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CHAIN BLOCK 0.5 TONNE - 3 TONNE SERIES







Disclaimer.

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1. SAFETY GUIDELINES

Important: Read and understand all safety instructions before use. Keep instructions safe for future reference. Ensure that this equipment is in sound, clean condition and good working order before use. The operator must have a clear and unobstructed view of the entire travel area before operating the chain block - it is preferable to operate with one or more persons on hand.

General Safety:

- Always inspect equipment for damage before use
- Ensure any damaged parts are replaced before use use only Tundra Industrial recommended parts contact your dealer for advice
- Do not use this equipment if damage or weakness is detected during inspection
- Do not modify this equipment for any use other than that which it has been designed and tested for
- Never exceed the rated capacity
- Keep the equipment clean and well maintained for optimal, safe performance
- Ensure that the working environment is well lit and kept clean and free from clutter, keep children and animals away
- Ensure that the floor is level and strong enough (preferably concrete) to take the weight of the lift and the bike
- This equipment should only be used by fully-trained and competent individuals (never under the influence of drugs or alcohol)
- Raise and lower the load in a smooth, controlled manner
- Use a qualified person to lubricate and maintain this equipment
- Unauthorised parts may be dangerous and will invalidate the warranty

Equipment Safety:

- Never use this equipment for lifting, supporting or transporting people or animals
- Never use your foot to apply pressure on the chain block
- Never use two or more chain blocks together to lift a load beyond the rated capacity
- Never lift up the load beyond the rated capacity
- Never lift or transport loads over or near people
- Keep children and animals out of the working environment during operation
- Ensure that the nameplate / specification plate is kept clean, clear and visible at all times
- Ensure hook is free from damage and rotates freely before use
- Check break system regularly
- Lubricate chain load regularly / as required

WARNING: Do not use this equipment if any damage or wear is detected - remove from service immediately and seek advice for repair.

- Never use a twisted, kinked, damaged or stretched load chain
- Never use this equipment as a sling
- Never use the chain as a support
- Never support a load on the tip of the hook
- Never run the load chain over a sharp edge
- Never weld or cut a load suspended by the chain block
- Never operate the equipment in such a way that the bottom hook touches the hoist body
- Never operate the chain block so far that the load chain pulls the anchorage
- Ensure that you always lower the load slowly and safely after lifting and never suspend a load for an extended period of time



WARNING:

No responsibility is accepted for incorrect use of this equipment. Incorrect use can result in damage to the equipment and danger to the user. Warranty will be void in the event of incorrect use. The warnings, cautions and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.





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2. DESCRIPTION

This equipment has been designed for vertically lifting and lowering loads by hand, under normal atmospheric conditions in a safe working environment.

Features:

- Heavy duty Chain block with 3.0M standard lifting capacity.
- · Fitted with heat treated and ground, triple-spur geared shaft and pinion.
- · Also includes mechanical load brake for extra safety.
- · All chains are manufactured from hardened alloy material and load hooks feature safety latches.
- · Compact gear housing allows use where headroom is limited.

3. SPECIFICATIONS

See diagram and table on the opposite page for full specifications based on equipment capacity.

4. OPERATION

IMPORTANT: Please ensure that you have read and fully understand the user guidelines and safety precautions before operating this equipment. It is essential that a risk assessment is carried out before undertaking any operations with the chain block.

TO LIFT A LOAD:

- Ensure that the chain block is suspended from a structure capable of supporting at least 11/2 times the safe working load of the block and that the block hook is fully engaged, with the safety bar closed.
- Confirm that the load does not exceed the Safe Working Load of the block.
- Ensure that slings/chains/ropes around the load are adequate and in good condition and that the load is directly below block.
- Attach the slings/chains/ropes to block load hook and ensure safety bar is closed.
- Pull the hand chain smoothly until the load chain is taut and confirm that it is vertical (i.e. not pulling at an angle).
- Begin to raise load slowly and check that it is level, with no chance of the load tilting and/or slipping from its restraints.
- If necessary lower the load and readjust the slings as necessary in order to obtain a safe, level lift.
- Stop lifting at approximately 100mm to check that brake will hold load.
- Continue to raise load to required height in a slow and controlled manner.
- Do not raise so far that load hook comes into contact with the block.

TO LOWER THE LOAD:

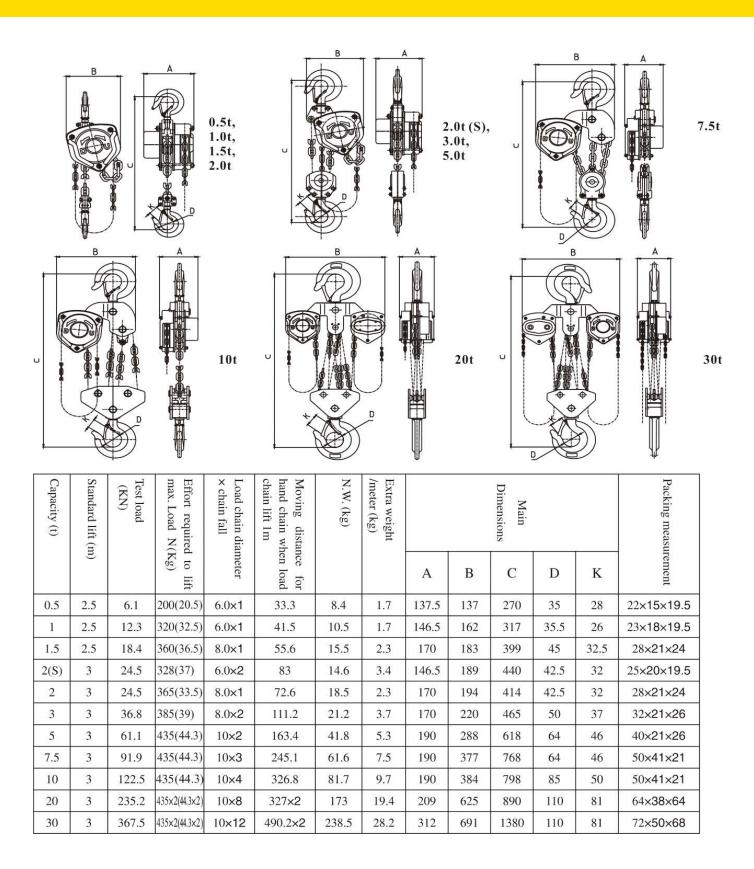
- Pull down on the opposite side of the hand chain
- Again, lower smoothly and slowly and do not lower so far as to completely extend the full length of the load chain.

WARNING: If, at any time, the hand chain will not move in either direction do not attempt to force it but, after arranging safe support for any suspended load, have the block inspected by a qualified engineer.





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5. MAINTENANCE

IMPORTANT: This equipment must be kept clean and dry and must be maintained in accordance with these instructions. The owner and/or operator must be aware that repair of this equipment will require specialised knowledge and facilities. Unauthorised parts may be dangerous and will invalidate the warranty. Contact your Tundra Industrial dealer for repair advice.

Lubrication:

Lubricate the load chain and both hook shanks regularly

Equipment Inspections:

- Before each use of the chain block, an inspection must be performed for damage, and detection of loose or missing parts.
- Inspection requires the user to look at the chain block for defects and checking the operation of the hooks, the load chain, the brake device and lubrication of the block without loading it. This is much more than a check but does not normally require any part of the chain block to be dismantled, other than removal or opening of covers or housings.
- It is recommended that this equipment is inspected carefully before each use.

Equipment Examinations:

- Examination of the equipment requires verification that the chain block can safely continue in service including a functional test of all safety devices (i.e. the braking device etc.) to verify that they operate within the required tolerances. An examination is more thorough than an inspection.
- The chain block must be examined immediately, if it has been subject to an abnormal load or shock.
- It is recommended that such an examination is made by a fully qualified engineer.
- It is recommended that an annual examination of the chain block is made by a fully qualified engineer.

5.1 DAILY INSPECTION SCHEDULE / BEFORE EACH USE:

Function	to raise the load a	ain wheel side of the hoist, pull hand chain clockwise and pull hand chain counter clockwise to lower the load. In of the pawl when load is being raised indicates	Repair or replace as necessary.
Hook	Check visually	No wear, deformation or damage, and the swivels should rotate freely.	Replace
Hook latches	Check visually	No deformation and harmful flaws.	Replace the part.
Load chain	Check visually	No obvious rust or corrosion. Lubrication must be on surface.	Oil the load chain, replace the load chain.
Other	Check visually	No missing nuts and/or split pins. No flaws or damages on the hoist surface. No missing and/or twist chain stopper.	Replace the parts.





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5.2 PERIODIC EXAMINATION SCHEDULE:

Recommended periodic examination interval guidelines:

• Normal Use: Examine every six months

• Heavy Use: Every 4 months

• Excessive / Frequent Use: Every month

Item	Method		20	Discard c	riteria			Remedy
1. Hook assembly 1.1 Stretch and wear	Measure	Capacity (t) 0.5 1 1.5 2 3 5 7.5 10 20 30 *These va to a toleral hook is ne	A*(mm) Normal 30.0 30.0 36.0 33.5 40.0 50.0 64.0 85.0 85.0 lues are nace. The Aw. The A	Standard 13.0 13.0 17.0 21.0 25.0 32.0 34.0 40.0 60.0 cominal sine A dimension dimension	Discard 12.4 12.4 16.2 20.0 23.8 30.4 32.3 38.0 57.0 57.0 ce the dimen should be should not	C(r Standard 19.0 21.5 28.8 34.3 43.8 52.5 53.0 60.4 88.5 88.5 ension is no emeasured be greater time of purc	when the than 1.05	Replace
1.2 Flaw	Check visually	Should be deep nic			ficant rus	st, weld sp	olatter,	Replace
1.3 Rotate	Check visually and function	Should	rotate fr	eely with	no rough	ness.		Replace
1.4 Hook yoke	Check visually and function	Should 1	Should not slack or miss rivets, nuts or bolts.				Replace	
1.5 Hook latch	Check visually	Proper p	ositioni	ing and sr	nooth wo	orking.		Replace





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5.2 PERIODIC EXAMINATION SCHEDULE (continued):

		Schebote (continued).	
2. Load chain 2.1 Wear	Measure	Capacity (t) L(mm) D(mm) 0.5,1,2(S) 90.0 ≥92.5 6.0 ≤5.4 1.5,2,3 120.0 ≥123.3 8.0 ≤7.2 5~30 150.0 ≥154.0 10.0 ≤9.0	Replace
2.2 Flaws, deformations	Check visually	Should be free from twist or harmful flaw.	Replace
2.3 Rust	Check visually	Should be free from obvious rust.	Remove rust, oil the chain
Item	Method	Discard criteria	Remedy
3. Bottom hook pin 3.1 Twist, deformations	Check visually, measure	Replace the hook pin if there is obvious deformation, and the screw thread of hook pin should be free of flaw and deformation.	Replace
3.2 Rust	Check visually	Should be free from obvious rust.	Remove rust, oil the pin
4.Top/Bottom hook pin hole 4.1 Deformations	Measure	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Replace hook assembly



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5.2 PERIODIC EXAMINATION SCHEDULE (continued):

5. Broke system 5.1 Rust	Check visually	All parts should be free from rust.	Remove rust, oil the parts, or replace.
5.2 Flaw on friction disc	Check visually	Should be free from harmful flaw.	Replace
5.3 Wear on friction disc	Measure	Retain uniform thickness and friction disc shall not be worn more than 0.5mm.	Replace
5.4 Flatness of friction disc	Check clearance with gauge.	Clearance should be uniform. Internal part should not be thicker than external part.	Replace
5.5 Pawl	Check visually	Should be free from wear on the surface.	Replace
5.6 Pawl spring	Check visually	Should be free from deformation	Replace
5.7 Ratchet disc	Measure		Replace
6. Lifting system 6.1 Load sheave	Check visually	Should be free from large wear or deformation.	Replace
6.2 Gear	Check visually	Tooth should be free from large wear or flaw.	Replace
6.2 Gear box	Check visually	Should be free from wear or deformation.	Replace
6.3 Hand wheel	Check visually	No large wear or no deformation on the surface of hand chain pocket. Turn and check if it touches the cover.	Replace
7. Body 7.1 Top hook pin hole on the side plate	Basic dimension	Measure the dimension D.	Replace



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5.2 PERIODIC EXAMINATION SCHEDULE (continued):

7.2 Top hook pin	Measure	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Replace
7.3 Guide plate	Check visually	Should be free from wear or deformation.	Replace
7.4 Chain stopper ring	Check visually	Should be free from wear or deformation.	Replace
8. Function 8.1 Lifting and lowering	Lift and lower a light load.	No abnormal difficulty in lifting and lowering.	Overhaul and service.
8.2 Brake	Lift and lower a light load.	Confirm that none of the problems listed below occur during lifting and lower: (1) Lifting impossible. (2) Load slips down slowly. (3) Load falls when the operator releases the hand lever.	Overhaul and service.





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6. TROUBLESHOOTING

Trouble	Cause and explanation	Remedy		
The pawl makes the proper clicking sound but fails to lift the load.	Worn friction plates. When used at high frequency without performing maintenance regularly, the friction plates will wear down. This will create gaps between the friction disc and hand wheel and cause the brake to slip.	Disassemble and replace the friction plates.		
The pawl produces	The pawl has been improperly assembled. If the pawl is assembled facing the other way, or otherwise assembled incorrectly, it will not cleanly mesh with the ratchet disc.	Disassemble and then reassemble parts correctly.		
absolutely no sound and fails to lift the load.	The pawl is not moving smoothly. Unless maintenance is performed regularly, dirt will adhere to the grease on the pawl and pawl shaft. Movement will become sluggish and the pawl will remain stuck in the kicked out position.	Disassemble and then reassemble parts correctly.		
The chain is tight when lifting, even without a load. (A squeaking noise can be heard at times.)	Worn gear teeth or worn bearing. Unless maintenance is performed regularly, greased parts will dry, resulting in wear and damaged, and improper meshing of gears.	Disassemble and replace the pinion, load gear, gear case, side plate and ball bearing.		
Improper lowering or the chain is	The brake is too tight. Due to shock during work, or because the load was left suspended for a long period of time, the brake tightened.	Free the brakes forcibly by jerking the hand chain.		
extremely tight when lowering.	The brake is rusted. Unless maintenance is performed regularly, rusting will occur.	Disassemble and replace parts where necessary.		
The hoist drops the	The braking surface is dirty. During assembly, the braking surface must be wiped cleaned of dirt.	Disassemble and then reassemble parts correctly.		
load when the instant lowering is started.	The braking surface is oily. The braking surface must not be allowed to become soiled with grease or machine oil because it is a dry-type brake.	Disassemble and then reassemble parts. Do not oil or grease the braking surface or friction plates.		
Load slipping	The braking surface is oily. The braking surface must not be allowed to become soiled with grease or machine oil because it is a dry-type brake.	Disassemble and then reassemble parts. Do not oil or grease the braking surface or friction plates.		
	The braking surface is dirty. During assembly, the braking surface must be wiped cleaned of dirt.	Disassemble and then reassemble parts correctly.		





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7. PARTS LIST & EXPLODED DIAGRAM

No.												
	Parts Name	No.	Parts Name	No.	Parts Name		8)———		_		
1	Gear case assembly	19	Hand chain wheel	37	Roll ball			/		\$.		
2	Gear side plate assembly	20	Hand chain	38	Top hook frame		A	/	11/0			
3	Brake side plate assembly	21	Hand wheel cover	39	Top hook wheel		8-			*		
4	Disc gear assembly	22	Lock nut	40	Roller needle							
5	Load sheave assembly	23	Guide roller	41	Top hook frame set		1		82	79-13-75	BEEN .	
6	Top hook assembly	24	Stripper	42	Holding screw			,	\	3)	THE STATE OF THE S	
7	Safety latch assembly	25	Load chain	43	Top hook shaft	8)—————————————————————————————————————	A.	1 6	•		
8	Bottom hook assembly	26	Bottom hook pin	44	Top hook wheel shaft			WHIELD IN	22. 写	D-0-0-	39	
9	Drive shaft	27	End anchor	45	Chain sling plate		1		(a) (a) (b) (a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	@ @ @	(A)	===
10	Snap ring	28	Tail chain pin	46	Bottom hook frame se		9 —(1)			a a a	A A	i
11	Splined gear	29	Split pin	47	Stripper		_		/ \	1	12	ċ
12	Top hook shaft	30	Castle nut	48	Hex bolt		$\mathscr{M} =$			L. W. 3		
13	Pawl spring	31	Bottom hook	49	Spring washer	(2)	100	13/	S. C.);
14	Pawl	32	Bottom hook wheel	50	Snap ring		Me		16	1) (;
15	Brake Seat	33	Bottom hook wheel pin	51	Top hook shaft				8	886)	•
16	Friction disc	34	Bottom hook frame set	52	Top hook wheel shaft	6		(BBBB	999	888		
17	Ratchet disc	35	Hex bolt	53	Bottom hook wheel pi	(E)	(Q) \	1112	///		a	
18	Ratchet disc cover	36	Top hook frame set	54	Bottom hook pin	9 ——	- James		000			
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LIMITED WARRANTY STATEMENT

Tundra Industrial warrants its customers that its products will be free of defects in workmanship or material.

Tundra Industrial shall, upon suitable notification, correct any defects, by repair or replacement, of any parts or components of this product that are determined by Tundra Industrial to be faulty or defective.

This warranty is void if the equipment has been subjected to improper installation, storage, alteration, abnormal operations, improper care, unauthorised service or repair.

Warranty Period

Tundra Industrial will assume both the parts and labour expense of correcting defects during the stated warranty periods below. All warranty periods start from the date of purchase from an authorised Tundra Industrial dealer. If proof of purchase is not available from the end user, then the date of purchase will be deemed to be 3 months after the initial sale to the distributor.

1 Year

Tundra Chain Blocks (0.5Tonne - 3 Tonne)

90 Days

· All replacement parts purchased outside of the warranty period

Important: All parts used in the repair or replacement of warranty covered equipment will be subject to a minimum of 90 days cover or the remaining duration of the warranty period from the original date of purchase.

Warranty Registration / Activation

You can register and activate your warranty by visiting the Jefferson Tools website using the following address: www.jeffersontools.com/warranty and completing the online form. Online warranty registration is recommended as it eliminates the need to provide proof of purchase should a warranty claim be necessary.

Warranty Repair

Should Tundra Industrial confirm the existence of any defect covered by this warranty the defect will be corrected by repair or replacement at an authorized Tundra Industrial dealer or repair centre.

Packaging & Freight Costs

The customer is responsible for the packaging of the equipment and making it ready for collection. Tundra Industrial will arrange collection and transportation of any equipment returned under warranty. Upon inspection of the equipment, if no defect can be found or the equipment is not covered under the terms of the Tundra Industrial warranty, the customer will be liable for any labour and return transportation costs incurred. These costs will be agreed with the customer before the equipment is returned.

Warranty Limitations

Tundra Industrial will not accept responsibility or liability for repairs made by unauthorised technicians or engineers. Tundra Industrial's liability under this warranty will not exceed the cost of correcting the defect of the Tundra Industrial products. Tundra Industrial will not be liable for incidental or consequential damages (such as loss of business or hire of substitute equipment etc..) caused by the defect or the time involved to correct the defect. This written warranty is the only express warranty provided by Tundra Industrial with respect to its products.

Any warranties of merchantability are limited to the duration of this limited warranty for the equipment involved. Tundra Industrial is not responsible for cable wear due to flexing and abrasion. The end user is responsible for routine inspection of cables for possible wear and to correct any issues prior to cable failure.





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Claiming Warranty Coverage

The end user must contact Tundra Industrial (Tel: +44 (0) 1244 646 048) or their nearest authorised Tundra Industrial dealer where final determination of the warranty coverage can be ascertained.

Step 1 - Reporting the Defect

Online Method:

• Visit the website www.jeffersontools.com/warranty and complete the Warranty Returns form. You can complete the form online and submit it to us directly or download the form to print out and return by post.

Telephone Method:

Contact your Tundra Industrial dealer or sales representative with the following information:

- Model number
- Serial number (usually located on the specification plate)
- Date of purchase

A Warranty Returns form will be sent to you for completion and return by post or fax, together with details of your nearest authorised Tundra Industrial repair centre. On receipt of this form Tundra Industrial will arrange to collect the equipment from you at the earliest convenience.

Step 2 - Returning the Equipment

It is the customer's responsibility to ensure that the equipment is appropriately and securely packaged for collection. Please ensure that you include a copy of your proof of purchase. Please note that Tundra Industrial cannot assume any responsibility for any damage incurred to equipment during transit. Any claims against a third party courier will be dealt with under the terms & conditions of their road haulage association directives.

Step 3 - Assessment and Repair

On receipt, the equipment will be assessed by an authorised Tundra Industrial engineer and it will be determined if the equipment is defective and in need of repair and any repairs needed are covered by the warranty policy. In order to qualify for warranty cover all equipment presented must have been used, serviced and maintained as instructed in the user manual.

Where repair is not covered by the warranty a quotation for repair, labour costs and return delivery will be sent to the customer (normally within 7 working days). **Note:** If the repair quotation is not accepted Tundra Industrial will invoice 1 hour labour time at £30 per hour plus return carriage costs (plus VAT).

In cases where no fault can be found with the equipment, or, if incorrect operation of the equipment is identified as the cause of the problem, a minimum of 1 hour labour at £30 per hour plus carriage costs will be required before the equipment will be despatched back to the customer.

Any equipment repaired or replaced under warranty will normally be ready for shipment back to the customer within 7 working days upon receipt of the equipment at an authorised Tundra Industrial Repair centre (subject to part availability). Where parts are not immediately available Tundra Industrial will contact you with a revised date for completion of the repair.

General Warranty Enquiries

For any further information relating to Tundra Industrial warranty cover please call +44 (0) 1244 646 048.





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EC DECLARATION OF CONFORMITY

We, Tundra Industrial, as the authorised European Community representative of the manufacturer, declare that the following equipment conforms to the requirements of the following Directives:

EN 13157:2004+A1:2009 (as amended)
Cranes. Safety. Hand powered lifting equipment.

Equipment Category: Hand Powered Lifting Equipment

Product Name/Model: Chain Block [TUNCB0.5-3 • TUNCB1.0-3 • TUNCB1.5-3 • TUNCB2.0-3 • TUNCB3.0-3]

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Signed by:Stephen McIntyrePosition in the company:Operations DirectorDate:03 April 2017This technical document is held by:Jimmy Hemphill

Technical file holder's address as shown below

Name and address of manufacturer or authorised representative:

Tundra Industrial, Herons Way, Chester Business Park, Chester, United Kingdom, CH4 9QR

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