Camlok®

CONCRETE PIPE LIFTING CLAMPS

BTG CLAMP

WLL 1500 - 3,000 KG (PER TRIPLE)

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 him 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.

BTG Clamp

Model	WLL kg	Jaw capacity Z mm	Mouth depth mm	Pressure line F mm	Chain Ø mm	Weight Kg per triple
BTG1500/3	1500	40-120	165	100	6	34
BTG3000/3	3000	50-180	245	175	10	60

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.

General Safety

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.

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 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.

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 BTG concrete pipe lifting clamps are sold in sets of three, and they come complete with a 3-legged chain sling (the working load limits shown are based on a set of three clamps). They are designed for the vertical transportation of concrete pipe sections with a diameter of up to 2000mm. Attachment and removal of the clamps from the pipes is extremely easy due to the simple and straightforward design. The BTG are engineered according to DIN 4034.

Fitting:

- 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 he 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 two pair clamps and a lifting beam must be used. For round plates, it is suggested to use three or more clamps 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 5º to the side.

Lifting & Transport:

- 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 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 20°- 90°

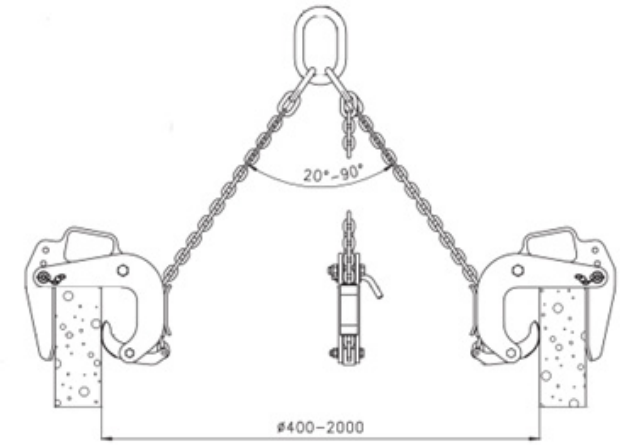

Figure 1 - The maximum chain sling angle must not exceed 20°- 90°

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 the bolt is secured with a nyloc nut. DO NOT use any other grade. For maintenance, use heat to loosen locking compound (up to 80ºC). Always keep a record of inspections and repairs.

The components which need to be inspected are detailed in table 2 with the 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 and locator pin and	-	-	✓
I	Jaw & pad wear	-	-	✓

Table 2

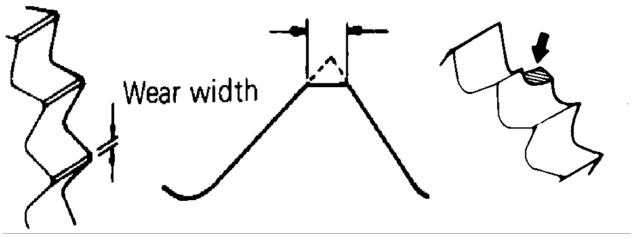

Figure 2 - The maximum wear width as shown above should not exceed the dimensions shown in the table below.

BTG1500/3	BTG3000/3
0.6-0.8 mm	0.8-1.0 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.

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