



# **TR7**

Tiger Industrial Lever Hoist

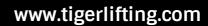
# ORIGINAL INSTRUCTION GUIDE

- PLEASE PASS ONTO OPERATOR

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#### **Operator Instruction Guide**



#### **MUST READ BEFORE USE**

- 1. It is important that this manual is read and fully understood and that all instructions are followed before using the Tiger product
- 2. Inspect the machine, and accessories for any damage or wear before use. Do not use the machine if it is not in good working order.
- 3. When a "DO NOT OPERATE" sign is placed on the product, do not operate until the sign has been removed by designated personnel.
- 4. The product must be operated, inspected, maintained and repaired by a competently trained person in accordance with applicable safety codes and regulations.
- 5. Do not use the machine to lift, support or transport people in any way.
- 6. Do not hoist loads over or near people.
- 7. Never work under or near hoisted loads.
- 8. The machine is for manual operation only. Do not attempt to use a motorized mechanical device to operate the machine.
- 9. Do not attempt to overload the machine as this could cause damage to person or machine.
- 10. Do not use the product in explosive environments unless an ATEX version has been supplied.
- 11. It is the responsibility of the operator to exercise caution, use good practice, common sense and be familiar with proper rigging techniques.
- 12. Improper use could result in death or serious injury.
- 13. The supplier takes no responsibility for any form of consequential loss or damage as the result of unauthorised repair or use of spare part other than those issued on behalf of the manufacturer/supplier.

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For details of the full Tiger product range visit our website: www.tigerlifting.com

Due to our policy of continual product development, dimensions, weights and specifications may change without prior notice.

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and Disposal





#### 1. Safety Information

The operating company is responsible for the proper and professional instruction of the operating personnel. The personnel responsible for operation, maintenance or repair of the product must read, understand and follow these operating instructions. These instructions are intended to make the user familiar with the product and enable them to use it to the full extent of its intended capabilities

The operating instructions must always be available at the place where the product is operated. Apart from the operating instructions and the accident prevention act valid for the respective country and area where the product is used, statutory regulations and procedures along with the commonly accepted regulations for safe and professional work must also be adhered to. The indicated protective measures will only provide the necessary safety if the product is operated correctly and installed and/or maintained according to the instructions. The operating company must be committed to ensure safe and trouble–free operation of the product.

#### Health and Safety at Work

All lifting equipment must be maintained and tested to meet relevant statutory It is the responsibility of every company to ensure that their employees have been fully and properly trained in the safe operation of their equipment.

#### **Equipment Labelling**

The identification label/name plate details the product type, model, manufacturer, working load limit (WLL), position markers for up, down and neutral, serial number and the grade and size of the load chain. The CE marking indicates compliance with the essential health and safety requirements of the Machinery Directive 2006/42/EC. Other international standards that the unit conforms to may be shown.

# UP DOWN 3 t CE LEVER HOIST DATE CHAIN GR SOT DIM TOO X30 mm SERIAL NO.

An example of the TR7 Lever Hoist label.

#### Safety Instructions

#### ! WARNING

Improper use of lever hoists could result in death or serious injury, to avoid these hazards:

Always allow only competently trained people to operate the hoist.

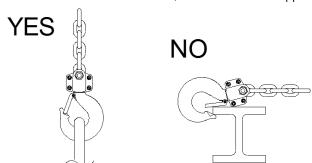
Always use the hoist within 5% of its rated load capacity (WLL) and its maximum rated load capacity (WLL)

Always make sure the lever hoist suspension hook is securely attached to a suitable support.

Always maintain a firm footing or be otherwise secured when operating the lever hoist.

Always make sure that load slings or other approved sling attachments are properly sized and seated in the hook saddle.

Always make sure that the hook latch, is closed and not supporting any part of the load.



Always make sure that the load is free to move and will clear all obstructions.

Always take up slack chain carefully, check load balance, then lift a few centimetres and check to be sure the brake will hold

the load and that attachments to the load are firmly seated.

Always avoid any swinging of the load or load hook.







Always protect load chain from weld spatter or other damaging contaminants.

Always report any malfunction, unusual performance or damage of lifting equipment promptly to the appropriate person.

Always inspect the lever hoist regularly, replace damaged or worn parts and keep appropriate records of maintenance.

Always use genuine Tiger parts when repairing the lever hoist.

Always make sure that you and others are clear of the load before lifting begins and stay clear of the suspended load.

**Always** warn personnel of your intention to move a load in their area.

Always be sure that the hoist's rated capacity is greater than the weight of the load.

**Always** keep the load from hitting the chain.

Always use two hoists which have rated capacities equal to or more than the load to be lifted whenever you must use two

hoists to lift a load

Always check for loose or missing parts before use.

Always lubricate the hoist regularly (Refer to Chapter 6).

Always pay attention to the load at all times when operating the hoist.

Always secure a hoist and loads properly after use.

Always stop using the hoist immediately in case of functional defects or abnormal operating noise.

Always observe that the chain hangs straight (without twists) from lever hoist to lower hook.

Always pull or lift in a straight line from hook to hook.

Always make sure the lever hoist is free to swivel on the upper hook.

Always position the end stop if the load or tension is to be left in place.

#### ! WARNING

Improper use of lever hoists could result in death or serious injury, to avoid these hazards:

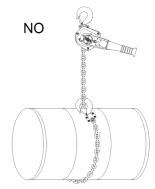
Never attempt to lift more than the rated load capacity (WLL) of the suspension and the supporting structure.

Never attempt to lift below 5% of the rated load capacity (WLL) of the suspension and the supporting structure.

**Never** allow your attention to be diverted from operating the lever hoist.

Never attempt to operate this equipment under the influence of alcohol or drugs.

**Never** wrap the load chain around the load and hook onto itself as a sling/choker chain.



**Never** wrap loose chain into a hook bowl.

**Never** insert the point of the hook into a chain link.

Never lift a load if binding prevents equal loading on the load chain.

Never let the load swing or come into contact with other objects.

Never use the lever hoist to lift, lower, support or transport people.

**Never** lift a load over people.

**Never** work near or under hoisted loads.

**Never** use a damaged lever hoist or a lever hoist that is not working correctly.

**Never** use a hoist if the hook latch is missing or broken (if one is intended to be fitted). **Never** splice load chain by using pins, bolts, screw drivers or similar between links.

**Never** attempt to lengthen the load chain or repair damaged load chain.







**Never** force a hook or chain into place by hammering.

Never use the lever hoist with twisted, kinked, damaged, stretched or worn chain.

Never swing a suspended load.

Never support a load on the tip of the hook.

YES



Never weld or cut a load suspended by a hoist.

**Never** allow the chain or hook to be used as an earth for welding.

**Never** use the hoist with rusty chain.

Never run the lower hook block into the lever hoist frame or bring the load in contact with the lever hoist.

**Never** use the chain stop as an operational limit device.

Never operate a hoist if chain is jumping, if there is excessive noise, or if jamming, overloading or binding occurs.

**Never** use a hoist without both load chain anchoring points correctly fitted. **Never** use a hoist without a name plate/label or with illegible name plate/label.

Never use modified or deformed hooks (refer to Chapter 5).Never use a hoist near fire or where hot objects may touch it.

**Never** use the hoist in temperatures below -40°C (-40°F) or above +80°C (+176°F).

**Never** adjust or repair a lever hoist unless qualified to perform lever hoist maintenance.

**Never** perform maintenance on the hoist while it is supporting a load

**Never** use the unit for pulling free a jammed load

Never allow loads to drop when the chain is in a slack condition (danger of chain breakage and shock loading).

Never reach into moving parts.

Never allow the unit to fall from height.

Never shock load lever hoist, chain or hook.

**Never** drag the chain, lever hoist or hook along the floor or across other objects.

Never use the hoist for any unauthorised purpose that is beyond the operation instructions contained in this manual.

Never use the chain hoist in acidic conditions.

**Never** pull or tension a lever hoist in a direction that would create side loading against the hook yoke.

#### 2. General Information

All items come with a test certificate or an EC Declaration of Conformity stating compliance with the essential health and safety requirements of the Machinery Directive 2006/42/EC. Tiger lever hoists are third party verified by SGS Certificate Number MDC 2506.

#### Choose the Lever Hoist for the Job

The load capacity indicated on the unit is the maximum working load limit (WLL) that may be attached. Choose a hoist with the capacity for the job. Know the capacities of your loads, then match them. The application, environment it is to be used in, the size and type of load, the attachments to be used and the period of use must also be taken into consideration in selecting the right lever hoist for the job.





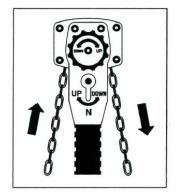


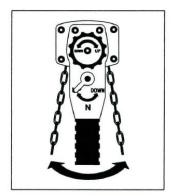
#### 3. Function/Operation

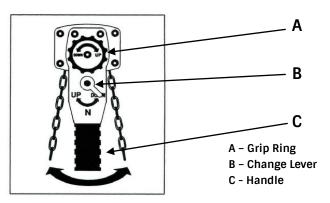
The hoist may be used at ambient temperatures between -40°C (-40°F) and +80°C (+176°F). Consult the manufacturer in the case of extreme working conditions.

**Note:** Before use at ambient temperatures of less than 0°C, check the brake for freezing by lifting and lowering a small load 2 - 3 times. Before operating the hoist in special atmospheres (high humidity, salty, caustic, alkaline) or handling hazardous goods (e.g. molten compounds, radioactive materials), consult the manufacturer for advice.

#### Operation







To make slight adjustments to the position of the load chain, move the change lever (B) to the central position marked **N**. In this position the grip ring (A) can be rotated clockwise or counter clockwise to move the chain up or down.

To make major adjustments to the position of the load chain, move the change lever (B) to the central position marked **N** and then the load chain can now be pulled through the hoist to the required position. Forcible pulling the chain could close the brake and stop the chain moving freely.

When the hoist is used appropriately, unintended activation of the free-wheeling mechanism under load is impossible. Opening of the brake system with only small load is possible. The brake engages automatically when the load exceeds 5% of the hoist capacity.

Never try to activate the free-wheeling mechanism by force if the hoist is under load.

Before you start operating the hoist make sure the free-wheeling mechanism is deactivated. To commence lifting or lowering, place one hand on the body of the hoist for stability and the other hand on the anti-slip operating handle (C) and begin operating the ratchet handle side to side to raise or lower the load. Ensure all landing areas are free of obstruction and if necessary, use assistance to ensure a safe operation.

#### Lifting or pulling

Turn the grip ring (A) clockwise to take up the tension on the chain. Turn the change lever (B) in position  $\mathbf{UP}$  for lifting or pulling and move the load by operating the handle (C) side to side. The chain moves in a clockwise direction.

#### Lowering or releasing

Turn the change lever (B) in position **DOWN** and move the load by operating the handle (C) side to side. The chain moves in a counter-clockwise direction.







If the lever hoist is uncharged without lowering the load, i.e. in case of vertical lifting/lowering when a load is "transmitted" to another hoist, then the brake will remain closed and the chain will not move. To resolve this, reapply the load to the lever hoist and release the brake by setting down the load, or turn change lever (B) in position  $\mathbf{DOWN}$  and release the hand lever with a strong ierk in the direction  $\mathbf{DOWN}$ .

If a hoist has been left rigged under load for an extended period of time it is good practice to first raise the load slightly before commencing any lowering operations.

#### ! WARNING

Stop operating in the lifting direction when the hook block contacts the hoist body, as noted by the sudden increase in the lever effort or the tipping of the hook block.

The operator must ensure that the hoist is suspended in a manner that makes it possible to operate the unit without exposing himself or other personnel to danger by the unit itself, the suspension or the load.

When the unit is not in use, position the suspension (e.g. bottom block, load hook) above normal head height, if possible.

#### 4. Inspection

According to national and international accident prevention and safety regulations (for example LOLER for the UK), hoisting equipment must be inspected:

- in accordance with the risk assessment of the operating company
- prior to initial operation
- before the unit is put into service for any subsequent use
- after substantial changes
- however, at least once per year, by a competent person.

The intervals of inspection must be determined by the individual application and are based upon the type of service to which the lever hoist will be subjected.

#### Prior to initial operation, before it is put into operation again and after substantial changes

Before the unit is put into operation, for the first time, for a subsequent use or after substantial repair or modification, it should be thoroughly examined by a competent person in compliance with applicable statutory regulations.

Typical pre-use inspection will consist of a visual inspection and a function check. These inspections are intended to establish that the hoist is in a safe condition, has been set up appropriately and is ready for operation, and that any defects or damage are detected and eliminated.

Inspect the lever hoist for operation warning notices and legibility. Deficiencies should be noted and brought to the attention of supervisors. Be sure defective lever hoists are tagged and taken out of service until repairs are made. The following checks should be carried out before starting work:

#### Check the unit

- Inspect the unit for visual defects, e.g. deformations, damage, cracks, wear and corrosion marks.
- Check that the name plate/label showing the hoist capacity is attached and clearly legible.
- Check lubrication and lubricate if necessary.
- Check for loose or missing nuts and for missing split pins.







#### ! WARNING

If the brake does not function properly, the unit must be immediately removed from service and placed in a quarantine area until it can be repaired by a relevant competent person.

#### Inspect the supporting structure and attachment point

The attachment point for the hoist must be selected so that the supporting structure to which it is to be fitted has sufficient stability and to ensure that the expected forces can be safely absorbed. The unit must align freely also under load in order to avoid impermissible additional loading. Check that the hoist and the load are correctly attached

#### Inspect the load chain

Inspect the load chain for sufficient lubrication, mechanical damage and check for external defects, deformations, superficial cracks, wear, excessive rust and corrosion marks. Check for gouged, twisted and distorted links, and for deposits of foreign material which may be carried into the lever hoist mechanism. Do not operate lever hoists with twisted, kinked or damaged chain links. See Chapter 5 Chain and Hooks.

#### Inspection of the top hook and bottom load hook

The top and load hooks must be checked for cracks, deformations, damage, wear and corrosion marks. The safety latch must be attached, move freely and be fully functioning. Hooks that are bent, worn or have openings which are enlarged beyond normal throat opening (Chapter 11 Technical Data/Hooks) should not be used. If the latch does not engage in the throat opening of the hook, the lever hoist should be taken out of service. Hooks that do not fulfil all requirements must be replaced immediately. See Chapter 5 Chain and Hooks and Chapter 11 Technical Data/Hooks for more information. Welding on hooks, e.g. to compensate for wear or damage is not permissible.

#### Inspection of chain reeving in the bottom block

All units with two or more chain falls must be inspected before initial operation to ensure that the load chain is not twisted or kinked. The chains of hoists with two or more falls may become twisted if the bottom block is rolled over "capsized" (i.e. bottom hook has looped through the multi fall chain). A twist in the load chain can damage the lever hoist and cause injury.

#### Inspection of the load chain anchoring

The load chain anchoring must always be fitted securely at both ends. There must be no wear or incorrect alignment.

And finally, listen (while hoist operates) for unusual sounds which may indicate trouble.

#### **Thorough Examination**

The lever hoist must be subject to periodic thorough examination in compliance with national statutory regulations including on internal use or following installation. Reports of thorough examination can be based on statutory maximum intervals or via a written examination scheme based on risks and hazards associated with use.

Initial inspection and recurring inspections must be documented. Chapter 12 contains the inspection log which must be maintained for each hoist. Any deficiencies noted are to be corrected before the lever hoist is returned to service. The external conditions may show the need for a detailed inspection which, in turn, may require the use of non- destructive type testing. Any parts that are deemed unserviceable are to be replaced with new parts before the unit is returned to service. It is very important that the unserviceable parts are destroyed to prevent possible future use as a repair item and are properly disposed of.

Note: Only qualified personnel to perform lever hoist maintenance.







#### 5. Chain and Hooks

The hooks and load chains are made of special alloy-steels and are precisely heat-treated. Never weld or heat-treat them again.

#### **Load Chain**

Inspect the load chain for sufficient lubrication, mechanical damage and check for external defects, deformations, superficial cracks, wear and corrosion marks.

Round steel section chains must be replaced when the original nominal thickness 'd' on the chain link with the worst wear has been reduced by more than 10% or when the chain has elongated to a value greater than the discard levels shown in the tables below. There are two alternative tables for either measuring the chain over 21 links or measuring the chain over 7 pitches. Chain should be clean, free of twists and pulled taut before measuring.

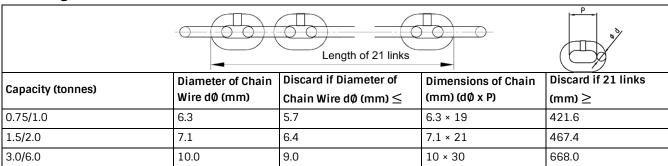
#### Measuring the diameter of the chain



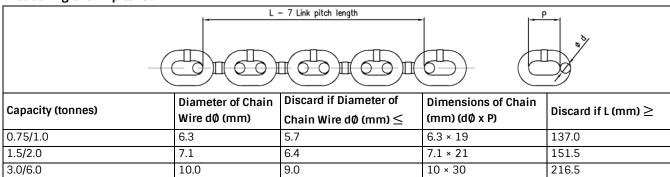
$$d_m\,=\,\frac{d_1+d_2}{2}$$

Replace the chain if  $d_m~\leq~0.9~\times$  d, where d is the normal diameter of the chain wire.

#### Measuring over 21 links



#### Measuring over 7 pitches



Do not repair load chains installed in the hoist. Protect load chain from weld spatter or other damaging contaminants.







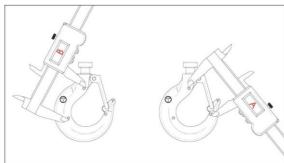
#### Hooks

Do not remove the safety latches from top and/or bottom load hooks.

Never mark or hard stamp hooks or any other load bearing parts.

When the hook measurements have changed beyond the permissible discard limits shown in the table in Chapter 11 Technical Data/Hooks, it is dangerously deformed and must be replaced immediately.

TR7 models are fitted with the patented Tiger "EZ check" 3 point marking system. With this system a quick check that the A and B measurements are the same (as shown in the diagram) will indicate if the hooks have stretched If A≤B the hook is fine; If A>B the hook needs to be replaced.



#### 6. Maintenance

#### ! WARNING

Never perform maintenance on the hoist while it is supporting a load.

Before performing maintenance attach a notice/tag to the hoist to indicate that it must not be used while maintenance is in progress.

Servicing and repairs should only be carried out by qualified, competent, and responsible people.

After performing any maintenance to the hoist, always perform a functional test before returning to service. After the replacement of components, a subsequent inspection by a competent person is obligatory!

Repair work may only be carried out by a specialist workshop that uses original Tiger spare parts.

Before handling lubricants, read the associated product health and safety data information sheet obtained from the lubricant supplier.

#### Load Chain

To determine if load chain should be continued in service, check gauge lengths and condition. Chain worn beyond the maximum allowable gauge length (as shown in Chapter 5), nicked, gouged or twisted chain should be replaced before returning the lever hoist to service.

It is recommended that you lubricate load chain at least weekly, or more frequently than normal depending on severity of service. Apply new lubricant over existing layer. Lubricate chain more frequently in a corrosive environment.

A dry film lubricant, e.g. PTFE spray, should be used in environments where abrasives like sand, etc., occur. The service life of the load chain can be increased by careful lubrication to 20 - 30 times, compared with a chain that is not serviced.

When lubricating the chain, make sure the chain is in no-load condition so that the oil can reach the contact points (crown/saddle) of the chain links which are subject to wear.

Make sure that the load chain is lubricated over its entire length, also including the part of the chain in the housing of the hoist around the load sheave/wheel. Remove excess lubricant from the chain by wiping with a cloth.







Clean dirty chains with acid free or water based solvent or a similar cleaning agent, to remove rust or abrasive dust build up.

! WARNING

Make sure that no lubricant can penetrate the brake enclosure. This may result in failure of the brake.

Never heat the chain.

#### Hooks

With same lubricant used on load chain, lubricate the hook shank and head within the hook yoke and the hook latch pivot points.

#### **Exterior Finish**

Normally, the exterior surfaces can be cleaned by wiping with a cloth. Paint damage should be touched up in order to avoid corrosion. All joints and sliding surfaces should be slightly greased. In the case of heavy contamination, the unit must be cleaned using acid free or water based solvent or a similar cleaning agent.

#### **Preventative Maintenance**

In addition to the periodic inspection procedure, a preventative maintenance program should be established to prolong the useful life of the lever hoist and maintain its dependability and continued safe use. The program should include the periodic inspections with particular attention being paid to the lubrication of various components using the recommended lubricants.

#### ! WARNING

Use only Tiger supplied replacement parts. Parts may look alike however Tiger parts are made of specific materials, processed to achieve specific properties or precisely machined to fit only Tiger hoists.

Any repairs to this lever hoist must be undertaken by a suitably qualified and competent person. Following any repairs, this lever hoist must be tested in line with relevant standards prior to its reintroduction to service.

## 7. Transport, Storage, Decommissioning and Disposal

#### Transporting the unit:

- Do not drop or throw the unit, always deposit it carefully.
- Load chains must be transported in a way to avoid knotting and formation of loops.
- Use suitable transport means. These depend on the local conditions.

#### Storing or temporarily taking the unit out of service:

To ensure the continuing integrity of the unit you should store the unit in conditions that do not lead to damage or deterioration. Therefore:

- Always store the hoist unloaded.
- The hoist should be secured against unauthorised and unwarranted use.
- Store the unit at a clean and dry place.
- Protect the unit including all accessories against contamination, humidity and damage by means of a suitable cover.
- Protect against corrosion.
- Wipe off all dirt and water.
- A light oil film should be applied to the chains, hook pins and hook latch pins.
- Since the brake disks may freeze at temperature below 0°C, the unit should be stored with closed brake. Turn the handle clockwise to this effect and hold the load fall at the same time.







• If the unit is to be used again after it has been taken out of service, it must first be inspected again by a competent person.

#### Disposal

When the product comes to the end of its lifecycle, after taking the unit out of service, recycle or dispose of the parts of the unit respecting local and national environmental regulations.

### 8. Manufacturer Testing and Verification

This product was manufactured under our single-unit control of quality and was passed with strict inspection in accordance with our inspection standards.

Capacity (tonne)	WLL (kg)	Test Load (kg)
0.75	750	1125
1.0	1000	1500
1.5	1500	2250
2.0	2000	3000
3.0	3000	4500
6.0	6000	9000

#### **Declaration of Conformity**

Products are tested in line with the requirements within applicable sections of the European standard BS EN 13157:004+A1:2009, the Australian standard AS1418.2, the American standard ANSI/ASME B30.21-2005, and the South African standard SANS 1636. All items comply with the essential health and safety requirements of the Machinery Directive 2006/42/EC. Tiger lever hoists are third party verified by SGS Certificate Number MDC 2506.

#### 9. Troubleshooting

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Problem	Cause	Solution
Chain is jammed	Load is not being pulled in a straight line	Load chain to be positioned in a straight line
	Load swivel has ceased operating	a) Unload load and de-swivel
		b) Replace hook assembly
	Hoist is dirty, or hampered with foreign matter	Refer to maintenance and repair section of this manual
	Fall of chain is tangled	Unravel and straighten chain
	Hoist is overloaded	Check the load chain for elongation and replace as required.
		Load hoist to recommended capacity only
	Brake mechanism has jammed	Return to supplier or authorised service centre for repair
Hoist Seized	Wear and tear	Replace hoist
	Poor maintenance and inspection	Refer to manual for maintenance and inspection details
	Poor storage and handling	Always store unit in a dry and clean area
	Hoist is overloaded	Load hoist to rated capacity only
Slippage of load	Brake mechanism worn	Inspect brake (Chapter 4 Inspection). Replace brake discs or
		repair brake as described in Chapter 6 Maintenance.
	Hoist is overloaded	Load hoist to rated capacity only
Hoist not braking	Brake mechanism worn	Return to supplier for repair and testing
Load chain	Damaged load chain, pinion shaft, gears or	Disassemble hoist, inspect and repair or replace damaged
catches or jams	sheaves.	components.
	Load chain not installed properly (twisted,	Remove load chain and re-install.
	kinked or "capsized").	
Hook latch does not work.	Latch broken.	Replace hook latch.
	Load hook bent or twisted.	Inspect load hook as described in Chapter 4 Inspection.
		Replace if necessary.





#### 10. Product Warranty and Warnings

#### **Definitions**

'Customer' means the individual, firm, company or other party with whom the Company contracts;

'Company' means Tiger Lifting UK Limited or Woo Sing Industrial Co., Ltd;

'Contract' the contract between the Company and the Customer for the sale and purchase of this product;

'Defective Goods' goods, parts or materials, which by reason of fault or incorrect design or workmanship, are found to be defective or fail or are unable to perform in accordance with a Contract;

#### One Year Limited Warranty

The Company makes every effort to assure that its products meet high quality and durability standards and extends the following warranty to the Customer of new products manufactured by the Company:

- 1. The Company warrants that this product, when shipped, shall be free from defects in materials and workmanship under normal use and service and the Company shall, at its election, repair or replace free of charge any Defective Goods, provided that all claims for defects under this warranty shall be made in writing immediately upon discovery and, in any event, within one (1) year from the date of purchase of this product by the Customer and provided, further, that Defective Goods shall be kept for examination by the Company or its authorised agents or returned to the Company or an authorised service centre upon request by the Company.
- 2. The Company does not warrant components of products provided by other manufacturers. However to the extent possible, the Company will assign to the "Purchaser" applicable warranties of such other manufacturers.
- 3. Except for the repair or replacement mentioned in (1.) above, which is the Company's sole liability and Customer's exclusive remedy under this warranty, the Company shall not be responsible for any other claims arising out of the purchase and use of this product, regardless of whether the Customer's claims are based on breach of contract, tort (including negligence), breach of statutory duty, or otherwise, including claims for any loss of profit, goodwill or business opportunity or any indirect or consequential loss arising under or in connection with the Contract.
- 4. This one year limited warranty is conditional upon the installation, maintenance and use of this product pursuant to the product manuals prepared in accordance with content instructions by the Company. The warranty on this product does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents. This warranty does not apply if the product has been subjected to improper fittings, alignment or maintenance.
- 5. The Company shall not be responsible for any loss or damage caused by transportation, prolonged or improper storage or normal wear and tear of this product or for loss of operating time.
- 6. This warranty shall not apply to this product if it has been fitted with or repaired with parts, components or items not supplied or approved by the Company or which have been modified or altered.
- 7. The Company limits all implied warranties to the period specified above from the date the product was purchased by the Customer.
- 8. Except as stated herein, any implied warranties or merchantability and fitness are excluded.

If our inspection discloses a defect, the Company will repair, replace the product or refund the purchase price, if we cannot readily or quickly provide a repair or replacement and if you are willing to accept such refund. The Company will return repaired or replacement products at The Company's expense, but if it is determined there is no defect, or that the defect resulted from causes not within the scope of Tiger Lifting's warranty, then the Customer must bear the cost of storing and retrieving the product.

#### ! WARNING

The use of this product is beyond the control of Tiger Lifting. The warranty of this product is limited to the replacement cost of this product should it be found to be defective in material and/or workmanship. The warranty is void if the lever hoist is damaged, worn or used improperly. Normal wear and tear is not considered grounds for replacement. The Tiger Lifting product warranty does not apply where there has been excessive overloading of the lever hoist.

#### Disclaimer

We believe that the information in this document, including technical information and any advice, is reliable although we give no guarantee as to its accuracy or completeness. The user of our products must determine if the product, either used alone or conjunction with other products, is suitable for their purpose and assumes all risk and liability in connection with those decisions. We have made every effort to make sure this document is accurate. The information contained in this document does not form part of any contract.

Please also refer to our terms and conditions which can be found at: www.tigerlifting.com/terms-conditions/

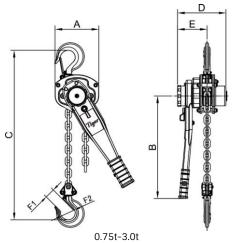


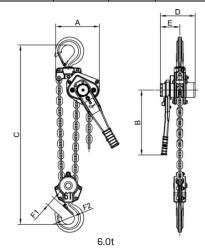




#### 11. Technical Data

Product	Capacity	Effort		Dimensions (mm)						Load Ch	ain	Standard	Mass	Mass for extra
Code	(tonne)	(kg)	Α	В	С	D	E	F1	F2	Diameter (mm)	No. of falls	HOL (m)	@ std HOL (kg)	metre HOL (kg)
TRL-0075	0.75	22	128	236	275	158	99	24	38	ø6.3	1	1.5	7.5	0.9
TRL-0100	1.0	29	128	236	295	158	99	28	45	ø6.3	1	1.5	7.5	0.9
TRL-0150	1.5	26	154	360	320	172	104	34	51	ø7.1	1	1.5	10.0	1.1
TRL-0200	2.0	35	154	360	367	172	104	35	53	ø7.1	1	1.5	10.5	1.1
TRL-0300	3.0	38	182	360	400	195	108	36	56	ø10.0	1	1.5	18.0	2.2
TRL-0600	6.0	30	242	360	570	195	108	49	70	ø10.0	2	1.5	29.5	4.3

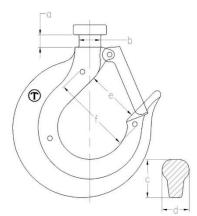


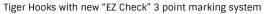


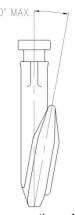
#### Hooks

The following table shows the normal measurements for the Tiger hooks and the discard limits.

Capacity (Tonnes)	Co	ollar measur	rements (m	ım)	Hook thickness at point shown in diagram (mm)					oat Opening nm)	"EZ Check" measurement (mm)	
	a b				c d				е	f		
	Normal	Discard ≥	Normal	$Discard \leq$	Normal	$Discard \leq$	Normal	Discard ≤	Normal	Discard ≥	Normal	Discard ≥
0.75	8	8.5	13.5	12.8	19	18	15	14	29	32	47	50
1.0	8	8.5	13.5	12.8	23	21.5	17	16	34	37	52	55
1.5	10	10.5	15.5	14.7	26	24.2	21	19.5	39	43	59	63
2.0	10	10.5	17.5	16.6	30	28.2	22	20.5	42	47	64	69
3.0	12.5	13.5	20	19	37	35	32	30	42	47	76	81
6.0	19	20.5	30	28.5	43	40.5	36	34	58	63.5	86	91.5





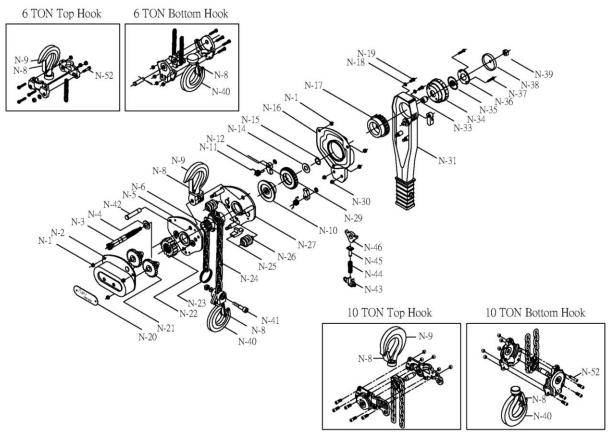


In addition to the above checks, more than a  $10^{\rm o}$  twist from the plane of hook is enough to warrant replacement of the hook.





# 12. Exploded Diagram



Part No.	Part Name	Quantity	Part No.	Part Name	Quantity	Part No.	Part Name	Quantity
N-1	Nut for Gear Cover	6	N-18	Spring Washer	2	N-35	Retaining Spring	1
N-2	Gear Cover	1	N-19	Screw for Handle	2	N-36	Fixing Plate	1
N-3	Pinion Shaft	1	N-20	Label	1	N-37	Screw for Fixing Plate	2
N-4	Pinion Shaft Washer	1	N-21	Pinion Gear	2	N-38	Grip Ring Cover	1
N-5	Gear-side Plate	1	N-22	Load Gear	1	N-39	Pinion Nut	1
N-6	Load Sheave	1	N-23	End Stop	1	N-40	Bottom Hook Assembly	1
N-8	Safety Latch Set	2	N-24	Load Chain	1	N-41	Bottom Hook Pin	1
N-9	Top Hook Assembly	1	N-25	Chain Stripper	1	N-42	Top Hook Pin	1
N-10	Disc Hub	1	N-26	Load Chain Guide	2	N-43	Spring Stand	1
N-11	Pawl Spring	2	N-27	Wheel-side Plate Assembly	1	N-44	Pushing Up Spring	1
N-12	Brake Pawl	2	N-29	Ratchet Gear with Brake Disc	1	N-45	Pushing Up Pin	1
N-14	Spring Disc	1	N-30	Nut for Handle Cover	2	N-46	Change Pawl	1
N-15	Snap Ring	1	N-31	Handle Assembly	1	N-52	Chain-End-Fixing Screw	1
N-16	Brake Cover with Handle Cover	1	N-33	Retaining Spring Base	1			
N-17	Change Gear	1	N-34	Grip Ring	1			







# 13. Inspection Log

Test Certificate/DOC Number		Model Number		Product Description
			l	
Date put into service			Serial Number	









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