

# Camlok®

## LOADING HORIZONTAL PLATE CLAMPS

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## THS CLAMP

**WLL 750 - 1,500 KG (PER PIECE)**

EN- OPERATING MANUAL

(ALSO APPLICABLE FOR SPECIAL VERSIONS)

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**Introduction**

Products of Columbus McKinnon Corporation Limited have been built in accordance with the state-of-the-art and generally accepted engineering standards. Nonetheless, incorrect handling when using the products may cause dangers to life and limb of the user or third parties and/or damage to the hoist or other property.

The operating company is responsible for the proper and professional instruction of the operating personnel. For this purpose, all operators must read these operating instructions carefully prior to the initial operation.

These operating instructions are intended to acquaint the user with the product and enable them to use it to the full extent of its intended capabilities. The operating instructions contain important information on how to operate the product in a safe, correct and economic way. Acting in accordance with these instructions helps to avoid dangers, reduce repair costs and downtimes and to increase the reliability and lifetime of the product. 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, the commonly accepted regulations for safe and professional work must also be adhered to.

The personnel responsible for operation, maintenance or repair of the product must read, understand and follow these operating instructions.

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 is committed to ensure safe and trouble-free operation of the product.

**THS Clamp**

Model	WLL kg	Jaw capacity Z mm	Weight kg
THS750	750	0-20	3.2
THS1500	1500	0-35	6.1

Table 1

**General Safety**

- ⚠ ALWAYS wear practical, protective clothing, gloves and footwear as a minimum.
- ⚠ ALWAYS bear in mind your safety and the safety of others while using this equipment.
- ⚠ DO NOT operate this equipment, if you feel ill, tired or are under the influence of alcohol or drugs.
- ⚠ This equipment MUST NOT be used to carry or lift personnel.

**ALWAYS** check the operation of your Camlok lifting clamp before use.

**ALWAYS** place the palm of the hand on top of the load.

**ALWAYS** stand clear when lifting or lowering.

**NEVER** leave a suspended load unattended or place a plate down on edge for a long period of time.

**NEVER** exceed the maximum working load limit

**NEVER** lower fast, **ALWAYS** lift and lower gently.

**General Safety**

**ALWAYS** keep a record of inspections and repairs.

**ALWAYS** transport the load as close to the floor as possible.

**NEVER** use a worn or damaged Camlok lifting clamp.

**NEVER** lift more than one plate/product at a time.

**NEVER** stand under a suspended load and if guiding a load by hand, **NEVER** grip the load with fingers on the underside.

**NEVER** pull or push the load where the crane cannot reach

**NEVER** force the locking lever.

**Product Overview**

The THS horizontal plate clamps are specifically designed to be used when loading plate horizontally into presses, shears, guillotines and other industrial machines or where the CH clamps are not suitable. The unique design of the THS allows them to be used individually when loading plate. However, when transporting plate horizontally the THS clamps should be used in pairs. Other features of this clamp include a spring loaded safety lock that ensures the clamp remains on the plate in the unloaded position prior to lifting. Maximum plate surface hardness 300 Brinell / 32 Rockwell C.

**Fitting:**

- If the beam is too short/long for the plate, clamps with teeth are needed. Otherwise, the clamps would be sliding on/out.
- Check that the plate is free from grease, standing water, oil, scale and is not coated with paint or film.
- For long plates use 2 pairs of clamps and a lifting beam.
- For transporting the plate horizontally two clamps should be used.
- Check the weight of the clamp and ensure the lifting sling is slack.
- Position the clamps on opposite edges of the plates in line with the center of gravity (for single pair operation).
- To close the clamp, press down the lever
- Take care not to damage the lifting surfaces.
- Check correct fitting and position before lifting.
- Check chain sling for twisting.

**Lifting & Transport:**

- For short plates, a single pair of clamps can be used. For long plates, when the deflection gets too much ( $d=L/30$ ) two pair clamps and a lifting beam must be used.
- For round plates, it is suggested to use three or more clamps equally spaced around the circumference and attached to a 3- leg sling to prevent the plate from tilting.
- DO NOT use endless chain slings or 4 leg slings.
- Reposition the clamps if the plate tilts more than 5° to the side.
- Never exceed the maximum working load limit or pick up loads weighing less than the minimum working load limit as marked on each clamp.
- Check position and fitting of clamp as weight is applied
- Check for obstacles prior to lift. Lift slowly and smoothly at all times.

**Lifting & Transport:**

- Lifting slings must be vertical at all times.
- Always keep clear of the area below and surrounding the load while lifting and transporting as the plate may kick or swing as it lifts from the floor.
- Minimise the danger area by moving plates as close to the ground as possible.
- Take precautions to stop the load from swinging.
- The maximum chain sling angle, shown in following, must not exceed 30°
- It is forbidden to apply lateral tensile forces with an inclination angle of more than 15° to the load lifting attachment.

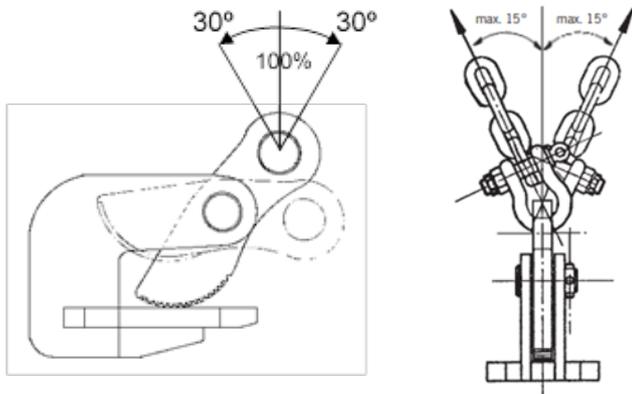


Figure 1

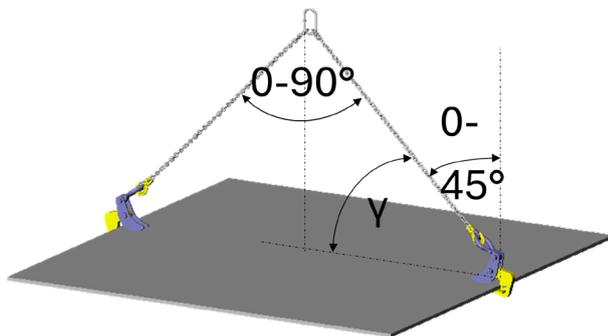


Figure 2

**Release:**

- Place loads down gently. Fast lowering may release the clamp.
- To release the plate the suspension must be lowered until the load lifting attachment is completely load-free and/or the suspension eye can be moved freely. The lever can now be switched to the "Open" position again and the load lifting attachment can be removed from the load.
- The clamp should only be released when the entire load is removed.

**Testing/Service:**

All Camlok lifting clamps are tested before sale to a proof load of twice the working load limit. Any clamp that has been repaired must be tested to this load before re-entering service.

**Care and Maintenance:**

The maintenance schedule is based on normal usage of clamps operating in a workshop environment. Maintenance frequency must be increased if clamps are subject to heavy usage or operated in adverse conditions.

Fasteners fitted to 'Camlok' clamps are retained with Loctite 270 Thread Locking Compound unless bolt is secured with a nylon nut. DO NOT use any other grade. For maintenance, use heat to loosen locking compound (up to 80°). Always keep a record of inspections and repairs.

The components which need to be inspected are detailed in the table below with correct frequency.

	Check	Daily	Weekly	3 Months
A	Smooth operation	✓	✓	✓
B	Welds for cracks	✓	✓	✓
C	Distortion in the shell plates	✓	✓	✓
D	Obvious signs of damage	✓	✓	✓
E	Clean teeth, remove all grit, dirt & mud	-	✓	✓
F	Lubricate all moving parts with a soft grease	-	✓	✓
G	Fasteners for integrity & tightness	-	✓	✓
H	Distortion in jaw bolt, internal links & spring	-	-	✓
I	Jaw & pad wear	-	-	✓
J	Locking cam handle for wear	-	-	✓
K	Spring tension	-	-	✓

Table 2

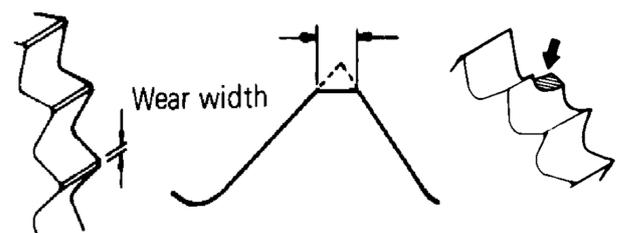


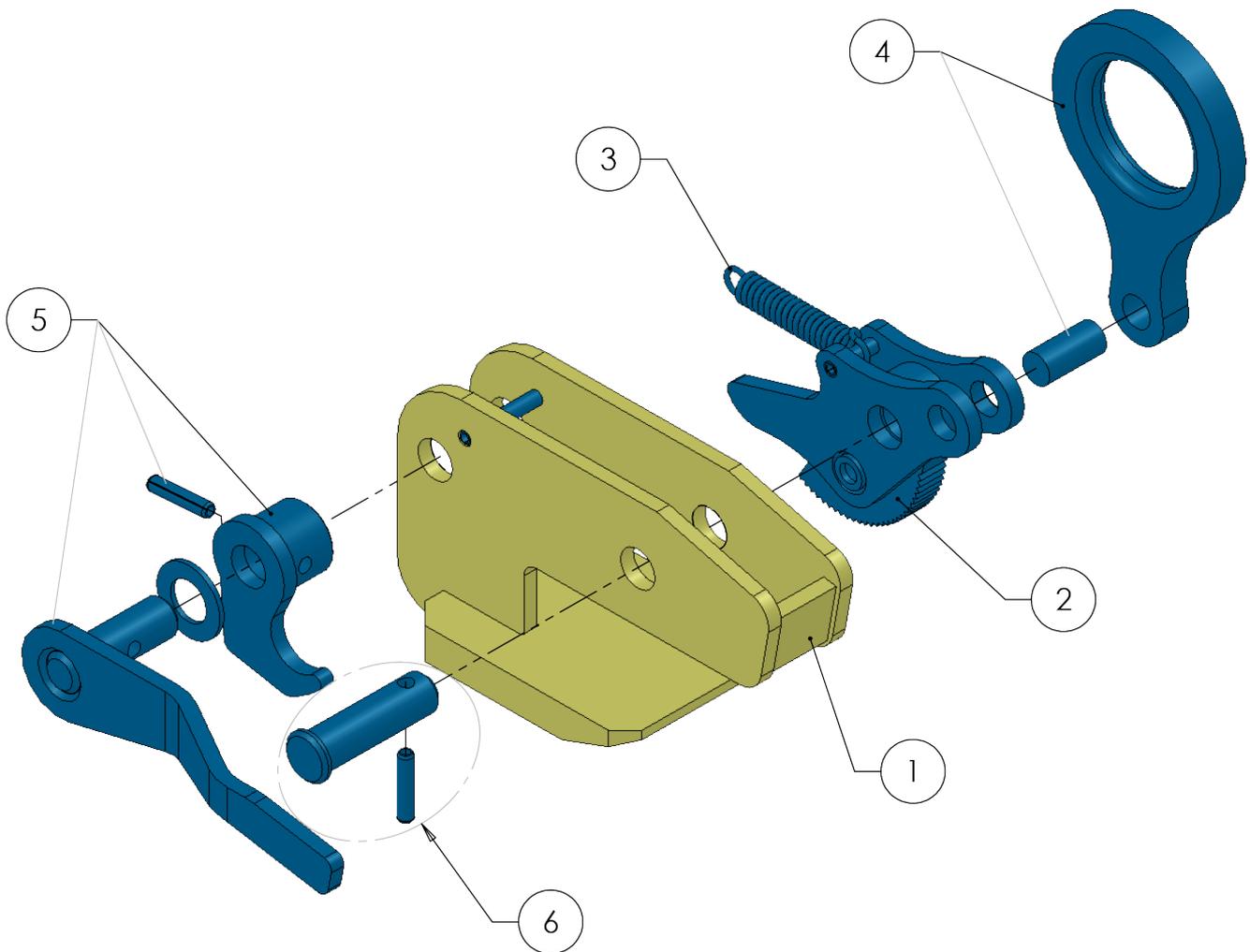
Figure 3 - The maximum wear width as shown above should not exceed the dimensions shown in the table below.

THS750	THS1500
0.6-0.8 mm	0.6-0.8 mm

Table 3

**Note:** Chipped teeth are only acceptable if the chip is less than half the width of the tooth and the adjoining teeth are undamaged.

THS Spares Breakdown:



REF	THS0.75	THS1.5	THS3	THS4.5	DESCRIPTION
1	TBA	TBA	TBA	TBA	Shell Assy
2	N59000321	N59000322	N59000323	N59000324	Internal Assy
3	N4300006431	N59911966	N59911979	N59911992	Spring Only
4	N59811865	N5911965	N59911978	N59911991	Hookring Assy
5	N59000381	N59000424	N59000425	N59000327	Handle & Cam
6	TBA	N59911969	N59911982	N59911995	Jaw Pin

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## COLUMBUS MCKINNON

Columbus McKinnon has a history of over 150 years and is a world leader in lifting and intelligent motion control technology. The innovative portfolio of high-quality brands, including Stahl CraneSystems, Magnetek, Pfaff-silberblau, Duff-Norton, Yale, Dornier, CM and montratec addresses the needs of our customers by enhancing safety and promoting growth and efficiency. Experience, expertise and innovation

combined with a deep understanding of user needs are the formula for success that has long underpinned our portfolio of hoists, material handling equipment and lifting accessories. Columbus McKinnon is a global organization headquartered in Charlotte, USA (North Carolina). Its global presence includes offices and manufacturing facilities in North America, Latin America, Europe, Africa and Asia.



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