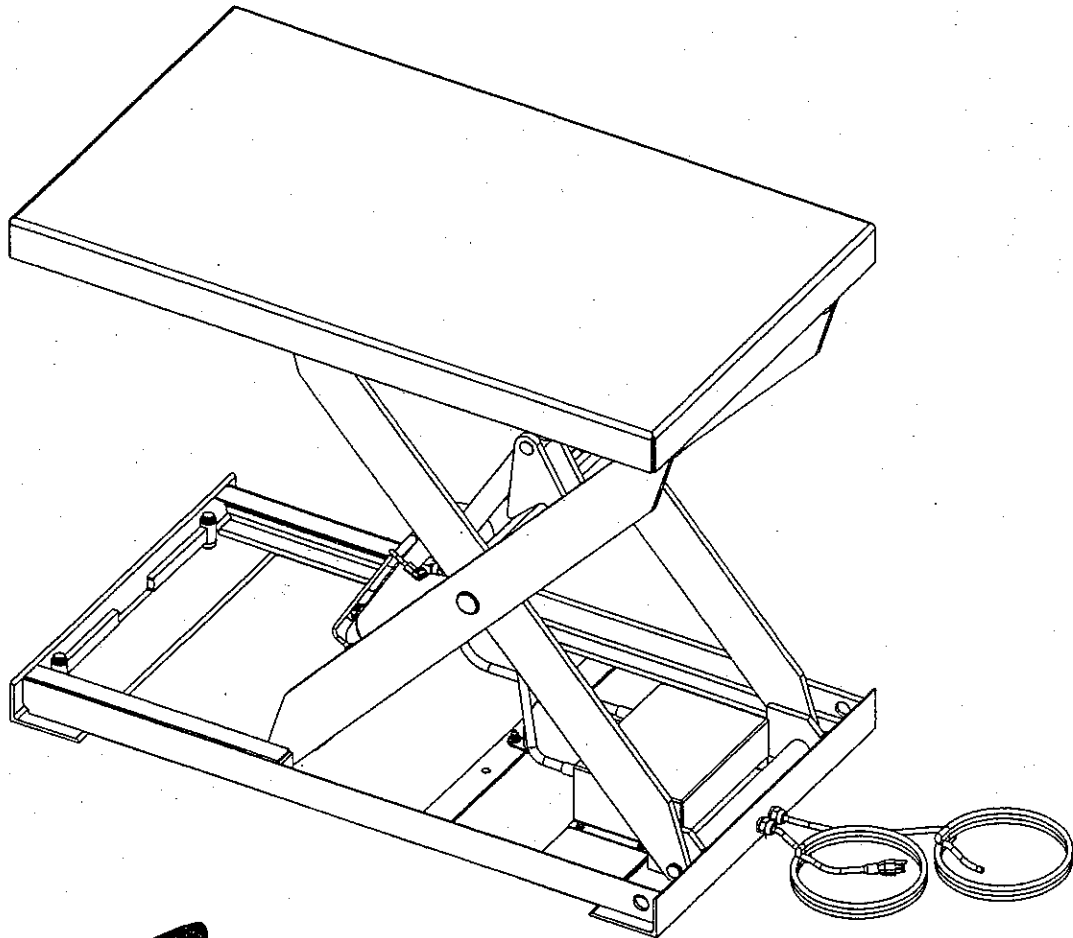


# LIFT2K



# *Service* MANUAL

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## **GETTING STARTED**

PLEASE READ THIS MANUAL CAREFULLY BEFORE USING THE Lift2K™ Scissor Lift Table. The safety of all persons installing, using or servicing the Lift2K™ lift table is of utmost importance to Bishamon. The Lift2K™ lift is capable of supporting heavy loads and is capable of causing SEVERE PERSONAL INJURY if used improperly or if certain safety precautions are not taken. When properly used and maintained, the Lift2K™ lift will provide many years of safe, trouble free service. If you have any questions about any of the instructions in this manual or about the use of this product, PLEASE contact your DEALER or Bishamon Industries Corporation.

Lift2K™ is a trademark of Bishamon Industries Corporation. Throughout this service manual the Lift2K™ scissor lift table may be referred to as the "lift table" or the "lift".

## **INSPECTION**

IMMEDIATELY upon receipt of the lift table remove all the packing and strapping material and visually inspect the unit for damage. Any damage to the unit MUST BE NOTED on the delivery receipt. After the preliminary inspection is conducted, the unit should be thoroughly inspected for any concealed damage that was not readily apparent during the preliminary inspection. Any concealed damage found that was not noted on the delivery receipt should be IMMEDIATELY reported in writing TO THE DELIVERING CARRIER.

## **SAFETY DEFINITIONS**

Bishamon uses the following system to identify the degree of risk associated with hazards and unsafe practices:

- DANGER** - Immediate hazard which will result in SEVERE PERSONAL INJURY or DEATH.
- WARNING** - Hazard or unsafe practice which could result in SEVERE PERSONAL INJURY or DEATH and PROPERTY DAMAGE.
- CAUTION** - Hazard or unsafe practice which could result in MINOR PERSONAL INJURY and PROPERTY DAMAGE.

## **GENERAL DANGERS, WARNINGS, AND CAUTIONS**

### **DANGER**

READ THIS MANUAL COMPLETELY BEFORE USING. THOROUGHLY UNDERSTAND AND FOLLOW ALL SAFETY INSTRUCTIONS.

A falling lift table can cause SEVERE PERSONAL INJURY or DEATH. NEVER go under the platform until the load is removed and the scissor mechanism is secured in the raised position with the maintenance bars.

The maintenance bars have been designed for use only when the lift is UNLOADED. NEVER place any load on the platform with the maintenance bars engaged. SEVERE PERSONAL INJURY or DEATH and PROPERTY DAMAGE could result.

NEVER sit, stand, or ride on the platform. Moving components could cause loss of balance. SEVERE PERSONAL INJURY or DEATH could result.

The lift's electrical circuits use voltages which can cause SEVERE PERSONAL INJURY or DEATH. DO NOT work with the electrical components unless you are a QUALIFIED ELECTRICIAN.

The lift's electrical components can create sparks. DO NOT install the lift in an area where potentially explosive dusts, gases, or vapors may be present. Failure to comply may result in an explosion and cause SEVERE PERSONAL INJURY or DEATH.

## **WARNING**

The Lift2K™ lift table is designed for use with stable uniformly distributed loads on a solid level floor. **DO NOT** concentrate the load at one point on the platform or pallet. **ALWAYS** uniformly distribute each layer of load over the supporting surface. **DO NOT** use the lift for any purpose other than its intended use.

**DO NOT** install the Lift2K™ lift table on an unlevel or soft surface. The lift base frame must be supported along its entire length and width. Failure to completely support the base frame could result in damage to the lift.

**DO NOT** use the lift table with an unstable, unbalanced, or loosely stacked load. Unbalanced loads may become unstable and fall. **SEVERE PERSONAL INJURY** and **PROPERTY DAMAGE** could result.

**DO NOT** overload the lift table. **ALWAYS** stay within the designated capacity ratings. **SEVERE PERSONAL INJURY** and **PROPERTY DAMAGE** could result.

**SHEARING HAZARD.** **ALWAYS** keep hands and feet clear of the scissor mechanism and all moving components. **DO NOT** put hands or fingers under the platform when in use. **SEVERE PERSONAL INJURY** could result.

**CRUSHING HAZARD.** **ALWAYS** keep hands and feet clear of all moving components. **DO NOT** put feet on the base frame when in use. **SEVERE PERSONAL INJURY** could result.

**PINCH POINT HAZARD.** **ALWAYS** keep feet, hands, and fingers away from the underside of the platform and all moving components. **SEVERE PERSONAL INJURY** could result.

**DO NOT** change the relief valve setting. The relief valve is installed to protect the operator and the lift table. Changing the relief valve setting may cause the lift to suddenly fall. **SEVERE PERSONAL INJURY** and **PROPERTY DAMAGE** could result.

**NEVER** leave the loaded lift table unattended unless the platform is in the fully lowered position.

**ALL** lift servicing must be performed by qualified personnel only. Unauthorized modifications to the lift table, its hydraulic power unit, or its control system may compromise the performance and safety of the system. **UNDER NO CIRCUMSTANCES** should you attempt any repair or service that is not covered in this manual.

The release of fluids under high pressure can cause **SEVERE PERSONAL INJURY**. Before servicing the lift, **ALWAYS** remove the entire load, engage the maintenance bars, and **RELEASE THE HYDRAULIC PRESSURE**.

**ALWAYS** ensure all safety warning labels are in place and legible. If not, remove the lift table from service and replace the required labels. Refer to Figure 1 for label descriptions and locations.

**ALWAYS** securely anchor the base frame to the floor to ensure maximum stability.

## **CAUTION**

**DO NOT** continue to operate the pump if a squealing noise is heard coming from the pump. The pressure relief valve is operating. Continued use of the pump with the relief valve operating will cause permanent damage to the pump. **REDUCE** the load to prevent the relief valve from operating.

**DO NOT** continue to lower the lift once the maintenance bars have completely engaged the maintenance bar pockets. Damage to the lift may result.

Lift2K Series Service Manual

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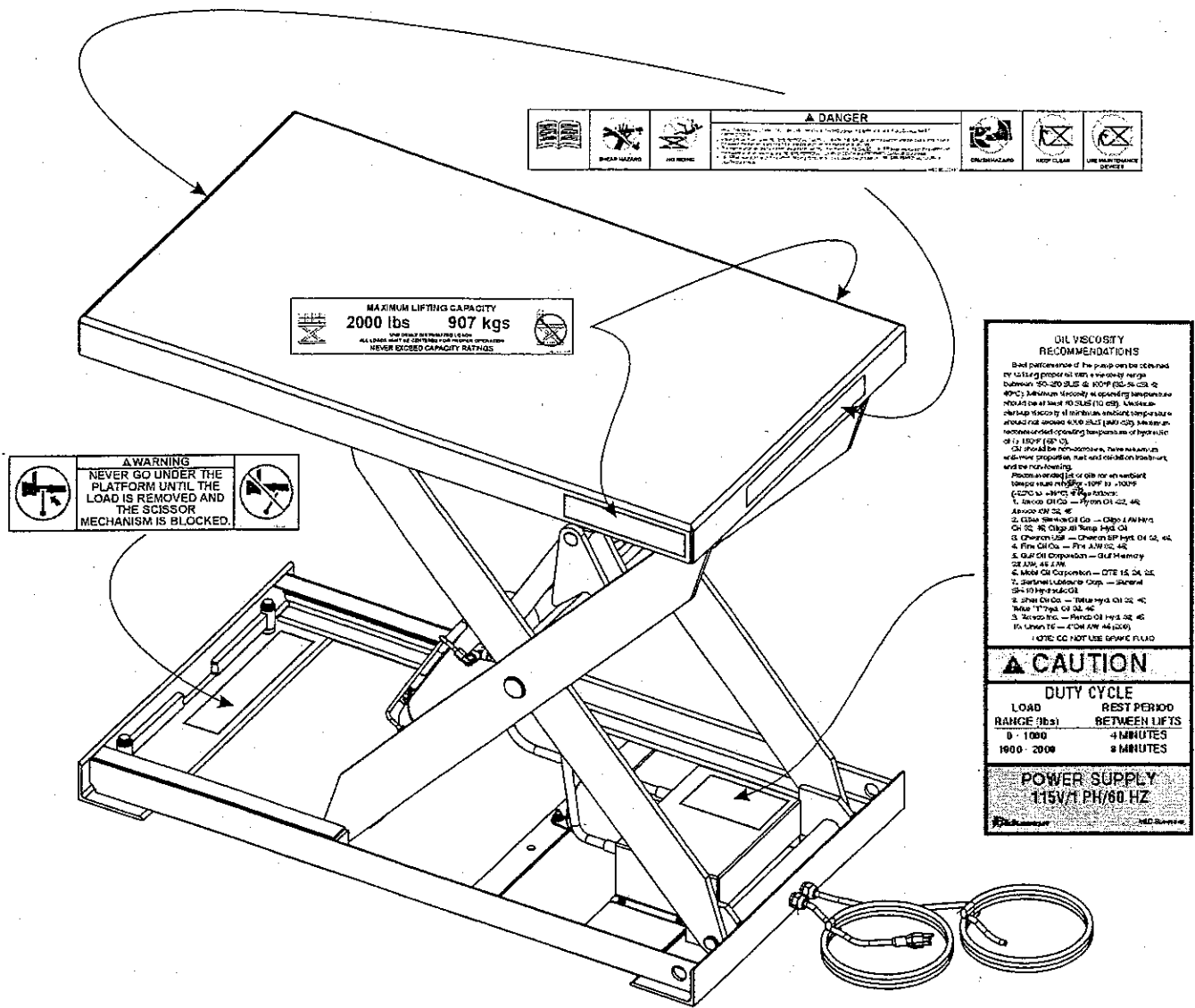


Figure 1 - Safety Warning Label Locations

## RESPONSIBILITIES OF OWNERS/USERS

It is the responsibility of the Owners/Users to:

1. Advise the DEALER or Bishamon Industries Corporation when deflection or creep is critical to the application.
2. Ensure the lift is inspected and maintained in proper working order in accordance with the operation/maintenance instructions provided in this manual.
3. Ensure any lift not in safe operating condition such as, but not limited to, excessive leakage, missing rollers, pins or fasteners, bent or cracked structural members, cut or frayed hydraulic lines, damaged or malfunctioning controls or safety devices, etc. shall be removed from service until it is repaired to Bishamon's standards.
4. Ensure all repairs are made by qualified personnel in conformance with the instructions provided by Bishamon Industries Corporation.
5. Ensure only trained and authorized personnel are permitted to operate the lift and that all operators understand the operating instructions, safety rules, and hazards associated with this lift.
6. Ensure the lift is used in accordance with the guidelines provided in this manual.
7. Ensure modifications or alterations of any lift are made only with the written permission of Bishamon Industries Corporation.

# SPECIFICATIONS AND SPECIFICATION DRAWING

## SPECIFICATIONS:

### Lift2K Series

1. Maximum Capacity	2000 lb (907 kg)
2. Lowered Height	8 7/16 in. (214 mm)
3. Raised Height	38 15/16 in. (989 mm)
4. Travel	30 1/2 in. (775 mm)
5. Platform Width	28 in. (711 mm) or 36 in. (914 mm)
6. Platform Length	48 in. (1219 mm)
7. Weight	475 lb (215 kg)
8. Sound Pressure Level	<70dB(a)
9. Operating Environment	Indoors
10. Lighting Requirement	Good General Lighting
11. Operating Temperature	(See Table 1)

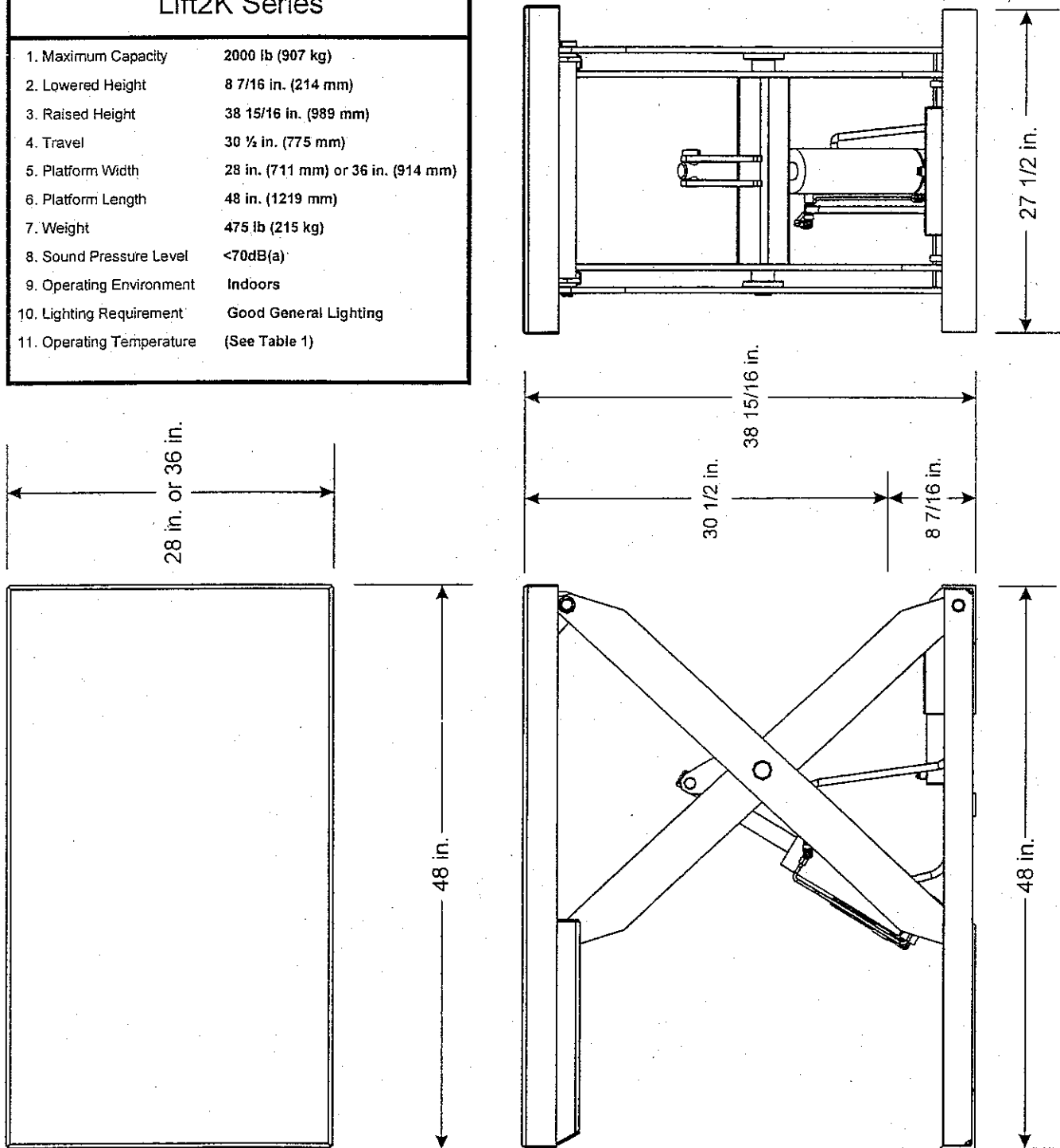


Figure 2 - Lift Specification Drawing

## RECOMMENDED FLOOR AREA

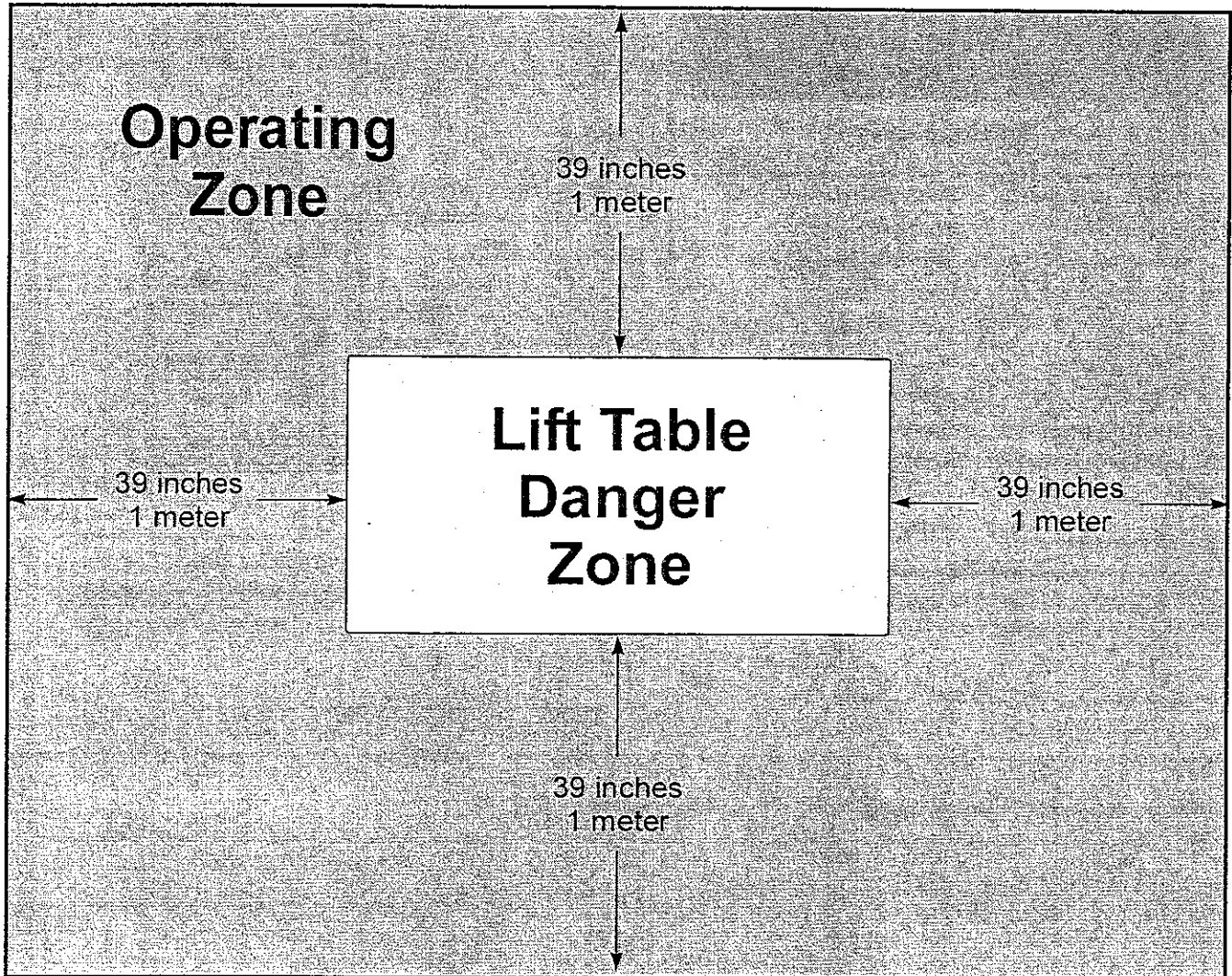


Figure 3 - Recommended Floor Area

The lift table's recommended floor area, shown in Figure 3, identifies the "Danger Zone" and the "Operating Zone". The Danger Zone is the area inside the base frame and under the platform structure. The recommended Operating Zone is a distance of 39 inches (1 meter) extending beyond the danger zone on all sides.

### DANGER

A falling lift table can cause **SEVERE PERSONAL INJURY** or **DEATH**. **NEVER** go under the platform until the load is removed and the scissor mechanism is blocked with the maintenance bars. The maintenance bars have been designed for use only when the lift is **UNLOADED**. **NEVER** place any load on the platform with the maintenance bars engaged. **SEVERE PERSONAL INJURY** or **DEATH** and **PROPERTY DAMAGE** could result.

## FUNCTIONAL DESCRIPTION

Lift2K lift tables are versatile, perfect for a variety of applications. These electro-hydraulic scissor lift tables are designed and manufactured to increase productivity and reduce worker strain. By lifting and accurately positioning the load, Lift2K lifts eliminate unproductive lifting and stretching that ultimately leads to worker fatigue, injuries, and product damage. They are well suited for handling a wide variety of products including work in progress, palletized loads, containers, bins, tools, and dies.

Lift2K lifts have 2000lbs of capacity and provide 30 ½ inches of vertical travel. The platform position is completely variable in height between the upper and lower travel limits. The maximum raised height is 38 15/16 inches and the lowered height is 8 7/16 inches.

Depressing the "RAISE" control actuates the hydraulic power unit and directs hydraulic fluid to the piston side of a single, dual-acting cylinder. The cylinder rod extends and opens the scissor assembly, which in turn raises the platform. Lowering is achieved by depressing the "LOWER" control actuating the hydraulic power unit and directing hydraulic fluid to the rod side of the cylinder. The cylinder rod retracts and closes the scissor assembly, which in turn lowers the platform.

## MAINTENANCE BAR OPERATING INSTRUCTIONS

### To Engage The Maintenance Bars:

1. Remove the entire load from the platform and raise the lift table to its fully raised position.
2. As detailed in Figure 4, rotate the maintenance bars approximately 90° so that the bars are parallel with the scissor legs. The end of the bar should be positioned within the maintenance bar pocket in the scissor assembly.

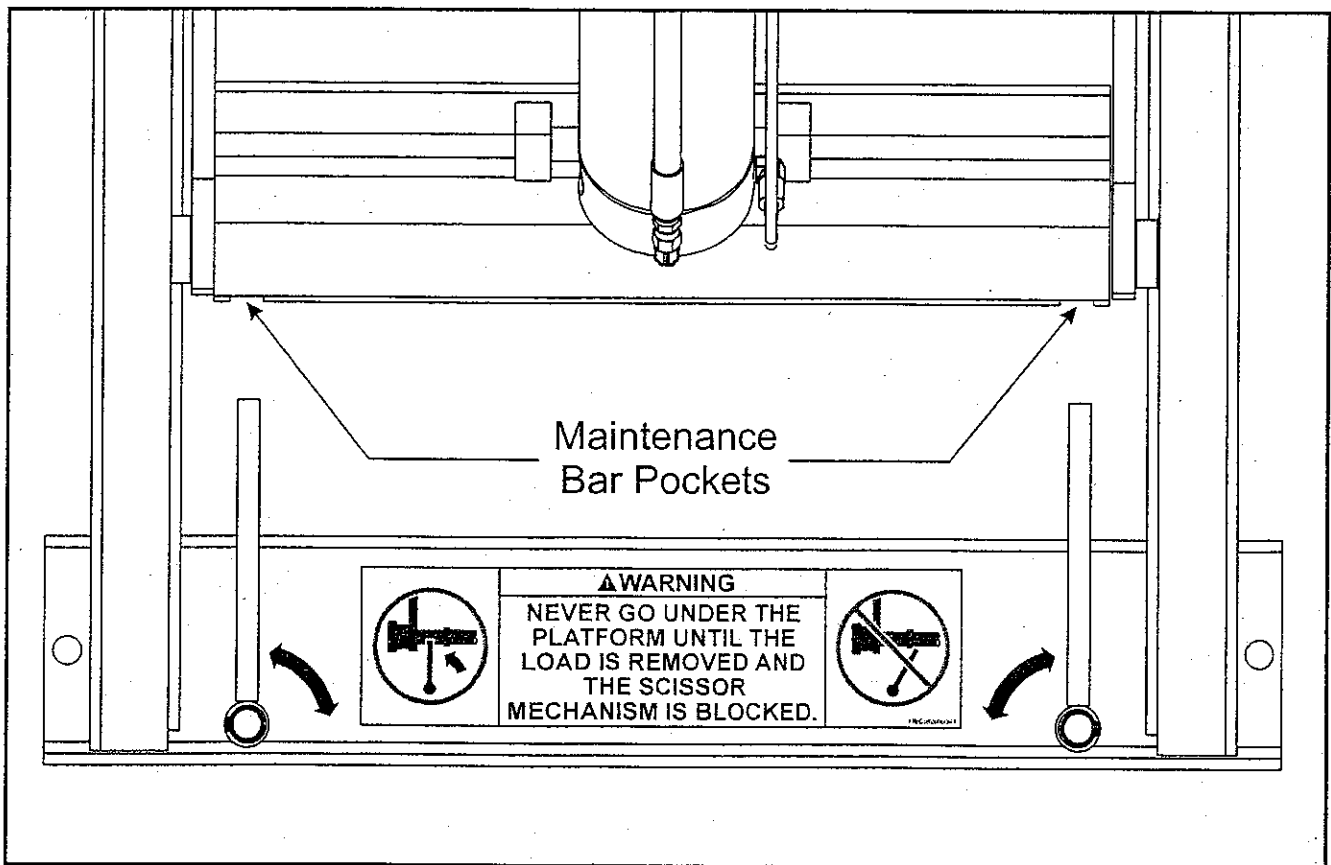


Figure 4 - Maintenance Bar Details



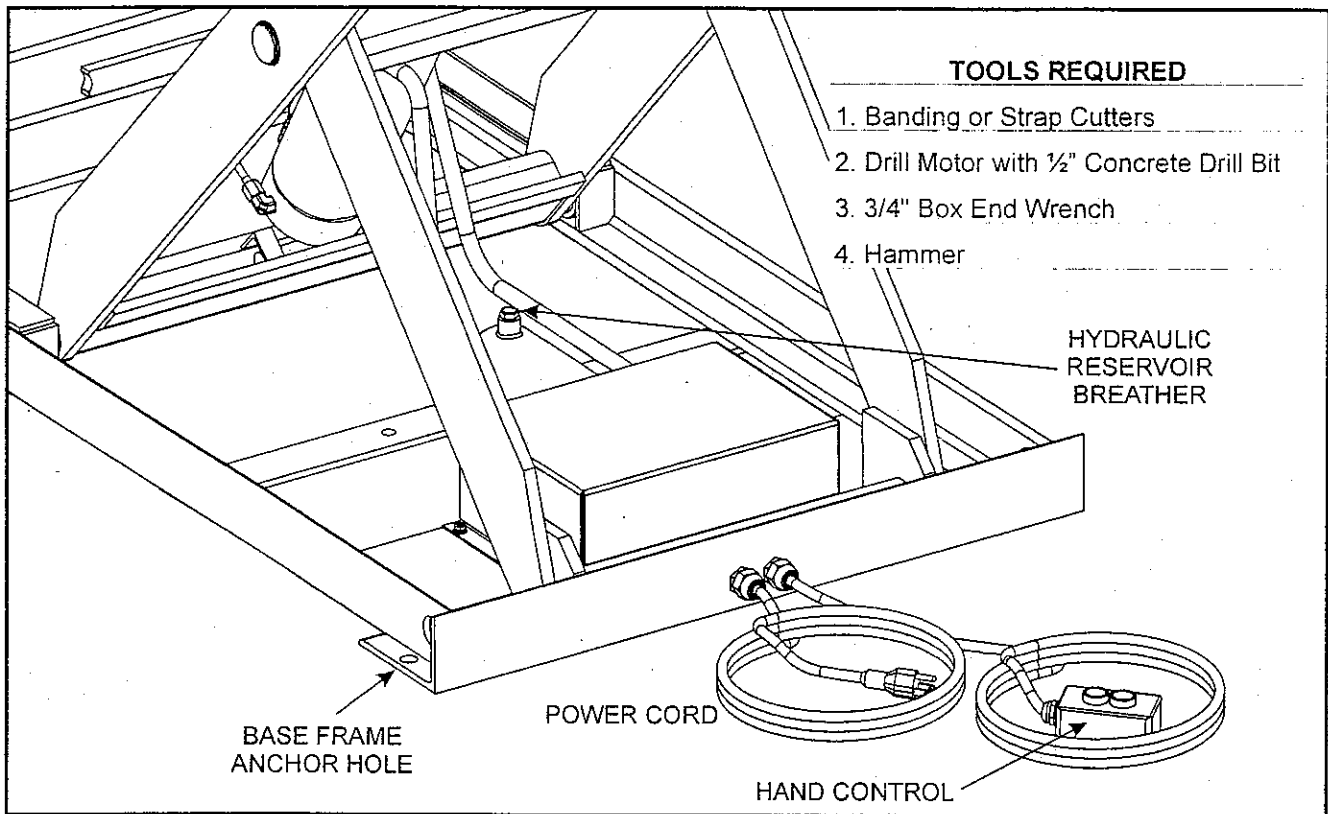
3. Slowly lower the lift by depressing the lowering control button or pedal. The lift will lower until the maintenance bars completely engage the maintenance bar pocket. **CAUTION - DO NOT CONTINUE TO LOWER THE LIFT ONCE THE MAINTENANCE BARS HAVE COMPLETELY ENGAGED THE MAINTENANCE BAR POCKETS - DAMAGE TO THE LIFT MAY RESULT.**
4. ALWAYS check the position of both maintenance bars before going under the platform.

### To Disengage The Maintenance Bars:

1. Raise the platform such that the maintenance bars are fully disengaged from the maintenance bar pockets.
2. Rotate the maintenance bars approximately 90° to their fully disengaged position. The maintenance bars should touch or nearly touch the base end angle on the front of the lift.

## INSTALLATION

The Lift2K™ lift table is shipped on a pallet and only requires minor assembly before it is ready for use. Before you begin, locate and identify the components detailed in Figure 5. These components will be referred to in the installation procedures. Make sure you understand the function of each component before proceeding.



**Figure 5 - Installation Components**

**Power Cord** - All Lift2K™ lift tables are supplied with a 10 ft power cord of the proper size and rating for the hydraulic power unit. The power cord plug will plug into a conventional 115 volt receptacle.

**Hydraulic Reservoir Breather** - All Lift2K™ lift tables are supplied with hydraulic fluid in the reservoir. The breather is located on top of the reservoir and must be removed to check the fluid level or to add hydraulic fluid.

**Base Frame Anchor Hole** - Four pre-drilled base frame anchor holes are provided to secure the lift to the floor or installation surface.

**Hand Control** - All Lift2K™ lift tables are supplied with a hand control (or optional foot switch) that is used to raise or lower the lift.

# DANGER

The lift's electrical circuits use voltages which can cause **SEVERE PERSONAL INJURY** or **DEATH**. **DO NOT** work with the electrical components unless you are a **QUALIFIED ELECTRICIAN**.

## Installation Instructions

1. Using a fork lift or similar equipment, move the palletized lift to the location it is to be installed. The installation area should be clean and have good general lighting.
2. Next, using the strap cutter, remove the bands securing the lift to the pallet. Remove all packing material and place it off to the side.
3. Locate the 10 ft power cord attached to the lift's base frame. Insure that the receptacle that will be used for the lift is rated at 115 volts. Insert the plug into the receptacle and insure that the receptacle is energized.
4. Locate the lift's hand control (See Figure 8) and depress the "RAISE" button to raise the lift to its maximum raised height. In the case of a foot control (See Figure 9), depress the "RAISE" pedal to raise the lift.
5. Using a forklift, position the forks under the platform structure, as detailed in Figure 6. Proper care should be exercised while using the fork lift as to not damage the lift. Lift the Lift2K™ lift off the pallet. Next, remove the pallet and place it off to the side. Position the lift in the desired location. Use care not to damage the lift's power cord or control cord. Following the Maintenance Bar Operating Instructions on page 6, engage the maintenance bars.

**NOTE:** The Lift2K™ base frame **MUST** be secured to the floor for maximum stability. Contact your Dealer or Bishamon Industries Corporation if you have any questions regarding the proper installation of the lift. Complete steps 6 and 7 to secure the lift to the floor.

6. The lift table's base frame has four (4) 5/8 inch holes for lagging the unit securely to the floor. Using the four (4) holes as a template, drill a 1/2 inch diameter hole to a minimum depth of 3 1/2 inches at each location. The floor surface should be level and the drilled holes perpendicular to the floor. If necessary, shift the position of the lift to allow room for drilling then drill. When complete, reposition the lift.
7. As detailed in Figure 7, prepare the 1/2 inch diameter x 4 inch long anchor bolts (USE type SUP-R-STUD #26-12400 or equivalent) by assembling the washer and nut on the anchor bolt. The nut should be screwed onto the anchor bolt approximately 1/2 the nut height. Drive the assembled anchor through the mounting holes into the concrete until the washer is flush with the top of the anchor plate. Expand the anchor shield by tightening the nut as required for tight fit, approximately three (3) to five (5) turns. Repeat step 7 for the remaining anchors. (NOTE: Make sure the underside of the base frame surface is fully supported, use shims or concrete grout if necessary.)
8. Disengage the maintenance bars and run the lift up and down several times to remove any air that may have been trapped in the hydraulic system due to shipping.
9. The Lift2K™ lift is now ready for operation. Refer to the following section for complete operating instructions.

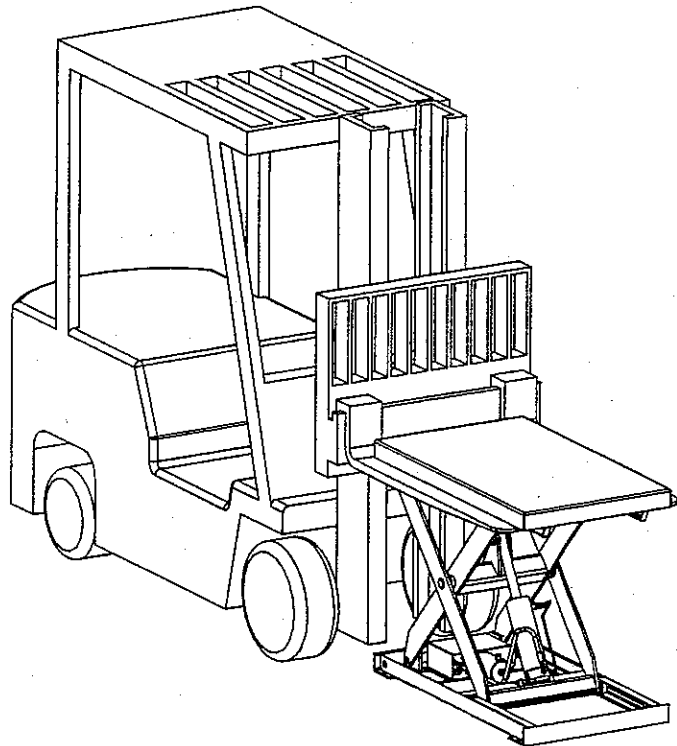


Figure 6 - Handling the Lift2K Lift

# LIFT OPERATING INSTRUCTIONS

## Raising the Lift Platform

1. Before raising the platform, BE SURE that all others are well clear of the lift. If the platform is loaded, RECHECK the position and condition of the load.
2. As shown in Figures 8 and 9, depress the "Raise" button or pedal to raise the platform to a convenient position. CONTINUOUSLY WATCH the condition of the load as the platform is raised. If the load appears to be shifting STOP, lower the platform and adjust the load.

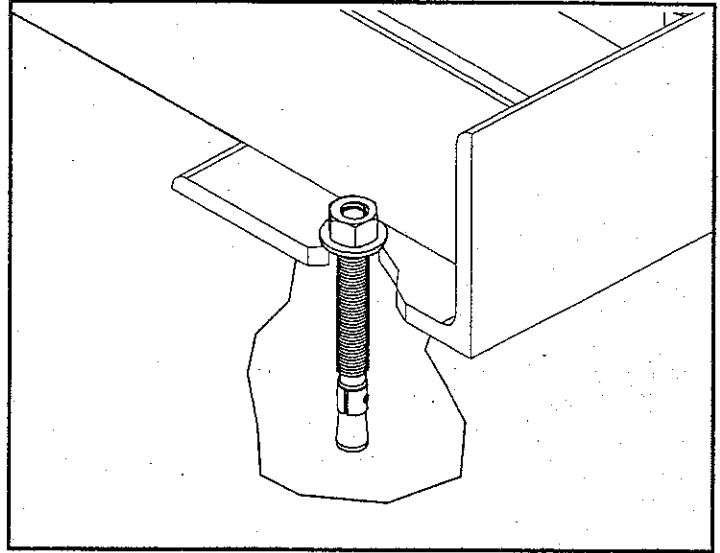


Figure 7 - Anchor Bolt Detail

## Loading / Unloading the Lift Platform

1. Check the load or component weight to ensure the total load does not exceed the capacity of the lift, 2000 lbs for all Lift2K models. Refer to the capacity decal on the side of the lift platform.
2. If required, raise or lower the platform to a convenient working height.
3. Uniformly distribute the load over the platform or supporting surface and ensure the load is tightly stacked.

## Lowering the lift Platform

1. Before lowering the platform, BE SURE that you, as well as all others, are well clear of the lift. If the platform is loaded, RECHECK the position and condition of the load.
2. Depress the "LOWER" button or pedal (see Figures 8 and 9) to lower the lift platform. CONTINUOUSLY WATCH the condition of the load as the platform is lowering. If the load appears to be shifting, STOP and adjust the load.

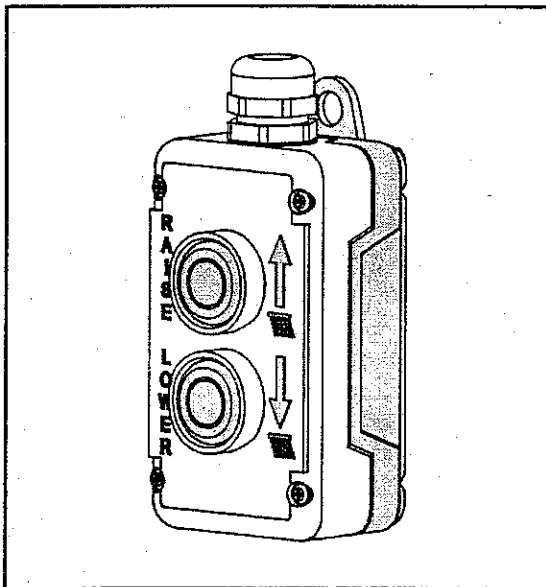


Figure 8 - Hand Control Operation

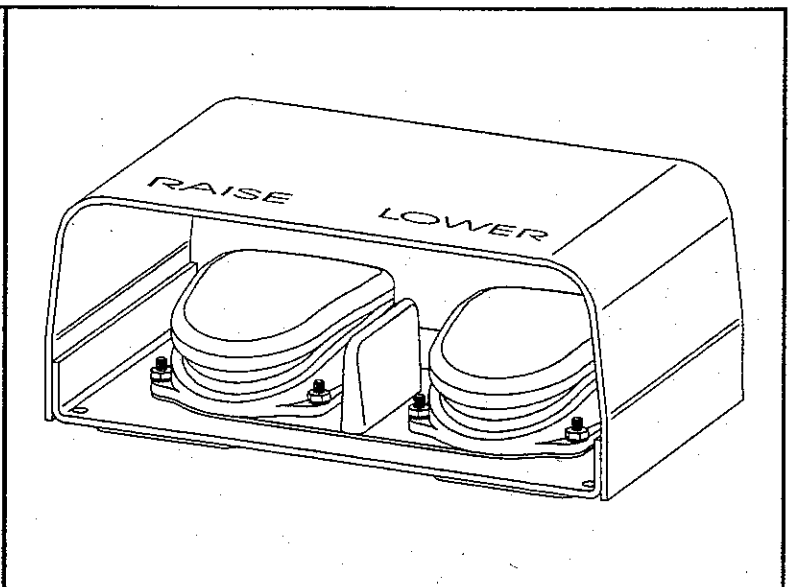


Figure 9 - Foot Control Operation

## **WARNING**

**DO NOT** concentrate the load at one point on the pallet or platform. **ALWAYS** uniformly distribute each layer of load over the supporting surface.

**DO NOT** use the lift table with an unstable, unbalanced or loosely stacked load. Unbalanced loads may become unstable and fall. **SEVERE PERSONAL INJURY** and **PROPERTY DAMAGE** could result.

**DO NOT** overload the lift table. **ALWAYS** stay within the designated capacity ratings. **SEVERE PERSONAL INJURY** and **PROPERTY DAMAGE** could result.

## **ROUTINE MAINTENANCE**

The Lift2K™ lift table is designed to provide years of trouble free service and requires very little maintenance. However, a routine inspection and maintenance program will prevent costly replacement of parts and/or downtime. All service should be performed by a qualified service person who has an understanding of lift equipment and electrical and hydraulic systems. This person should be thoroughly familiar with the operation and use of this type of equipment.

## **DANGER**

A falling lift table can cause **SEVERE PERSONAL INJURY** or **DEATH**. **NEVER** go under the platform until the load is removed and the scissor mechanism is secured in the raised position with the maintenance bars.

The maintenance bars have been designed for use only when the lift is **UNLOADED**. **NEVER** place any load on the platform with the maintenance bars engaged. **SEVERE PERSONAL INJURY** or **DEATH** and **PROPERTY DAMAGE** could result.

### **Daily Inspection**

1. Before use, visually inspect the lift for worn, damaged, or broken components. (NOTE: A lift with a bellows option must have the bellows strapped up in order to perform the following visual inspections.) If any of these conditions exist, **REMOVE** the lift from service and contact a qualified service person to repair or replace these items at once.
2. Raise the platform and visually inspect the hydraulic components (i.e. pump, hoses, fittings, and cylinder) for fluid leakage. If fluid leakage exists, **REMOVE** the lift from service and contact a qualified service person.
3. Check the condition of the warning labels. The warning labels are for the safety of the operator. If the labels are worn, missing, or unreadable, **REPLACE** them before placing the lift back in service.

### **Monthly Inspection and Maintenance**

1. Inspect snap rings and roll pins at all pivot shaft and axle locations. If a snap ring or roll pin is not in place and/or secure, **REMOVE** the lift from service and contact a qualified service person to replace or repair these items at once.
2. Inspect the scissor rollers, cylinder pivot pins, cylinder bushings, scissor pivot pins, and scissor bushings for signs of wear. If worn, **REMOVE** the lift from service and contact a qualified service person to replace or repair these items at once. All pivot locations have lifetime lubricated bushings therefore they do not need grease or lubrication.
3. Inspect the hydraulic power unit and cylinder for signs of leakage. The presence of a small amount of fluid around the cylinder rod is normal. However, fluid flowing from around the top of the cylinder head cap

## **WARNING**

**ALL** lift servicing must be performed by qualified personnel only. Unauthorized modifications to this lift may compromise the performance and safety of the system. **UNDER NO CIRCUMSTANCES** should you attempt any repair or service that is not covered in the service manual or authorized by Bishamon Industries Corporation.

The release of hydraulic fluid under high pressure can cause **SEVERE PERSONAL INJURY**. Before servicing the lift, **ALWAYS** remove the load, engage the maintenance bars, and **RELEASE THE HYDRAULIC PRESSURE**.

**ALWAYS** ensure all safety warning labels are in place and legible. If not, remove the lift from service and replace the required labels.

indicates worn seals. If this condition exists, **REMOVE** the lift from service and contact a qualified service person to have the cylinder seals replaced at once.

5. Inspect the flexible hydraulic lines for abrasion and wear. If these conditions exist, **REMOVE** the lift from service and contact a qualified service person to have these flexible hydraulic lines replaced at once.
6. Inspect the hydraulic line connections for tightness. If loose, **REMOVE** the lift from service and contact a qualified service person to tighten these connections as necessary.
7. Check the level and appearance of the hydraulic fluid. To do so, raise the unloaded platform and engage the maintenance bars (See Maintenance Bar Operating Instructions on page 6). Remove the breather on the top of the reservoir (Refer to Figure 5). Using a dip stick, check the fluid level from the top of the reservoir. The proper fluid level is between 2 - 2 ½ inches below the top of the reservoir breather port with the lift resting on the maintenance bars. If required, add fluid to the reservoir. **CAUTION: DO NOT** overfill the reservoir or fluid will be forced out the breather when lift is collapsed. Check the condition of the fluid, it should appear light in color. The fluid should be changed if the color has darkened or if it feels gritty. Replace the reservoir breather.

### **Changing the Hydraulic Fluid (Every 12 Months)**

Change the hydraulic fluid every 12 months of service or more often if conditions warrant. The frequency of fluid change will depend upon the general working conditions, severity of use, and the overall cleanliness and care given to the lift.

1. To change the hydraulic fluid, raise the unloaded platform to its maximum height and engage the maintenance bars (See Maintenance Bar Operating Instructions on page 6). **CAUTION:** Be sure to lower the lift onto the maintenance bars.
2. Remove the roll pin (MEC-B2000422) from the upper cylinder pin (EZL-B5003111) and slide the upper cylinder pin out to disconnect the cylinder rod from the scissor leg clevis.
3. Press the **LOWER** control and run the power unit until the cylinder rod has fully retracted. It may be necessary to support the cylinder to keep it from flopping forward.
4. Remove the hydraulic line (HYD-B4001081) that runs from the fittings on the rod end of the cylinder to the fittings on the power unit at the power unit end. This is the connection between the hydraulic line (HYD-B4001081) and the elbow (HYD-B4000579). Place the end of the hydraulic line into an oil pan of sufficient size to hold at least a gallon of fluid. It may be necessary to cover the end of the hydraulic line with a rag or similar cloth to keep the oil from shooting out the end of the hydraulic line.
5. Remove the hydraulic line (HYD-B4001082) that runs from the elbow at the piston end of the cylinder to the power unit at the cylinder. This is the connection between the hydraulic line (HYD-B4001082) and the elbow (HYD-B4000263). Place the end of the hydraulic line into the oil pan. It may be necessary to cover the end of the hydraulic line with a rag or similar cloth to keep the oil from shooting out the end of the hydraulic line.
6. Press the **"RAISE"** control and run the power unit until all the oil has been purged from the hydraulic lines and reservoir.
7. Reconnect the hydraulic line (HYD-B4001082) to the piston end of the cylinder.

8. Remove the reservoir breather and completely fill (approximately 1 inch below the filler port) the reservoir with the correct hydraulic fluid. Refer to Table 1 for the proper fluid selection.
9. Press the "RAISE" control and run the power unit to fill the piston end of the cylinder with new hydraulic fluid and extend the rod out of the cylinder. **NOTE:** This will be forcing old hydraulic fluid out of the hydraulic line (HYD-B4001081) attached to the rod end of the cylinder. It will be necessary to monitor the reservoir fluid level and continue to add fluid to the reservoir to ensure that the fluid level does not drop below 3 inches from the top of the filler port. Continue to extend the cylinder rod and add fluid until the cylinder rod is fully extended and the fluid level in the reservoir is approximately 2 inches below the top of the filler port.
10. Reconnect the hydraulic line (HYD-B4001081) to the rod end of the cylinder.
11. Press the "LOWER" control until the cylinder rod lines up with the clevis. **NOTE:** It may be necessary to jog the power unit (raise and lower) to move the cylinder rod in and out of the cylinder to ensure proper alignment.
12. Install the cylinder pin (HYD-B4003111) and roll pin (MEC-B2000422).
13. Press the "RAISE" control until the lift raises clear of the maintenance bars. Rotate the maintenance bars to their fully disengaged position.
14. Raise and lower the lift to the full raised and full lowered positions 2 or 3 times to purge the air from the hydraulic system.
15. Raise the platform to its maximum height and engage the maintenance bars (See Maintenance Bar Operating Instructions on page 6). **CAUTION:** Be sure to lower the lift onto the maintenance bars.
16. Using a dip stick, check the fluid level from the top of the reservoir. The proper fluid level is between 2 - 2 ½ inches below the top of the reservoir breather port with the lift resting on the maintenance bars.
17. Install the reservoir breather. Raise the lift off the maintenance bars and rotate the maintenance bars to their fully disengaged position. Raise and lower the lift 1 or 2 more times and check to make sure there is no fluid leaks (See the Daily Inspection section on page 10). The lift is now ready for use.

### Cylinder Seal Replacement

In the event the pump or cylinder seals are leaking, detailed instructions and replacement part kits are available. Contact the DEALER or Bishamon Industries Corporation to obtain service kits and instructions for these items.

Fluid Type	Manufacturer	Fluid Temperature Range °F
DTE LIGHT	MOBILE	+40 - +150
DTE 13	MOBILE	0 - +160
SAE 10	PENNZOIL, MOBILE, ETC	0 - +150
SAE10W30	PENNZOIL, MOBILE, ETC	+20 - +170
SAE 20	PENNZOIL, MOBILE, ETC	+30 - +170
MIL 5606 (Aircraft Hydraulic Fluid)	PENNZOIL, MOBILE, ETC	-30 - +75

**Table 1 - Operating Temperature / Recommended Hydraulic Fluid**

# Trouble Shooting

Problem	Cause	Solution
Platform will not raise or lower. (Power unit will not run.)	Power disconnected. Open wire in electric circuit.	Verify that power source is applied. Check for faulty wiring.
Platform will not raise. (Pump will run)	No hydraulic fluid in reservoir. Load too heavy (relief valve operating).	Fill reservoir. Reduce load.
Platform will not lower. (Pump will run)	Platform or scissor obstruction.	Remove obstruction.
Pump motor continuously runs.	Wiring malfunction.	Check for faulty wiring.
Cylinder leaking.	Cylinder seals worn or damaged. Valves, fittings or hoses loose.	Repack cylinder. Tighten valves, fittings or hoses.
Pump leaking	Reservoir over-filled with fluid. Hose or fitting loose. Pump piston seal worn or damaged. Reservoir loose.	Drain excess fluid. Tighten hose or fitting. Repack or replace pump. Tighten reservoir bolt.