OPERATING, MAINTENANCE & PARTS MANUAL



Before installing hoist, fill in the information below.

Model Number	
Purchase Date	
Rated Load	

RATED LOADS 1/4 TO 1/2 TONNES 250 KG TO 500 KG



Follow all instructions and warning for inspecting, maintaining and operating this hoist.

The use of any hoist presents some risk of personal injury or property damage. That risk is greatly increased if proper instructions and warnings are not followed. Before using this hoist, each operator should become thoroughly familiar with all warnings, instructions and recommendations in this manual. Retain this manual for future reference and use.

Forward this manual to operator. Failure to operate equipment as directed in manual may cause injury.





CM HOIST PARTS AND SERVICES ARE AVAILABLE IN THE UNITED STATES AND CANADA

PARTS FOR YOUR HOIST ARE AVAILABLE FROM YOUR LOCAL AUTHORIZED REPAIR STATION.

FOR THE NAME OF THE NEAREST PARTS OR SERVICE CENTER, VISIT OUR WEB SITE

WWW.COLUMBUSMCKINNON.COM OR CALL OUR CUSTOMER SERVICE DEPARTMENT AT 800-888-0985.

AN ELECTRONIC COPY OF THIS MANUAL AND THE CM HOIST PARTS AND SERVICES LIST IS AVAILABLE AT:

WWW.COLUMBUSMCKINNON.COM



Follow all instructions and warnings for inspecting, maintaining, and operating this hoist.



AWARNING

Improper operation of a hoist can create a potentially hazardous situation which, if **not** avoided, could result in <u>death</u>, or <u>serious injury</u>. To avoid such a potentially hazardous situation, the operator shall:

- 1. **NOT** operate a malfunctioning or unusually performing hoist.
- 2. **NOT** operate the hoist until you have thoroughly read and understood this manual.
- 3. NOT operate a hoist which has been modified.
- 4. NOT lift or pull more than rated load for the hoist.
- 5. **NOT** use damaged hoist or hoist that is **Not** working properly.
- NOT use hoist with twisted, kinked, damaged, or worn load chain.
- 7. **NOT** use the hoist to lift, support, or transport people.
- 8. **NOT** lift loads over people and make sure all personnel remain clear of the supported load.
- NOT attempt to lengthen the load chain or repair damaged load chain.
- Protect the hoists load chain from weld splatter or other damaging contaminants.
- 11. NOT use load chain as a sling or wrap load chain around load.
- 12. **NOT** apply the load to the tip of the hook or to the hook latch.
- 13. **NOT** apply load unless load chain is properly seated in the chain wheel(s) or sproket(s).
- 14. **NOT** apply load if bearing prevents equal loading on all load supporting chains..
- 15. NOT operate beyond the limits of the load chain travel
- 16. NOT leave load supported by the hoist unattended unless specific precautions have been taken.
- NOT allow the chain or hook to be used as an electrical or welding ground.
- NOT allow the chain or hook to be touched by a live welding electrode.
- 19. **NOT** remove or obscure the warnings on the hoist.
- 20. **NOT** operate a hoist which has **Not** been securely attached to a suitable support..
- NOT operate a hoist unless load slings or other approved single attachments are properly sized and seated in the hook saddle.
- 22. NOT operate a hoist when it is restricted from forming a straight line from hook to hook in the direction of loading.
- 23. **NOT** lift loads that are **Not** balanced and that the holding action is **Not** secure, taking up slack carefully.
- 24. **NOT** operate a hoist unless all persons are and remain clear of the supported load.
- 25. Report malfunctions or unusual performances of a hoist, after it has been shut down until repaired.
- 26. **NOT** operate a hoist on which the safety placards or decals are missing or illegible.
- Be familiar with operating controls, procedures and warnings.

A CAUTION

Improper operation of a hoist can create a potentially hazardous situation which, if not avoided, could result in <u>minor</u> or <u>moderate</u> injury. To avoid such a potentially hazardous situation, the operator shall:

- Maintain a firm footing or be otherwise secured when operating the hoist.
- 2. Check brake function by tensioning the hoist prior to each lift or pulling operation.
- 3. Use hook latches. Latches are to retain slings, chains, etc. under slack conditions only.
- 4. Make sure the hook latches are closed and **not** supporting any parts of the load.
- Make sure the load is free to move and will clear all obstructions.
- 6. Avoid swinging the load or hook.
- 7. Inspect the hoist regularly, replace damaged or worn parts, and keep appropriate records of maintenance.
- 8. Use Columbus McKinnon parts when repairing the unit.
- 9. Lubricate load chain as recommended in this manual.
- 10. NOT operate except with manual power.
- NOT permit more than one operator to pull on hand chain at the same time. More than one operator is likely to cause hoist overload.
- 12. **NOT** allow your attention to be diverted from operating the hoist.
- NOT allow the hoist to be subjected to sharp contact with other hoists, structures, or objects through misuse.
- 14. **NOT** adjust or repair the hoist unless qualified to perform such adjustments or repairs.

The hoists are intended for general industrial use for moving loads within their load ratings. Prior to installation and operation, the user should review the application for abnormal environmental or handling conditions.

GENERAL SAFETY INFORMATION

ADVERSE ENVIRONMENTAL CONDITIONS

Do not use the hoists in areas containing flammable vapors, liquids, gasses or any combustible dust or fibers. Do not use the hoist in highly corrosive, abrasive, wet environments or in applications involving exposure to temperatures below -10°F or above 130°F.

MOVING HAZARDOUS LOADS

The hoists are not recommended for lifting materials that could cause widespread damage if dropped. The lifting or moving of materials that could explode or cause chemical or radioactive contamination requires fail-safe, redundant supporting devices that are not incorporated into these hoists.



HOIST SAFETY IS UP TO YOU...

A WARNING

DO NOT LIFT MORE THAN RATED LOAD.

DO OPERATE WITH MANUAL POWER ONLY (ONE OPERATOR)

CHOOSE THE RIGHT HOIST FOR THE JOB...

Choose a hoist with the capacity for the job. Know the capacities of your hoists and the weight of your loads.

Then match them.

The application, the size and type of load, the attachments to be used and the period of use must also be taken into consideration in selecting the right hoist for the job.

Remember, the hoist was designed to ease our burden and carelessness not only endangers the operator, but in many cases, a valuable load.



A WARNING

DO NOT OPERATE DAMAGED OR MALFUNCTIONING HOIST.

DO NOT OPERATE WITH TWISTED, KINKED, OR DAMAGED CHAIN.

INSPECT

All hoists should be visually inspected before use, in addition to regular, periodic maintenance inspections.

Inspect hoists for operations warning notices and legibility.

Deficiencies should be noted and brought to the attention of supervisors. Be sure defective hoists are tagged and taken out of service until repairs are made.

Under no circumstances should you operate a malfunctioning hoist.

Check for gouged, twisted, distorted links and foreign material.

Do not operate hoists with twisted, kinked, or damaged chain links.

Load chain should be properly lubricated.

Hooks that are bent, worn, or whose openings are enlarged beyond normal throat opening should not be used. If latch does not engage throat opening of hook, hoist should be taken out of service.

Chains should be checked for deposits of foreign material which may be carried into the hoist mechanism.

Check brake for evidence of slippage under load.

A WARNING

DO NOT PULL AT AN ANGLE. BE SURE HOIST AND LOAD ARE IN A STRAIGHT LINE.

DO NOT USE LOAD CHAIN AS A SLING.

USE HOIST PROPERLY







Be sure hoist is solidly held in the uppermost part of the support hook arc.

Be sure hoist and load are in a straight line. Do not pull at an angle.

Be sure load is hooked securely. Do not tip load the hook. Do not load hook latch. Hook latch is to prevent detachment of load under slack chain conditions only.

Do not operate with hoist head resting against any object. Lift the load gently. Do not jerk it.



A WARNING

DO NOT LIFT PEOPLE OR LOADS OVER PEOPLE

PRACTICE CAUTION ALWAYS

Do not lift co-workers with a hoist.

Make sure everyone is clear of the load when you lift.

Do not remove or obscure operational warning notices.

OPERATOR SERVICE

CLEANING

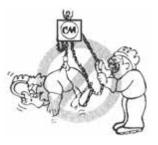
Hoists should be kept clean and free of dust, dirt, moisture, etc., which will in any way affect the operation or safety of the equipment.

LUBRICATION

Chain should be properly lubricated.

AFTER REPAIRS

Carefully operate the hoist before returning it to full service.





VIOLATIONS OF ANY OF THE WARNINGS LISTED MAY RESULT IN SERIOUS PERSONAL INJURY TO THE OPERATOR OR NEARBY PERSONNEL BY NATURE OF RELEASED LOAD OR BROKEN HOIST COMPONENTS.



FOREWORD

This manual contains important information to help you properly install, operate and maintain your hoist for maximum performance, economy and safety.

Please study its contents thoroughly before putting your hoist into operation. By practicing correct operating procedures and by carrying out the recommended preventive maintenance suggestions, you will experience long, dependable and safe service. After you have completely familiarized yourself with the contents of this manual, we recommend that you carefully file it for future reference.

The information herein is directed to the proper installation, use, care and maintenance of the hoist and does not comprise a handbook on the broad subject of rigging.

Rigging can be defined as the process of lifting and moving heavy loads using hoists and other mechanical equipment. Skill acquired through specialized experience and study is essential to safe rigging operations. For rigging information, we recommend consulting a standard textbook on the subject.

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APPLICATION

With compacted design and enclosed body, this hoist is made of Aluminum, has very light weight, easy to carry and widely be used in home, factory, field construction, agriculture, warehouse and so on for lifting and small equipment installation purpose. It is also widely used in chemical industry and marine industry where anti-corrosion properity required.

FEATURES AND ADVANTAGES

- 1. Compacted design, light weight, easy to carry.
- Made of Aluminum alloy, safe and reliable with strong metallic visual sense.
- Two-stage carburizing and quenching gear, high mechanical transmission efficiency and durability.
- 4. Double pawl brake system providing more safety.
- Special heat treated flexible hook, can be stretched, but will never break
- 6. Zinc-Plated load chain and hand chain with high brightness.
- Hand chain can be pulled in 360 degree, and wider range of application.

PRECAUTION

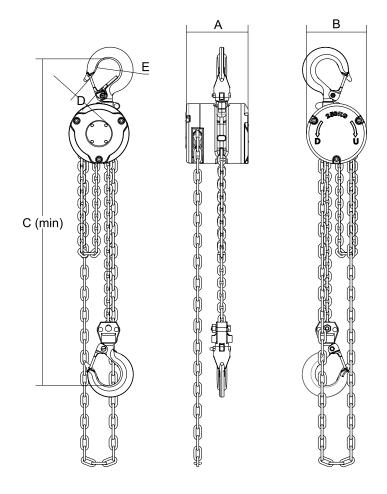
- 1. Do not pull chain inclinedly
- 2. Do not operate hoist over the rated load
- 3. Do not pull hoist other than manpower
- 4. Before use, check hoist and be sure no damage, gears and load chain are well lubricated, no load operation works well.
- Before lift, check and be sure the hoist has been well hooked and connected with the object to move, hook latch be well closed, chain is vertical, no twisted link, no kinked links
- Operator should stand on hand wheel side, pull the chain to rotate wheel clockwise for lift purpose. Change the direction to down loads slowly
- 7. Never lift people or load over people to avoid personal injury
- Pull the chain uniform and gentle, do not give too much force to avoid chain link jump or block
- Stop operation if pulling effort is much larger than rated force to avoid inside structure damage that may lead to loads falling
- 10. Detach hoist hook only when loads down to floor safely
- After use, handle hoist gently, lubricated and keep in dry, ventilate area
- 12. When removing ball bearings from hand wheel cover, it is recommended to use a degreaser spray or similar to ensure the ball bearings can be filled easily into the hand chain cover upon re-assembly. Ball bearings should then be re-greased.

MAINTENANCE

- Clean hoist after each use, keep in dry area to avoid rust and corrosion
- 2. Properly clean and lubricate the gear and bearing according to the usage frequency
- 3. When assembly hoist, be sure the "O"mark on small gears well aligned and on same line
- 4. When assembly brake system, be sure the ratchet gear teeth well engaged with pawl spring tip. Pawl spring can control pawl sensitively. After put on hand wheel, rotate wheel clockwise and press ratchet gear and brake pad tightly on the brake disc. Rotate the hand wheel anticlockwise, there should be small gap between wheel, ratchet gear and brake pad.
- 5. Never disassemble hoist by unqualified person
- After each clean and maintenance, the hoist should be tested under no load and under rated load for any new operation purpose.
- 7. During lubrication or operation, the brake disc should keep clean and check frequently to be sure the brake system works well



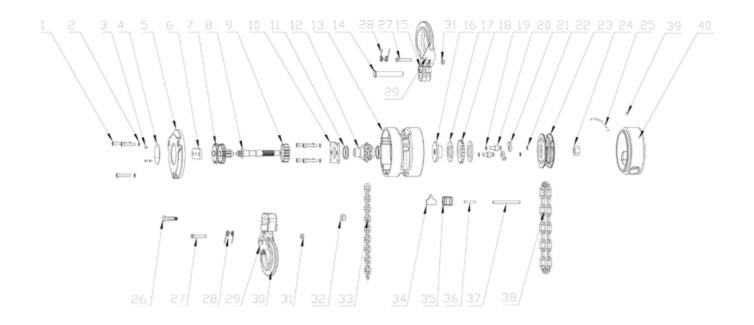
DATA SHEET



Model		MHU-0.25	MHU-0.50	
Capacity t		0.25	0.5	
Standard Lift ft. / m		10 / 3.05	10 / 3.05	
Running Test Load Ibf / kN		843 / 3.75	1686 / 7.5	
Effort Required to Lift Rated Loa	nd lbf / N	36 / 160	45 / 200	
Diameter of Load Chain	in./mm	.118 / 3	.16 / 4	
Strands of Load Chain		1	1	
Dimensions in. / mm	А	3.43 / 87	3.86 / 98	
	В	3.31 / 84	4.06 / 103	
	С	9.65 / 245	11.22 / 285	
	D	.83 / 21	.91/ 23	
	E	1.26 / 32	1.38 / 35	
Net Weight lbs / kg		5.70 / 2.59	8.73 / 3.96	
Extra weight per ft. / m of extra lift lbs / kg		1.37 / .62	1.65 / .75	



PARTS LIST



Reference No.	Description	CMCO Part Number		Qty
	·	0.25 t	.50 t	
14, 15, 27, 28, 29, 31	Upper Hook Kit (includes Latch Kit assembled, Upper Hook Pin loose)	MHU-0121	MHU-0122	1
25, 39	Ball Set (Contains 77 Balls & 1 Plug)	MHU-0010	-	1 kit
25, 39	Ball Set (Contains 69 Balls & 1 Plug)	-	MHU-0011	1 kit
27, 28, 29, 31	Safety Latch Kit (includes latch, spring, screw, and nut)	MHU-0123	MHU-0124	2
26, 27, 28, 29, 30, 31, 32	Bottom Hook Kit (includes Latch Kit assembled, Lower Hook Pin & Nut Ioose)	MHU-0131	MHU-0132	1
33	Load Chain	85830	051316	As Req'd
38	Hand Chain	N04300019		As Req'd
37	End Link Pin	MHU-0020	MHU-0021	1



NOTES



NOTES



WARRANTY

LIMITATION OF WARRANTIES, REMEDIES AND DAMAGES

INDEMNIFICATION AND SAFE OPERATION

Buyer shall comply with and require its employees to comply with directions set forth in instructions and manuals furnished by Seller and shall use and require its employees to follow such instructions and manuals and to use reasonable care in the use and maintenance of the goods. Buyer shall not remove or permit anyone to remove any warning or instruction signs on the goods. In the event of personal injury or damage to property or business arising from the use of the goods, Buyer shall within 48 hours thereafter give Seller written notice of such injury or damage. Buyer shall cooperate with Seller in investigating any such injury or damage and in the defense of any claims arising therefrom.

If Buyer fails to comply with this section or if any injury or damage is caused, in whole or in part, by Buyer's failure to comply with applicable federal or state safety requirements, Buyer shall indemnify and hold Seller harmless against any claims, loss or expense for injury or damage arising from the use of the goods.

CMCO Warranty (HOISTS)

- A. Columbus McKinnon Corporation ("Seller") warrants to the original end user ("Buyer") that: (a) for a period of one (1) year from the date of Seller's delivery of the goods (collectively, the "Goods") to the carrier, the electrical components of the Goods will be free from defects in workmanship and materials; and (b) for the life of the Goods, the mechanical components of the Goods will be free from defects in workmanship and materials.
- B. IN THE EVENT OF ANY BREACH OF SUCH WARRANTY, SELLER'S SOLE OBLIGATION SHALL BE EXCLUSIVELY LIMITED TO, AT THE OPTION OF SELLER, REPAIR OR REPLACEMENT, F.O.B. SELLER'S POINT OF SHIPMENT, OF ANY GOODS THAT SELLER DETERMINES TO HAVE BEEN DEFECTIVE OR, IF SELLER DETERMINES THAT SUCH REPAIR OR REPLACEMENT IS NOT FEASIBLE, TO A REFUND OF THE PURCHASE PRICE UPON RETURN OF THE GOODS TO SELLER. NO CLAIM AGAINST SELLER FOR ANY BREACH OF (i) SUCH WARRANTY WITH RESPECT TO THE ELECTRICAL COMPONENTS OF ANY GOOD SHALL BE VALID OR ENFORCEABLE UNLESS BUYER'S WRITTEN NOTICE THEREOF IS RECEIVED BY SELLER WITHIN ONE (1) YEAR FROM THE DATE OF SELLER'S DELIVERY TO THE CARRIER AND (ii) SUCH WARRANTY WITH RESPECT TO THE MECHANICAL COMPONENTS OF ANY GOOD SHALL BE VALID OR ENFORCEABLE UNLESS BUYER'S WRITTEN NOTICE THEREOF IS RECEIVED BY SELLER WITHIN ONE (1) YEAR FROM THE DATE THE DATE ANY ALLEGED CLAIM ACCRUES. EXCEPT FOR THE WARRANTY SET FORTH ABOVE, SELLER MAKES NO OTHER WARRANTIES WITH RESPECT TO THE GOODS, WHETHER EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUALITY AND/OR THOSE ARISING BY STATUTE OR OTHERWISE BY LAW OR FROM ANY COURSE OF DEALING OR USE OF TRADE, ALL OF WHICH ARE HEREBY EXPRESSLY DISCLAIMED.
- C. IN NO EVENT SHALL SELLER BE LIABLE TO BUYER OR ANY THIRD PARTY WITH RESPECT TO ANY GOOD, WHETHER IN CONTRACT, TORT OR OTHER THEORY OF LAW, FOR LOSS OF PROFITS OR LOSS OF USE, OR FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL, DIRECT OR INDIRECT DAMAGES, HOWSOEVER CAUSED. SELLER'S MAXIMUM LIABILITY TO BUYER WITH RESPECT TO THE GOODS SHALL IN NO EVENT EXCEED THE PRICE PAID BY BUYER FOR THE GOODS THAT ARE THE SUBJECT OF THE APPLICABLE CLAIM.

- D. Seller shall not be liable for any damage, injury or loss arising out of the use of the Goods if, prior to such damage, injury or loss, such Goods are: (1) damaged or misused following Seller's delivery to the carrier; (2) not maintained, inspected, or used in compliance with applicable law and Seller's written instructions and recommendations; or (3) installed, repaired, altered or modified without compliance with such laws, instructions or recommendations
- E. This warranty is limited and provided only to the original end user. Each Good must be registered within sixty (60) days of receipt of each product to establish eligibility. Please register at www.columbusmckinnon.com/en-us/warranty-registration/ or submit registration card via US mail.
- F. Any action against Seller for breach of warranty, negligence or otherwise in connection with the electrical components of any Good must be commenced by Buyer within one (1) year after: (a) the date any alleged claim accrues; or (b) the date of delivery of the Goods to Buyer, whichever is earlier. Any action against Seller for breach of warranty, negligence or otherwise in connection with the mechanical components of any Good must be commenced by Buyer within one (1) year after the date any alleged claim accrues.

A WARNING

Alterations or modifications of equipment and use of non-factory repair parts can lead to dangerous operation and injury.

TO AVOID INJURY:

- Do not alter or modify equipment.
- · Do use only factory replacement parts.







































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