

User Guide

# Mechanical Manhole Ring Lifter



## Product Information

### **Overview**

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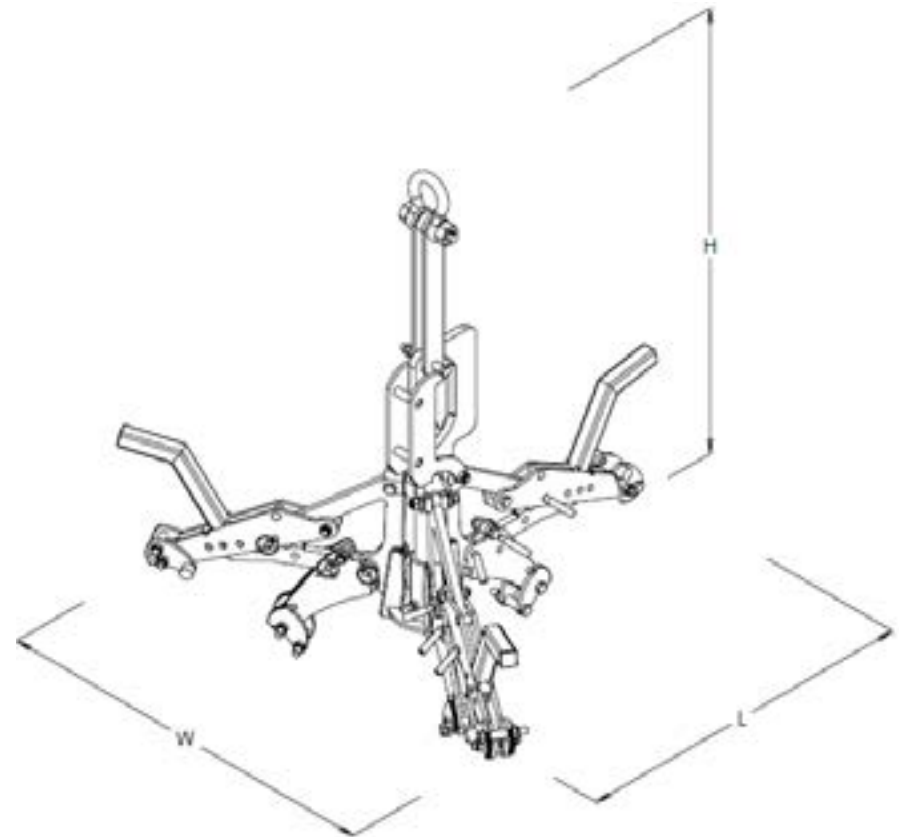
The Conquip Mechanical Manhole Ring Lifter is an adjustable grab designed for quickly and safely lifting, transporting and placing manhole rings, shafts, cones and base units. The unique clamping and release mechanism is operated by the machine driver, allowing all personnel to be safely away from the working area.

### **Key Benefits**

- High capacity and easily adjustable for different size manhole rings.
- Single person operation by the machine driver.
- Eliminates the requirement for special slinging points.

## Product Information Specification

Item	Product Code
Mechanical Manhole Ring Lifter	CA212AA-02500



<sup>1</sup>Working Load Limit

Height	Width	Length	Weight	WLL <sup>1</sup>
1225mm	1075mm	1250mm	110kg	2500kg

## Original Working Instructions

# Usage Instructions

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### Important Usage Notes

- Before lifting, ensure that the manhole ring is on a stable and level ground.
- Do not lift when on an incline or uneven ground.
- Do not allow hands or feet to come between or below the lifter and the load.
- Do not attempt to adjust or manhandle a load whilst it is in a raised position.
- Do not drag the load; this equipment is for lifting the load clear of the ground.
- Ensure the Mechanical Manhole Ring Lifter is kept at a sensible height and is guided by a slinger / signaller at all times to avoid personnel injury.
- Do not attempt to lift multiple items at one time.
- This piece of equipment is designed to lift certain sized loads. Do not attempt to lift manhole rings with a diameter and/or depth that is too small or big for the ring lifter.

### Usage Instructions

1. Attach a suitably rated lifting chain to the crane or other suitable lifting apparatus.
2. Attach the chain to the lifting point at the top of the Mechanical Manhole Ring Lifter. Always ensure that the hook's gate is correctly closed.
3. Raise the lifter and manoeuvre to the material to be lifted.
4. The lifter will need to be adjusted to suit the internal diameter of the manhole ring that is to be lifted prior to inserting into the top opening.
5. Adjustment is achieved by removing the lynch pins and socket pins and repositioning the bracket holders to the correct position for the diameter of the ring, according to the nominal diameter markings on the brackets.
6. Once the brackets are positioned in the correct place, replace the socket pins and lynch pins to secure them in the correct position.
7. If using the higher level of brackets to lift the manhole ring, the lower level of brackets must be moved inwards as far as possible.
8. All three brackets must be positioned to the same nominal diameter to achieve even lifting.

## Original Working Instructions

# Usage Instructions

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### Usage Instructions Continued

9. Ensure that all pins are in place and secure before lifting.
10. Once adjusted and ready to use, position the lifter over the load, checking that it is centrally aligned before lowering.
11. Move the load tie rod to the 'release' position.
12. Lower the lifter into the centre of the ring, resting all three stabilisers of the lifter on the top edge of the manhole ring.
13. Ensure that all stabilisers are resting on the upper edge of the manhole ring before lifting. There must be not be a gap of more than 15mm from the top of the manhole ring to any of the stabilisers.
14. Release the chain suspension until the load tie rod moves downwards.
15. Move the load tie rod into the 'lift' position.
16. The Mechanical Manhole Ring Lifter is now ready to be lifted.
17. Carefully raise the load just of the ground and check for balance and stability.
18. Carefully transport the load to its required destination, taking care not to jolt the load.
19. When in position, lower the manhole ring until in contact with the ground.
20. To release the manhole ring, lift the chain suspension and load tie rod so it moves to the 'release' position.
21. Once the manhole ring is released from the lifter, raise the lifter out of the manhole ring.
22. Once the lifter is finished with and free of any load, lower to the ground and release from the lifting apparatus.

# Original Working Instructions

## Safety Instructions

### Basic Safety

A site-specific Risk Assessment, and lift plan where applicable, must be completed by the responsible person before using this equipment to control risks, produce a safe system of work and ensure safety for you, your colleagues and others. Your risk assessment will determine the correct Personal Protective Equipment (PPE) for the task you are doing. You must use it. Conquip recommends that you should wear:

- Suitable clothing
- Gloves
- Hard hat
- Protective footwear (steel toecaps)
- Safety glasses



### Important Safety Notes

- Read these instructions before using this equipment. If there is anything you do not understand or if you have any concerns do not use this equipment. Contact your supervisor or Conquip Engineering Group for advice.
- You must check that you have considered all the safety requirements for the task you are doing and that this equipment is suitable.
- You must protect bystanders and the general public by preventing access to the working area.
- Do not use this equipment if you are tired, unwell or under the influence of alcohol or drugs. If you are taking any medicine or undergoing treatment you should inform your supervisor.

### Usage & Transportation

- Never unevenly load this equipment.
- The weight of the equipment, together with its attachments, must be added to the weight of the load when calculating the total load that will be imposed on the lifting apparatus / operating machine.
- This equipment must be used in conjunction with the load ratings of the lifting apparatus / operating machine. (Refer to the manufacturers' load ratings and original working instructions).
- Make sure you know how to use this equipment and understand all aspects of its operation in case of emergency.
- This equipment weighs more than 25kg. Do not lift or manhandle without machine assistance.
- Do not operate this equipment near overhead power lines.
- Take care in confined spaces, near ceilings or similar hazards. This equipment was designed for vertical lifting. Do not drag, or swing.
- Before operating this equipment, check that you have enough space for you to work safely and make sure that the working area is clear of hazards, obstructions and personnel.
- Before lowering equipment make sure that the landing zone is clear and capable of accepting the size and weight of the load.
- Crush Risk. Keep hands and feet clear of the equipment at all times to avoid injury.
- Do not exceed the maximum Working Load Limit (WLL) shown on the serial plate. Ensure that the WLL on the individual lift points is not exceeded.
- Before lifting, check that the load is secured, balanced and stable. Allow space for the equipment to move if the load shifts.

### Personnel

- All personnel must wear relevant personal protective equipment.
- Do not wear loose clothing or jewellery and tie back long hair to avoid becoming tangled or trapped in this equipment. You must make everyone in the work area aware of what you are doing.
- All personnel involved in the lifting operation must be competent to do so and must have been briefed in conjunction with this User Guide available from Conquip Engineering Group, the manufacturer.

### Equipment Maintenance & Cleaning

- It is mandatory that the equipment is thoroughly examined regularly, by a qualified engineer, to ensure compliance with relevant regulation/s. (Conquip recommend to carry out thorough examination every six months).
- This product may incorporate various loose and detachable items of lifting gear. Refer to the separate requirements for the safe use of those items.
- When not being used, store the unit in a clean, upright condition and in a safe place where it will be protected from thieves and unauthorised users.
- This equipment must be inspected by the responsible person before each use and then regularly, as determined by your risk assessment or working practice. If you have any concerns about condition or suitability do not use.

## Disclaimer

### Warranty

The products supplied by Conquip Engineering Group are all guaranteed by a 12 month warranty.

Apart from where exceptions apply, Conquip Engineering Group promises to repair or replace any fault which the Company considers to be due to defective material or workmanship within 12 months of the date of sale, at no additional cost.

- Faults arising from unauthorised alterations (see modifications section below for full details).
- Damage caused by abuse, neglect, misuse or falling.
- Damage caused because of failure to follow transportation, storage, loading, cleaning or operating instructions.
- Replacement or repair of components due to fair wear and tear.
- Any consequential damage or wear arising from the use or fitting of additional or non-standard parts.

### Modifications

If any third-party modifications or alterations, involving drilling, welding, cutting or distortion of materials in any form, are to be carried out on the product, Conquip Engineering Group must provide full written approval prior to the work being carried out.

Alterations, modifications, additions or repairs must be carried out by Conquip Engineering Group's recognised distributors, if they are not carrying out the work themselves.

Conquip Engineering Group operate a continuous improvement policy and therefore reserve the right to alter technical specifications and user guide details at any point without notice.

Conquip Engineering Group will not cover or reimburse any transportation and/or shipment costs to and from their premises or their recognised agents, or any material and/or labour costs for repair, replacement or assessment against a warranty claim.

Conquip Engineering Group and/or their directors, employees, insurers or recognised agents will not be held liable for consequential damages, losses or expenses relating to the inability to use the product correctly for its purpose.

## EC Declaration of Conformity

### In accordance with EN ISO 17050-1:2004

Declaration: As defined by the Machinery Directive 2006/42/EC and subsequent amendments

We, CONQUIP ENGINEERING GROUP, herewith declare that the following indicated equipment meets the fundamental health and safety requirements concerning the EU guide line(s), due to their design and manufacture.

This declaration will be rendered null and void if the machine is changed without our approval.

Signed:



Dated: 2022

Garry Critchley, Managing Director

#### Product Code(s):

CA212AA-02500

#### EC Directive/Regulation:

2006/42/EC,  
Lifting Operations and Lifting Equipment Regulations 1998  
Provision and Use of Work Equipment Regulations 1998

#### Harmonised Standards:

BS EN ISO 12100:2010  
BS EN 13155

#### General Description/Designation:

Mechanical Manhole Ring Lifter – CA212AA-02500

#### WLL:

CA212AA-02500 = 2500kg

## Important Notes

- This User Guide is for this Conquip product only.
- Any movements of the product must be thoroughly planned before the work commences to identify potential hazards and assess risk.
- All personnel involved in lifting and transportation of this product must have read this User Guide and must be properly briefed.
- You must be competent, alert and medically fit when using this equipment. If you have a medical condition, a mental or physical disability, you must seek advice from a medical professional before using this equipment.

Talking to us is easy

**We're here to help**

Call us on 0845 520 1101

Email us at [sales@cqegroup.com](mailto:sales@cqegroup.com)

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