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 **William Hackett**

SS-L5
QP
LEVER HOIST



The SS-L5 QP meets and exceeds the requirements of the following international standards:

British and European Standard BS EN13157: 2004 +
A1: 2009

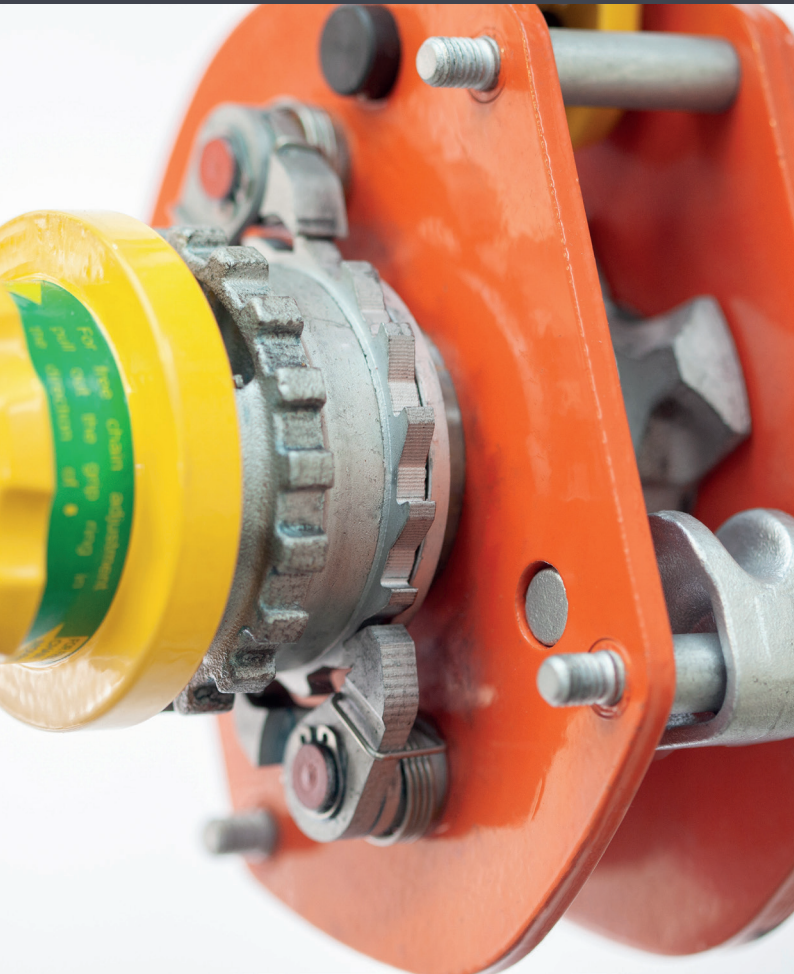
American Standard ASME B30.21-2014

Australian Standard AS 1418.2-1997

NORSOK R-002: 2017.



**Salt Water Immersion
Test Verification Report
A0359376.02. Rev.1.**



William Hackett SS-L5 QP is the first lever hoist to incorporate four pawl mechanical engagement functionality. The unique and patented pawl design enhances the capabilities of the hoist allowing all four pawls to engage with the ratchet gear in an offset configuration allowing finer adjustment and tensioning capability while maintaining pawl / ratchet gear engagement. The pawl springs are totally enclosed in the brake chamber and the patented pawl design allows, however unlikely, for both pawl springs to fail and for the quad pawls to maintain full functioning engagement with the ratchet gear making the hoist safer.

William Hackett verifies that the SS-L5 QP can be safely used over a 21 day single immersion and a 31 day multi immersion period which offers operators considerable financial advantages.

The design features, manufacture, verification testing and guidance for use, maintenance and storage of the SS-L5 QP has also have been developed in line with:

BP Document DEV-AAD-SS-SD-BP-0545

'Specification and compliance requirements for lever hoists used subsea on BP projects'

IMCA LR 005 D 028 June 2017 Rev.2

'Guidance on the Use of Chain Lever Hoists in the Offshore Subsea Environment'

IMCA LR006 March 2018 Rev.1

'Guidance for lifting operations'

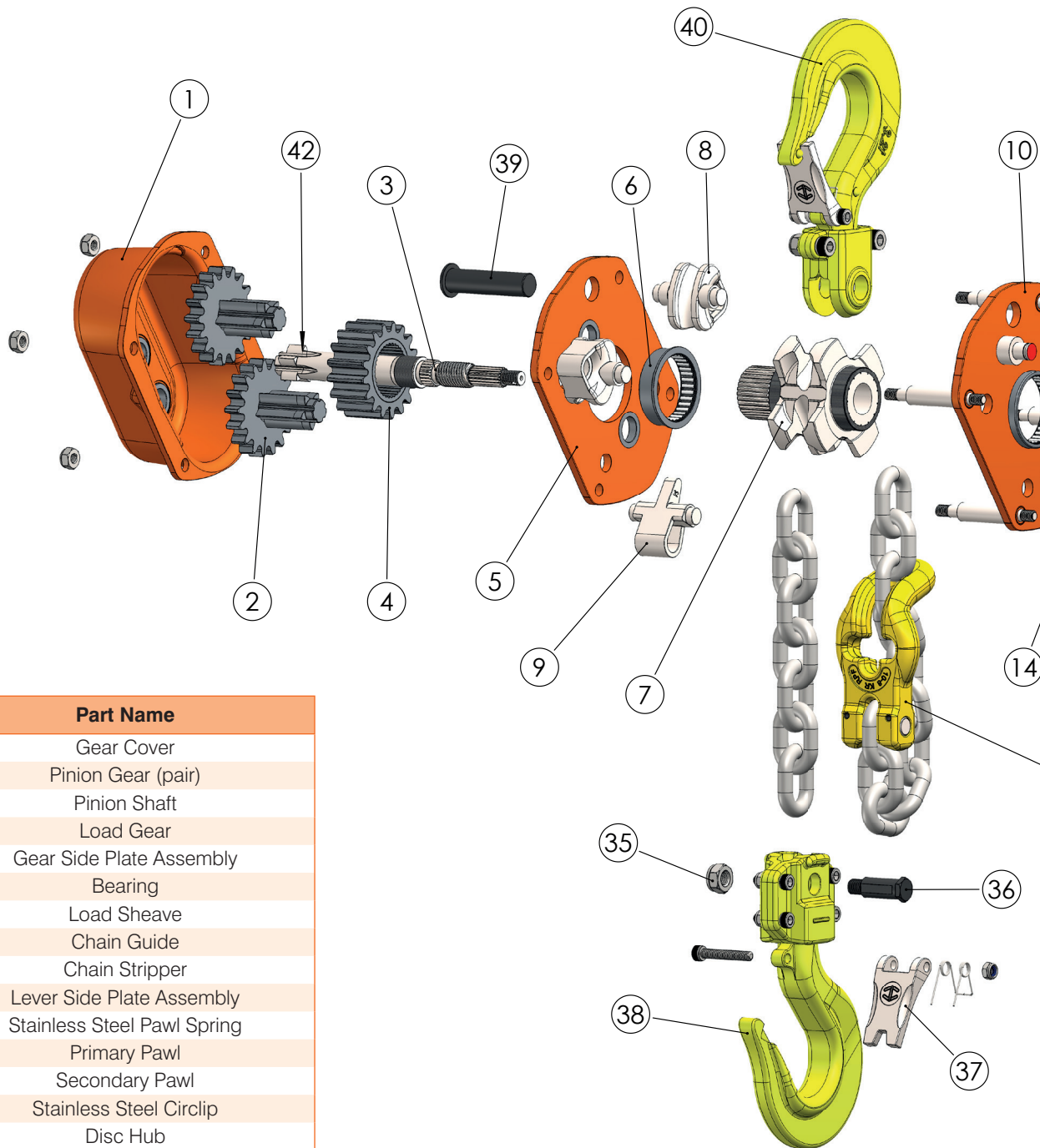
The design and specification of the William Hackett SS-L5 QP lever hoist includes:

- **Working Load Limit Range:** 800kg to 15 tonne.
- **Light Load Capability:** the SS-L5 QP is tested and certified at 2% of the lever hoist rated capacity.
- **DABS (Dual Anti-Lock Brake System):** allows the load chain to be adjusted in freewheel mode without locking the brake.
- **Construction and Design:** minimises the ingress of contaminants to the internal brake mechanism surfaces.
- **Stainless Steel Pawl Springs:** Are specially designed to work with the SS-L5 QP patented quad pawls. The stainless steel springs are captivated in the brake chamber protecting them against damage.

- **Stainless Steel Fixing:** all internal springs, circlips securing the pawls onto the pawl stands, nyloc nuts and socket head cap screws are stainless steel.
- **Sintered/Fused Brake Discs:** the brake material of the SS-L5 QP is fused directly onto the ratchet gear. This reduces the number of mating faces where there is a potential for ingress of contaminants that could affect the brake performance. Grooves cut into the brake material allows water to be displaced from the friction surface.
- **Load Chain:** the SS-L5 QP only uses fully compliant Gr8 load chain to BSEN818-7.
- **Corrosion Protection:** the complete brake mechanism of the SS-L5 QP is corrosion protected including the pinion shaft, disc hub, change gear, ratchet gear, pawls, pawl stands and load sheave. In addition the load chain guide, stay bolts and chain stripper are also corrosion protected.
- **High Performance Marine Grease:** used throughout the SS-L5 QP lever hoist enhancing the corrosion protection.
- **Adjustable Travelling End Stop:** the uniquely designed traveling end stop of the SS-L5 QP lever hoist allows the operator to position the end stop at any point of the slack section of the Gr8 load chain. When the lever hoist is in a final rigged position the travelling end stop can be positioned adjacent to the body of the SS-L5 QP. This has the function of preventing the payout of the chain for whatever reason when the next time the lever hoist is operated.
- **Temperature Range:** -40°C to +120°C.
- **Optional Equipment:** the SS-L5 QP lever hoist can be fitted with an overload limiter and also hook adaptors to allow any Gr8 components to be fitted to the SS-L5 QP to suit varying applications.
- **Proof Tested:** every SS-L5 QP lever hoist is proof tested to 1.5 times the WLL.
- **Safety Factor:** 4:1.
- **Manufactured:** in the UK.

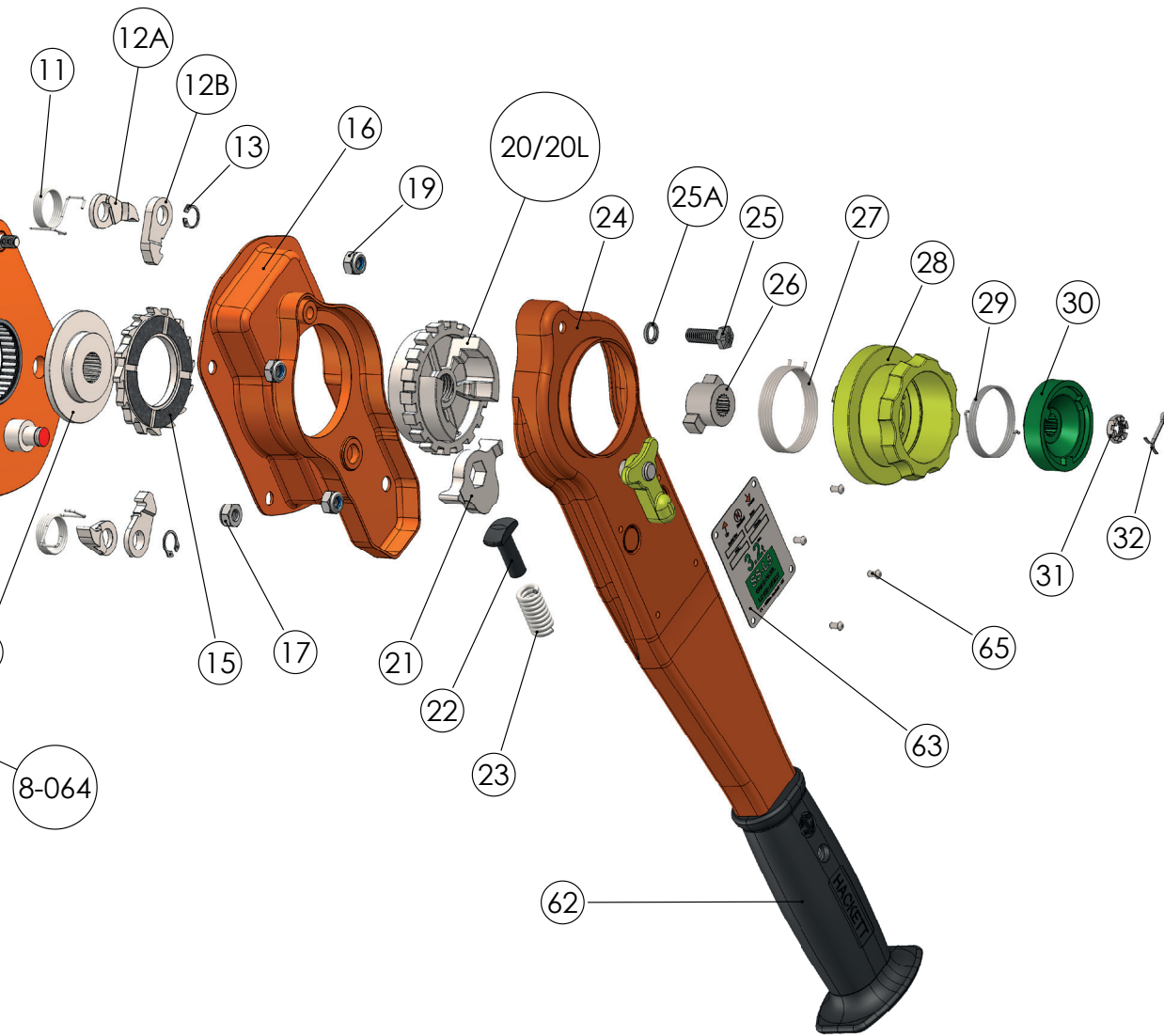


Exploded Diagram and Parts List



Part Code	Part Name
SSL5.01	Gear Cover
SSL5.02	Pinion Gear (pair)
SSL5.03	Pinion Shaft
SSL5.04	Load Gear
SSL5.05	Gear Side Plate Assembly
SSL5.06	Bearing
SSL5.07	Load Sheave
SSL5.08	Chain Guide
SSL5.09	Chain Stripper
SSL5.10	Lever Side Plate Assembly
SSL5.QP.11	Stainless Steel Pawl Spring
SSL5.QP.12A	Primary Pawl
SSL5.QP.12B	Secondary Pawl
SSL5.13	Stainless Steel Circlip
SSL5.14	Disc Hub
SSL5.15	Ratchet Gear c/w Friction Discs
SSL5.16	Brake Cover Assembly
SSL5.17	Lever Side Plate Nyloc Nut (M6)
SSL5.19	Lever Hoist Cover Nyloc Nut (M8)
SSL5.20	Change Gear
SSL5.20L	Load Limiter
SSL5.21	Change Over Pawl
SSL5.22	Change Over Stand
SSL5.23	Change Over Spring
SSL5.24	Handle Assembly

Part Code	Part Name
SSL5.25	Screw
SSL5.25A	Spring Washer
SSL5.26	Cam
SSL5.27	Stainless Steel Twisting Spring 1
SSL5.28	Grip Ring
SSL5.29	Stainless Steel Twisting Spring 2
SSL5.QP.30	Spring Housing
SSL5.31	Castle Nut

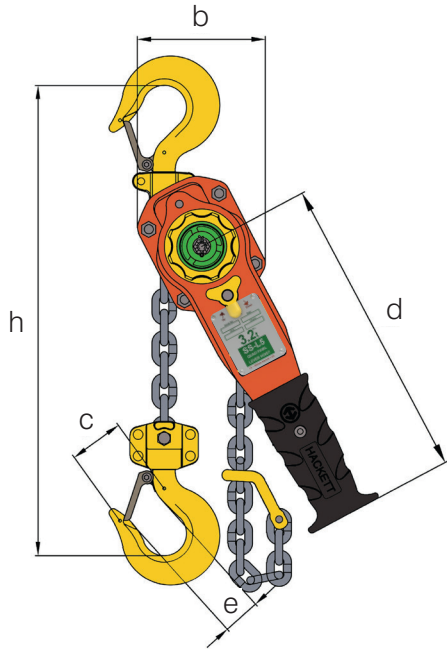


Part Code	Part Name
SSL5.32	Split Pin
SSL5.35	Chain Fixing Pin Nyloc Nut
SSL5.36	Bottom Hook Chain End Fixing Pin
SSL5.37	Latch Kit
SSL5.38	Bottom Hook Assembly
SSL5.39	Top Hook Pin
SSL5.40	Top Hook Assembly
SSL5.42	Pinion Shaft Washer

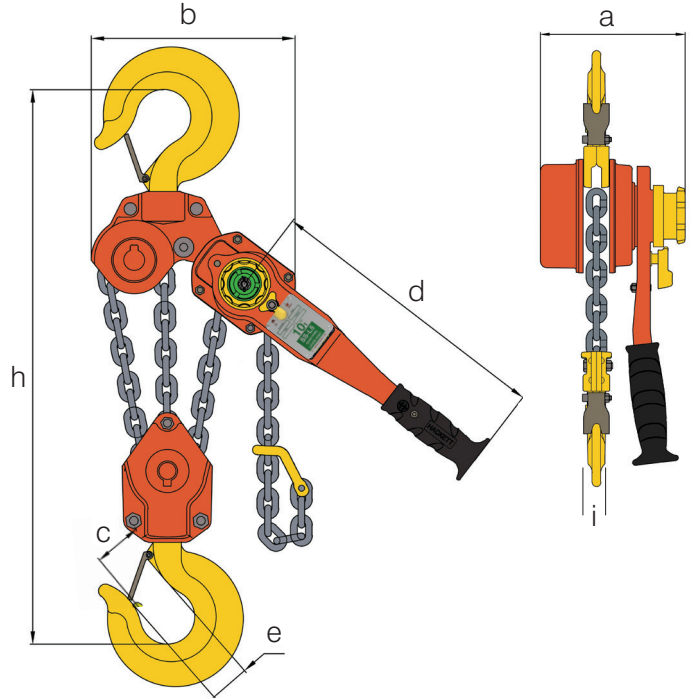
Part Code	Part Name
SSL5.47	Top Hook Chain Fixing Pin 6.3t, and 10t
SSL5.50	Rubber Handle Nut
SSL5.50A	Rubber Handle Bolt
8-064	Travelling End Stop
SSL5.62	Rubber Handle with Enlarged Pommel
SSL5.QP63	Label
SSL5.64	Label Rivets

Specifications and Dimensions

Single Fall



Multi Fall



Part Code	WLL tonnes	No. of Falls	Load Chain mm	a mm	b mm	c mm	d mm	e mm	h min mm	i mm	Mass Kg 1.5m HOL	Extra Weight per m Kg
035.SS.080	0.8	1	5.6 x 15.7	146	119	42.0	245	27	280	14.8	5.9	0.7
035.SS.160	1.6	1	7.1 x 19.9	164	126	54.5	265	36	335	19.5	7.4	1.1
035.SS.320	3.2	1	10 x 28	196	159	60.5	415	42	395	24.2	13.7	2.2
035.SS.630	6.3	2	10 x 28	196	218	85.5	415	52.5	540	33.7	26.4	4.4
035.SS.1000	10.0	3	10 x 28	196	298	-	415	59	680	41.7	40.1	6.6
035.SS.1500	15.0	6	10 x 28	196	420	-	415	80	1000	59.0	70.2	13.2