

TUNLB0.75-3 • TUNLB1.50-3 TUNLB3.00-3 • TUNLB6.00-3

LEVER BLOCK0.75 TONNE - 6 TONNE SERIES







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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 lever 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 lever block
- Never use two or more lever 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 lever block
- Never operate the equipment in such a way that the bottom hook touches the hoist body
- Never operate the lever 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 Lever 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 lever block.

TO LIFT A LOAD:

- Ensure that the lever block is suspended from a structure capable of supporting at least 1½ 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.
- Select 'UP' and smoothly use the ratchet handle until load chain is taut, confirm that it is vertical (i.e. not pulling at an angle).
 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:

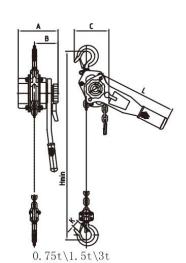
- Move the directional knob to the 'DOWN' position and use the ratchet handle to lower the load.
- Lower the load smoothly and slowly and do not lower so far as to completely extend the full length of the load chain.

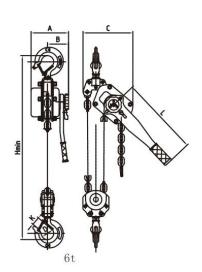
WARNING: If, at any time, the hand chain will not move in either direction do not attempt to force it but, after arranging safe support for any suspended load, have the block inspected by a qualified engineer.

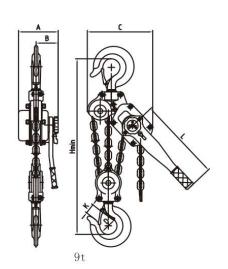




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Capacity (T)		0. 75	1.5	3	6	9
Standard Lift (M)		1.5	1.5	1. 5	1.5	1.5
Test Load (kN)		9. 2	18.4	36. 8	73. 5	110. 3
Effort required to lift m	nax load (N kg)	140 (14. 3)	240 (24. 5) 320 (32. 6)		340 (34. 7)	360 (36. 7)
Load Chain Diameter >	Chain Fall (mm)	6.0 × 1	8.0 × 1	10.0×1	10.0 × 2	10.0×3
Lifting Height / full ha	ndle rotation (kg)	19.8	21. 3	16.8	8. 4	5. 6
NW		7. 7	11.8	21	32	47
Extra Weight / meter (kg)		0.8	1.4	2. 15	4.3	6. 45
	A	148	176	195	195	195
	В	88	102	109	109	109
Dimensions:	С	135	162	211	254	319
	Hmin	320	380	480	620	700
	L	290	420	420	420	420
	D	37	45	50	64	85
	K	26	32. 5	38	48	50
Packing Size		$35.5 \times 14 \times 16.5$	$46.5 \times 15.5 \times 19$	$51 \times 19 \times 21.5$	$53 \times 22 \times 21.5$	82×32×21.5



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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 lever block, an inspection must be performed for damage, and detection of loose or missing parts.
- Inspection requires the user to look at the lever 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 lever 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 lever 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 lever 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 lever block is made by a fully qualified engineer.

5.1 DAILY INSPECTION SCHEDULE / BEFORE EACH USE:

Item	Inspection method	Discard limit/criteria	Remedy
Name plate	Check visually	Every description should be clear and visible.	Replace the name plate.
Function	Turn selector switch to the UP/down position, pull the load chain at the hook side, and ratchet the handle.	The ticking sound when ratchet the handle indicates normal condition.	Repair or replace as necessary.
Hook	Check visually	No wear, deformation or damage, and the swivels should rotate freely.	Replace the hook.
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	Inspection method	Discard criteria				Remedy		
1. Hook assembly		Measur Capacity	Measure the dimension A when new. Capacity A*(mm) B(mm) C(mm)					
1.1 Stretch		(t)	Normal	Standard	Discard	Standard	Discard	
		0.75	30.0	13. 0	≤12.4	21.5	≤ 20.3	
and wear	Management	1.5	36.0	17.0	≤16.2	28.8	≤ 27.3	Dantasa
	Measure	3	40.0	25. 0	\leq 23.8	43.8	≤41.6	Replace
The		6	50.0	32.0	\leq 30. 4	52. 5	≤49.9	
(X))		9	64.0	40.0	≤ 38.0	60. 4	≤57.4	
		* These values are nominal since the dimension is not controlled to a tolerance. The A dimension should be measured when the hook is new. The A dimensions should not be greater than 1.05 times that measured and recorded at the time of purchase.						
1.2 Flaw	Check visually	Should be free from significant rust, weld splatter, deep nick, or gouges.					Replace	
1.3 Rotate	Check visually and function	Should rotate freely with no roughness.				Replace		
1.4 Hook yoke	Check visually and function	Should not slack or miss rivets, nuts or bolts.				Replace		
1.5 Hook latch	Check visually	Proper positioning and smooth working.				Replace		





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5.2 PERIODIC EXAMINATION SCHEDULE (continued):

5. Brake 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. Capacity Thickness of friction disk(H) (t) Standard Discard 0. 75-9 3.0mm ≤ 2.5 mm	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
Item	Inspection method	Discard criteria	Remedy
5.5 Ratchet disc	Measure	Measure the external diameter A of ratchet disc Capacity(t) A dimension(mm) 0.75 74.5 ≤ 71.5 (Discard) 1.5 85.0 ≤ 83.0 (Discard) 3 94.0 ≤ 91.0 (Discard) 6 94.0 ≤ 91.0 (Discard) 9 94.0 ≤ 91.0 (Discard)	Replace
5.6 Pawl	Check visually	Should be free from wear on the surface.	Replace
5.7 Pawl spring	Check visually	Should be free from deformation	Replace
5.8 Free spring	Measure	Measure the length 0.75t	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





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5.2 PERIODIC EXAMINATION SCHEDULE (continued):

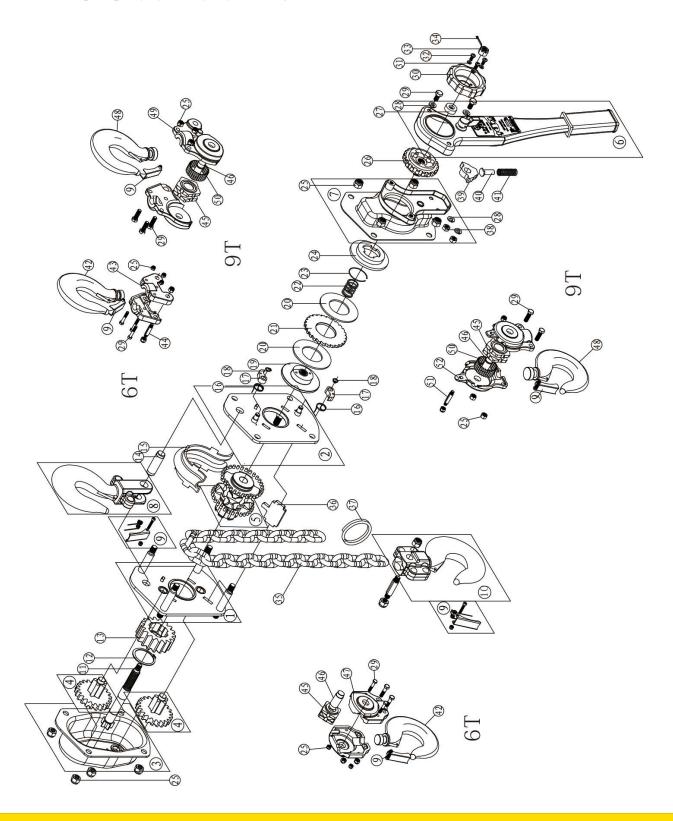
7. Lever handle system 7.1 Hand lever, feed ratchet, spring pin	Check visually	Should be free from wear or deformation.	Replace
7.2 Ratchet spring	Measure	Measure the length 0.75 t L≤37.0 1.5-9 t L≤39.0	Replace
8. Body 8.1 Top hook pin hole on the side plate	Basic dimension	Measure the dimension D.	Replace
8.2 Top hook pin	Measure	0.75 t D \leq 9.5 mm Measure the external diameter of the top 0.79 t D \leq 12.4 mm hook pin.	Replace
Item	Inspection method	Discard criteria	Remedy
8.3 Guide plate	Check visually	Should be free from wear or deformation.	Replace
8.4 Chain stopper ring	Check visually	Should be free from wear or deformation.	Replace
9. Function			
9.1 Lifting and lowering	Lift and lower a light load.	No abnormal difficulty in lifting and lowering.	Overhaul and service.
9.2 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. PARTS LIST & EXPLODED DIAGRAM





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Part #	Description	Part #	Description	Part #	Description
1	Gear slider plate assembly	19	Brake seat	37	Chain ring
2	Brake side plate assembly	20	Friction seat	38	Hex nut
3	Gear case assembly	21	Ratchet disc	39	Reversing pawl
4	Disc gear assembly	22	Clutch spring	40	Spring seat
5	Disc gear assembly	23	Clutch spring	41	Spring seat
6	Lever handle cover	24	Snap ring	42	Spring
7	Brake cover	25	Brake ring	43	Top hook 6T
8	Top hook assembly	26	Lock nut	44	Top hook frame set - 6T
9	Safety latch assembly	27	Reversing ratchet	45	Top hook pin - 6T
10	Bottom hook assembly	28	Bushing	46	Top hook wheel
11	Safety latch assembly	29	Spring washer	47	Bottom hook wheel pin
12	Drive shaft	30	Hex head screw	48	Bottom hook frame set - 6T
13	Snap ring	31	Hand wheel	49	Bottom hook 9T
14	Snap ring	32	Hand wheel	50	Top hook frame set 9T
15	Splined gear	33	Spring washer	51	Roller needle
16	Top hook shaft	34	Cross recessed screw	52	Bottom hook pin 9T
17	Chain guide cover	35	Castle nut		Bottom hook frame set 9T
18	Pawl spring	36	Split pin		





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7. TROUBLESHOOTING

	1	,	
Trouble	Probable	Remedy	
Hoist will not lift (no	Pawl not engaging ratchet disc; possible dirt or foreign material.	Clean and lubricate pawl and ratchet disc assemblies.	
clicking sound).	Pawl spring is damaged.	Replace pawl spring.	
	Ratchet spring is loose or damaged.	Tighten or replace ratchet spring.	
	Dirt or corrosion foreign material in hoist components.	Inspect and correct problem. Keep hoist clean and lubricated.	
Load slips or drifts while being lowered.	Brake is slipping. Friction disc are worn from long-term use, or are damaged from overloading or misuse.	Replace friction disc. See chapter 5. INSPECTION for minimum allowable thickness. Do not overload hoist.	
Load drops the instant	The braking surface is dirty. During assembly, the braking surface must be wiped cleaned of dirt.	Clean or replace the brake assembly.	
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.	Clean or replace the brake assembly.	
Hoist will not lower load.	The brake has caught. (Hoist was left under load condition for extended period, or was shock-loaded while operating.)	Place selector lever in DOWN position and pull hard on the lever handle to re-set the brake. Resume operation.	
	Brake components are corroded or damaged.	Replace components are needed; keep hoist clean and lubricated.	
The chain is tight when lifting, even without a load. (A squeaking noise can be heard at times.) Gear tooths are worn. From long-term use, or for not being greased regularly.		Disassemble and replace the load gear, gear case and side plate.	





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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 Lever blocks (TUNLB0.75-3, TUNLB1.50-3, TUNLB3.00-3, TUNLB6.00-3)

90 Davs

· 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: Lifting Equipment

Product Name/Model: Lever block ([TUNLB0.75-3, TUNLB1.50-3, TUNLB3.00-3, TUNLB6.00-3]

Smelto

Signed by:Stephen McIntyrePosition in the company:Operations DirectorDate:20 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:

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