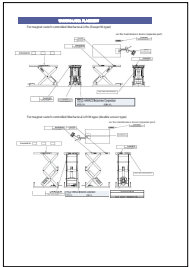


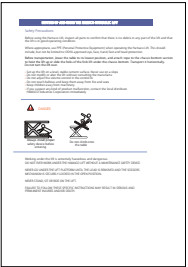
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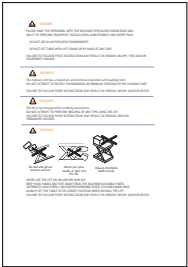
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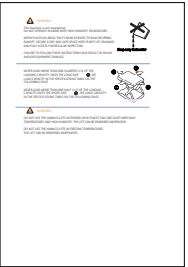
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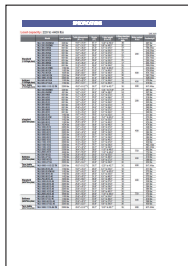
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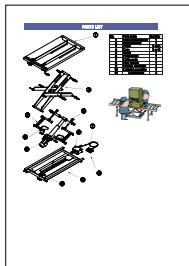
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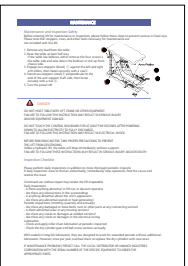
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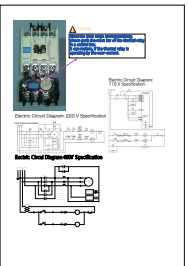
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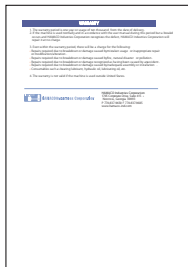
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11



12



## MECHANICAL LIFT USER MANUAL

**Thank you for purchasing the Mechanical Lift. This manual tells you what you need to know about operating this machine properly. Please read this manual carefully to ensure safe and efficient operation.**

**Read these safety practices before installing, operating or servicing Lift Tables. Failure to follow these safety practices could result in property damage, serious injury or death.**

**IMPORTANT - If you do not understand the instructions, ask your supervisor to teach you how to handle your question. Do not risk exposing yourself and/or others to possible serious injury and/or death.**

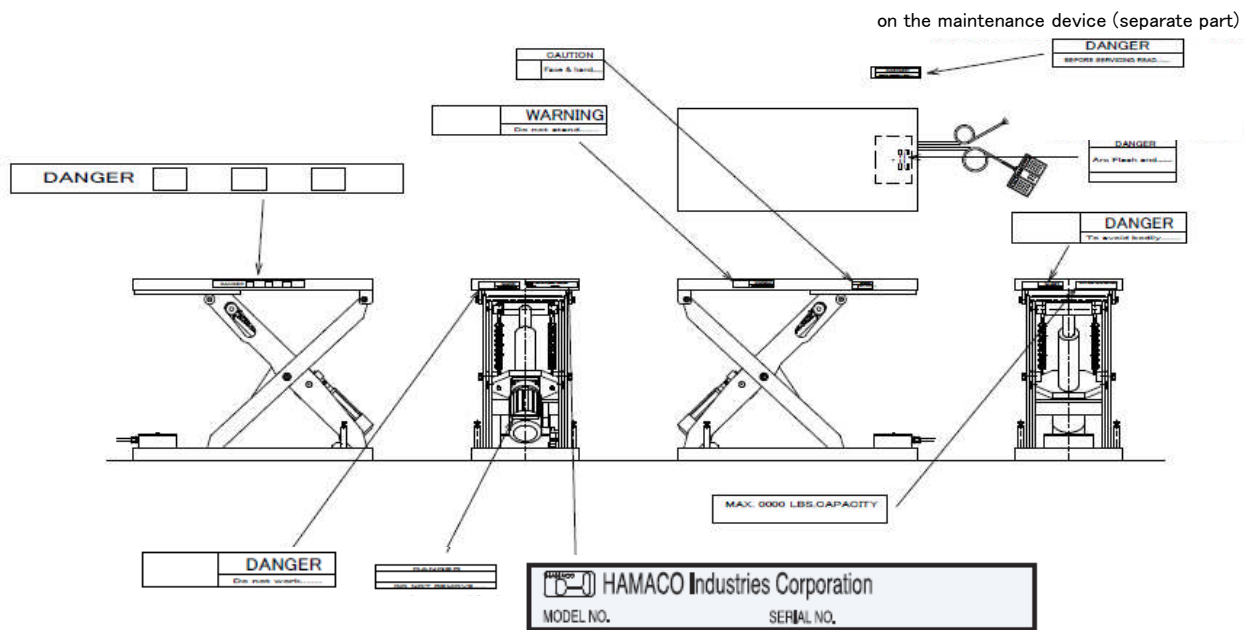
- If this manual or any of the warning labels are lost or damaged, please order replacements from the store of purchase.
- For clarification about anything in this manual, please contact HAMACO Industries Corporation.
- Keep this manual in a convenient place for easy referral.

## PART NAMES

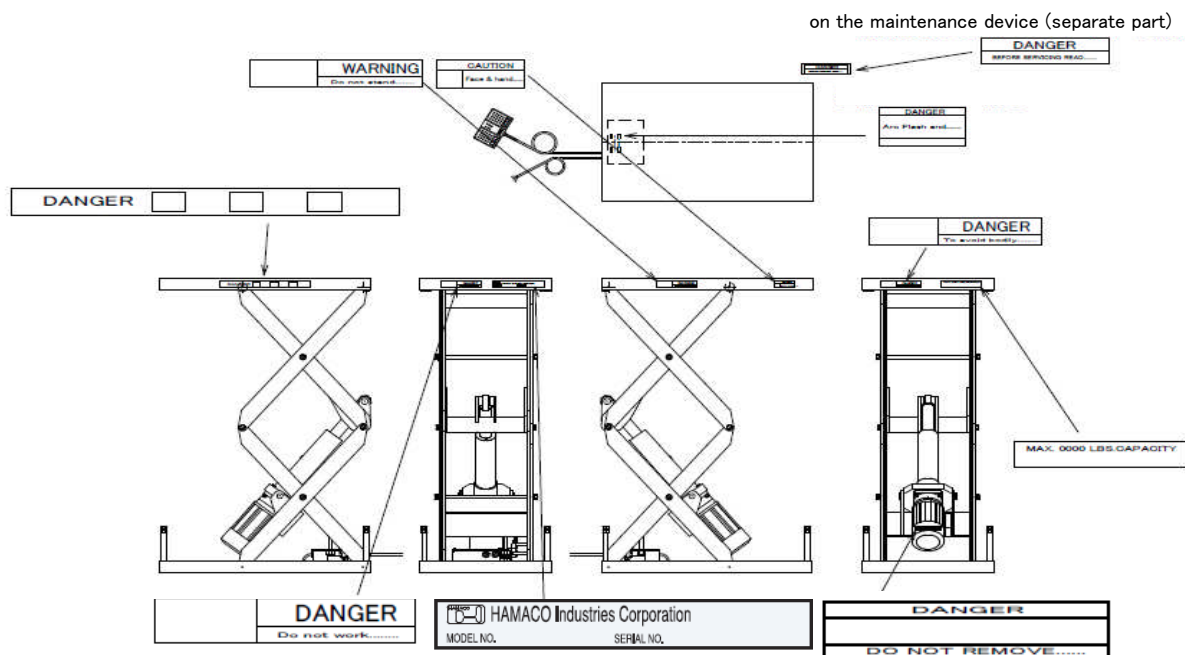


## WARNING LABEL PLACEMENT

### For magnet switch controlled Mechanical Lifts (Except W-type)



**For magnet switch controlled Mechanical Lift W-type (double scissor type)**



## SETTING UP AND USING THE HAMACO HYDRAULIC LIFT

### Safety Precautions

Before using the Hamaco Lift, inspect all parts to confirm that there is no debris in any part of the lift and that the lift is in good operating condition.

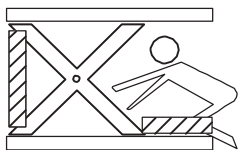
Where appropriate, use PPE (Personal Protective Equipment) when operating the Hamaco Lift. This should include, but not be limited to: OSHA approved eye, face, hand, feet and head protection.

Before transportation, lower the table to its lowest position, and attach rope to the chassis bottom section to hoist the lift up or slide the forks of the fork lift under the chassis bottom. Transport it horizontally. Do not turn the lift over.

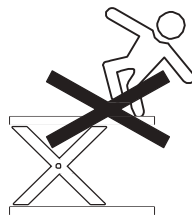
- Set up the lift on a level, stable cement surface. Never use on a slope.
- Do not modify or alter the lift without consulting the manufacturer.
- Do not adjust the volume control in the control box.
- Do not touch bellows and keep them away from fire and water.
- Keep children away from machinery.
- If you suspect any kind of product malfunction, contact the local distributor or HAMACO Industries Corporation immediately



**DANGER**



Always install proper  
safety device before  
entering



Do not climb onto  
the table

**Working under the lift is extremely hazardous and dangerous.**

**DO NOT EVER WORK UNDER THE HAMACO LIFT WITHOUT A MAINTENANCE SAFETY DEVICE.**

**NEVER GO UNDER THE LIFT PLATFORM UNTIL THE LOAD IS REMOVED AND THE SCISSORS MECHANISM IS SECURELY LOCKED IN THE OPEN POSITION.**

**NEVER STAND, SIT OR RIDE ON THE LIFT.**

**FAILURE TO FOLLOW THESE SPECIFIC INSTRUCTIONS MAY RESULT IN SERIOUS AND PERMANENT INJURIES AND/OR DEATH.**



## **DANGER**

**PLEASE HAVE THE PERSONNEL WITH THE RELEVANT SPECIALIZED KNOWLEDGE AND SKILLS TO PERFORM TRANSPORT, INSTALLATION, MAINTENANCE AND INSPECTION.**

**DO NOT USE IN AN EXPLOSIVE ENVIRONMENT.**

**DO NOT LIFT TABLE WITH LIFT CRANE OR BY HAND AT ANY TIME.**

**FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN SERIOUS INJURY, FIRE AND/OR EQUIPMENT DAMAGE.**



## **WARNING**

**The Hamaco Lift has a maximum and minimum position and loading limit. DO NOT ATTEMPT TO EXCEED THE MAXIMUM OR MINIMUM POSITION OR THE LOADING LIMIT.**

**FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN SERIOUS INJURY AND/OR DEATH.**

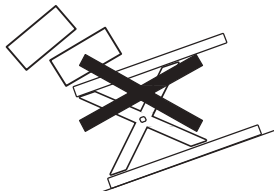


## **WARNING**

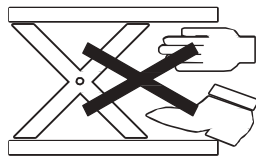
**The lift is not designed for welding operations. DO NOT ATTEMPT TO PERFORM WELDING OF ANY TYPE USING THE LIFT. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN SERIOUS AND/OR PERMANENT INJURIES.**



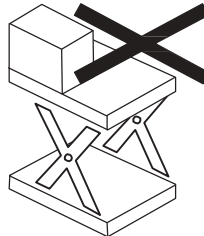
## **WARNING**



**Do not use on an uneven surface**



**Never put your hands or feet into the lift**



**Always distribute loads evenly**

**NEVER USE THE LIFT ON AN UNEVEN SURFACE.**

**KEEP YOUR HANDS AND FEET AWAY FROM THE MACHINE'S MOVABLE PARTS.**

**DISTRIBUTE LOAD EVENLY AND NEVER OVERHANG EDGES TO AVOID IMBALANCE.**

**ALWAYS SET THE TABLE TO ITS LOWEST POSITION WHEN MOVING THE LIFT.**

**FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN SERIOUS INJURY AND/OR DEATH.**



## WARNING

This machine is not waterproof.  
DO NOT OPERATE IN AREAS WITH HIGH HUMIDITY OR MOISTURE.

WHEN PLACED IN AREAS THAT CAN BE EXPOSED TO RAIN OR SPRING RUNOFF, SECURE A DRY AND SAFE SPACE WITH PLENTY OF DRAINAGE AND EASY ACCESS FOR REGULAR INSPECTION.

FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN INJURY AND/OR EQUIPMENT DAMAGE.

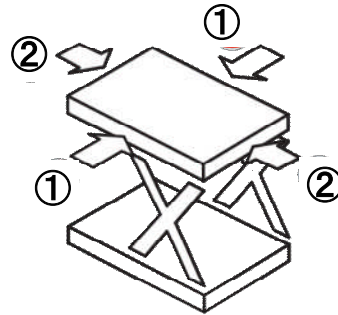


Keep away from water

---

NEVER LOAD MORE THAN ONE QUARTER (1/4) OF THE LOADING CAPACITY ONTO THE LONG SIDE ①- SEE LOAD CAPACITY IN THE SPECIFICATIONS TABLE ON THE FOLLOWING PAGE.

NEVER LOAD MORE THAN ONE HALF (1/2) OF THE LOADING CAPACITY ONTO THE SHORT SIDE ② - SEE LOAD CAPACITY IN THE SPECIFICATIONS TABLE ON THE FOLLOWING PAGE.



## WARNING

DO NOT USE THE HAMACO LIFTS OUTDOORS OR IN PLACES THAT ARE DUSTY WITH HIGH TEMPERATURES AND HIGH HUMIDITY. THE LIFT CAN BE RENDERED INOPERATIVE.

DO NOT USE THE HAMACO LIFTS IN FREEZING TEMPERATURES.  
THE LIFT CAN BE RENDERED INOPERATIVE.

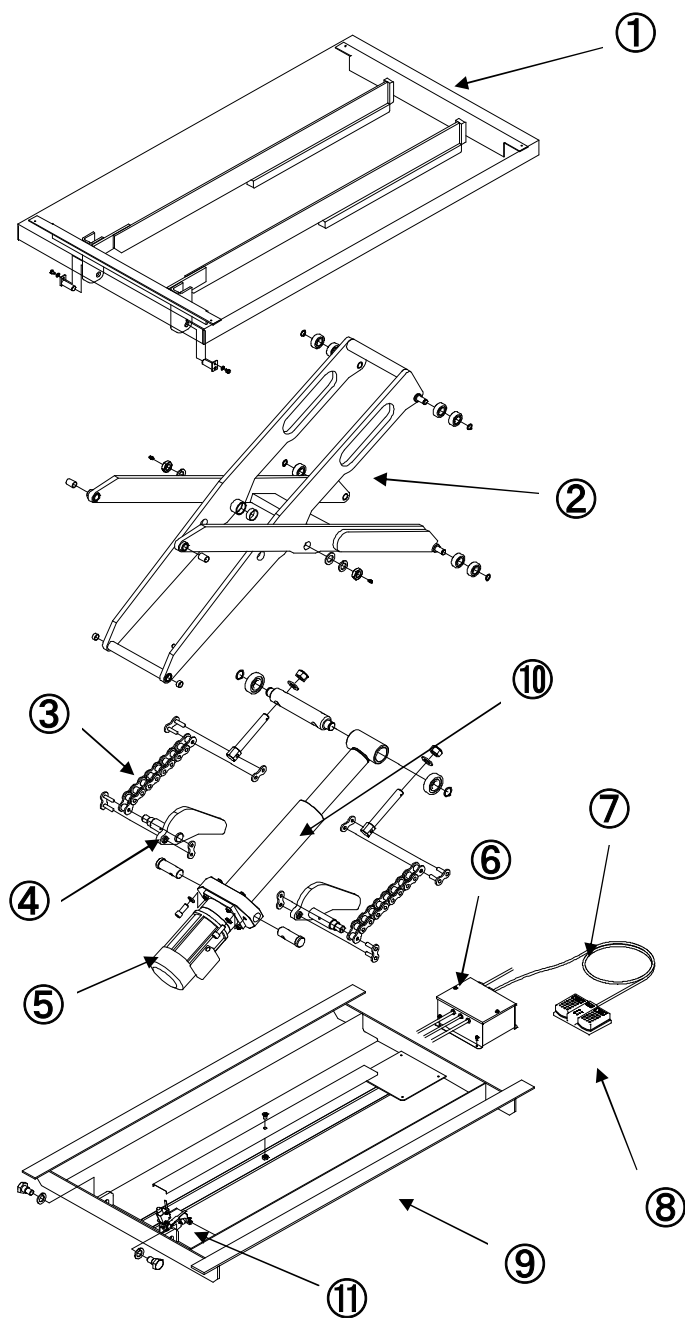
# SPECIFICATIONS

Load capacity: 220 to 4409 lbs

Unit: inch

	Model	Load capacity	Table dimensions (W × L)	Stroke (ST)	Table height (H to H1)	Lifting duration (in seconds) 60Hz	Motor output Watts	Deadweight
Standard (115V/Single phase)	MLI-100-0508W3A	220 lbs	19.7"×31.5"	57.1"	13.8" to 70.9"	26	200	267 lbs
	MLI-200-0508WA	441 lbs	19.7"×31.5"	38.2"	9.8" to 48.0"	26		227 lbs
	MLI-300-0409A	661 lbs	15.7"×35.4"	21.5"	6.1" to 27.6"	17		196.2 lbs
	MLI-300-0410A	661 lbs	15.7"×41.3"	30.5"	6.1" to 36.6"	25		218.3 lbs
	MLI-300-0509A	661 lbs	19.7"×35.4"	21.5"	6.1" to 27.6"	17		202.8 lbs
	MLI-300-0510A	661 lbs	19.7"×41.3"	30.5"	6.1" to 36.6"	25		224.9 lbs
	MLI-300-0609A	661 lbs	23.6"×35.4"	21.5"	6.1" to 27.6"	17		233.7 lbs
	MLI-300-0610A	661 lbs	25.6"×41.3"	30.5"	6.1" to 36.6"	25		260.1 lbs
	MLI-300-0809A	661 lbs	31.5"×35.4"	21.5"	6.1" to 27.6"	17		244.7 lbs
	MLI-300-0810A	661 lbs	31.5"×41.3"	30.5"	6.1" to 36.6"	25		269.0 lbs
	MLI-500-0510WA	1102 lbs	19.7"×41.3"	47.2"	16.5" to 63.0"	35		374.9 lbs
	MLI-500-0612A	1102 lbs	23.6"×47.2"	33.5"	7.1" to 40.6"	25		374.9 lbs
	MLI-750-0615A	1654 lbs	23.6"×59.1"	39.0"	9.1" to 48.0"	35		474.1 lbs
	MLI-1000-0613A	2205 lbs	23.6"×51.2"	30.7"	9.1" to 39.8"	30		383.7 lbs
bellows (115V/Single phase)	MLI-1000-1013A	2205 lbs	39.0"×52.0"	31.0"	9.0" to 40.0"	35		529.0 lbs
	MLI-500-0612JA	1102 lbs	25.6"×47.2"	29.5"	7.1" to 36.6"	18	400	370 lbs
Turn table (115V/Single phase)	MLI-500-0713JA	1102 lbs	29.5"×53.1"	33.9"	6.1" to 40.0"	18		419 lbs
	MLI-1000-1113-12-TN	2205 lbs	43.3"×51.2"×1	30.7"	12.0" to 42.7"	35	400	617.4 lbs
standard (220V/Three phase)	MLI-100-0508W3	220 lbs	19.7"×31.5"	57.1"	13.8" to 70.9"	24	200	267 lbs
	MLI-200-0508W	441 lbs	19.7"×31.5"	38.2"	9.8" to 48.0"	24		227 lbs
	MLI-300-0409	661 lbs	15.7"×35.4"	21.5"	6.1" to 27.6"	16		196 lbs
	MLI-300-0410	661 lbs	15.7"×41.3"	30.5"	6.1" to 36.6"	24		218 lbs
	MLI-300-0509	661 lbs	19.7"×35.4"	21.5"	6.1" to 27.6"	16		203 lbs
	MLI-300-0510	661 lbs	19.7"×41.3"	30.5"	6.1" to 36.6"	24		225 lbs
	MLI-300-0609	661 lbs	23.6"×35.4"	21.5"	6.1" to 27.6"	16		234 lbs
	MLI-300-0610	661 lbs	25.6"×41.3"	30.5"	6.1" to 36.6"	24		260 lbs
	MLI-300-0809	661 lbs	31.5"×35.4"	21.5"	6.1" to 27.6"	16		245 lbs
	MLI-300-0810	661 lbs	31.5"×41.3"	30.5"	6.1" to 36.6"	24		269 lbs
	MLI-500-0510	1102 lbs	19.7"×41.3"	30.5"	6.1" to 35.6"	18		311 lbs
	MLI-500-0510W	1102 lbs	19.7"×41.3"	46.5"	15.7" to 63.0"	30		375 lbs
	MLI-500-0610	1102 lbs	23.6"×41.3"	29.5"	6.1" to 35.6"	18		381 lbs
	MLI-500-0612	1102 lbs	25.6"×47.2"	31.5"	6.1" to 40.0"	18	400	375 lbs
	MLI-750-0615	1654 lbs	23.6"×59.1"	38.9"	9.1" to 48.0"	30		474 lbs
	MLI-1000-0510	2205 lbs	19.7"×41.3"	19.8"	8.0" to 27.8"	18		328 lbs
	MLI-1000-0610	2205 lbs	25.6"×41.3"	19.8"	8.0" to 27.8"	18		337 lbs
	MLI-1000-0612	2205 lbs	23.6"×47.2"	30.8"	9.0" to 39.8"	30		384 lbs
	MLI-1000-0613	2205 lbs	23.6"×51.2"	30.7"	9.1" to 39.8"	35		384 lbs
	MLI-1000-0812	2205 lbs	31.5"×47.2"	30.7"	9.1" to 39.8"	35		384 lbs
	MLI-1000-1013	2205 lbs	39.0"×52.0"	31.0"	9.0" to 40.0"	35		529 lbs
	MLI-1100-1010	2500 lbs	41.3"×41.3"	19.7"	8.1" to 27.8"	20		430 lbs
	MLI-1100-1012	2500 lbs	41.3"×47.2"	30.7"	9.1" to 39.8"	35		485.1 lbs
	MLI-1100-1212	2500 lbs	47.2"×47.2"	30.7"	9.1" to 39.8"	35		661.5 lbs
	MLI-1500-1020	3306 lbs	39.4"×78.7"	38.0"	11.0" to 49.0"	28	750	992 lbs
	MLI-2000-0914	4409 lbs	35.4"×55.0"	29.6"	11.0" to 40.6"	28		772 lbs
Bellows (220V/Three phase)	MLI-500-0612J	1102 lbs	25.6"×47.2"	29.5"	6.1" to 35.6"	18	400	370 lbs
	MLI-500-0713J	1102 lbs	29.5"×53.1"	33.9"	6.1" to 40.0"	18		419 lbs
	MLI-1000-0612J	2205 lbs	25.6"×47.2"	19.8"	8.0" to 27.8"	18		388 lbs
	MLI-1000-0713J	2205 lbs	29.5"×53.1"	30.8"	9.0" to 39.8"	30		450 lbs
Turn table (220V/Three phase)	MLI-1000-1113-22-TN	2205 lbs	43.3"×51.2"×1	30.7"	12.0" to 42.7"	35	400	617.4 lbs
Standard (460V/Three phase)	MLI-500-0510-46	1102 lbs	19.7"×41.3"	29.5"	6.1" to 35.6"	18	400	311 lbs
	MLI-500-0510W-46	1102 lbs	19.7"×41.3"	46.5"	15.7" to 63.0"	30		375 lbs
	MLI-500-0610-46	1102 lbs	23.6"×41.3"	29.5"	6.1" to 35.6"	18		381 lbs
	MLI-500-0612-46	1102 lbs	25.6"×47.2"	31.5"	6.1" to 40.0"	18		375 lbs
	MLI-750-0615-46	1654 lbs	23.6"×59.1"	38.9"	9.1" to 48.0"	30		474 lbs
	MLI-1000-0510-46	2205 lbs	19.7"×41.3"	19.8"	8.0" to 27.8"	18		328 lbs
	MLI-1000-0610-46	2205 lbs	25.6"×41.3"	19.8"	8.0" to 27.8"	18		337 lbs
	MLI-1000-0612-46	2205 lbs	23.6"×47.2"	30.8"	9.0" to 39.8"	30		384 lbs
	MLI-1000-0613-46	2205 lbs	23.6"×51.2"	30.7"	9.1" to 39.8"	35		384 lbs
	MLI-1000-1013-46	2205 lbs	39.0"×52.0"	31.0"	9.0" to 40.0"	35		529 lbs
Bellows (460V/Three phase)	MLI-2000-0914-46	4409 lbs	35.4"×55.0"	29.6"	11.0" to 40.6"	28	750	772 lbs
	MLI-500-0612J-46	1102 lbs	25.6"×47.2"	29.5"	6.1" to 35.6"	18	400	370 lbs
	MLI-500-0713J-46	1102 lbs	29.5"×53.1"	33.9"	6.1" to 40.0"	18		419 lbs
	MLI-1000-0612J-46	2205 lbs	25.6"×47.2"	19.8"	8.0" to 27.8"	18		388 lbs
	MLI-1000-0713J-46	2205 lbs	29.5"×53.1"	30.8"	9.0" to 39.8"	30		450 lbs
Turn table (460V/Three phase)	MLI-1000-1113-46-TN	2205 lbs	43.3"×51.2"×1	30.7"	12.0" to 42.7"	35	400	617.4 lbs

## PARTS LIST



No.	Part name	Quantity
1	Top plate assembly	1
2	Arm assembly	1
3	Chain	2 or 0
4	Cam	2 or 0
5	Motor	1
6	Control box	1
7	Cable code	1
8	Foot switch	1
9	Chassis assembly	1
10	Cylinder assembly	1
11	Limit switch	2



## Installation

- Indoors only
  - Ambient temperature: 32-104°F
  - Ambient humidity: less than 85%
  - Altitude: lower than 3,280 feet
- 

## Operation

### Foot Switch



1. Plug the power cord into a power socket

**Triple phase current capacity (AC220V • more than 10A)**  
**Single phase current capacity (AC115V • more than 30A)**

2. Press the "UP" foot switch to raise the lift.
3. Press the "DOWN" foot switch to lower the lift.
4. Release the foot switch to stop movement.
5. When the table reaches its upper or lower limit, the limit switch stops it automatically.



### CAUTION

- ① Since the voltage drop will become large if it wires too long, Please select the thickness of wiring so that the voltage drop will be 2% or less.
- ② The motor is reversed after power supply connection (it is descending, even if you push UP) — if like, since wiring is wrong, please replace the wiring of two of those other than the green of a power source wire



### CAUTION

- Use with adequate margin to avoid exceeding maximum regulation usage frequency.

**The maximum frequency in use 80 (30) times/hour**  
**The maximum starting frequency 10 (4) times/minute**  
**( ) is for the 750W Type**

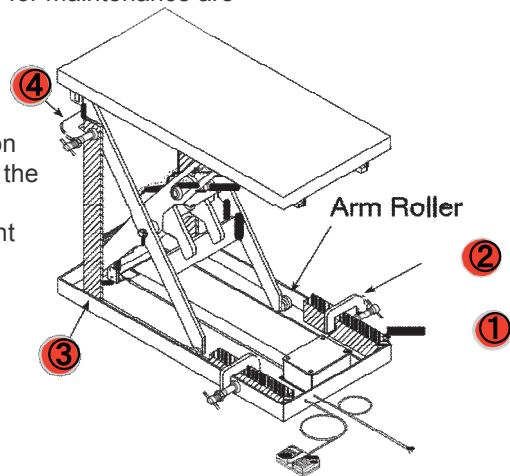
- The electromagnetic brake makes a clicking sound as it opens and closes during table height adjustment and is normal.
  - The upper- and lower-end limit switches are set to their limit values at the factory. When adjusting them, be careful not to exceed their limits to avoid damage.
-

## MAINTENANCE

### Maintenance and Inspection Safety

Before entering lift for maintenance or inspection, please follow these steps to prevent serious or fatal injuries. Please note that stoppers, vises, and other tools necessary for maintenance are not included with this lift.

1. Remove any load from the table
2. Raise the table at least half way.  
If the table has bellows, either remove the four screws on the table side and take down the bellows or roll up from the chassis side.
3. Engage two stoppers (block) ① against the left and right arm rollers, then fasten securely with a vise ②.
4. Stand two stoppers (steel) ③ perpendicular to the end of the arm support shaft side, then fasten securely with a vise ④.
5. Turn the power off.



### DANGER

**DO NOT HOIST TABLE WITH LIFT CRANE OR OTHER EQUIPMENT.  
FAILURE TO FOLLOW THIS INSTRUCTION MAY RESULT IN SERIOUS INJURY  
AND/OR EQUIPMENT DAMAGE.**

**DO NOT TOUCH THE CONTROL BOX BOARD FOR AT LEAST FIVE SECONDS AFTER POWERING  
DOWN TO ALLOW ELECTRICITY TO FULLY DISCHARGE.  
FAILURE TO FOLLOW THIS INSTRUCTION MAY RESULT IN ELECTRICAL SHOCK.**

**BEFORE REMOVING MOTOR, TAKE PROPER PRECAUTIONS TO PREVENT  
THE LIFT FROM DESCENDING.**

**Unlike a hydraulic lift, the table will drop immediately without support.**

**FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN SERIOUS INJURY AND/OR DEATH**

### Inspection Checklist

Please perform daily inspections in addition to more thorough periodic inspections. If daily inspection were to find an abnormality, immediately stop operation, find the cause and resolve the issue.

Continued use without repair may render the lift inoperable.

#### Daily Inspections

- Is there anything abnormal in lift rise or descent operation?
- Are there any obstructions in the surroundings?
- Is anything abnormal about the unit's appearance?
- Are there any abnormal sounds or heat generation?

#### Periodic Inspections (monthly, quarterly and annually)

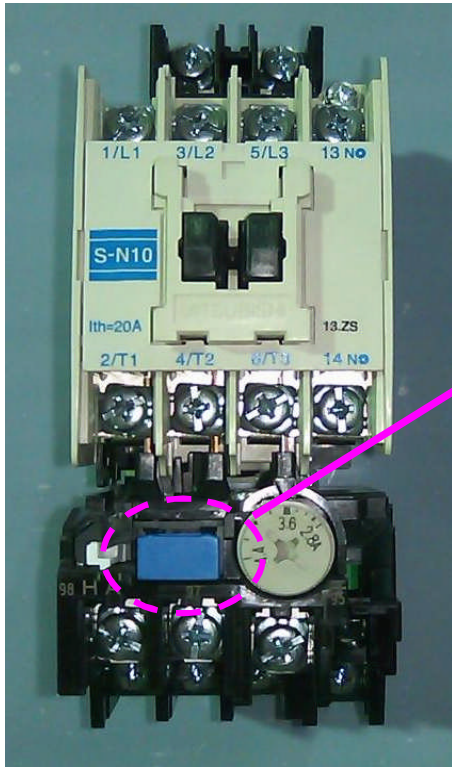
- Are there any damaged or loose bolts, nuts or other parts at any connecting sections?
- Is there abnormal wear in any moving sections?
- Are there any cracks or damages at welded sections?
- Are there any cracks or damages in the electrical wiring?

#### Lubrication

- Check and apply roller chain lubrication at periodic inspection.
- Check the dry cylinder gear and ball screw sections annually.

With sealed-in long-life lubrication, they are designed to work for extended periods without additional lubrication. However, once per year, overhaul them or replace the dry cylinders with new ones.

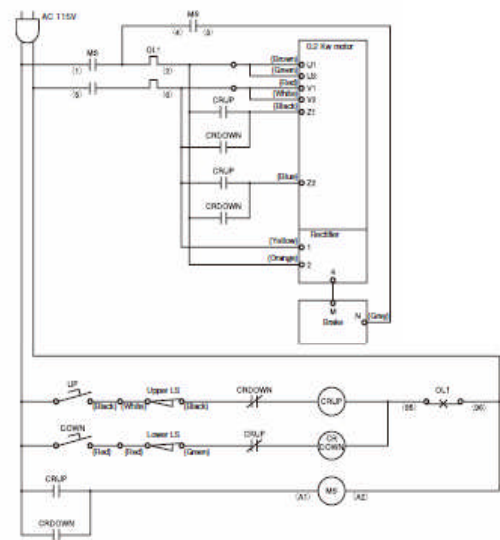
**IF MAINTENANCE PROBLEMS PERSIST CALL THE LOCAL DISTRIBUTOR OR HAMACO INDUSTRIES CORPORATION WITH THE SERIAL NUMBER OF THE SPECIFIC EQUIPMENT TO ORDER THE APPROPRIATE PARTS.**



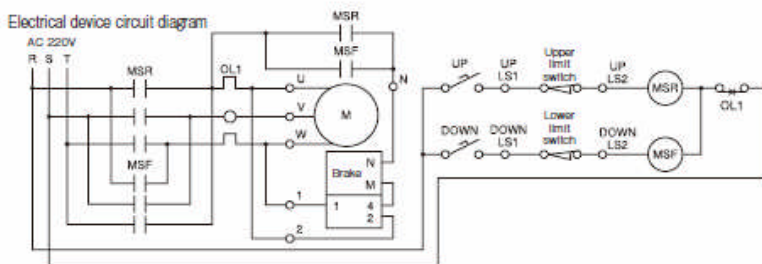
### CAUTION

When the lifter stops moving suddenly, please push the reset bar of the thermal relay in a control box. It can restore, if the thermal relay is operating by the over-current.

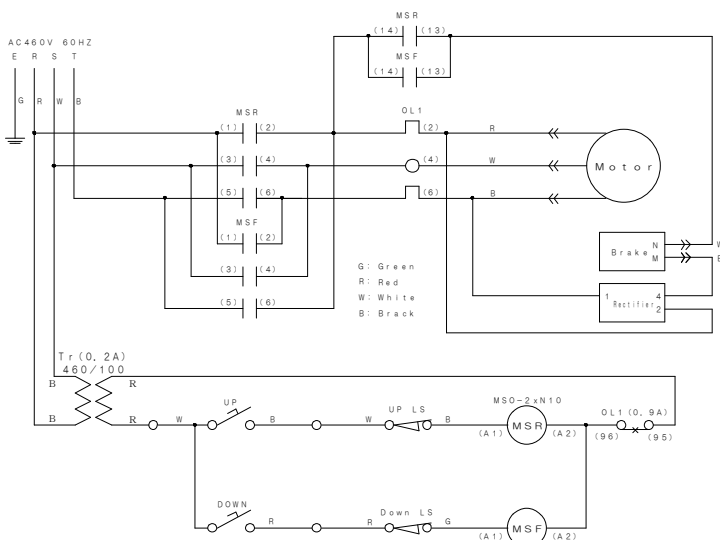
### Electric Circuit Diagram: 115 V Specification



### Electric Circuit Diagram: 220 V Specification



### Electric Circui Diagram 460V Specification



## WARRANTY

1. The warranty period is one year or usage of ten thousand from the date of delivery.
2. If the machine is used normally and in accordance with the user manual during this period but a breakdown occurs and HAMACO Industries Corporation recognizes the defect, HAMACO Industries Corporation will repair it at no charge.
3. Even within the warranty period, there will be a charge for the following:
  - Repairs required due to breakdown or damage caused by **mistaken usage** or **inappropriate repair or modification/alteration**.
  - Repairs required due to breakdown or damage caused by **fire**, **natural disaster** or **pollution**.
  - Repairs required due to breakdown or damage recognized as having been caused by an **accident**.
  - Repairs required due to breakdown or damage caused by **inadequate assembly or installation**.
  - Consumables such as bearing lubricant, hydraulic oil, lubricating oil, etc.
4. The warranty is not valid if the machine is used outside United States.



**HAMACO Industries Corporation**

HAMACO Industries Corporation  
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