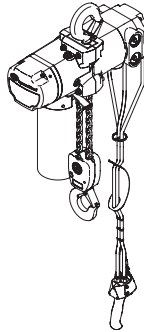




CE UK  
CA EAC

45550183  
Edition 6  
July 2022

## Compact Lift Air Chain Hoist Models CL125K, CL250K and CL500K



### Product Information

- |                                         |                                              |
|-----------------------------------------|----------------------------------------------|
| <b>EN</b> Product Information           | <b>SL</b> Specifikacije izdelka              |
| <b>ES</b> Especificaciones del producto | <b>SK</b> Špecifikácie produktu              |
| <b>FR</b> Spécifications du produit     | <b>CS</b> Specifikace výrobku                |
| <b>IT</b> Specifiche prodotto           | <b>ET</b> Toote spetsifikatsioon             |
| <b>DE</b> Technische Produktdaten       | <b>HU</b> A termék jellemzői                 |
| <b>NL</b> Productspecificaties          | <b>LT</b> Gaminio techniniai duomenys        |
| <b>DA</b> Produktspecifikationer        | <b>LV</b> Ierices specifikācijas             |
| <b>SV</b> Produktspecifikationer        | <b>PL</b> Informacje o Produkcie             |
| <b>NO</b> Produktspesifikasjoner        | <b>BG</b> Информация за Продукта             |
| <b>FI</b> Tuote-erittely                | <b>RO</b> Informații Privind Produsul        |
| <b>PT</b> Especificações do Produto     | <b>RU</b> Технические характеристики изделия |
| <b>EL</b> Προδιαγραφές προϊόντος        | <b>HR</b> Podaci o proizvodu                 |



Save These Instructions

**IR** Ingersoll Rand®

Only allow **Ingersoll Rand** trained technicians to perform maintenance on this product. For additional information contact **Ingersoll Rand** factory or nearest Distributor.

**For additional supporting documentation refer to Table 1. Manuals can be downloaded from [ingersollrand.com](http://ingersollrand.com)**

**The use of other than genuine Ingersoll Rand replacement parts may result in safety hazards, decreased performance and increased maintenance and will invalidate all warranties.**

Original instructions are in English. Other languages are a translation of the original instructions. Refer all communications to the nearest **Ingersoll Rand** office or distributor.

**Table 1: Product Information Manuals**

<b>Publication</b>	<b>Part/Document Number</b>
Product Safety Information Manual	MHD56295 (71441281)
Product Safety Information Manual (ATEX), Declaration of Conformity	(47682009001)
Product Parts Information Manual	MHD56407 (45550191)
Product Maintenance Information Manual	MHD56408 (45550209)
Product Installation and Operation Information Manual (English)	47699816001

## Product Description

### Description:

The Compact Lift Air Chain Hoists (**CLK**) are air powered and designed for industrial, assembly and general utility applications. **CLK** air hoists can be hookmounted to the suspension shaft of a trolley, permanent mounting structure or any mounting point capable of supporting both load and hoist.

The air supply line can be strung to the hoist using cable hangers, cable trolleys or any festooning system that will ensure the air line remains free of kinks or sharp bends and is protected from being pinched or crushed by other equipment.

The **CLK** air hoists are in conformity, when equipped with optional 'e-stop', with the most recent European Standards. Only models with a CE marking on the data (name) plate, located on the end of the hoist body, meet these requirements. CE models carry a mechanism classification 1Am/M4, and an ATEX rating of Ex h IIB T4 Gc X. Refer to Product Safety and Maintenance Information Manuals for further explanation.

## Specifications

### Model Code Explanation:

Example: **CL250K-2C10-C6-U-E**

**CL250K**    **2**    **C**    **10**    **C**    **6**    **U**    **E**

### Series (Capacity):

<b>CL250K</b>	=	<b>250 kg (551 lb), single fall</b>
<b>CL125K</b>	=	125 kg (276 lb), single fall
<b>CL500K</b>	=	500 kg (1,102 lb), double fall

### Control:

<b>0</b>	=	No Pendant
<b>2</b>	=	<b>2 Button Pendant</b>

### Top Suspension:

<b>A</b>	=	Lug Mount
<b>C</b>	=	<b>Swivel Top Hook</b>
<b>DA</b>	=	Rigid Trolley

### Load Chain Lift:

<b>10</b>	=	<b>foot (standard)</b>
<b>X</b>	=	Specify length

### Bottom Suspension:

<b>C</b>	=	<b>Swivel Snap Hook</b>
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### Pendant Control Drop:

<b>6</b>	=	<b>6 ft (standard)</b>
<b>X</b>	=	Specify Length (maximum 40 ft [12.2 m])

### Options:

<b>U</b>	=	<b>Fabric Chain Container</b>
<b>E</b>	=	<b>Emergency Stop (CE &amp; ATEX Compliant)</b>

**Table 2: General Specifications**

Hoist Models	Rated Capacity		Load Chain Falls	Pressure		Air Flow		Chain Size mm	Wt. of Chain		Unit Net Wt. with Standard 10 ft (3 m) Lift		Sound Pressure Level
	kg	lb		psi	bar	scfm	m <sup>3</sup> /min		per ft (lb)	per metre (kg)	lb	kg	
<b>CL125K</b>	125	276	1	90	6.2	32	0.91	4 x 12 DAT	0.24	0.35	34	15.4	75
<b>CL250K</b>	250	551									38	17.2	
<b>CL500K</b>	500	1102	2										

Sound measurements are in accordance with ISO 11204 and ISO 3746 test specifications for sound from pneumatic equipment.

**Hoist Performance at 90 psi (6.2 bar) Air Pressure**

Hoist Models	Rated Capacity		Lifting Speed @ Rated Load		Lifting Speed @ No Load		Lowering Speed @ Rated Load	
	kg	lb	ft/min	m/min	ft/min	m/min	ft/min	m/min
CL125K	125	276	43	13.1	56	17.1	37	11.3
CL250K	250	551	32	9.8			45	13.7
CL500K	500	1102	16	4.9	26	7.9	23	6.7

**Note:** CLK air hoists are designed for lifting with a 5:1 minimum safety factor at rated load.

**Installation**

Prior to installing the product, carefully inspect it for possible shipping damage.

Hoists are supplied fully lubricated from the factory. Refer to "Lubrication" section for recommended oils and lubrication intervals. Lubrication of the load chain is recommended before initial hoist operation. Remove shipping lubrication plug and replace with breather.

**⚠ WARNING**

**A falling load may result in death or serious injury. Before installing, read the 'Product Safety Information Manual'.**

**⚠ CAUTION**

**Owners and users are advised to examine specific, local or other regulations, including American National Standards Institute and/or OSHA Regulations which may apply to a particular type of use of this product before installing or putting hoist to use.**

**Mounting**

Ensure hoist is properly installed before use. Seek advice from qualified source should questions arise before and during installation.

Ensure structure from which hoist is suspended is able to support the weight of the hoist plus the weight of the maximum rated load with a generous factor of at least 500% of the combined weights.

**Hook Mounted Hoist**

Place hook over mounting structure. Make sure hook latch is engaged.

When hoist is suspended by a top hook, the supporting member should rest completely within the saddle of the hook and be centered directly above hook shank.

**⚠ CAUTION**

**Do not use a supporting member that tilts hoist.**

**Trolley Mounted Hoist**

When installing a trolley on a beam, measure the beam flange and temporarily install the trolley on the hoist to determine the exact distribution and arrangement of the spacers. Adjust the spacers in accordance with the trolley manufacturer's literature to provide the correct distance between the wheel flange and the beam. The number of spacers between the trolley side plate and the mounting lug on the hoist must be the same in all four locations in order to keep the hoist centered under the I-beam. The remaining spacers must be equally distributed on the outside of the side plates.

**⚠ WARNING**

**At least one mounting spacer must be used between the head of each trolley bracket bolt and the trolley bracket and between each trolley bolt nut and the trolley bracket. Failure to do this could cause the hoist to fall when used improperly.**

Ensure torque trolley bolts or nuts are torqued in accordance with manufacturer's specifications. For installation of hoist and trolley on beam, make certain the side plates are parallel and vertical.

After installation ensure beam stops are in place, operate trolley over entire length of beam with a capacity load suspended 4 to 6 inches (10 to 15 cms) off the floor.

**⚠ CAUTION**

**To avoid an unbalanced load which may damage the trolley, the hoist must be centered under the trolley.**

**NOTICE**

**Trolley wheels ride on the top of the lower flange of the beam.**

## Air Supply

The air supply must be clean, free from moisture and lubricated to ensure optimum motor performance. Foreign particles, moisture and lack of lubrication are the primary causes of premature motor wear and breakdown. Using an air filter, lubricator and moisture separator will improve overall hoist performance and reduce unscheduled downtime.

Refer to 'General Specifications' on page 2. If air supply varies from what is recommended, product performance will change. The compressed air temperature must not exceed 120°F (55°C) at the motor air inlet.

Refer to Dwg. MHP0191 on page 9, A. Air Out; B. Lubricator; C. Regulator; D. Air In; E. Filter.

### Air Lines

The inside diameter of air supply lines must not be smaller than 1/2 inch (13 mm) for flexible lines and 1/2 inch (13 mm) for connectors. Before making final connections, all air supply lines should be purged with clean, moisture free air or nitrogen before connecting to inlet. Supply lines should be as short and straight as installation conditions will permit. Long transmission lines and excessive use of fittings, elbows, tees, globe valves etc. cause a reduction in pressure due to restrictions and surface friction in the lines. Note: The inlet strainer is a 3/8 inch NPT thread.

### Air Line Lubricator (standard)

The use of an air line lubricator is required and it should be replenished daily and set to provide 2 to 3 drops per minute of IR #10 (10W non-detergent) tool oil. The lubricator must have an inlet and outlet at least as large as the inlet on the motor and capable of passing at least 150 percent of the hoist SCFM requirement. Install the lubricator as close to the air inlet of the motor as possible.



#### CAUTION

- Lubricator must be located no more than 10 ft (3 m) from the motor.
- Shut off air supply before filling air line lubricator.

### Air Line Filter

Place the strainer/filter as close as practical to the motor air inlet port, but upstream from, the lubricator, to prevent dirt from entering the motor. The strainer/filter should provide 20 micron filtration and include a moisture trap. Clean the strainer/filter periodically to maintain its operating efficiency.

### Start-Up Procedures

For hoists that have been in storage the following start-up procedures are required.

1. Give the hoist an inspection conforming to the requirements in the "Inspection" section on page 6.
2. Inject a small amount of ISO VG 32 (SAE 10W) oil in the motor inlet port.
3. Operate the motor for 10 seconds in both directions to flush out any impurities.
  - a. With no load, operate hoist in "UP" direction and adjust air pressure to 90 psi (6.2 bar).
4. The hoist is now ready for normal use.

### Main Air Shut-off Valve

All hoists should have a wall mounted shut-off valve.

### Chain Container (optional feature)

The chain container is an optional accessory. Check the chain container size to make sure the length of the load chain is within the capacity of the chain container. Replace with a larger chain container if required. When a chain bucket is used, always connect the free end of the chain to the hoist.

Install the chain container per the instructions provided with the chain container kit. Run bottom block to the lowest point and run hoist in the "UP" direction to feed the chain back into the container.

#### NOTICE

**Allow chain to pile naturally in the chain container. Piling the chain carelessly into the container by hand may lead to kinking or twisting that will jam the hoist.**

### Pendant

Check that all hose connections are tight and that hoses are not twisted or crimped. Contact the factory for pendant lengths greater than 6 ft (2 m).

#### NOTICE

**To avoid damaging the pendant hose, make sure the strain relief cable, not the pendant hose, is supporting the weight of the pendant.**

## Operation

It is recommended that the user and owner check all appropriate and applicable regulations before placing this product into use. Refer to Product Safety Information Manual.

The hoist operator must be carefully instructed in his or her duties and must understand the operation of the hoist, including a study of the manufacturers literature. The operator must thoroughly understand proper methods of hitching loads and should have a good attitude regarding safety. It is the operators responsibility to refuse to operate the hoist under unsafe conditions.

**WARNING**

- The hoist is not designed or suitable for lifting, lowering or moving people.
- Never lift loads over people.
- The hook latch is intended to retain loose slings or devices under slack conditions. Use caution to prevent the latch from supporting any of the load.

**Hoist Controls****Pendant Operation**

Refer to Dwg. MHP3111 on page 9, A. Lower; B. Raise.

The pendant is a control that allows the operator to control the positioning of a load. The two-lever pendant will control hoist movement in the "UP" and "DOWN" direction. Always apply smooth even pressure to pendant levers, avoid quick starts and abrupt stops. This will allow smoother control of suspended loads and reduce undue stress on components.

**Emergency Stop**

Refer to Dwg. MHP3112 on page 9, A. Lower; B. Raise; C. Emergency Stop.

**Inspection**

Inspection information is based in part on "American Society of Mechanical Engineers" Safety Codes (ASME B30.16).

**WARNING**

- All new, altered or modified equipment should be inspected and tested by Ingersoll Rand Certified Service Technicians to ensure safe operation at rated specifications before placing equipment in service.
- Never use a hoist that inspection indicates is damaged.

Frequent and periodic inspections should be performed on equipment in regular service. Frequent inspections are visual examinations performed by operators or personnel trained in safety and operation of this equipment and include observations made during routine equipment operation. Refer to Product Maintenance Information Manual for Periodic inspections which are thorough inspections conducted by Ingersoll Rand Certified Service Technicians.

ASME B30.16 states inspection intervals depend upon the nature of the critical components of the equipment and the severity of usage. The inspection intervals recommended in this manual are based on intermittent operation of the hoist eight hours each day, five days per week, in an environment relatively free of dust, moisture, and corrosive fumes. If the hoist is operated almost continuously or more than the eight hours each day, more frequent inspections will be required. Careful inspection on a regular basis will reveal potentially dangerous conditions while still in the early stages, allowing corrective action to be taken before the condition becomes dangerous.

Deficiencies revealed through inspection, or noted during operation, must be reported to a Ingersoll Rand Certified Service Technician. A determination as to whether a condition constitutes a safety hazard must be decided, and the correction of noted safety hazards accomplished and documented by written report before placing the equipment in service.

**Frequent Inspection**

On equipment in continuous service, frequent inspections should be made by operators at the beginning of each shift. In addition, visual inspections should be conducted during regular service for any damage or evidence of malfunction.

1. **Hoist:** Check for visual signs or abnormal noises (grinding, etc.) which could indicate a potential problem. Make sure all controls function properly and return to neutral when released. Check chain feed through hoist and bottom block. If chain binds, jumps, is excessively noisy or "clicks," clean and lubricate chain. If problem persists, replace chain. Do not operate hoist until all problems have been corrected.
2. **Hooks:** Check for wear or damage, increased throat width, bent shank or twisting of hook. Replace hooks which exceed the throat opening discard width specified in Table 3 on page 5 or which exceed a 10° twist. Refer to Dwg. MHP0040 on page 9, A. Throat Width; and refer to Dwg. MHP0111 on page 9, A. Twisted DO NOT USE; B. Normal Can Be Used. If hook latch snaps past tip of hook, the hook is sprung and must be replaced. Refer to the latest edition of ASME B30.10 "HOOKS" for additional information. Check hook support bearings for lubrication or damage. Ensure that they swivel easily and smoothly.

**Table 3: Hook Throat Normal and Discarded Width**

Hoist Model	Capacity (tonne)	Throat Width *		Discard Width *	
		inch	mm	inch	mm
CL125K	1/8	0.945"	24	1.042"	27.6
CL250K	1/4				
CL500K	1/2				

\* Dimensions are with no latch installed.

3. **Hook Latch:** Make sure hook latch is present and operating. Replace if necessary.
4. **Air System:** Visually inspect all connections, fittings, hoses and components for indication of air leaks. Repair any air leaks found. Check and clean filter.
5. **Emergency Stop:** Check Emergency Stop for proper operation.
6. **Limit Switch Devices:** Without a load on the hook, the load block should be inched into the limit switch (run at slow speed), and the function of the limit switch, to stop the load, should be confirmed. Similarly, this should be performed for full extension of the chain.
7. **Brake System:** Check braking system for proper operation.

8. **Load Chain:** Examine each of the links for bending, cracks in weld areas or shoulders, traverse nicks and gouges, weld splatter, corrosion pits, striation (minute parallel lines) and chain wear, including bearing surfaces between chain links. Refer to Dwg. MHP0102 on page 9, A. Diameter; B. Welded Area; C. Wear in these areas. Replace a chain that fails any of the inspections. Check chain lubrication and lubricate if necessary. Refer to 'Load Chain' in 'Lubrication' section on page 7.

#### NOTICE

**The full extent of load chain wear cannot be determined by visual inspection. At any indication of load chain wear, inspect the chain and chain wheel in accordance with instructions in "Periodic Inspection." Refer to Product Maintenance Information Manual.**

9. **Load Chain Reeving:** Ensure welds on standing links are away from load sheave. Reinstall chain if necessary. Make sure chain is not capsized, twisted or kinked. Adjust as required. Refer to Dwg. MHP0043 on page 9, A. Make certain bottom block has NOT been flipped through the chain falls.
10. **Labels and Tags:** Check for presence and legibility. Replace if necessary.

**Table 4: Frequent Inspection Interval**

Item	Conditions		
	Normal	Heavy	Severe
All functional operating mechanisms for maladjustment and unusual sounds.	Monthly	Weekly	Daily
Hoist Braking System for proper operation.	Monthly	Weekly	Daily
Hooks, per guidance given in manual.	Monthly	Weekly	Daily
Hook Latch for proper function.	Monthly	Weekly	Daily
Load Chain, per guidance given in manual.	Monthly	Weekly	Daily
Load Chain reeving for compliance to manufacturers recommendations.	Monthly	Weekly	Daily
Air System; lines, valves, and other parts for leakage.	Monthly	Weekly	Daily
Pendant and e-stop; confirm proper operation.	Monthly	Weekly	Daily
Limit Switches.	Monthly	Weekly	Daily

#### Hoists Not in Regular Use

- Equipment which has been idle for a period of one month or more, but less than six months, shall be given an inspection conforming to the requirements of 'Frequent Inspection' before being placed in service.
- Equipment which has been idle for a period of over six months shall be given a complete inspection conforming with the requirements of 'Periodic Inspection' before being placed in service. Refer to Product Maintenance Information Manual.
- Standby equipment shall be inspected at least semiannually in accordance with the requirements of 'Frequent Inspection'.

#### Storing the Hoist

- Always store the hoist in a no load condition.
- Wipe off all dirt and water.
- Oil the chain, hook pins and hook latch.
- Place in a dry location.
- Plug hoist air inlet port.
- Before returning hoist to service, follow instructions in section 'Hoists Not in Regular Use' on page 6.

#### Lubrication

To ensure continued satisfactory operation of the hoist, all points requiring lubrication must be serviced with correct lubricant at the proper time interval as indicated for each assembly.

Lubrication intervals recommended in the Maintenance manual are based on intermittent service run time and if the hoist is operated more frequently a more frequent lubrication schedule will be required. Also, lubricant types and change intervals are based on operation in an environment relatively free of dust, moisture, and corrosive fumes. Use only those lubricants recommended. Other lubricants may affect performance of hoist. Failure to observe this precaution may result in damage to the hoist and its associated components.

Interval	Lubrication Checks
Start of each shift.	If used, check flow and level of air line lubricator (approximately 2 to 3 drops per minute required at maximum motor speed).
Monthly.	Lubricate components supplied by grease fittings.
	Inspect and clean or replace air line filter.
Yearly.	Drain and refill hoist reduction gear oil.

## General Lubrication

### WARNING

- Pneumatic Hoist Motors use oil to prevent excessive heat build up and to prevent wear. Oil levels must be properly maintained.
- Always collect lubricants in suitable container and dispose of in an environmentally safe manner.

## Reduction Gear Assembly

### NOTICE

**Fluid level verification is recommended every 400 hours, or sooner depending on severity of use, of actual runtime.**

The reduction gear assembly is oil lubricated, and is intended to be changed only at major overhaul intervals. It is recommended that the gear cover not be removed to prevent contamination.

The recommended grade of oil for the gearbox is Dextron III ATF. Oil Capacity for reduction gear assembly is 1.35 oz. (40 ml).

### Motor

The recommended grade of oil for the air motor is IR #10 (10W non-detergent) tool oil.

### Load Chain

### WARNING

**Failure to maintain a clean and well-lubricated load chain will result in rapid load chain wear that can lead to chain failure which may result in death, severe injury, or substantial property damage.**

1. Lubricate each link of load chain weekly, or more frequently, depending on severity of service.
2. In corrosive environments, lubricate more frequently than normal.
3. Lubricate each link of the load chain and apply new lubricant over existing layer.
4. Use **Ingersoll Rand LUBRI-LINK-GREEN®** or an ISO VG220 to 320 (SAE 50W to 90 EP) oil.

## Warranty

### Ingersoll Rand Limited Warranty

**Ingersoll Rand Company** ("IR") warrants to the original user its material handling products ("Products") to be free of defects in material and workmanship for a period of one year from the date of purchase. IR will, at its option either (1) repair, without cost, any Product found to be defective, including parts and labor charges, or (2) replace such Products or refund the purchase price, less a reasonable allowance for depreciation, in exchange for the Product. Repairs or replacements are warranted for the remainder of the original warranty.

If any Product proves defective within its original one-year warranty period, it should be returned to any Authorized Product Service Distributor, transportation prepaid with proof of purchase or warranty card. This warranty does not apply to Products which IR has determined to have been misused or abused, improperly maintained by the user, or where the malfunction or defect can be attributed to the use of nongenuine IR repair parts.

**IR MAKES NO OTHER WARRANTY, CONDITION OR REPRESENTATION OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, STATUTORY OR OTHERWISE, AND ALL IMPLIED WARRANTIES AND CONDITIONS RELATING TO MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY DISCLAIMED.**

IR's maximum liability is limited to the purchase price of the Product and in no event shall IR be liable for any consequential, indirect incidental or special damages of any nature arising from the sale or use of the Product, whether in contract, tort or otherwise.

**Note:** Some states do not allow limitations on incidental or consequential damages, so that the above limitations may not apply to you. This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

Fulcrum series electric winch, product code 405-002: 2 year warranty.

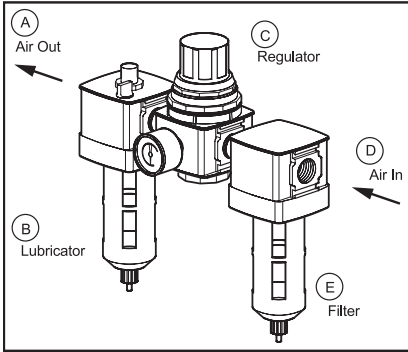
### Winch and Hoist Solutions Extended Warranty

This option provides a price for extending the **Ingersoll Rand** Winch and Hoist Solutions Warranty from the standard one (1) year to two (2) years from the date of purchase. All other provisions of the standard warranty to remain in effect.

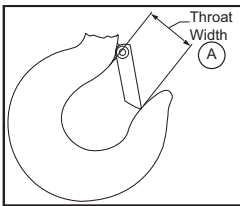
For additional information or quotations for warranties falling outside of these parameters, please contact your Client Services Representative with your requirements.



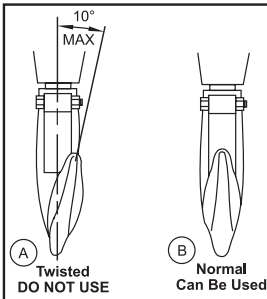
Product Information Graphics



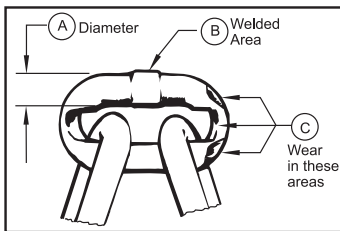
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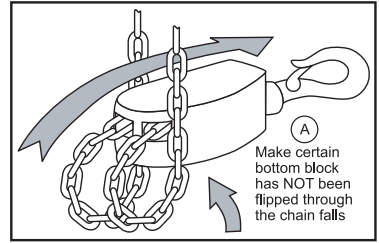
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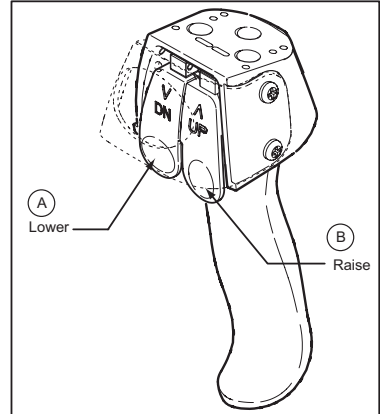
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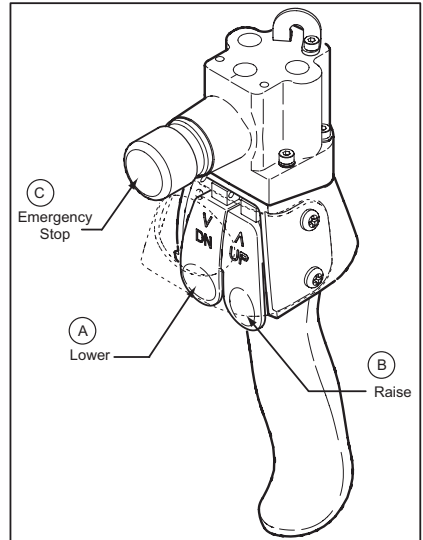
(Dwg. MHP0102)



(Dwg. MHP0043)



(Dwg. MHP3111)



(Dwg. MHP3112)