



William Hackett

L5 QP Lever Hoist User Manual





Contents

1.	Dimensions and Specifications	4
2.	Hoist Selection	5
3.	Pre-use checks.....	6
4.	Hoist Operation	7
5.	Safe Use Information	8
6.	Spare Parts Inspection Category	9
7.	Parts List	10
8.	Parts Explosion	11
9.	Hoist Disassembly	12
10.	Maintenance and Repair	13-23
11.	Assembly Instructions	24
12.	Brake Set-up	25-29
13.	Miscellaneous	30
14.	Warranty	35
 APPENDIX		
	Fleeting Guidance	34-41

Dimensions and Specifications

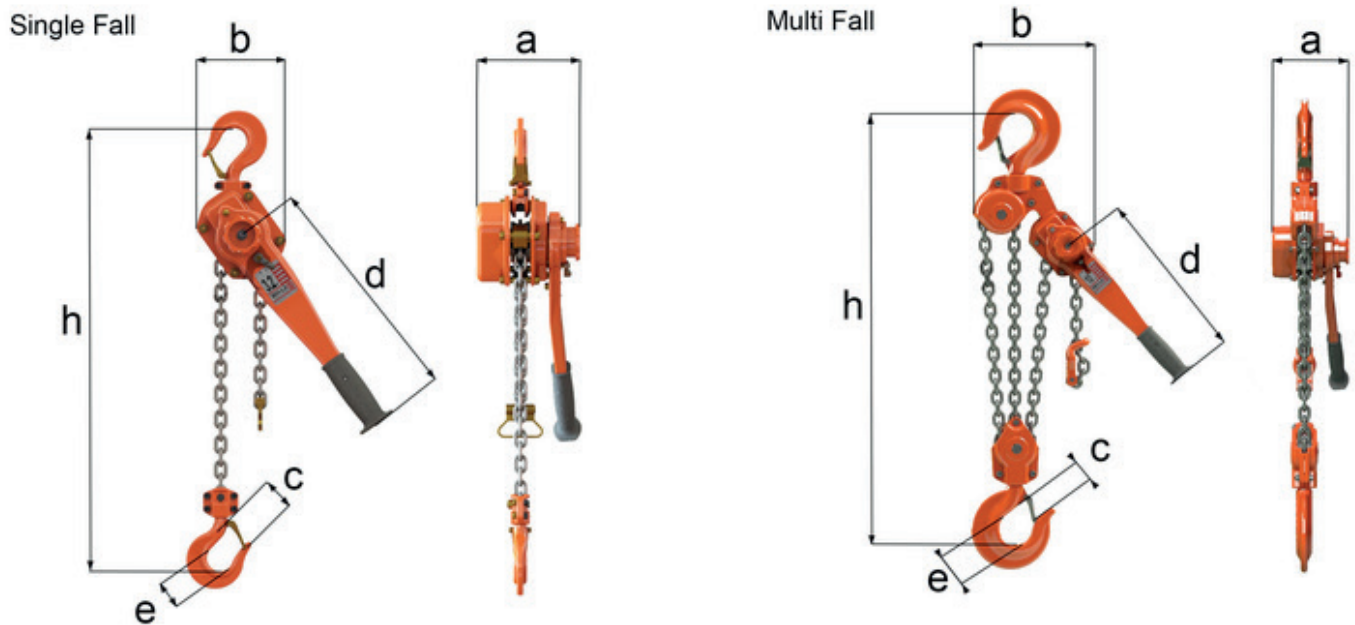


Table 1: Product specification, dimensions and WLL for William Hackett L5 QP lever hoists

Part Code	WLL tonnes	No. of Falls	Load Chain mm	a mm	b mm	c mm	d mm	e mm	h min mm	Mass kg 1.5M HOL	Extra Weight per M kg
035.080	0.8	1	5.6 x 15.7	146	119	41.5	245	27	280	5.9	0.70
035.160	1.6	1	7.1 x 19.9	164	126	52.0	265	36	335	7.4	1.12
035.320	3.2	1	10 x 28	196	159	61.9	415	42	395	13.7	2.23
035.630	6.3	2	10 x 28	196	218	84.3	415	52.5	540	26.4	4.46
035.1000	10.0	3	10 x 28	196	298	86.0	415	59	680	40.1	6.69
035.1500	15.0	6	10 x 28	196	420	-	415	80	1000	94.4	13.38

Hoist Selection

In accordance with statutory requirements (e.g. The Lifting Operations and Lifting Equipment Regulations 1998), all lifts using lever hoists should be planned by a competent person; require risk assessment and the production of a task method statement; and be subject to execution by suitably trained operatives under the supervision of a responsible person. The specification of the lever hoist required to achieve a safe lifting operation must be determined by a competent person.

It is not intended that the recommendations in this manual take precedence over existing plant safety rules and regulations or OSHA regulations. In the event that conflict exists between a rule set forth in this publication and a similar rule already set by an individual company, the more stringent of the two should take precedence.

Careful consideration should be given to the mass of the load being lifted and any dynamic factors that may be likely to affect the load on the hoist. Select the hoist capacity equal to or greater than the load. Ideally lever hoists should not be used to lift loads below 10% of their rated WLL limit.

William Hackett L5 QP lever hoists are assembled, chained and tested in the UK to the height of lift specified by the end user. Careful consideration should be given to the headroom required to lift the load and the position of the operator before specifying the length of load chain and the hoist model.

The configuration of lever hoist assemblies are demonstrated on page 4, and are in accordance with the product specification, dimensions and working load limit (WLL) recorded in Table 1 (also on page 4).

William Hackett L5 QP lever hoists are designed for the most demanding industrial applications.

William Hackett L5 QP lever hoists can be used within an operating temperature range of -20°C to +120°C.

William Hackett L5 QP hoists are suitable for fleeting lifting. If multiple hoists are to be used in a fleeting operation, refer to Appendix 1: General Guidance for Fleeting Lifting at the end of this manual.

A thorough study of the information in this manual should provide a better understanding of safe operating procedures and afford a greater margin of safety for people and equipment.

Pre-use checks

Before the lever hoist is issued from the designated storage location a competent person must ensure that the appropriate certification is in place for the hoist.

Safe use instructions should be made available.

Possession of the relevant certification does not absolve the user from his responsibility to carry out pre-use inspections.

Conducting thorough and consistent checks on a lever hoist immediately prior to use will help identify problems due to accidental damage, internal corrosion, brake contamination or inappropriate storage.

Points to check before each period of use are:

- If necessary, the hoist should be cleaned before inspection.
- Name Plate – details clear and visible
- Hook latches in good working order
- Is the Load chain worn or damaged. In particular attention should be given to the wear which occurs on the bearing surfaces inside the links and to damage in the form of bent, notched, stretched, or excessively corroded links and the chain should move freely.
- Obvious signs of hooks opening out increase in throat opening or any other form of distortion in the hooks or suspension fittings.
- Top and bottom hooks free to rotate with no load applied.
- With no load applied turning the grip ring clockwise should produce a clear and positive clicking sound as the brake ratchet activates.
- On multiple fall hoists check that all chain sheaves are free to rotate whilst no load is applied.
- Check all fixings are in place and in good condition, split pins or nyloc nuts.
- Obvious signs of damage to the hoist slack end chain anchor.
- General damage to the hoist body, this can be an indicator of neglect throughout the hoist.
- The load chain wheel should be checked for damage or debris
- Chain guides and strippers should be free of debris and in good condition.

These checks should be performed with the hoist unloaded.


- Lifting function - select 'UP' and whilst pulling the load side of the chain, operate the lever handle clockwise, the ratchet brake mechanism shall engage operate smoothly without snagging.
- Lowering function - Select 'DN' and with a light pull of the load side chain, operate the lever counter clockwise, no clicking shall be audible and the chain should pay out smoothly.
- Neutral or free chaining - with the selector lever in the 'N' position. Pull the grip ring out. The chain shall then adjust freely via the grip ring or by pulling of the load chain.

If any of these points are not satisfied the hoist MUST NOT be used.

Hoist Operation

Load Chain Dual Anti-Lock Brake System (DABS) operation

The Hackett SS-L5 QP lever hoist may be used either in the vertical position as a hoist; or in an angled or horizontal position as a puller. Below is the general procedure for operating the hoist:

1. Locate the top hook securely.
2. To engage the chain adjustment mechanism position the selector lever in the neutral position 
3. Pull the grip ring out as shown in *figure 2*, the unloaded load chain can now be adjusted to the required position.

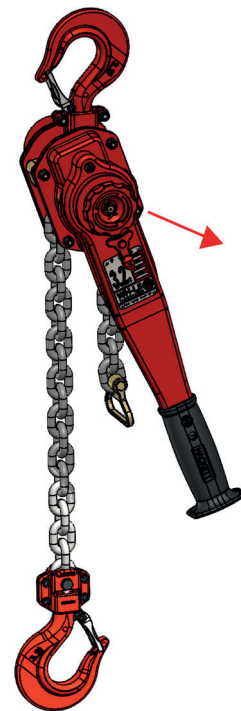




Figure 2

4. To re-engage hold the load chain to prevent chain travel and push the grip ring in with a clockwise motion as shown in *figure 3*.
5. To raise the load:
Move the selector lever to the up position  and rotate the lever handle clockwise.
6. To lower the load:
Move the selector lever to the down position  and rotate the lever handle counter clockwise.

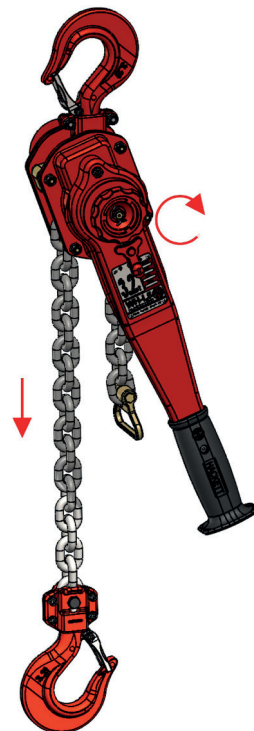


Figure 3

Safe Use information

Do not attempt lifting operations unless you understand the use of the equipment, the lifting and slinging procedures and you have been suitably trained.

William Hackett L5 QP lever hoists are not designed for lifting people and should not be used for that purpose.

Use appropriate personal protective equipment (PPE).

Check the correct engagement of the top and bottom hooks. The hooks should be free to articulate within the load attachment points without overcrowding.

Do not use the handwheel whilst the hoist is loaded.

When the hoist is under load ensure that the selector lever is in the UP position.

Whilst loaded do not try to make chain adjustments by pulling the load chain.

Ensure that the work area is clear to avoid the slack end chain snagging in use.

Ensure that the suspension structure has sufficient load bearing strength and capacity to support the load.

Do not use the lever hoist as a chain sling; it is a lifting appliance and suitable lifting accessories should be incorporated into the lift plan to facilitate a safe lifting operation.

If more than one lever hoist is to be used, refer to Appendix 1: General Guidance for Fleeting Lifting at the end of this manual.

Establish a clearly defined zone around the area of the lifting operation.

Always stand aside from the load when operating the hoist and ensure that no one enters the lift zone unintentionally during the lifting operation.

Ensure that the load chain is not twisted, particular care should be taken when using multi-fall hoists.

During the lift the load chain should be straight and should not contact any angles or edges.

Take the load steadily and avoid shock loads.

Do not expose lever hoist assemblies, chain slings and components to chemicals or corrosive solutions (whether immersed in such solutions or used in atmospheres in which fumes are present), particularly acidic or strongly alkaline environments without consulting the supplier or manufacturer.

Do not leave suspended loads unattended. In an emergency cordon off the working area and establish safe exclusion zones.

Never return a damaged lever hoist to stores; it should be reported to a competent person.

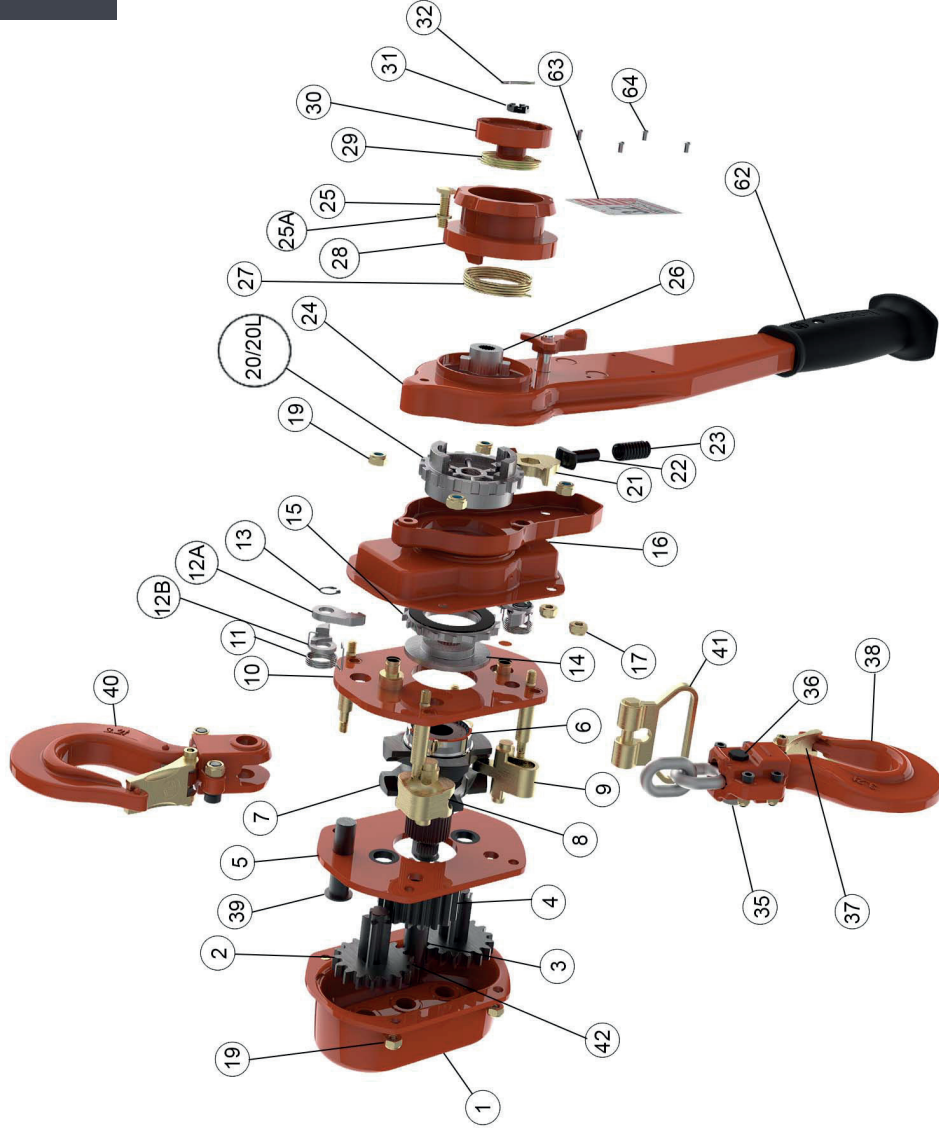
Spare Parts Inspection Category

SPECIAL INSPECTION - Type 1			Corrosion Protected / Stainless Steel / Copper Components (Do Not Shotblast)
STANDARD INSPECTION - Type 2			Standard Corrosion Protected or Painted Components
Part Code	Quantity	Description	Inspection Type (1 or 2)
			L5 QP
L5.QP01	1	Gear Cover	2
L5.QP02	2	Pinion Gear (pair)	2
L5.QP03	1	Pinion Shaft	2
L5.QP04	1	Load Gear	2
L5.QP05	1	Gear Side Plate Assembly	2
L5.QP06	1	Bearing	2
L5.QP07	1	Load Sheave	2
L5.QP08	2	Chain Guide	2
L5.QP09	1	Chain Stripper	2
L5.QP10	1	Lever Side Plate Assembly	2
L5.QP11	2	Stainless Steel Pawl Spring	2
L5.QP12A	1	Upper Pawl	2
L5.QP12B	1	Lower Pawl	2
L5.QP13	2	Circlip	2
L5.QP14	1	Disc Hub	2
L5.QP15	1	Ratchet Gear	2
L5.QP16	1	Brake Cover Assembly	2
L5.QP17	2	Lever Side Plate Nyloc Nut (M6)	2
L5.QP19	8	Lever Hoist Cover Nyloc Nut (M8)	2
L5.QP20	1	Change Gear	2
L5.QP20L	1	Load Limiter	2
L5.QP21	1	Change Over Pawl	2
L5.QP22	1	Change Over Stand	2
L5.QP23	1	Change Over Spring	2
L5.QP24	1	Handle Assembly	2
L5.QP25	1	Screw	2
L5.QP25A	1	Spring Washer	2
L5.QP26	1	Cam	2
L5.QP27	1	Twisting Spring 1	2
L5.QP28	1	Grip Ring	2
L5.QP29	1	Twisting Spring 2	2
L5.QP30	1	Spring Housing	2
L5.QP31	1	Castle Nut	2
L5.QP32	1	Split Pin	2
L5.QP35	1	Chain End Fixing Pin Nyloc Nut	2
L5.QP36	1	Bottom Hook Chain End Fixing Pin	2
L5.QP37	2	Latch Kit	2
L5.QP38	1	Bottom Hook Assembly	2
L5.QP39	1	Top Hook Pin	2
L5.QP40	1	Top Hook Assembly	2
L5.QP41	1	Handle End Stop	2
L5.QP42	1	Pinion Shaft Washer	2
L5.QP47	1	Top Hook Chain Fixing Pin 6.3t and 10t	2
L5.QP49	Per Metre	Calibrated Load Chain	2
L5.QP50	1	Rubber Handle Nut	2
L5.QP50A	1	Rubber Handle Bolt	2
L5.QP62	1	Rubber Handle with Enlarged Pommel	2
L5.QP63	1	Label	2
L5.QP64	4	Label Rivets	2

Parts List

Part Code	Part Name	Quantity	Finish	Included in Service Kit
L5.QP01	Gear Cover	1	Powder Coated	No
L5.QP02	Pinion Gear (pair)	2	Self Colour	No
L5.QP03	Pinion Shaft	1	Phosphate	Yes
L5.QP04	Load Gear	1	Self Colour	No
L5.QP05	Gear Side Plate Assembly	1	Powder Coated	No
L5.QP06	Bearing	1	Steel	Yes
L5.QP07	Load Sheave	1	Phosphate	No
L5.QP08	Chain Guide	2	Zinc Chromate	No
L5.QP09	Chain Stripper	1	Zinc Chromate	No
L5.QP10	Lever Side Plate Assembly	1	Powder Coated and Zinc Chromate	Yes
L5.QP11	Stainless Steel Pawl Spring	2	Stainless Steel	Yes
L5.QP12A	Upper Pawl	1	Zinc Flake	Yes
L5.QP12B	Lower Pawl	1	Zinc Flake	Yes
L5.QP13	Circlip	2	Phosphate	Yes
L5.QP14	Disc Hub	1	Zinc Flake	Yes
L5.QP15	Ratchet Gear	1	Zinc Flake	Yes
L5.QP16	Brake Cover Assembly	1	Powder Coated	No
L5.QP17	Lever Side Plate Nyloc Nut (M6)	2	Zinc Chromate	Yes
L5.QP19	Lever Hoist Cover Nyloc Nut (M8)	8	Zinc Chromate	Yes
L5.QP20	Change Gear	1	Zinc Flake	Yes
L5.QP20L	Load Limiter	1	Zinc Chromate / Mixed	No
L5.QP21	Change Over Pawl	1	Zinc Chromate	No
L5.QP22	Change Over Stand	1	Zinc Chromate	No
L5.QP23	Change Over Spring	1	Zinc Chromate	No
L5.QP24	Handle Assembly	1	Powder Coated	No
L5.QP25	Screw	1	Zinc Chromate	No
L5.QP25A	Spring Washer	1	Zinc Chromate	No
L5.QP26	Cam	1	Zinc Flake	Yes
L5.QP27	Twisting Spring 1	1	Zinc Chromate	Yes
L5.QP28	Grip Ring	1	Powder Coated	No
L5.QP29	Twisting Spring 2	1	Zinc Chromate	Yes
L5.QP30	Spring Housing	1	Powder Coated	No
L5.QP31	Castle Nut	1	Self Colour	No
L5.QP32	Split Pin	1	Zinc Chromate	No
L5.QP35	Chain End Fixing Pin Nyloc Nut	1	Zinc Chromate	No
L5.QP36	Bottom Hook Chain End Fixing Pin	1	Zinc Chromate	No
L5.QP37	Latch Kit	2	Zinc Chromate	No
L5.QP38	Bottom Hook Assembly	1	Powder Coated	No
L5.QP39	Top Hook Pin	1	Phosphate	No
L5.QP40	Top Hook Assembly	1	Powder Coated	No
L5.QP41	Handle End Stop	1		
L5.QP42	Pinion Shaft Washer	1	Black	No
L5.QP47	Top Hook Chain Fixing Pin 6.3t and 10t	1	Zinc Chromate	No
L5.QP49	Calibrated Load Chain	Per Metre	Zinc /Galvanised	No
L5.QP50	Rubber Handle Nut	1		No
L5.QP50A	Rubber Handle Bolt	1		No
L5.QP62	Rubber Handle with Enlarged Pommel	1	Rubber	No
L5.QP63	Label	1	Stainless Steel	No
L5.QP64	Label Rivets	4	Aluminium	No

Parts Explosion



Part Code	Part Name
L5.QP01	Gear Cover
L5.QP02	Pinion Gear (pair)
L5.QP03	Pinion Shaft
L5.QP04	Load Gear
L5.QP05	Gear Side Plate Assembly
L5.QP06	Bearing
L5.QP07	Load Sheave
L5.QP08	Chain Guide
L5.QP09	Chain Stripper
L5.QP10	Lever Side Plate Assembly
L5.QP11	Stainless Steel Pawl Spring
L5.QP12A	Primary Pawl

Part Code	Part Name
L5.QP12B	Secondary Pawl
L5.QP13	Stainless Steel Circlip
L5.QP14	Disc Hub
L5.QP15	Ratchet Gear c/w Friction Discs
L5.QP16	Brake Cover Assembly
L5.QP17	Lever Side Plate Nyloc Nut (M6)
L5.QP19	Lever Hoist Cover Nyloc Nut (M8)
L5.QP20	Change Gear
L5.QP20L	Load Limiter
L5.QP21	Change Over Pawl
L5.QP22	Change Over Stand
L5.QP23	Change Over Spring

Part Code	Part Name
L5.QP24	Handle Assembly
L5.QP25	Screw
L5.QP25A	Spring Washer
L5.QP26	Cam
L5.QP27	Stainless Steel Twisting Spring 1
L5.QP28	Grip Ring
L5.QP29	Stainless Steel Twisting Spring 2
L5.QP30	Spring Housing
L5.QP31	Castle Nut
L5.QP32	Split Pin
L5.QP35	Chain Fixing Pin Nyloc Nut
L5.QP36	Bottom Hook Chain End Fixing Pin

Part Code	Part Name
L5.QP37	Latch Kit
L5.QP38	Bottom Hook Assembly
L5.QP39	Top Hook Pin
L5.QP40	Top Hook Assembly
L5.QP42	Pinion Shaft Washer
L5.QP47	Top Hook Chain Fixing Pin 6.3t, & 10t
L5.QP50	Rubber Handle Nut
L5.QP50A	Rubber Handle Bolt
8-064	Travelling End Stop
L5.QP62	Rubber Handle with Enlarged Pommel
L5.QP63	Label
L5.QP64	Label Rivets

Hoist Disassembly

L5 QP Servicing Tool Requirements (800kg - 10t)

Long nose pliers	Ball peen hammer
Circlip pliers	Sandpaper 120 - 240 grit
Phillips screw driver	Solvent free brake cleaner
Allen keys - 2.5mm, 3mm, 4mm, 5mm and 8mm	Corrosion block grease
Parallel/pin punches - 2.5mm, 3mm and 3.5mm	Vernier caliper
Nylon/dead blow hammer	Solvent free degreasing facility
Sockets or spanners sockets or spanners - 7mm, 8mm, 10mm, 12mm, 13mm, 14mm and 17mm	

The following procedures should only be performed by a competent person.

It is a responsibility of the owner/user to install, operate, inspect and maintain product in accordance with all applicable Standards and Regulations. If the product is installed as part of a lifting system, it is also the responsibility of the owner/user to comply with the applicable standards that address other types of equipment used.

NEVER perform maintenance whilst the hoist is under load. Always use OEM parts where replacement parts are necessary.

These instructions should be used alongside the illustrated parts list.

It is recommended to keep parts in order when disassembling to aid with assembly.

1. Remove and disassemble bottom hook 38, check all parts especially the load pin 36 for excessive wear.
 2. Remove and inspect travelling clutch using a parallel punch, it is recommended to use new roll pins when reinstalling.
 3. Remove load chain.
 4. Remove split pin 32 discard and replace.
 5. Remove parts 30 and 29, housing and spring.
 6. Lift the grip ring 28.
 7. Remove cam and twisting spring 26 and 27.
 8. Remove fixings 25 and 17.
 9. Lift the upper handle from its position 24 remove change over stand 22 and spring 23.
 10. The change gear 20 can now be removed by rotating anti-clockwise.
 11. Remove the 4 nyloc nuts from the brake housing and lift the brake cover assembly 16 from the body.
 12. Remove ratchet gear 15 and disc hub 14.
 13. Remove circlips 13 and pawls 12A and 12B.
 14. Remove the pawl spring 11.
 15. Turn the hoist over and remove the 4 nyloc nuts securing the gear cover 1.
 16. Remove the pinion gears 2 making a note of the alignment marks position 0.
 17. The pinion shaft 3 and pinion shaft washer 42 can now be removed from the gear side.
 18. Remove the top hook pin and top hook, remove hook housing nuts and bolts to inspect.
 19. Side plate 6 is now free to be removed giving access to all remaining parts.
- **Thoroughly clean all parts checking for damage excessive wear or foreign particles, if using a degreaser ensure all parts are dry and lubricated where necessary.**
 - **Please note split pins and nylon locking nuts should be replaced as they are single use only, it is also recommended to check the condition of circlip retainers and replace where necessary, all of which are stainless steel.**

Maintenance and Repair

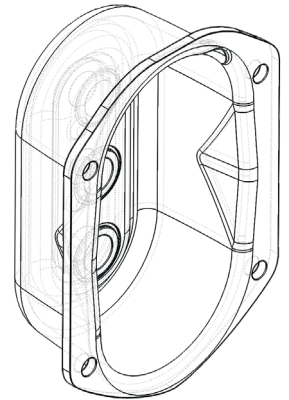
(Part codes are referenced in pages 15, 16 and depicted in the full parts explosion on page 17)

L5.QP.01 Gear Cover

Inspection Type:	Visual
Quantity:	1
Finish:	Powder Coated

Examine for cracks, distortion, damaged or broken parts, check gear bushings are secure and in good condition.

Action: Shotblast and repaint or replace.

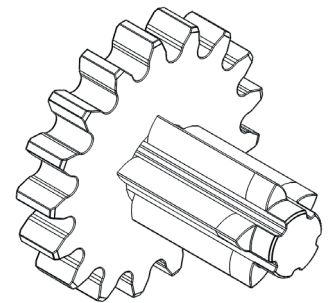


L5.QP.02 Pinion Gear

Inspection Type:	Visual
Quantity:	2
Finish:	Self Colour

Examine gears for wear, fractures, and alignment.

Action: Clean, reapply grease or replace if necessary.

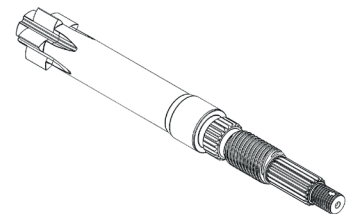


L5.QP.03 Pinion Shaft

Inspection Type:	Visual
Quantity:	1
Finish:	Phosphate

Examine pinion shaft for damage and distortion, check shaft for straightness, spline and thread condition.

Action: Clean, reapply grease or replace if necessary.

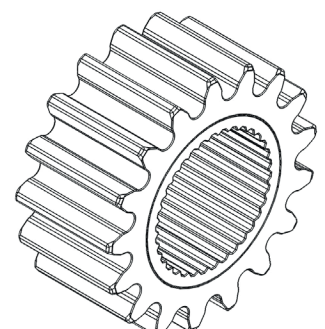


L5.QP.04 Load Gear

Inspection Type:	Visual
Quantity:	1
Finish:	Self Colour

Examine gear for wear, fractures, and alignment. Check condition of internal splines.

Action: Clean, reapply grease or replace if necessary.



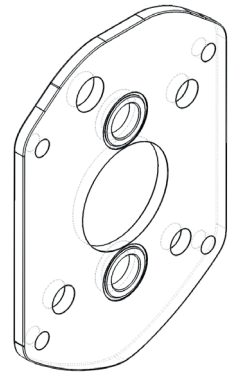
Maintenance and Repair

L5.QP.05 Gear Side Plate Assembly

Inspection Type:	Visual
Quantity:	1
Finish:	Powder Coated

Examine gear side plates for alignment and ensure they are free from Damage and distortion, examine load pin, guide, stripper and stay bolt holes for signs of wear and stretch, check gear bushings are secure and in good condition.

Action: Shotblast and repaint or replace.

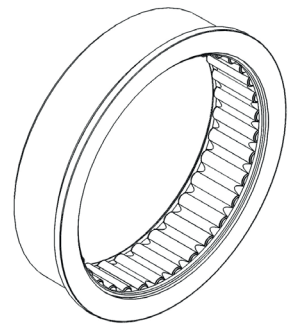


L5.QP.06 Bearing

Inspection Type:	Visual
Quantity:	2
Finish:	Steel

Examine bearings for excessive corrosion and wear. The bearings should be smooth and free to operate under slight pressure.

Action: Clean, reapply grease or replace if necessary.

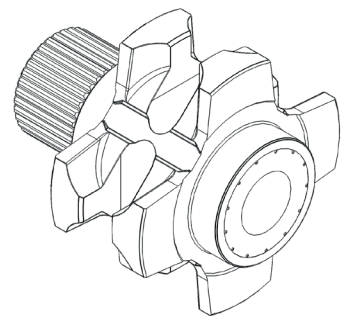


L5.QP.07 Load Sheave

Inspection Type:	Visual
Quantity:	1
Finish:	Black

Check load chain pockets for wear and damage, ensuring satisfactory seating of load chain in pockets. Check splines and internal bore for wear and damage.

Action: Clean, reapply grease or replace if necessary.

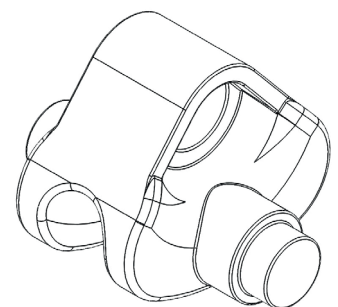


L5.QP.08 Chain Guide

Inspection Type:	Visual
Quantity:	2
Finish:	Zinc Chromate

Examine chain guide for wear, fractures, and alignment.

Action: Shotblast and repaint or replace.



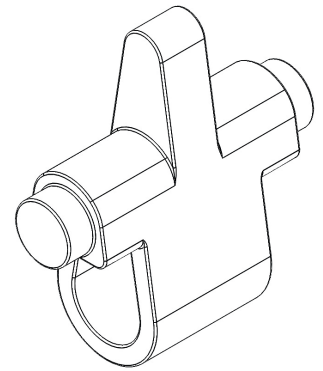
Maintenance and Repair

L5.QP.09 Chain Stripper

Inspection Type:	Visual
Quantity:	1
Finish:	Zinc Chromate

Examine chain stripper for wear or damage.

Action: Shotblast and repaint or replace.

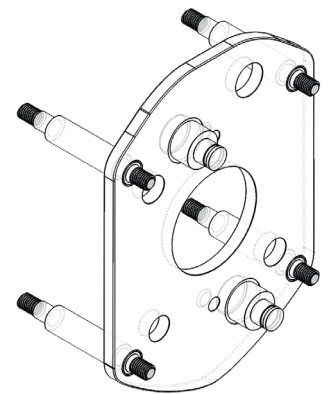


L5.QP.10 Lever Side Plate Assembly

Inspection Type:	Visual
Quantity:	1
Finish:	Powder Coating and Zinc Chromate

Examine body plates for alignment and ensure they are free from wear and distortion, examine load pin, guide and stripper holes for signs of wear and stretch, check stay bolts and pawl stands are secure and free from defects.

Action: Shotblast and repaint or replace.

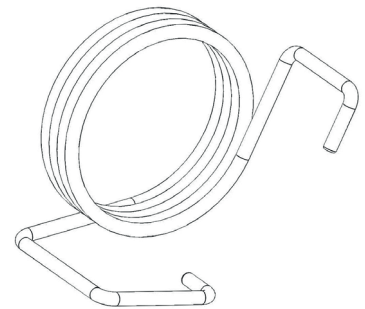


L5.QP.11 Pawl Spring

Inspection Type:	Visual
Quantity:	2
Finish:	Stainless Steel

Examine pawl springs for corrosion and fractures, ensure the spring is in good working order and not deformed or stretched.

Action: Do not shotblast - replace.

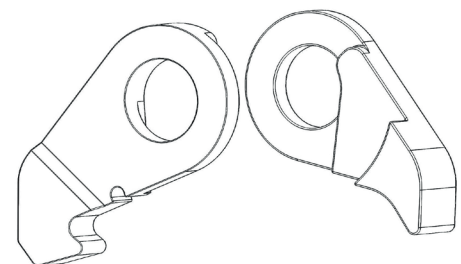


L5.QP.12/12A Upper and Lower Pawl

Inspection Type:	Visual
Quantity:	2 x 12A, 2 x 12B
Finish:	Zinc Flake

Check pawl for wear and corrosion ensuring pawl is free to move on pawl shaft.

Action: Do not shotblast - replace.

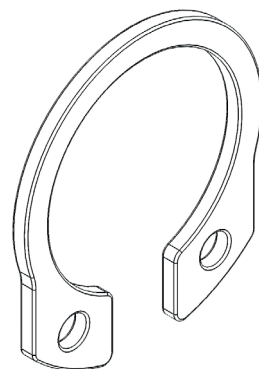


Maintenance and Repair

L5.QP.13 Circlip

Inspection Type:	Not Applicable
Quantity:	2
Finish:	Self Colour

Action: Do not shotblast - replace.

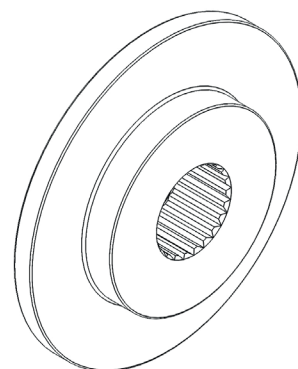


L5.QP.14 Disc Hub

Inspection Type:	Visual
Quantity:	1
Finish:	Zinc Flake

Check for damage and corrosion. Check splines and ensure the component mating surfaces are smooth and flat and without excessive corrosion.

Action: Clean or replace.

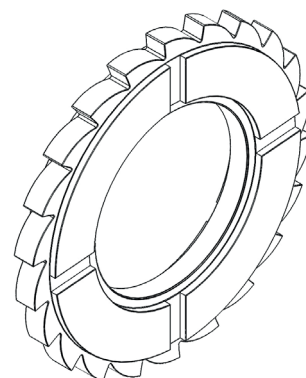


L5.QP.15 Ratchet Gear

Inspection Type:	Dimensional
Quantity:	1
Finish:	Zinc Flake

Examine ratchet teeth and brake component surfaces ensuring they are smooth and flat. Check sintered disc against wear tolerances. Contact manufacturer.

Action: Clean or replace.

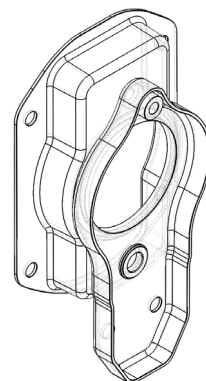


L5.QP.16 Brake Cover Assembly

Inspection Type:	Visual
Quantity:	1
Finish:	Powder Coating

Examine for damage and corrosion, check the selector lever bush is secure and in good condition, check the pressed assembly is secure, free to rotate and lubricated.

Action: Shotblast and repaint or replace.



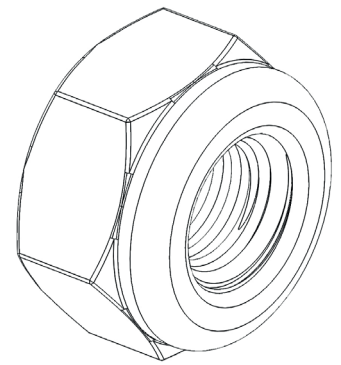
Maintenance and Repair

L5.QP.17 Lever Side Plate Nyloc Nuts

Inspection Type:	Not Applicable
Quantity:	6
Finish:	Zinc Chromate

Discard and replace.

Action: Replace.

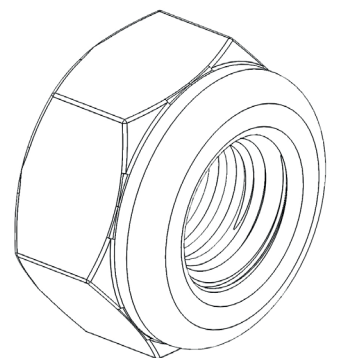


L5.QP.19 Lever Hoist Cover Nyloc Nuts

Inspection Type:	Not Applicable
Quantity:	4
Finish:	Zinc Chromate

Discard and replace.

Action: Replace.

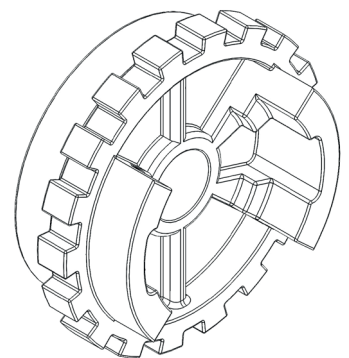


L5.QP.20 Change Gear

Inspection Type:	Visual
Quantity:	1
Finish:	Zinc Flake

Check mating surface is smooth and flat, check thread, lugs and pawl drive for damage, wear and corrosion.

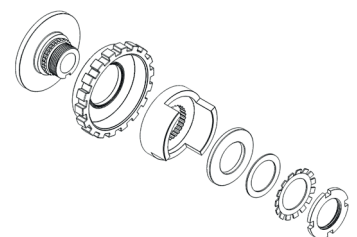
Action: Clean or replace.



L5.QP.20L Load Limiter

Inspection Type:	Refer to load limiter manual
Quantity:	1
Finish:	Zinc Flake / mixed

Action: Do not shotblast - replace - refer to load limiter manual.



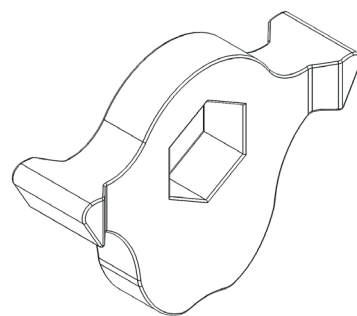
Maintenance and Repair

L5.QP.21 Change Over Pawl

Inspection Type:	Visual
Quantity:	1
Finish:	Zinc Chromate

Check pawl for wear, cracks, corrosion and damage, examine fit of pawl to selector lever shaft of handle. The pawl stand should not be bent or deformed, check spring dimensions as per diagram.

Action: Clean, reapply grease or replace if necessary.

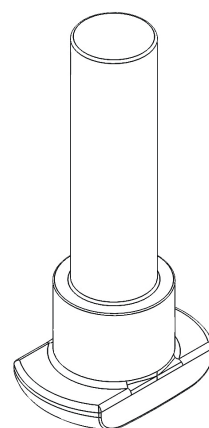


L5.QP.22 Change Over Stand

Inspection Type:	Visual
Quantity:	1
Finish:	Zinc Chromate

Check stand for wear, cracks, corrosion and damage. The pawl stand should not be bent or deformed, check spring dimensions as per diagram.

Action: Clean, reapply grease or replace if necessary.

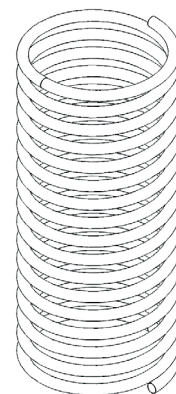


L5.QP.23 Change Over Spring

Inspection Type:	Visual
Quantity:	1
Finish:	Zinc Chromate

Check spring for wear, cracks or damage.

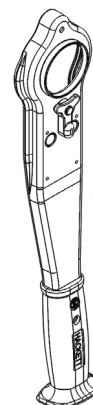
Action: Clean, reapply grease or replace if necessary.



L5.QP.24 Handle Assembly

Inspection Type:	Visual
Quantity:	1
Finish:	Powder Coated

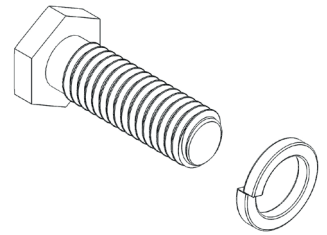
Examine lever for cracks, corrosion, distortion, damage and wear. Check selector lever function is smooth and secure. Check grip/handle is of good condition and secure. Check handle assembly fixings are of good condition. **Action: Shotblast and repaint or replace.**



Maintenance and Repair

L5.QP.25/25A Screw and Spring Washer

Inspection Type:	Visual
Quantity:	1
Finish:	Zinc Chromate

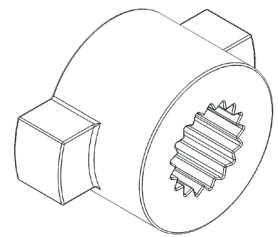


Check threads and washer condition.

Action: Replace if necessary.

L5.QP.26 Cam

Inspection Type:	Visual
Quantity:	1
Finish:	Zinc Flake

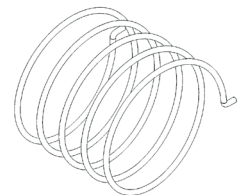


Check splines and ensure the component mating surfaces are smooth, flat and without corrosion or wear.

Action: Clean, regrease or replace.

L5.QP.27 Twisting Spring 1

Inspection Type:	Visual
Quantity:	1
Finish:	Zinc Chromate

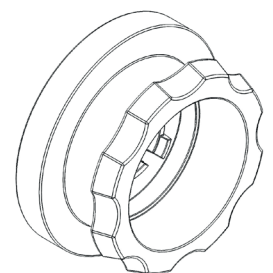


Check twisting spring for damage, fractures and over extension.

Action: Do not shotblast - replace.

L5.QP.28 Grip Ring

Inspection Type:	Visual
Quantity:	1
Finish:	Powder Coated



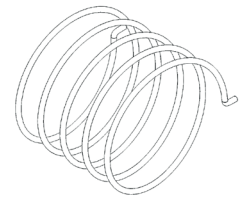
Check grip ring for wear and damage, pay attention to cam and spring contact points.

Action: Shotblast and repaint or replace.

Maintenance and Repair

L5.QP.29 Twisting Spring 2

Inspection Type:	Visual
Quantity:	1
Finish:	Zinc Chromate

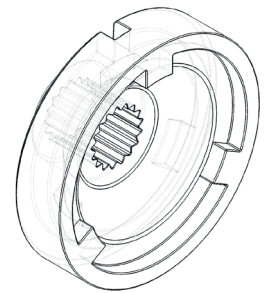


Check twisting spring for damage, fractures and over extension.

Action: Do not shotblast - replace.

L5.QP.30 Spring Housing

Inspection Type:	Visual
Quantity:	1
Finish:	Powder Coated

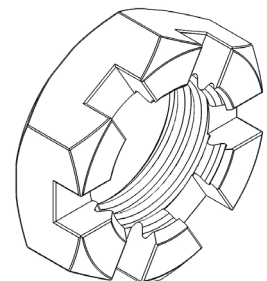


Check for damage and wear, pay attention to outer diameter and locating splines.

Action: Shotblast and repaint or replace.

L5.QP.31 Castle Nut

Inspection Type:	Visual
Quantity:	1
Finish:	Self Colour

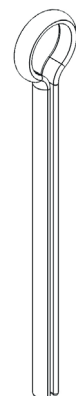


Check thread condition, check for wear and fractures.

Action: Replace if necessary.

L5.QP.32 Split Pin

Inspection Type:	Not Applicable
Quantity:	1
Finish:	Zinc Chromate



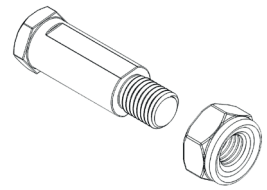
Discard and replace.

Action: Replace.

Maintenance and Repair

L5.QP.35/36 Bottom Hook Bolt and Nut

Inspection Type:	Visual
Quantity:	1
Finish:	Zinc Chromate

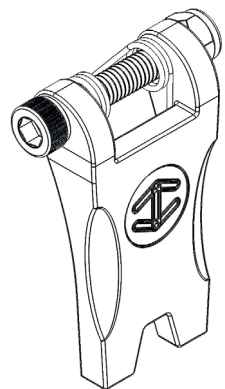


Check for wear and damage.

Action: Check and replace if necessary.

L5.QP.37 Latch Assemblies

Inspection Type:	Visual
Quantity:	2
Finish:	Zinc Chromate



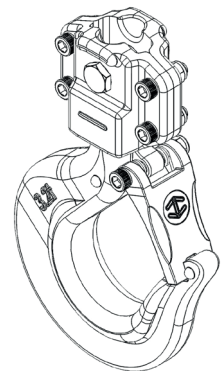
Latch assemblies should be secure and free/smooth to open and close.

Springs and bolts should be free from cracks and damage.

Action: Shotblast and repaint or replace.

L5.QP.38 Bottom Hook Assembly

Inspection Type:	Dimensional and Visual - contact manufacturer
Quantity:	1
Finish:	Powder Coated and Zinc Chromate

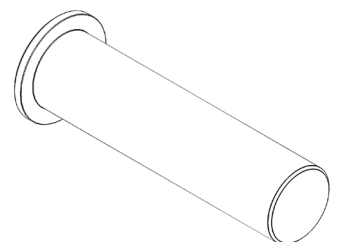


Check for distortion, damage, corrosion fractures and stretching. The hook should be free and smooth to rotate, the hook to housing contact points should have even wear.

Action: Shotblast and repaint or replace.

L5.QP.39 Top Hook Pin

Inspection Type:	Visual
Quantity:	1
Finish:	Self Colour



Check for damage, wear and corrosion.

Action: Check and replace if necessary.

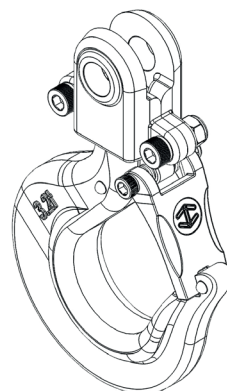
Maintenance and Repair

L5.QP.40 Top Hook Assembly

Inspection Type:	Dimensional and Visual - contact manufacturer
Quantity:	1
Finish:	Powder Coated and Zinc Chromate

Check for distortion, damage, corrosion, fractures and stretching. The hook should be free and smooth to rotate, the hook to housing contact points should have even wear.

Action: Shotblast and repaint or replace.

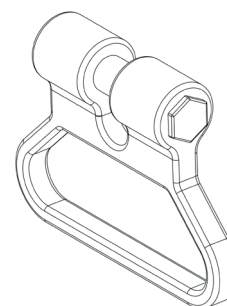


L5.QP.41 Handle End Stop

Inspection Type:	Visual
Quantity:	1
Finish:	Zinc Chromate

Check for damage, wear and corrosion.

Action: Shotblast.

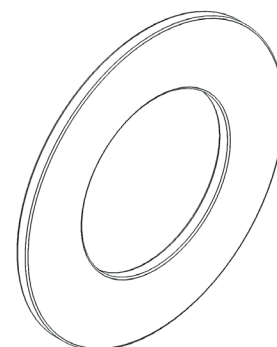


L5.QP.42 Pinion Shaft Washer

Inspection Type:	Visual
Quantity:	1
Finish:	Black

Washer should be smooth, without damage and of good condition.

Action: Clean, reapply grease or replace if necessary.

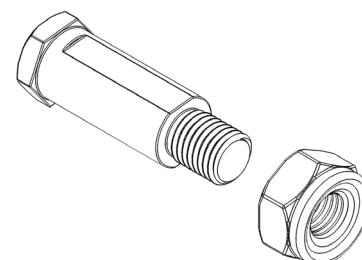


L5.QP.47 Top Hook Chain Fixing Pin 6.3t & 10t

Inspection Type:	Visual
Quantity:	1
Finish:	Zinc Chromate and Self Colour

Check for damage and wear.

Action: Check and replace if necessary.



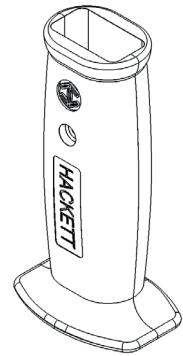
Maintenance and Repair

L5.QP.62 Handle Assembly

Inspection Type:	Visual
Quantity:	1
Finish:	Rubber

Ensure the rubber grip is free from damage and secure.

Action: Check and replace if necessary.

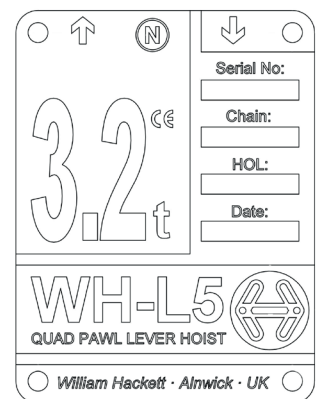


L5.QP.63 Label and Rivets

Inspection Type:	Visual
Quantity:	1 + 4 Rivets
Finish:	Stainless Steel

Check nameplate is secure and in good condition, the unique hoist serial number, WLL, HOL, chain grade and dimension should all be legible.

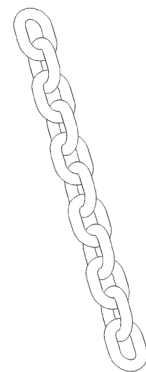
Action: Check and replace if necessary.



Load Chain

Inspection Type:	Dimensional and Visual - see miscellaneous
Quantity:	1
Finish:	Zinc/Galvanised

Chain should be removed from hoist and laid flat on a clean work surface so all four sides can be inspected, all links must be inspected, checks shall include pitch, diameter, interlink wear, cuts, nicks, gouges, excessive corrosion in the form of pitting, bent or stretched links, batch, grade, length (is it correct to nameplate?). The chains should articulate freely.



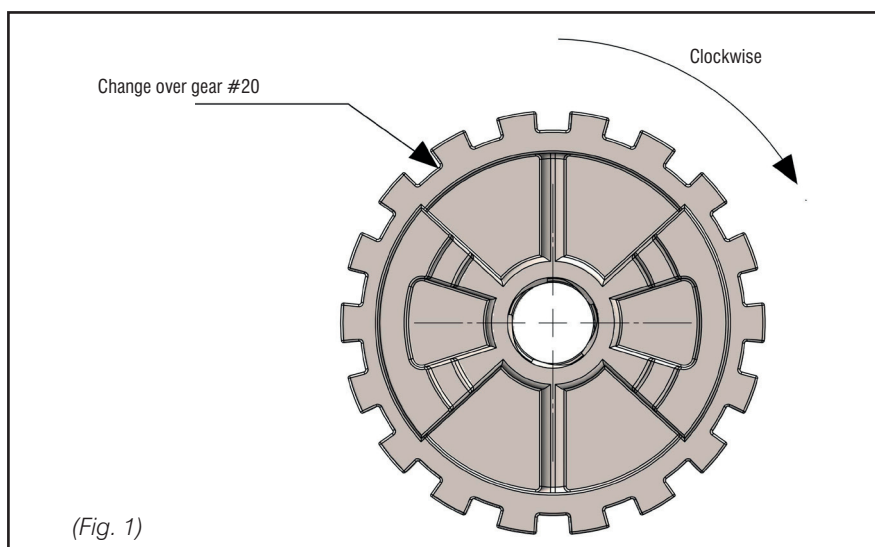
Assembly Instructions

1. Lubricate the caged roller bearings using manufacturer specified marine grease, insert into the side plates 5 and 10 ensuring the bearing retaining clip is secured against the inner section of the side plates.
2. Insert load sheave with the splined section away from the wheel side plate.
3. Insert chain stripper, chain guides 7, 8 and 9 to the lever side plate assembly 10, ensure the chain stripper is located correctly so that when the hoist is hung vertically the stripper is directly below the top hook.
4. Position gear side plate 5 over all the assembled parts.
5. Turn the hoist so that the gear side plate faces up then attach load gear 4 over the splined load sheave section.
6. Lightly grease the pinion shaft complete with washer 3 and 42 then insert into the load sheave.
7. Apply a substantial coating of grease to the pinion gears then align timing marks according to diagram (Fig. a) below.
8. Fit gear cover 1 and install and tighten stainless steel nyloc nuts to secure.
9. Turn the hoist so that the brake side faces up, install pawl spring assembly 11, pawls 12A and 12B and circlips 13.
10. Fit the disc hub 14, ratchet gear 15 ensuring the ratchet engages the pawls correctly.
11. Install brake cover assembly securing with stainless steel nylocs 16 and 19.
12. Install change gear 20 by turning clockwise until full mated to the ratchet disc, this can be indicated by the pawl mechanism clicking.
13. Install change over pawl, stand and spring 21, 22 and 23 into the handle assembly 24 then fit to the brake cover assembly, secure with fixings 17, 25 + 25A.

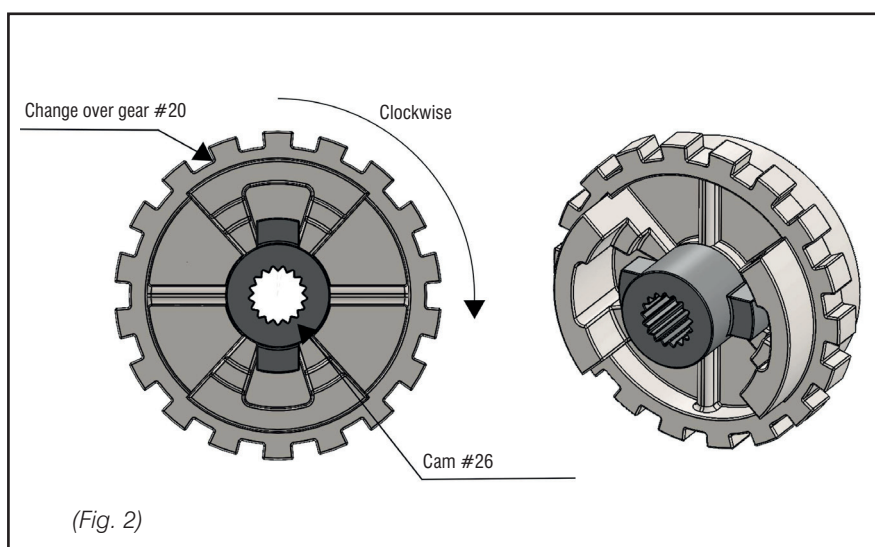
You are now ready for the dual brake installation, refer to separate instructions on the following pages.

Brake set-up

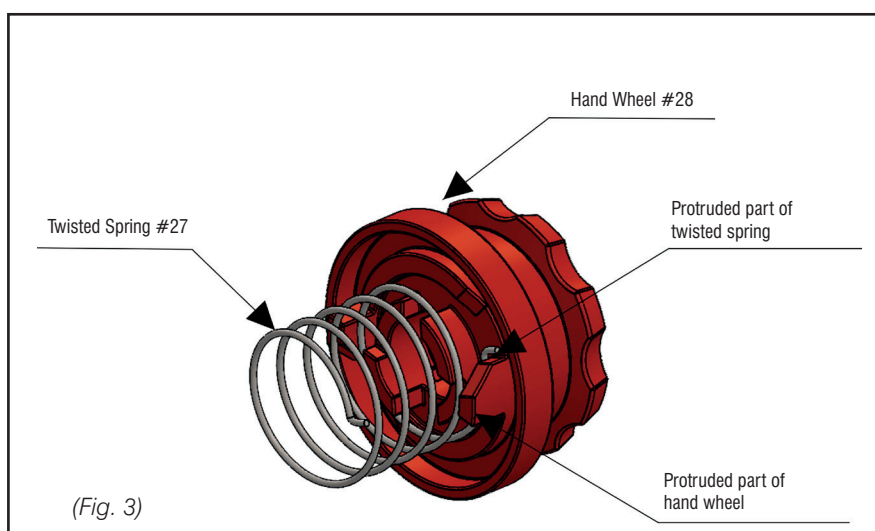
1. Turn the change-over gear #20 clockwise until the brake ratchet can be heard. Make sure the change-over gear is fully seated on the ratchet gear (Fig. 1).



2. Put Cam #26 onto the pinion shaft #3. The bottom of the cam should be towards the change over gear #20. The cam should be positioned between 0° - 11.5° (Fig.2).



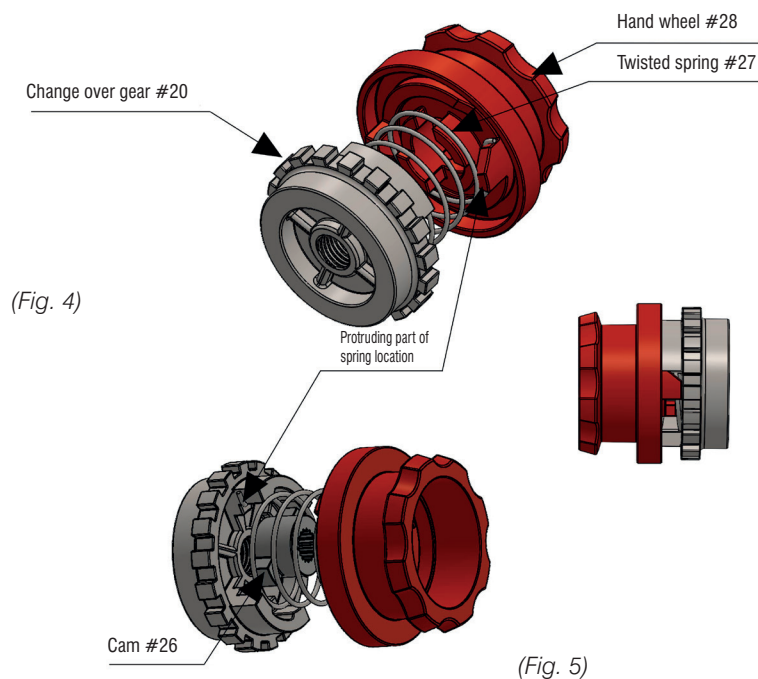
3. Fit twisting spring 1 #27 into the grip ring #28. The protruding part of the twisting spring should be fitted against the protruding part of the grip ring (Fig. 3).



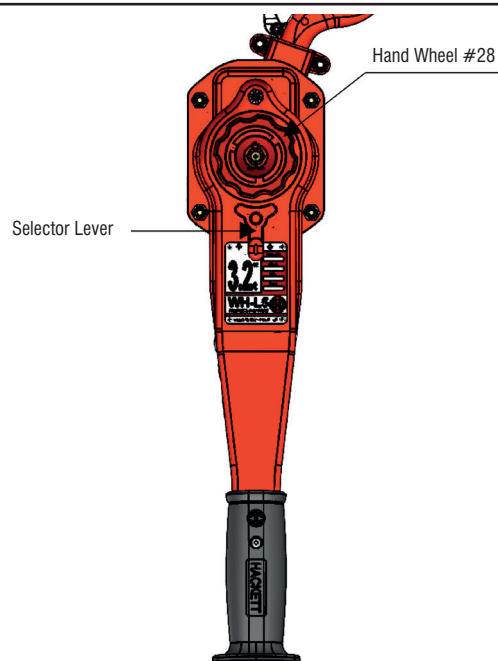
Brake set-up

4. Fit the grip ring #28 with twisting spring 1 #27 into the change-over gear #20. The protruding twisting spring should be on the left hand side of the protruding part of the change-over gear #20 (Fig. 4).

Tension the spring clockwise by turning the grip ring 120° with a downwards motion until the grip is level with cam #26 (Fig. 5).

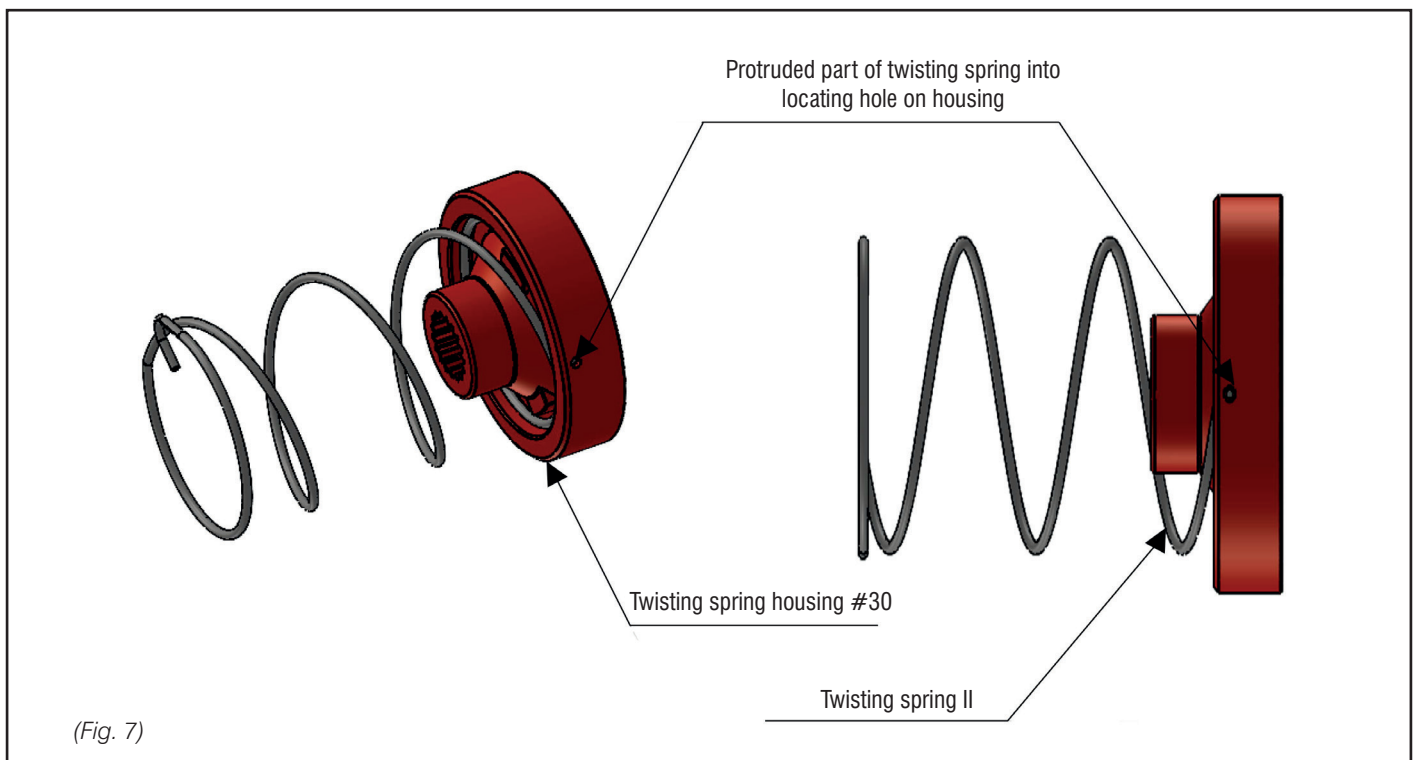


5. The selector lever can now be put into the up or down position to aid assembly (Fig. 6).

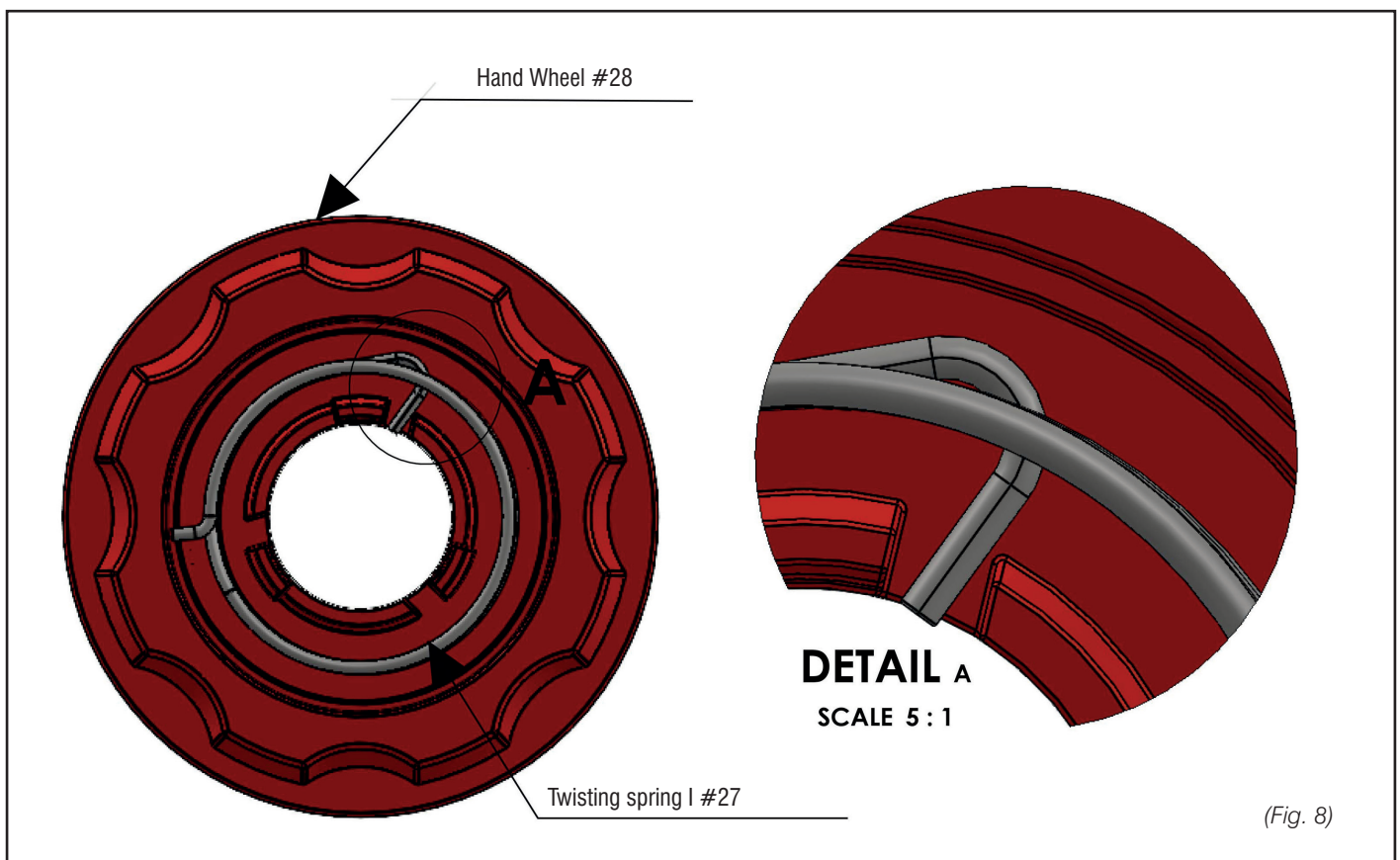


Brake set-up

6. Fit twisting spring 2 #29 into locating hole in the edge of the twisting spring housing #30 (Fig.7).



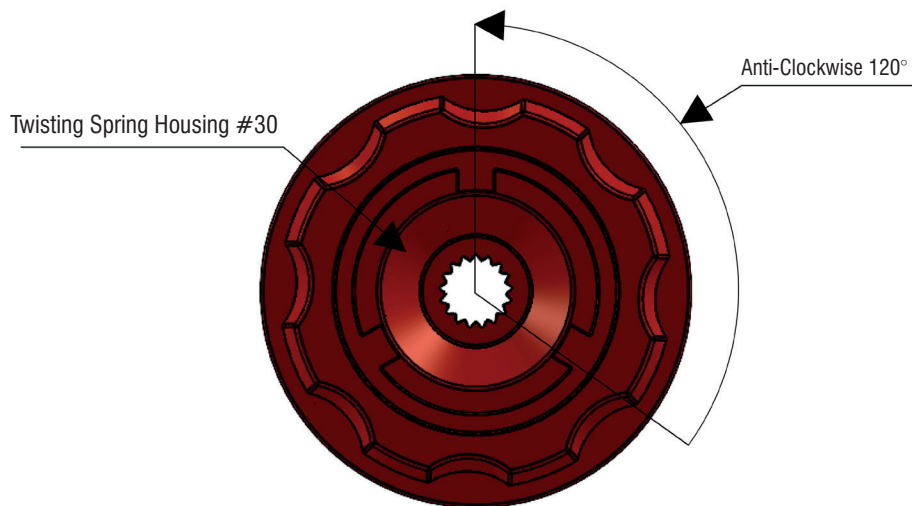
7. Fit the twisting spring housing #30 complete with twisting spring 2 #29 into the grip ring #28. (Fig. 8).



Brake set-up

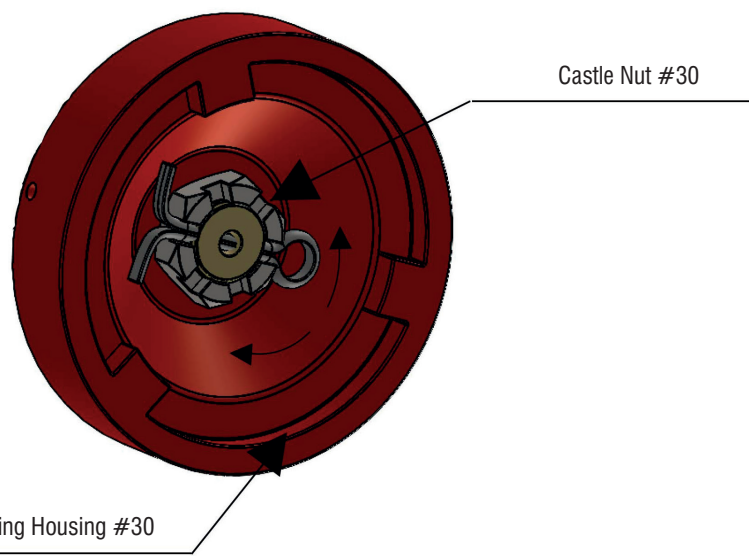
8. The protruding part of the twisting spring is to be fitted against the right hand side of the raised section of the handwheel #28. (Fig. 8)

To tension the twisting spring turn the housing #30 120° anti-clockwise then fit the housing onto the splined section of the pinion shaft #3.



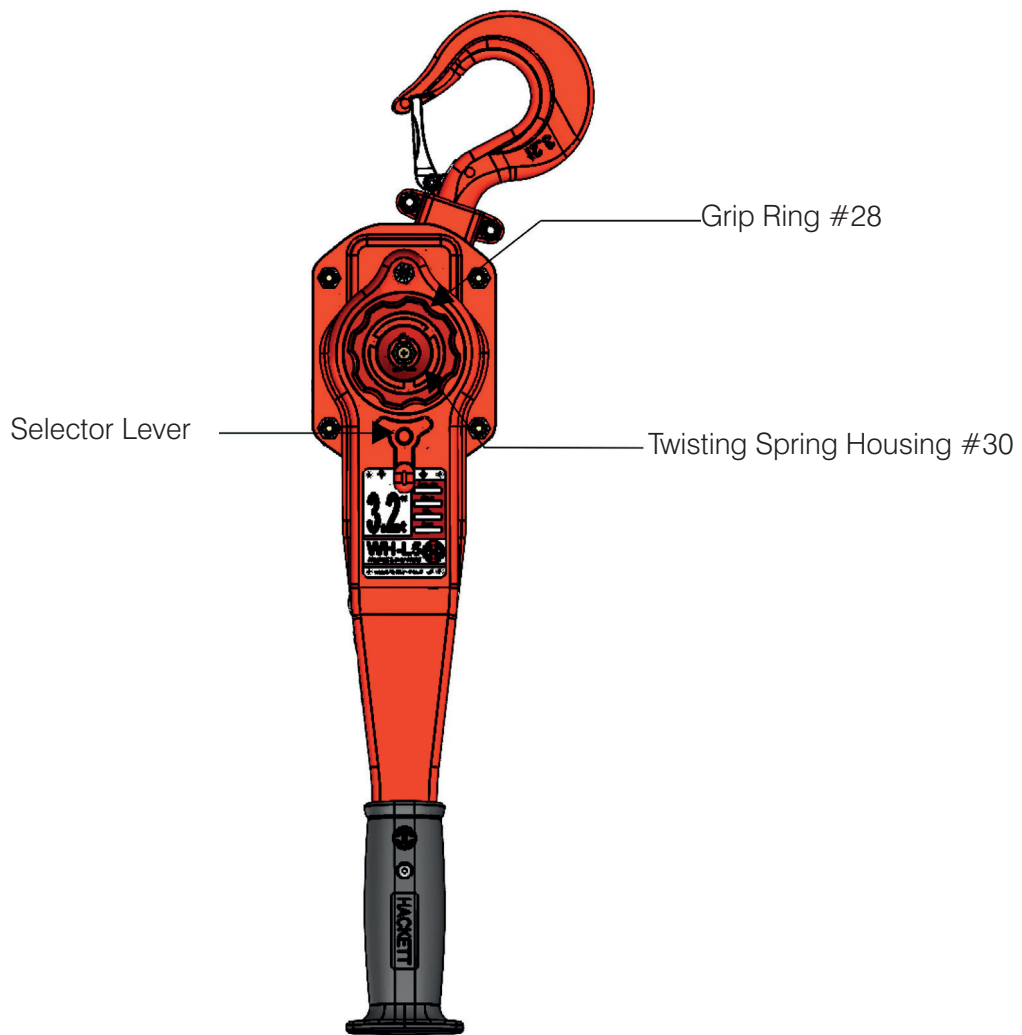
(Fig. 9)

9. While holding the twisting spring housing down, fit the castle nut #31 finger tight against the housing then insert split pin and bend split pin ends over to secure (Fig. 10).



(Fig. 10)

Brake set-up

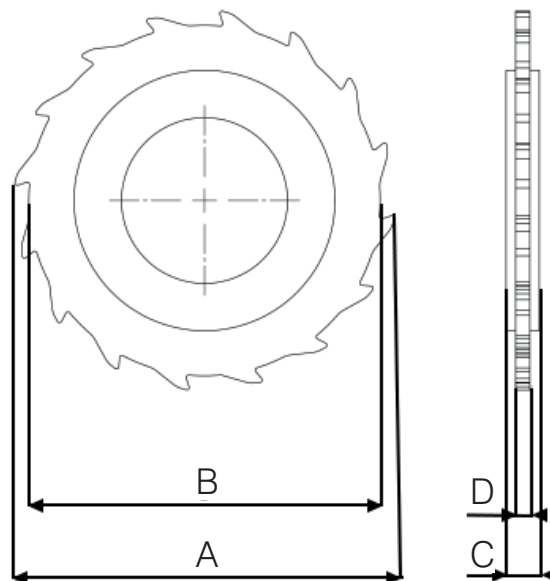


Inspection

1. Move the selector lever to neutral and make sure the hoist is in operation mode.
 - a) When the grip ring is turned clockwise it should be free and rotate smoothly.
 - b) In operation mode the hand wheel shall not rotate anti clockwise
2. When the grip ring is pulled slightly it should return to its original position.
3. When the grip ring is pulled firmly the hoist should now be in rigging/free chain mode, the grip ring should turn freely in clockwise and anti clockwise motions, the load chain shall also be free to adjust/rig the hoist.
4. To re-engage operation mode it is a simple matter of restricting the upwards motion of the load chain, one of the following methods can be applied:
 - a) Holding the load side of the chain whilst turning the grip ring clockwise with a slight inwards pressure.
 - b) As above but this time gripping the load side and slack side chain
 - c) Holding the spring housing whilst turning the grip ring clockwise again with a slight inwards pressure.
5. The hoist should now pass a light load test of 2% in free wheel mode.

Miscellaneous

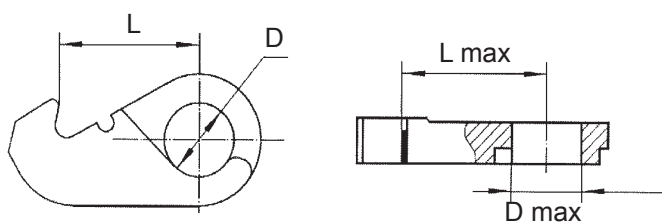
RATCHET WHEEL WITH BRAKE LININGS



WLL t	A mm	B min mm	C mm	D min mm
0.8	64	61	8	6
1.6	64	61	8	6
3.2	74	71	8	6
6.3	74	71	8	6
10.0	74	71	8	6
15.0	74	71	8	6

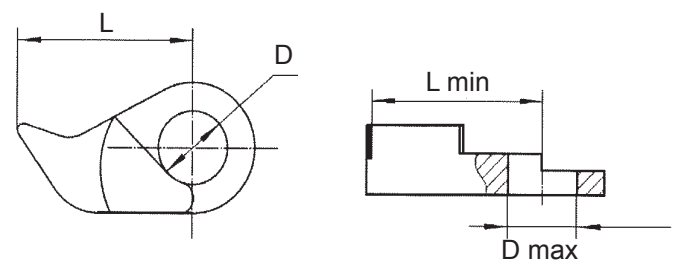
QUAD PAWL DIMENSIONS

Pawl A



Capacity t	L mm	L max mm	D mm	D max mm
0.8 to 1.6	18.1	19.0	9	9.5
3.2 to 15.0	22.1	23.2	11	11.5

Pawl B



Capacity t	L mm	L max mm	D mm	D max mm
0.8 to 1.6	22.7	21.5	9	9.5
3.2 to 15.0	26.9	25.5	11	11.5

Miscellaneous

TORQUE VALUE TABLE

Bolt/nut size	Min Nm	Max Nm
M5	5	6
M6	6	8
M8	20	22
M10	22	24
M12	25	27

LUBRICATION

L5 QP Chain Hoist

Recommended lubricant type: Corrosion Block Grease

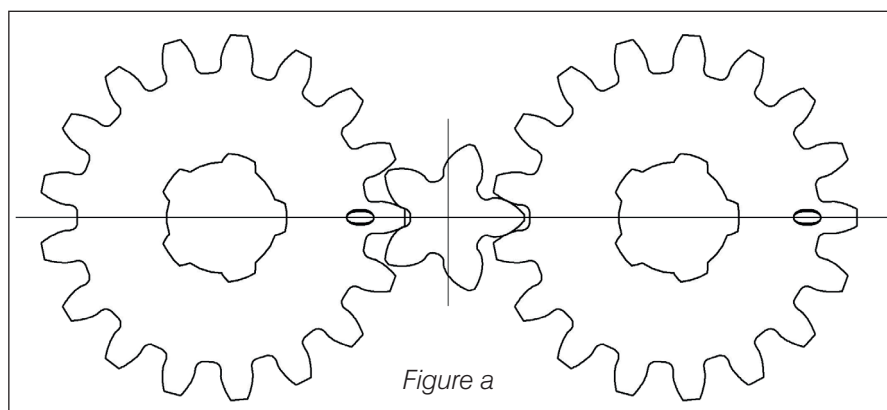
L5 QP Chain Hoist Load Chain

Recommended Lubricant: Lear Chem ACF-50 fluid or Lear Chem Corrosion Block Fluid

GEAR ALIGNMENT

800kg - 15 tonnes

Note the 0 mark on the gears. These two marks must be on the horizontal centre line, the left hand gear with the 0 mark facing towards the centre and the 0 mark facing away from the centre as shown in Figure a.



Alignment lettering may vary from batch to batch

Warranty

When supplied new the L5 QP lever hoist will be supplied with a Declaration of Conformity which sanctions the use of the product for a maximum period of 12 months before re-certification is required by a competent person.






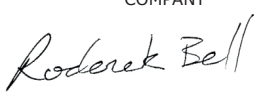
Providing that the use, storage, routine maintenance and servicing instructions contained in this document are followed the L5 QP lever hoist can be used for multi immersions

The L5 QP lever hoist is a lifting appliance and should be thoroughly examined by a competent person at least every 12 months, or following each period of deployment.

Only original William Hackett spare parts should be used.

William Hackett guarantee the performance of the L5 QP lever hoist for a period of 12 months from the date of sale subject to the purchaser and users complying with the safe use, storage, routine maintenance and servicing instructions, and there being no excessive wear and tear or misuse of the product.

These points do not affect the purchasers statutory rights.

 William Hackett <i>Lifting Products Limited</i>						   		DUAL PURPOSE DOCUMENT	
Delivery Address WILLIAM HACKETT LIFTING PRODUCTS OAK DRIVE, LIONHEART ENTERPRISE PARK ALNWICK NORTHUMBERLAND NE66 2EU						Supplied To: WIL001		EC DECLARATION OF CONFORMITY DECLARATION I DECLARE THAT THE ITEMS DESCRIBED ON THIS DOCUMENT COMPLY WITH THE REQUIREMENTS OF THE MACHINERY DIRECTIVE 2006/42/EC	A
						Certificate Number: L098766			
						Customer Order No: P123456			
						Date Received: 14/10/2021			
PRODUCTS REQUIRING A DECLARATION OF CONFORMITY ARE INDICATED BY (A) THOSE REQUIRING JUST A MANUFACTURER'S CERTIFICATE BY (B)						MANUFACTURER'S CERTIFICATE		B	
CERTIFIED ON BEHALF OF THE COMPANY  RODERICK BELL 14/10/2021									
Authorised person for the configuration of the declaration documents: Roderick Bell, William Hackett Lifting Products, Alnwick, UK									
A/B	Batch	Lot No / Serial No	Product	Description	Qty	Working Load Limit	Proof Load	Min Breaking Load	
A	P19605	104080077	HN035.080	800kg L5-QP Lever Hoist c/w 1.5mt HOL to EN13157	1	800kg	1.2 tonne		
A	P19606	104080191	HN035.160	1.6t L5-QP Lever Hoist c/w 1.5mt HOL to EN13157	1	1.6 tonne	2.4 tonne		
A	P19607	104080183	HN035.320	3.2t L5-QP Lever Hoist c/w 1.5mt HOL to EN13157	1	3.2 tonne	4.8 tonne		
A	P19608	104080241	HN035.630	6.3t L5-QP Lever Hoist c/w 1.5mt HOL to EN13157	1	6.3 tonne	9.45 tonne		



William Hackett

e: liftingsales@williamhackett.co.uk

www.williamhackett.co.uk

William Hackett Lifting Products Limited

Oak Drive, Lionheart Enterprise Park

Alnwick, Northumberland

United Kingdom NE66 2EU

t: 01665 604200 f: 01665 604204