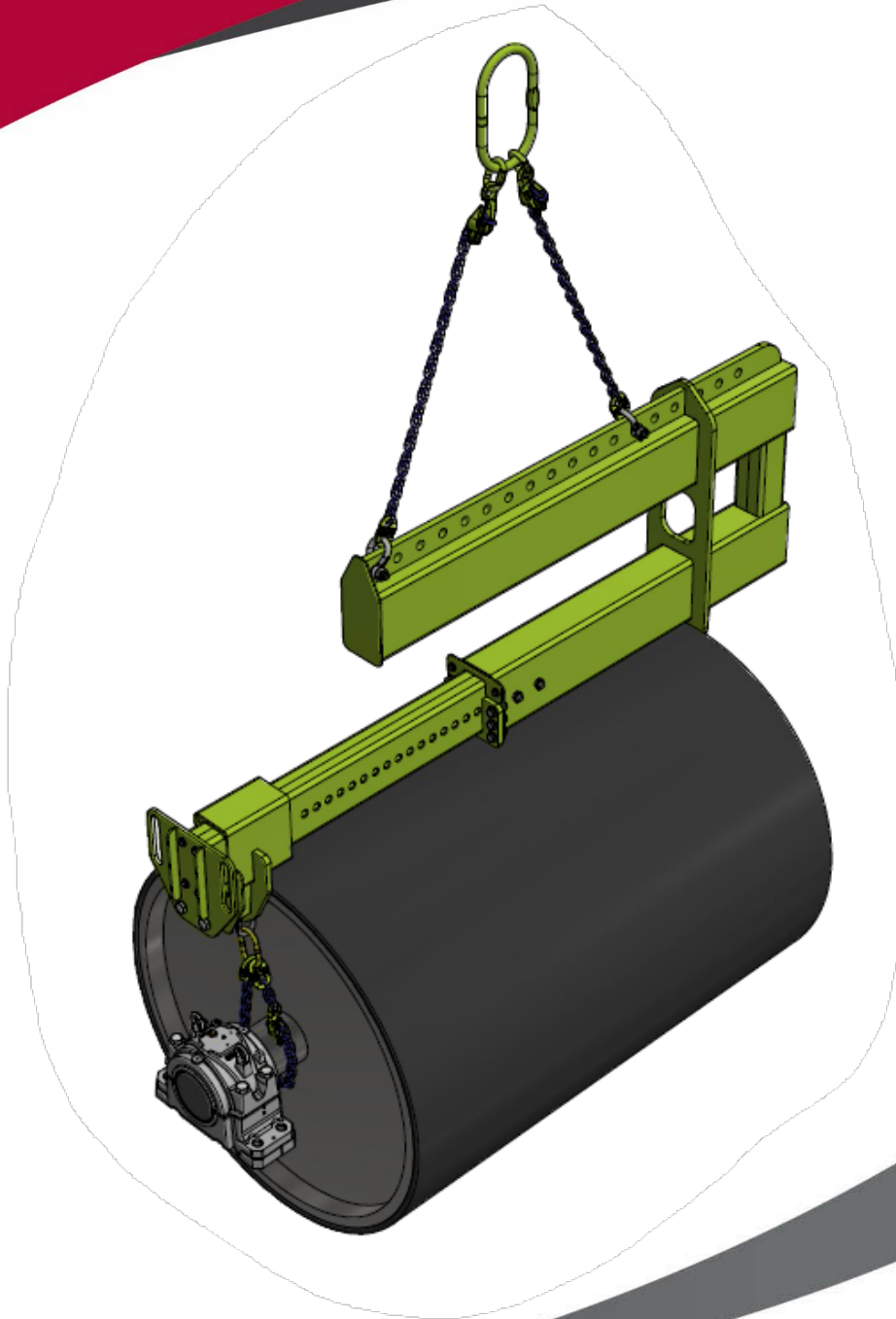


Pulley

Lifting Beam



TSGlobal
Conveyor & Polyurethane Specialists

Installation, Operation and Maintenance Manual

Revision History

Rev	Date	Description	Document Owner
01	03/02/2020	Pulley Lifting Beam	Ray Macarthur
02	14/02/2022	Pulley Lifting Beam transferred to new template	Alexandra McBeath

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Section 1 – Important Information

General Information

TS Global is pleased that you have selected one of our products for your conveyor system.

This manual will assist in the understanding and operation of the product and allow it to perform at its maximum efficiency.

For safe and efficient operation, it is essential that the information and guidelines presented be properly understood and implemented. This manual will provide safety precautions, storage advice, installation instructions, maintenance procedures, recommended spares and troubleshooting tips.

If, however, you have any questions or problems that are not covered in this manual, please contact the nearest authorised distributor, or visit our website. www.tsglobal.net.au

All persons directly responsible for the installation, operation and maintenance of this product should read this manual thoroughly. Whilst we have attempted to make the installation and service tasks as simple as possible, optimum performance from the product will require correct installation, regular inspections, adjustments, and maintenance to maintain maximum efficiency.

User Benefits

Ensuring the correct installation and regular maintenance tasks are performed, our product will provide the following benefits to your operation:

- Increase conveyor availability and reliability.
- Reduced man-hour labour requirements.
- Lower maintenance costs.
- Increased service life for the cleaner and other conveyor components.
- Reduction in Safety Hazards around conveyor.
- Reduction in Environmental Impact.

Service Option

This product is designed to be easily installed and serviced by your on-site personnel, however, if you would prefer a complete turn-key service, please contact TS Global for a list of your nearest distributors.

Warranty

The warranty provided by TS Global Pty Limited (“TS Global”) is set out in the TS Global Terms and Conditions of Sale at clauses 6.1 to 6.5 inclusive. Those clauses are set out below: -

6.1 Subject to these conditions of sale, TS GLOBAL warrants that the Goods are free of defects both in material and workmanship and are of merchantable quality. The liability of TS GLOBAL pursuant to this warranty or any other warranty implied by operation of any statute including the Competition and Consumer Act 2010 (Cth) (as amended) shall be limited to the cost of replacing defective Goods, the cost of obtaining equivalent Goods, or the cost of repairing the Goods at TS GLOBAL’s discretion provided that in all such cases any costs of dismantling and reassembly shall be borne by the Customer.

6.2 The warranty set out at clause 6.1 is subject to the following:

- a) the warranty applies for a period of 12 months commencing on the date of invoice of the Goods;
- b) the warranty does not apply to consumable components that are subject to normal wear and tear;
- c) the Customer must provide TS GLOBAL with either an invoice number or purchase order number referencing the defective Goods;

- d) the defects to the Goods must have arisen solely from faulty materials or workmanship; and
- e) the damage to the Goods must not arise from:
 - i. incorrect installation of the Goods contrary to the instructions contained within TS Global's Installation and Operation Manuals;
 - ii. improper adjustment, calibration or operation by the Customer;
 - iii. the use of accessories including consumables, hardware, or software which were not manufactured by or approved in writing by TS GLOBAL
 - iv. any contamination or leakages caused or induced by the Customer
 - v. any modifications of the Goods which was not authorised in writing by TS GLOBAL;
 - vi. any misuse of the Goods by the Customer;
 - vii. any use or operation of the Goods outside of the physical, electrical or environmental specifications of the Goods;
 - viii. inadequate or incorrect site preparation;
 - ix. inadequate or improper maintenance of the Goods; or
 - x. incorrect handling of the Goods.

6.3 If the Goods are not manufactured by TS GLOBAL the guarantee of the manufacturer of those Goods is accepted by the Customer and is the only guarantee given to the Customer in respect of the Goods. TS GLOBAL agrees to assign to the Customer on request made by the Customer the benefit of any warranty or entitlement to the Goods that the manufacturer has granted to TS GLOBAL under any contract or by implication or operation of law to the extent that the benefit of any warranty or entitlement is assignable.

6.4 Except as provided in these conditions, all express and implied warranties, guarantees and conditions under statute or general law as to merchantability, description, quality, suitability or fitness of the Goods for any purpose or as to design, assembly, installation, materials or workmanship or otherwise are expressly excluded. TS GLOBAL is not liable for physical or financial injury, loss or damage or for consequential loss or damage of any kind arising out of the supply, layout, assembly, installation or operation of the Goods or arising out of TS GLOBAL's negligence or in any way.

6.5 Nothing in these conditions shall be read or applied so as to exclude, restrict or modify or have the effect of excluding, restricting or modifying any condition, warranty, guarantee, right or remedy implied by law (including the Competition and Consumer Act 2010) and which by law cannot be excluded, restricted or modified.

This Warranty Statement must be read in conjunction with TS Global's Terms and Conditions of Sale which can be located on our website www.tsglobal.net.au

Section 2 – Safety Considerations, Precautions and Correct Storage

Before installing, operating, inspecting or maintaining this product, it is important to follow and understand all relevant site and statutory regulations. Please review the following safety information.



All statutory and site regulations must be followed before undertaking the following activities. Failure to follow site safety procedures exposes workers to uncontrolled hazards which can result in serious injury or in extreme cases, fatality.

Personal Protective Equipment (PPE) must be worn to control the foreseeable hazards associated with conveyor belts. Confined space, tensioning devices and heavy components create a worksite that may expose a worker to harm. Mechanical devices such as cranes or chain blocks can reduce exposure to harm.

Once hazards have been identified, the installer should undertake written Job Hazard Analysis according to site requirements. The installer must identify all hazards and apply appropriate controls before proceeding with the installation or servicing of this equipment.

There are installation, maintenance and operational activities involving both isolated and operating conveyors. Each has a safety protocol, and it is your responsibility to be familiar with the sites requirements.

Using Lifting Equipment

The following activities must only be performed by a competent person:

- Installation of the TS Global Pulley Lifting Beam
- Operation of the TS Global Pulley Lifting Beam to remove/replace pulley

NOTE: Always ensure that the lifted load **does not** exceed the rated capacity of the lifting beam and the rigging equipment

NOTE: Always check the pulley is secured and the safety chains are in place before lifting

NOTE: Never use the lifting beam without both locking pins installed between the telescoping section and the main beam

NOTE: Do not modify the lifting beam

NOTE: The beam **must** only be used in the horizontal position (**Do not** exceed +/- 10 degrees)

NOTE: Never use lifting beams to handle loads other than those for which they are designed

Correct Storage

Provided goods remain stored within boxes or on pallets wrapped with plastic, TS Global products can be stored outside in all weather conditions. If packaging is damaged or removed, TS Global recommends that the products be stored under cover and out of direct sunlight to minimise deterioration of any componentry.

Section 3 – Installation Instructions

Checklist

- Check that the product size is correct to suit pulley face width
- Check that the product size is correct to suit pulley mass (kg)
- Check the product and make sure all the parts have been supplied
- Check the installation location: will the TS Global Pulley Lifting Beam have sufficient clearance?

Before you begin:

- Prestart check list to be completed
- Familiarise yourself with the main components of this product (Figure 1)
- Check Identification plate is clearly visible and legible
- Before each use the lifting beam, safety chains, rigging equipment and pulley are to be inspected for any damage by a competent person
- Determine the install location and check clearances
- Identify all correct lifting points to be used
- Ensure mass of pulley is checked and suits SWL of The TS Global Pulley Lifting Beam
- Install the rigging equipment onto the lifting point on the top of the main beam so that the centre of the lift is over the centre of gravity of the beam, so that the beam is level when lifting

NOTE: TS Global products have been designed to be flexible in installation. If conveyor head chute or structure needs to be modified, seek engineering approval from your site contact, prior to undertaking modification.

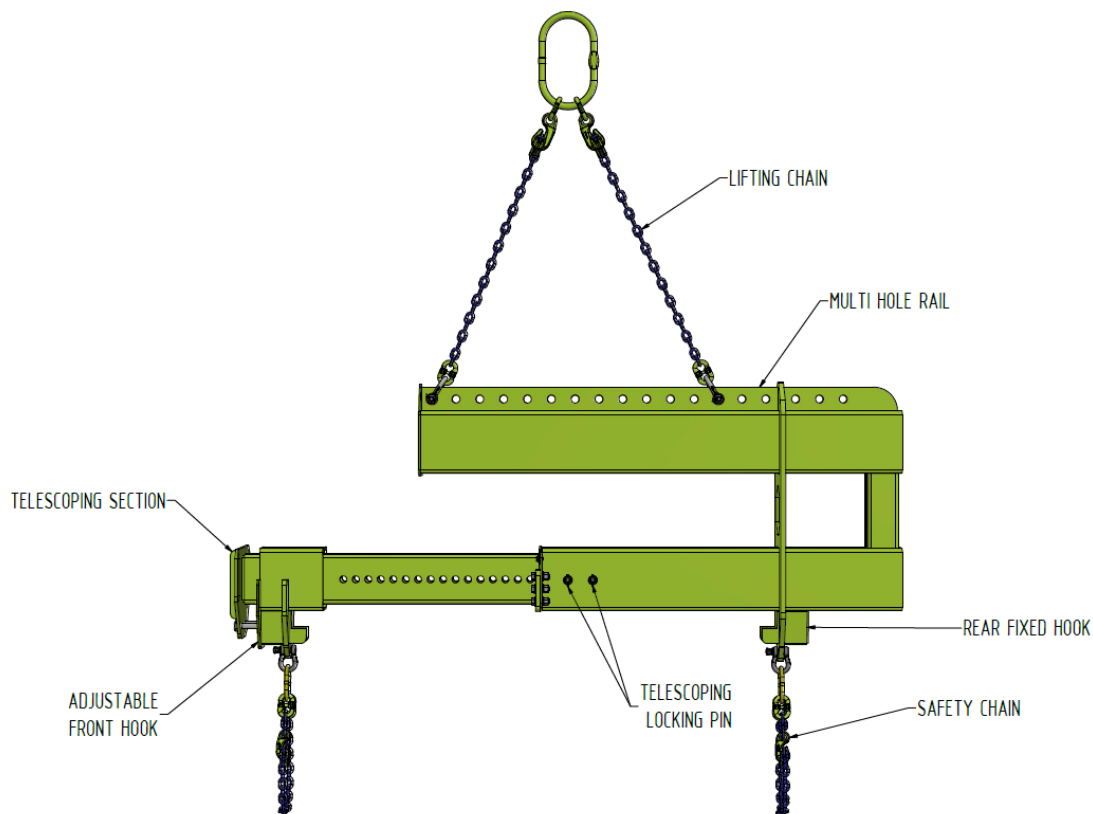
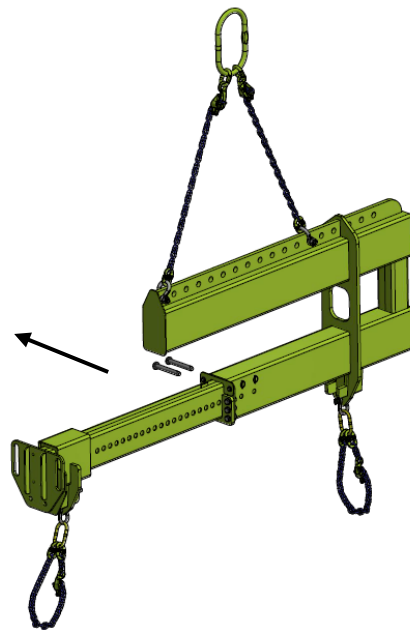


Figure 1

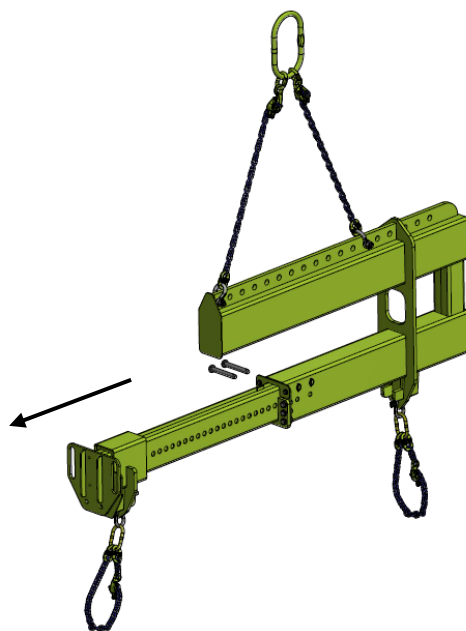
Part Number	Model/SWL	Typical Belt Width (mm)	Face Width (mm)
34-10-001	4.5 Tonne	800mm – 1200mm	882mm-1482mm
34-10-002	7 Tonne	1000mm – 1800mm	1150mm-1986mm
34-10-003	12 Tonne	1400mm – 2300mm	1541mm-2441mm

Set up and Operation of The TS Global Pulley Lifting Beam

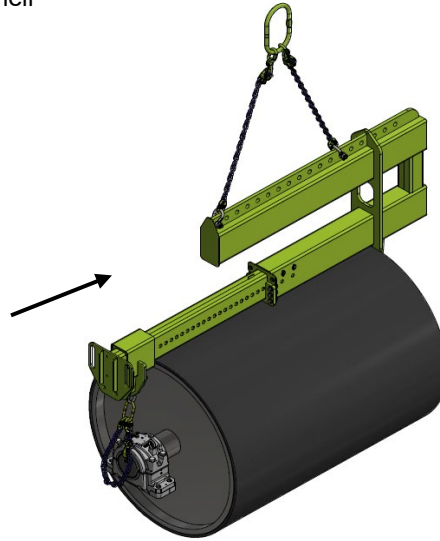
1. Measure the face width of pulley to be lifted
2. Remove both locking pins between the telescoping section and main beam



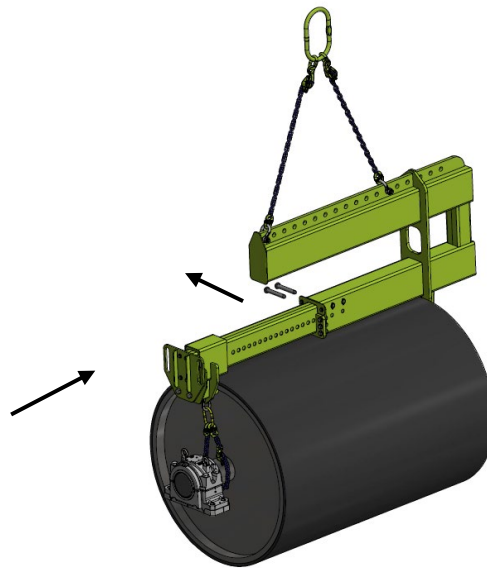
3. Extend telescoping section into a position wider than the face width of the pulley



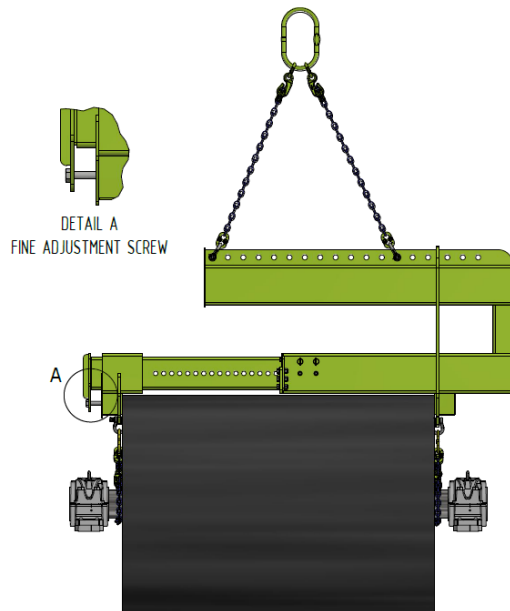
4. Fit both locking pins before lifting The TS Global Pulley Lifting Beam
5. Position The TS Global Pulley Lifting Beam over the pulley and engage the rear fixed hook under the lip of the pulley shell



6. With the rear hook engaged, again remove locking pins and push the telescoping section in so that the front fixed hook is under the lip of the pulley shell



7. Fit both locking pins between the telescoping section and the main beam
8. With both front and rear fixed hooks in place, tighten the locking screws between the front hook and the telescoping section so that the pulley is locked to the frame.



9. Sling safety chains around the shaft of the pulley and secure to fixed hooks
10. Use the multi hole rail on the top of The TS Global Pulley Lifting Beam to lift pulley level

NOTE: All rigging, including The TS Global Pulley Lifting Beam should be checked by a competent person prior to performing any lift

Section 4 – Pre-Operation Checklist and Testing

Pre-Operation Checklist

Ensure the below items at a minimum are checked by an authorised and competent person.

- Visually inspect condition of the entire assembly for signs of wear and corrosion
- Check that all fasteners and pins are supplied and secured
- Establish the weight of the load to be lifted, and prepare the landing area ensuring its capable to take the weight of the load
- Ensure all rigging to be visually checked before lift commences and confirm its condition and SWL
- Check there is adequate clearance between conveyor belt and The TS Global Pulley Lifting Beam as to not add excess load
- Be sure that all installation materials and tools have been removed from the work area
- A lift plan should be completed before commencing lift
- Undertake a Job Hazard Analysis to ensure all hazards and risks are identified and controls are put in place
- Carry out a trial lift of Pulley Lifting Beam assembly to ensure the Beam is horizontal for the lift.

Section 5 – Maintenance

TS Global products are designed to operate with minimum maintenance, however, to maintain superior performance some service is required. A regular inspection and maintenance program should be established. This program will ensure that the product is operated in a safe manner and problems can be identified and rectified.

TS Global recommends as a minimum requirement the below inspection types and frequencies should be adhered to.

Routine Visual Inspection (Recommended before every use)

A visual inspection of The TS Global Pulley Lifting Beam can determine:

- Out of date inspection tag
- Structural damage to beam
- Stress cracking to welds
- Paint chipping
- Corrosion
- Loose fasteners
- Missing or illegible identification plate

If any of the above conditions exist, a determination should be made on suitability for use. If unsuitable out of service tag should be placed with defects clearly marked and The TS Global Pulley Lifting Beam removed from service.

Routine Structural Inspection (Recommended Annually)

When The TS Global Pulley Lifting Beam is not in operation Non-Destructive Testing should be undertaken in reference to AS4991 – lifting devices

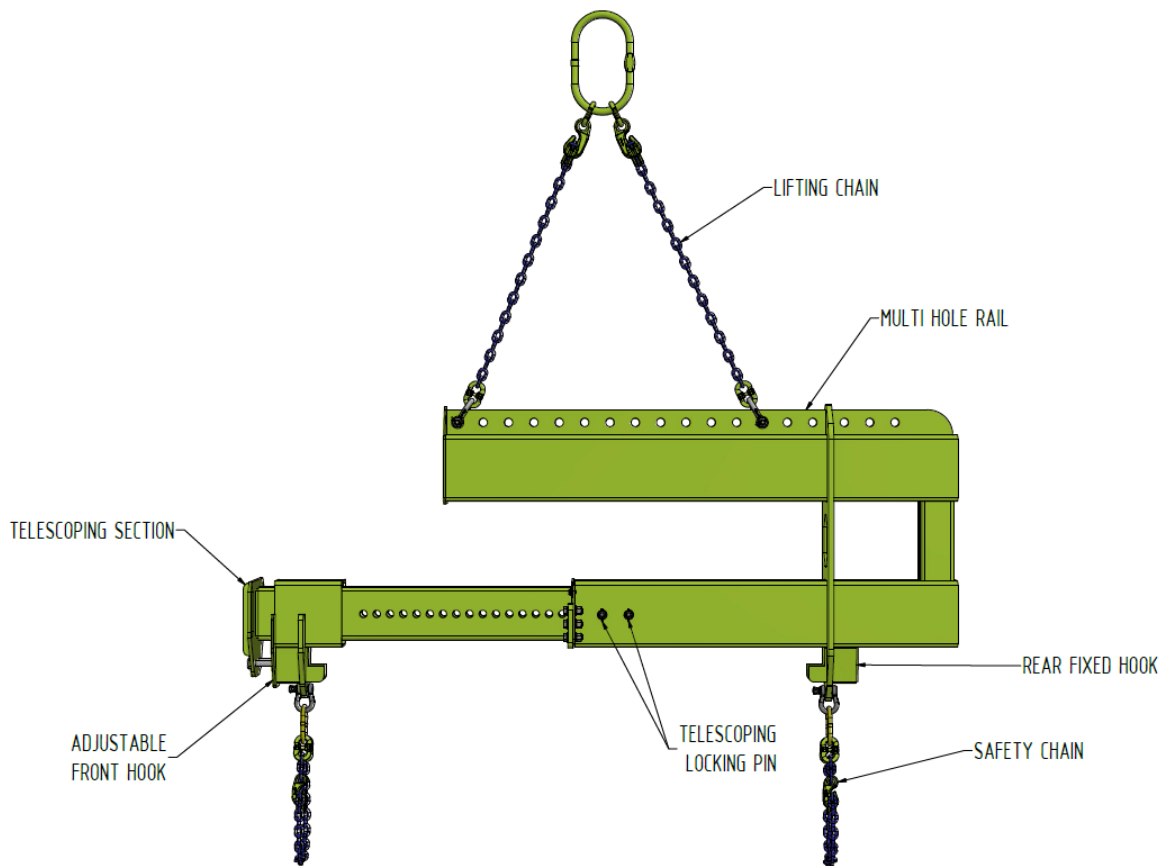
- Inspection shall be undertaken in adequately lit location
- The TS Global Pulley Lifting Beam shall be cleaned down before inspection
- All Components shall be inspected for any signs of wear at their load bearing or high stressed points. Signs of wear include nicks, cracks, gouging, stretching or distortion

If any of the above conditions exist, a determination should be made on suitability for use. If unsuitable out of service tag should be placed with defects clearly marked and The TS Global Pulley Lifting Beam removed from service.

Section 6 – Troubleshooting

Problem	Possible cause	Possible solution
Unable to fit/remove locking pins	Holes between telescoping and main beam are not in line	Slide telescoping section until holes align
	Pin is burred	Deburr pin or replace if needed
Unable to slide telescoping section	Pins not removed	Remove locking pins
	Foreign material lodged between main body and telescoping section	Clean the telescoping section of foreign material and free up action.
Pulley beam not lifting level	Wrong position on multi hole rail selected	Select correct hole on multi hole rail
Pulley beam not secured on pulley face	Wrong hole selection on telescoping body	Retract fine adjustment on locking screws, move to next hole on the telescoping body and apply final adjustment on locking screws until secured
	Did not apply final adjustment on locking screws	Apply final adjustment on locking screws until secured
Broken or cracked welds	Capacity exceeded	Out of Service the Pulley Lifting Beam for repair or replacement. Larger capacity Pulley Lifting Beam may be required
Missing Components	Not stored correctly	Out of Service the Pulley Lifting Beam until new genuine components for the lifting beam can be sourced
Unable to fit Pulley Lifting Beam onto Pulley	Incorrect Beam selected for face length	Source correct beam for pulley dimensions
	Telescoping section has not been extended to fit pulley face width	Remove locking pins and extend to suit pulley face width

Section 7 – Replacement Parts



Replace with Parts List

Pulley Lifting Beam	
Description	Part Number
4.5 Tonne	34-10-001
7 Tonne	34-10-002
12 Tonne	34.10-003

Pins and safety chains			
Description	4.5 Tonne	6 Tonne	12 Tonne
Telescoping locking pin			
Front hook locking pin			
Safety chain			



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