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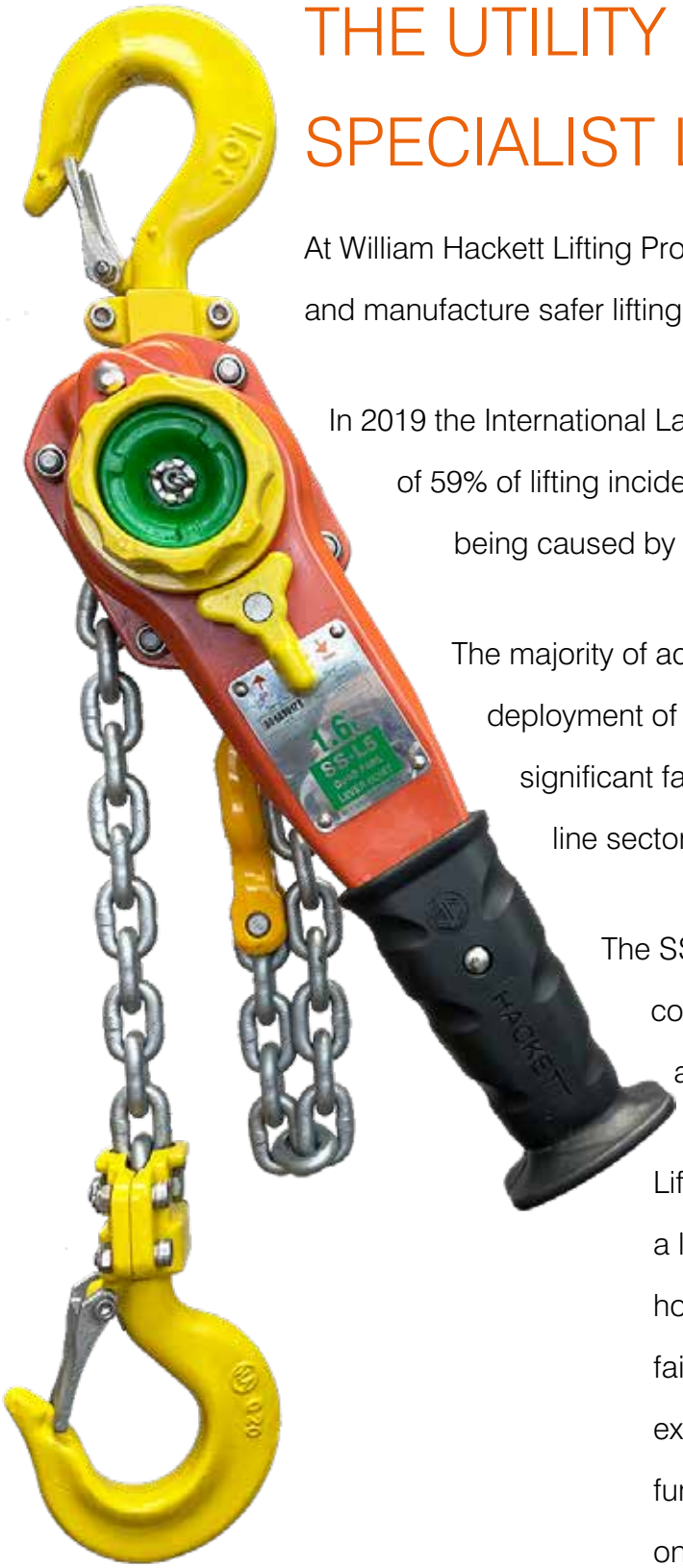
William Hackett
Lifting Products Limited

SS-L5 QP
Lever Hoist
for use in the Utility Sector

WHB-0006



THE UTILITY SECTOR REQUIRES SPECIALIST LIFTING EQUIPMENT

At William Hackett Lifting Products we challenge ourselves to innovate, design and manufacture safer lifting products.

In 2019 the International Labour Organisation unveiled the root cause of 59% of lifting incidents were attributed to a human factor with 33% being caused by equipment failure.

The majority of accidents caused by human factors related to the deployment of the lifting equipment, product weight being a significant factor. The weight of hoists used in the overhead line sector is highly significant and must be minimised.

The SS-L5 QP is on average 10% lighter than its competitors and predecessors and lifts approximately 180 times its own mass.

Lifting operations that incorporate hoists assume a level of safety based upon the resilience of the hoists to mechanical failure. Although mechanical failures in modern hoists are rare, years of experience accumulated within WHLP identified a fundamental mechanical design that would eliminate one potential mode of failure.

The William Hackett SS-L5 QP lever hoist meets and exceeds the requirements of the following international standards:

British and European Standard
BS EN13157:2004 + AI:2009
American Standard ASME B30.21-2014
Australian Standard AS1418.2-1997
South African Standard SANS 1636:2-2007
NORSOK R-002: 2017

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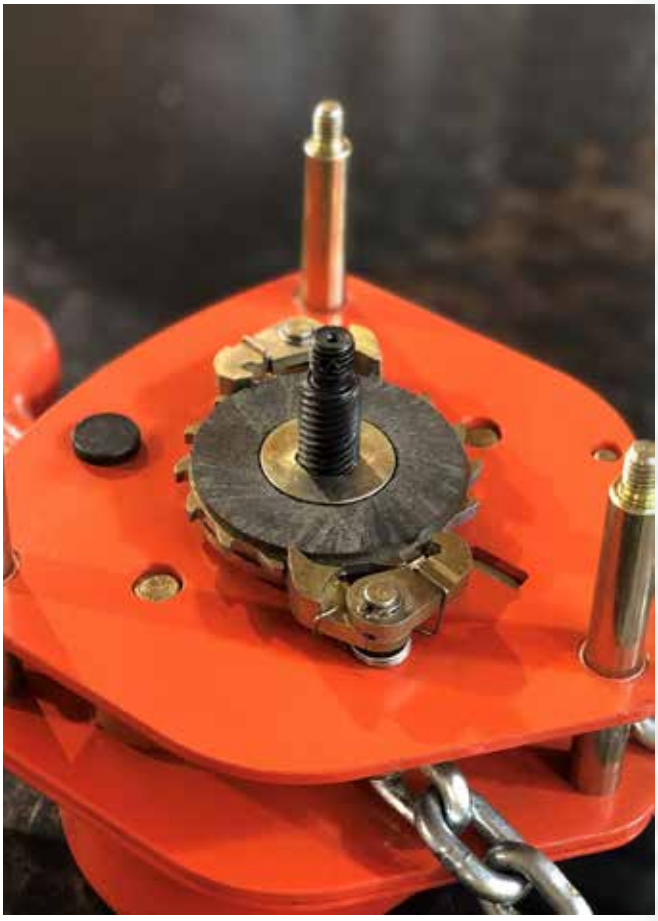
WHLP designed, patented and manufactured the “Quad Pawl”. This technology is now incorporated in the SS-L5 QP lever hoist is the first in the world to incorporate four pawl mechanical engagement functionality. As the number of pawls increase so does the resilience to failure. The unique and patented 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.



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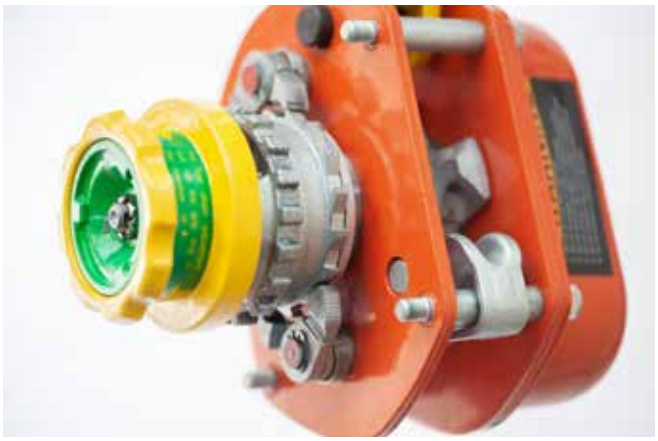
INNOVATION DRIVES SAFETY:

The SS-L5 QP Lever Hoist provides the Utilities Sector with increased levels of safety and better performance.

BENEFITS AND FEATURES

- LIGHT LOAD CAPABILITY: light load brake function is critical in overhead line tensioning operations where the load on the hoist is likely to vary. All SS-L5 QP's are tested and certified to function at 2% of the rated WLL.
- DABS (DUAL ANTI-LOCK BRAKE SYSTEM): the SS-L5 QP features a dual anti-locking brake system. The system offers enhanced safety because it has a two stage movement to disengage the brake into neutral. When in neutral, the brake will apply under load, but unlike earlier generation hoists, the brake will release when the load is released. This saves the operator having to unlock the brake.
- CONSTRUCTION AND DESIGN: in addition to lighter weight, the SS-L5 QP has been designed tio minimise the ingress of contaminates into the brake mechanism. All of the steel painted components go through a multi-layer coating system, involving a pre-treatment, a primer layer and an AkZoNobel Interpon top coat. This high durability coating gives 1500 hours corrosion resistance according to ISO 9227.



- STAINLESS STEEL COMPONENTS: stainless steel components are used within the SS-L5 QP. These include pawl springs, circlips, cap screws, nuts, washers and identification plates.
- BRAKE COMPONENTS: critical brake components are corrosion protected to ensure safe brake function in all conditions and at high and low loads.

WORKING LOAD LIMIT RANGE:

800kg to 15 tonnes.

- SINTERED/FUSED BRAKE DISC MATERIAL: the brake material is fused directly onto the ratchet gear. This reduces the number of mating faces where there is a potential for ingress of contaminates that could affect the brake performance. Grooves cut into the brake material allow water to be displaced from the friction surface.

- EN818-7 LOAD CHAIN: All SS-L5 QP lever hoists are fitted with EN818-7 load chain. Load chains are corrosion protected to a coating thickness of 10 microns.

- ADJUSTABLE TRAVELLING END STOP: it is an unavoidable part of overhead line work that lever hoists are left rigged under load for periods of time. There have been numerous instances of hoist brake slips when the hoists are operated in a down position following a prolonged period of rigging under load. The travelling end stop, when positioned adjacent to the hoist body, gives a fail safe mitigation to this risk.

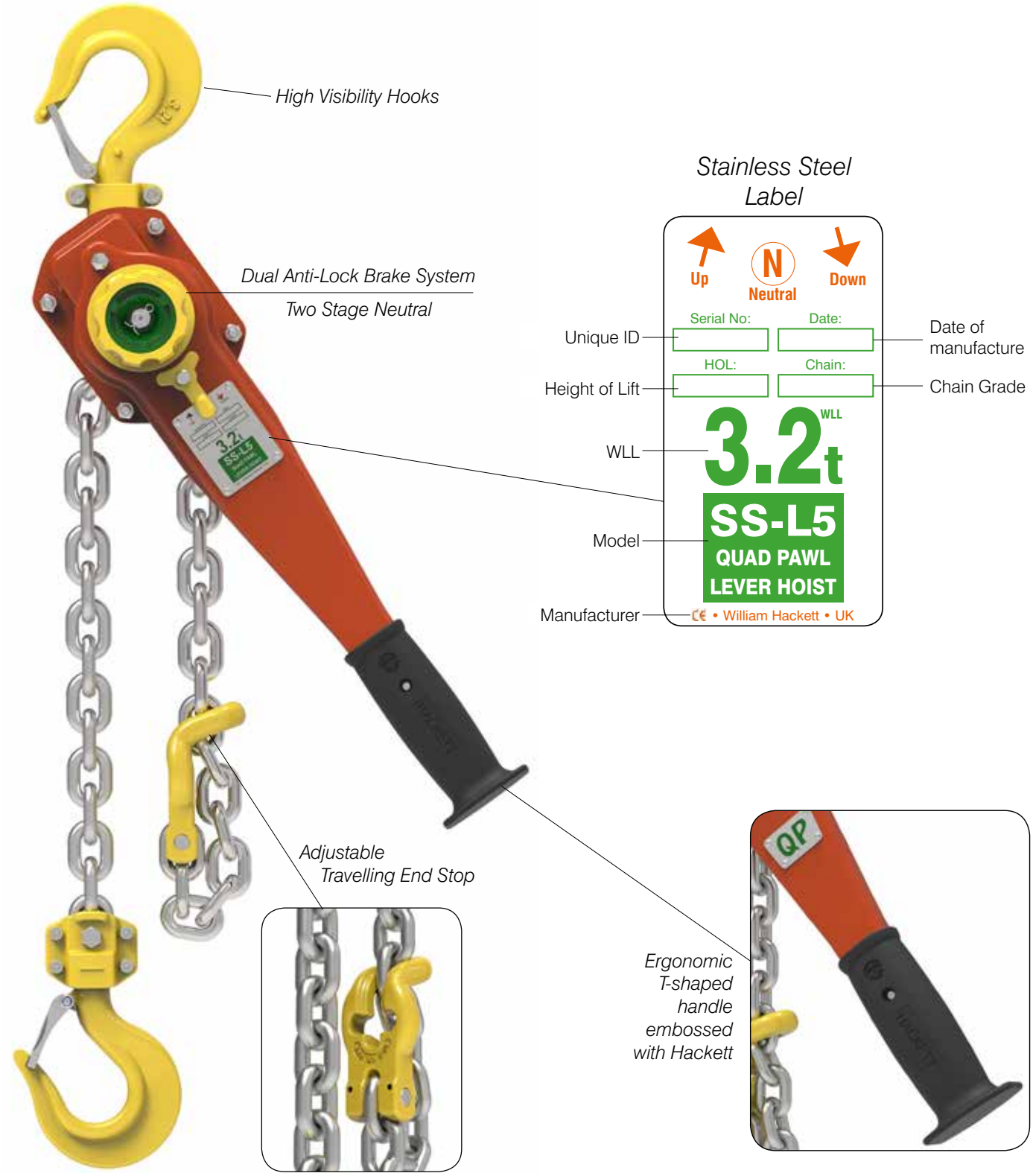
- TEMPERATURE RANGE: -40°C to +120°C.

- OPTIONAL EQUIPMENT: can be fitted with an overload limiter and hook adaptors to allow any Grade 8 fixing to be fitted suiting various applications.

- SAFETY FACTOR: 4: 1.

- MANUFACTURED AND PROOF TESTED: in the UK.

SS-L5 QP LEVER HOIST FEATURES



BRAKE MECHANISM: 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.

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HIGH PERFORMANCE WATERPROOF GREASE: used throughout enhancing the corrosion protection.

WILLIAM HACKETT ADAPTOR HOISTS

Lifting and rigging operations vary greatly which over many years has led to the development of a wide range of forged hook attachment products.

The William Hackett hook adaptor enables hoists to be fitted with any Grade 8 or Grade 10 termination component to enhance the suitability for a specific lifting or rigging application.

The hook adaptor allows lateral flex up to 90° and full 360° rotation without reduction in the working load limit.

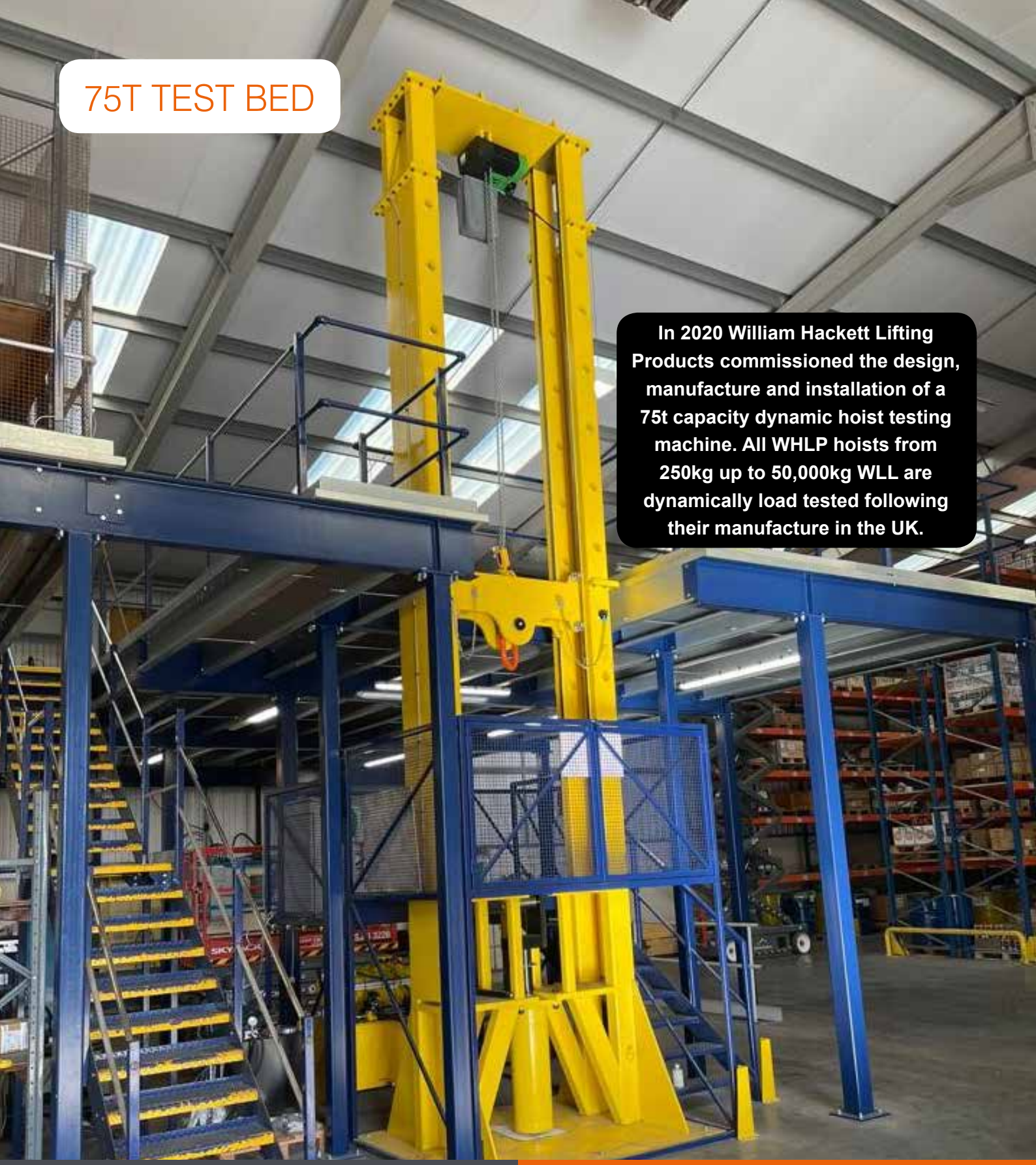
360° rotation

180° pivot

Manufactured in the UK and available from stock

Option on all WH hoists

75T TEST BED



In 2020 William Hackett Lifting Products commissioned the design, manufacture and installation of a 75t capacity dynamic hoist testing machine. All WHLP hoists from 250kg up to 50,000kg WLL are dynamically load tested following their manufacture in the UK.

Safe and continual performance of lifting equipment crucially depends on minimising risk through improved resilience to failure.

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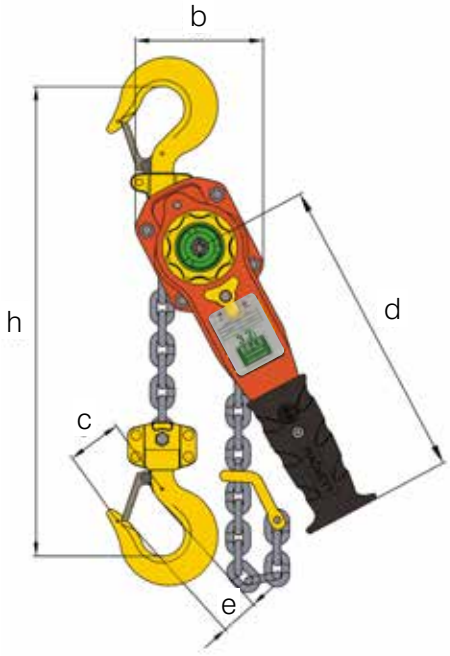
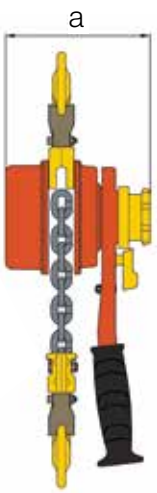
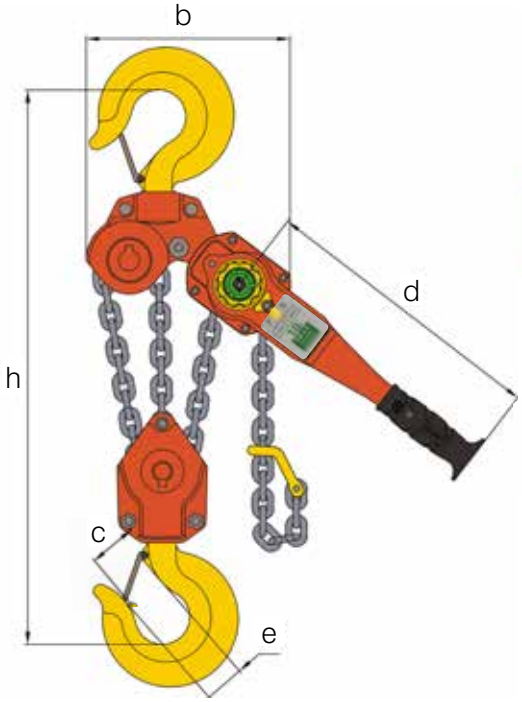
PRODUCT SPECIFICATION, DIMENSIONS AND WLL FOR SS-L5 QP LEVER HOISTS

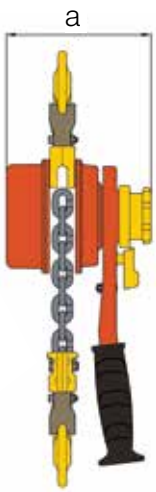
Single Fall





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	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	5.9	0.70
035.SS.160	1.6	1	7.1 x 19.9	164	126	54.5	265	36	335	7.4	1.12
035.SS.320	3.2	1	10 x 28	196	159	60.5	415	42	395	13.7	2.23
035.SS.630	6.3	2	10 x 28	196	218	85.5	415	52.5	540	26.4	4.46
035.SS.1000	10.0	3	10 x 28	196	298	86.0	415	59	680	40.1	6.69
035.SS.1500	15.0	6	10 x 28	196	420	-	415	80	1000	70.2	13.38

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"The SS-L5 QP overcomes jamming and malfunctions that can be experienced when using simpler first-generation products, minimising project downtime or costly delays to work scopes, providing reassurance and peace of mind for operators and contractors."

Ben Burgess (Director)