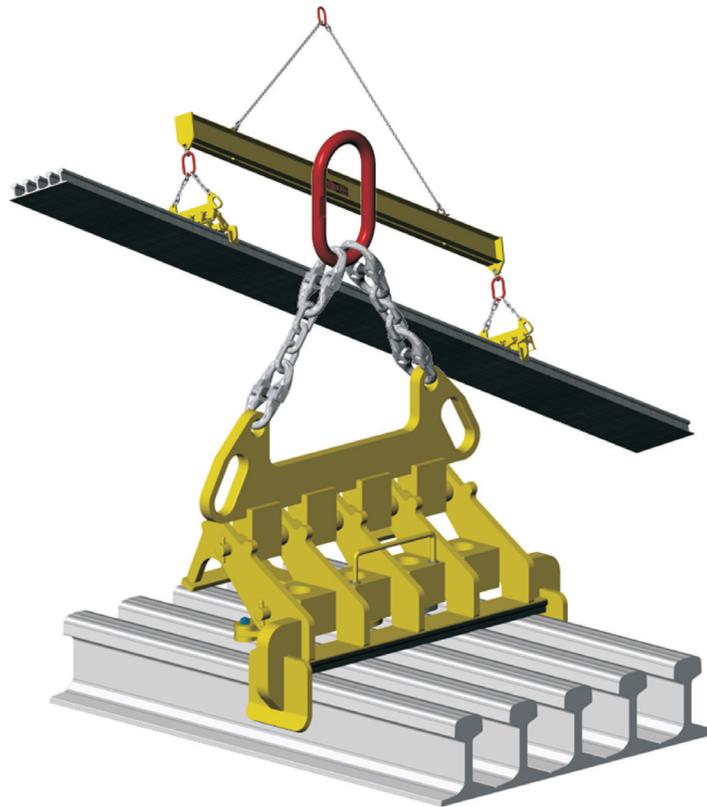


Camlok®

FIXED MULTI-RAIL GRABS



MR GRAB

WLL 5,000 - 8,000 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 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.

MR Multi-rail grab

Model	WLL kg	Number of rails	Weight Kg
MR3	5000	3	84
MR4	5000	4	108
MR5	5000	5	132
MR6	6000	6	156
MR7	7000	7	180
MR8	8000	8	204

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 MR Multi-rail grabs have been designed to facilitate the fast bulk handling of a specific rail section.

The grabs are locked onto the rails by swiveling toes that locate under the rail-head and top clamp body that rotates in a cam action, pressing a hard rubber lined horizontal beam onto the top of the railhead. The rubber lined contact beam prevents marking or damage.

Two clamps are recommended at centers of 50% to 60% of rail length for rails up to 20 meters long. For rails longer than 20 meters., three clamps at center distance between outer clamps of 65% to 75% of rail length must be used. (NB. Clamps must be within rated WLL).

Rails to be lifted must be stacked with bottom flange toes touching. All rails must be of the same rail section size.

Fitting:

- Check that the rails are free from grease, standing water, oil, scale and is not coated with paint or film.
- All rails must be stacked on their base flanges with edges touching.
- Two clamps are used on all rail lengths, but three clamps are recommended on rail lengths above 20 meters in order to reduce the flexing of the rails
- The toes of the Multi-rail clamps must always be suspended facing towards with other with locking handles towards the rail ends. If three clamps are used the center clamp should be positioned with its toe towards the higher end of the rail if rails are to be tilted, to assist loading.
- The recommended distance between outer two clamps is 50%- 60% of rail length using two clamps and 65%-75% when using three clamps
- Lower clamp and guide by hand so that the feet pass between the railheads until the clamp rests upon the stops.

Fitting:

- Rotate locking lever through 90° and the spring catch will be heard to 'snap' into position. Check that the lever is locked by attempting to return the lever to the unlocked position. If the correct locking position cannot be achieved, one or more of the rails will be found to be out of position and they should be correctly positioned and re-locked. **DO NOT LIFT IF THERE IS ANY DOUBT THAT LOCKING HAS NOT OCCURRED.**
- Check the weight of the clamp and ensure the lifting sling is slack.
- Take care not to damage the lifting surfaces.
- Check correct fitting and position before lifting.
- Check chain sling for twisting.

NOTE: The clamps can be used to move lesser amounts of rail than the maximum. The minimum number of rails that can be handled at one time is two. The rails must be evenly balanced about the centre of the clamp. The maximum out of balance is one rail. (I.e. 4 rails in a 5-rail clamp are permissible. If 3 rails are to be moved then one rail from each side of the clamp must be omitted. All the rails must be touching each other, gaps between the rails is not permissible.

Lifting & Transport:

- If the Hook is too big, use a master link and a drop chain fitted to a clamp with a chain link.
- 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 rails may kick or swing as it lifts from the floor.
- Minimise the danger area by moving girder as close to the ground as possible.
- Take precautions to stop the load from swinging.
- The rails shall only be lifted vertically, and the angles shall not exceed 25°.

Release:

- Place loads down gently. Fast lowering may release the clamp.
- Ensure that rails will land on a flat surface (and also not move after release) and lower until clamps rest on their stops
- Lift spring operated safety catch and return the locking handle to the unlocked position.
- When all clamps are fully unlocked, lift carefully to prevent accidental lifting of the rails by the edges of the feet
- Do not force or hit the lever.

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.

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 nylon nut. DO NOT use any other grade. For maintenance, use heat to loosen locking compound (up to 80° C). Always keep a record of inspections and repairs.

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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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