

# Four-Post Lift Rack

**MODELS L451 and L454**  
(all model variations)





## Hunter Rack and Jack - Equipment Training Report

Hunter Technical & Training Representative:

Rep #:

Customer:

Order #:

Equipment Model #:

**Technicians Trained:** *Please Print*

Technician 1:

Technician 2:

Technician 3:

Technician 4:

**Please have trained technicians initial each training item:**

Rack/Jack Training Task

Tech 1

Tech 2

Tech 3

Tech 4

Safety Precautions, Overview of Decals, Wheel Chock Use

Overview of Controls

Raising the Rack Safely

Lowering the Rack onto Safety Locks

Releasing the Safety Locks & Lowering the Rack Safely

Pivoting Swing Air Jacks (Ensure Lock Pins are Engaged)

Jacking the Vehicle Up

Safety Lock Operation

Lowering the Vehicle with the Jack

Daily & Weekly Safety Checks

Lubrication Points

Cable Letter mailed to customer in 6 years (if applicable)

Out of level issues and how to correct

Power-Up Mode Operation (RX16 Rack Only)

Weekly Activation of Power-Up Mode Explanation

Proper Cleaning and Lubrication of Power-Up Mechanism

**Installation & Training Acknowledgement:** I, the undersigned, do hereby acknowledge that my Hunter Engineering Rack and Jack have been installed and are operational. I also acknowledge that the above technicians have been trained to my satisfaction in those areas of safety and operation as indicated above.

Management Name (print):

Date:

Management Signature:



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# 1. FOR YOUR SAFETY

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## 1.1 Introduction

**DANGER, WARNING, CAUTION, SAFETY INSTRUCTIONS**, and other decals have been attached to the equipment for your information and your safety.

Please read and follow these decal instructions to prevent equipment damage and/or personal injury.

If any decal shown in this manual has been removed, is missing, or cannot be read completely for any reason, contact your local service representative for a replacement decal(s).

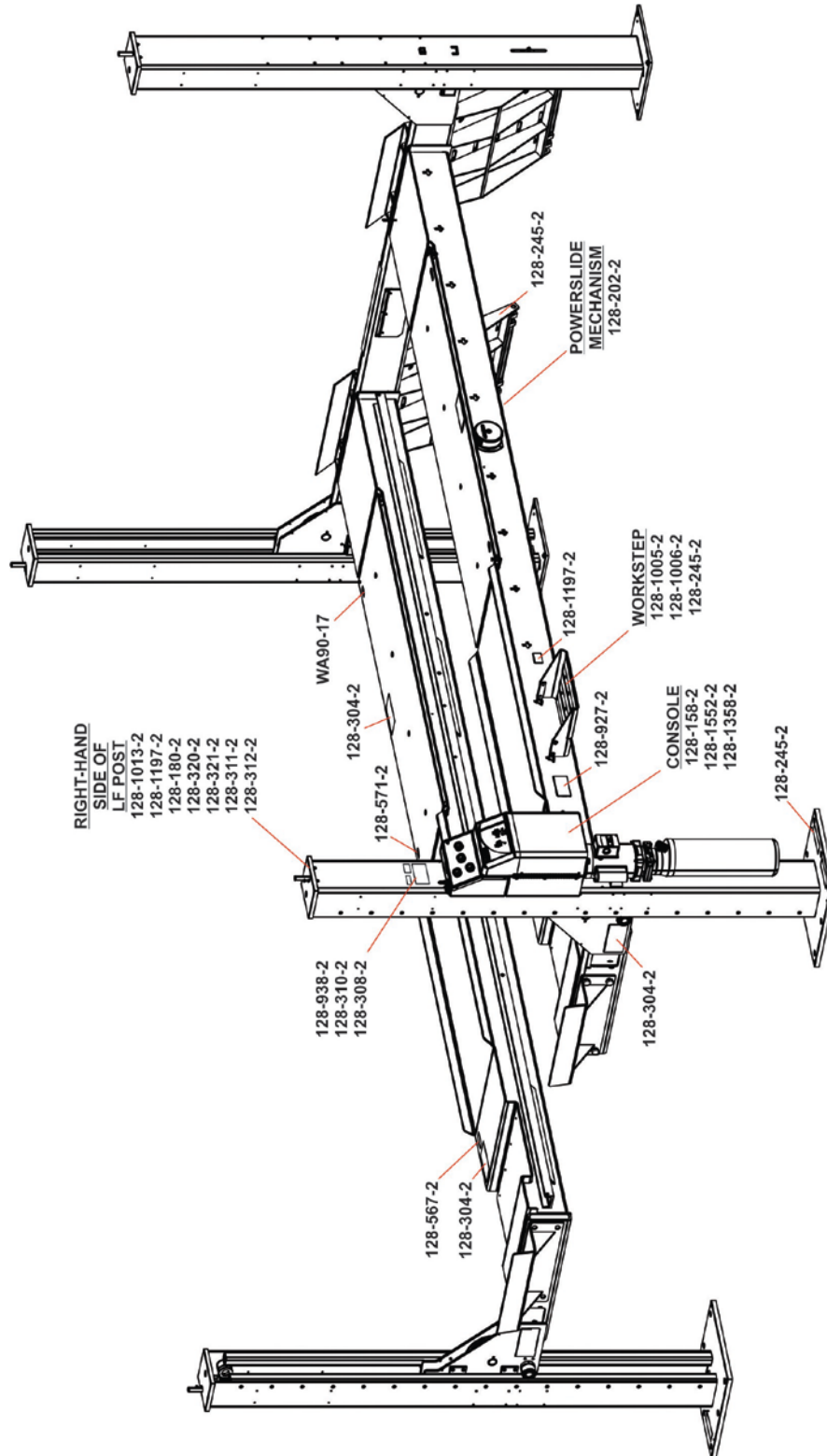
Or call: Hunter Engineering Company at 1-800-448-6848.

A new warning label kit, 20-3064-1 may be ordered free of charge. The kit will contain all the decals described in the lists below.

### Decal List

| <u>Decal</u> | <u>Description</u> | <u>Qty.</u> | <u>Application Notes</u>   |
|--------------|--------------------|-------------|--|
| 128-202-2    | HANDS OFF          | 4           | Circle with hands crossed out<br>For underneath, mechanism of PowerSlide runways                     |
| 128-1197-2   | MAX WT 8164 KG     | 3           | Use only this maximum weight decal<br>Discard all other max weight decals                            |
| 128-1089-3   | COMPOSITE RACK #3  | 1           | Use these decals on runways<br>Discard the incorrect max weight decals                               |
| 128-1091-3   | COMPOSITE RACK #5  | 1           | Contains (6) 128-304-2 decals<br>Use these decals on runways and crossmembers                        |
| 128-1088-3   | COMPOSITE RACK #2  | 1           | Use these decals on left-front post.<br>Transfer data from old service record decal                  |
| 128-1090-3   | COMPOSITE RACK #4  | 1           | Apply 4 large decals on LF post, 128-155-2 on console,<br>and 128-1005-2 / yellow tabs on work steps |
| 128-1552-2   | 4 POST OPERATION   | 1           | Apply this decal to console<br>located on left-front post  |
| 128-1358-3   | LIFT RACK CONSOLE  | 1           | Apply this decal to console<br>This composite remains as solid sheet                                 |
| 128-245-2    | YELLOW & BLACK     | 12          | Use these striped decals on ramps,<br>worksteps and post baseplates                                  |

# Decal Placement Overview

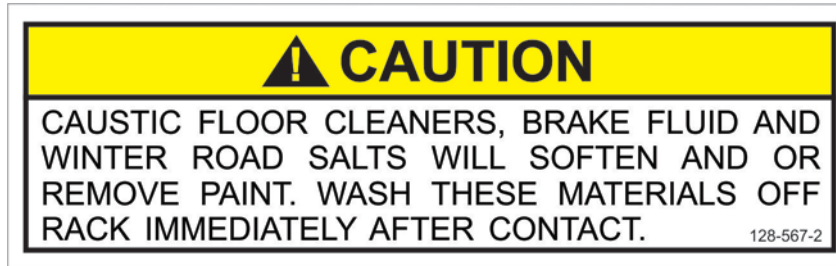


L451, open front, Warning/Operation Label Placement Diagram  
(L454, closed front, label placement is the same as L451)

**NOTE:** Both runways are labeled the same. Not all Warning/Operation labels are identified in diagram above.



## Runways and Crossmembers Decals



128-567-2



WA90-17



128-571-2



128-1197-2



128-927-2



128-304-2 (Runways and Crossmembers)

## Left Front Post and Console Decals

Decals on Right-Hand Side of Left-Front Post (listed in order of top to bottom)

| <b>WIRE ROPE SERVICE RECORD</b>  |      |      |      |     |      |                   |      |      |      |      |      |
|--|------|------|------|-----|------|-------------------|------|------|------|------|------|
| The complete wire rope set must be replaced every 20,000 cycles or every six years, unless earlier replacement is indicated. |      |      |      |     |      |                   |      |      |      |      |      |
| <b>Installation Date</b>   |      |      |      |     |      |                   |      |      |      |      |      |
| 14   | 15   | 16   | 17   | 18  | 19   | 20                | 21   | 22   | 23   | 24   | 25   |
| JAN.   | FEB. | MAR. | APR. | MAY | JUN. | JUL.              | AUG. | SEP. | OCT. | NOV. | DEC. |
| <b>Replacement Date</b>  |      |      |      |     |      | <b>Technician</b> |      |      |      |      |      |
| _____  |      |      |      |     |      | _____             |      |      |      |      |      |
| _____  |      |      |      |     |      | _____             |      |      |      |      |      |
| _____  |      |      |      |     |      | _____             |      |      |      |      |      |
| _____  |      |      |      |     |      | _____             |      |      |      |      |      |
| _____  |      |      |      |     |      | _____             |      |      |      |      |      |
| <b>HUNTER</b><br>Engineering Company   |      |      |      |     |      | 128-1013-2        |      |      |      |      |      |

128-1013



128-1197-2

| <b>SAFETY INSTRUCTIONS</b>   |
|--|
| <p>Read operation manual before use.<br/>For <b>FREE OPERATION MANUAL</b> write:<br/>Hunter Engineering Company<br/>11250 Hunter Drive<br/>Bridgeton, MO 63044</p> |
| 128-180-2  |

128-180-2

Decals on Right-Hand Side of Left-Front Post (Continued)

**! WARNING**



**Do not exceed weight capacity.**

128-320-2

128-320-2

**! WARNING**



**Remain clear of lift when raising or lowering vehicle.**

128-321-2

128-321-1

**! CAUTION**

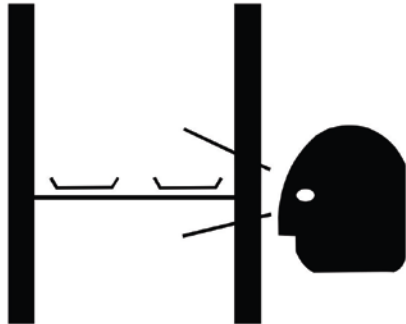


**Do not operate a damaged lift.**

128-311-2

128-311-2

**! CAUTION**



**Proper maintenance and inspection is necessary for safe operation.**

128-312-2

128-312-2

128-312-2

Decals on Face of Left-Front Post (arranged as shown, just above console)

**SAFETY INSTRUCTIONS**  
 THE TOTAL LIFTED LOAD FOR TWO JACKS MUST NOT EXCEED THE RATED CAPACITY OF THE LIFT.  
128-938-2

128-938-2

**⚠ DANGER**  
 Lockout power before working on equipment.  
128-310-2



128-310-2

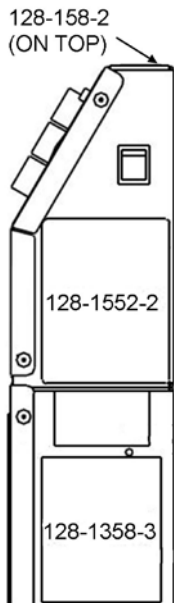
**SAFETY INSTRUCTIONS**

1. Do NOT raise or lower lift with vehicle supported on jacks.
2. Always set brake and chock left rear wheel before operating lift.
3. Do NOT exceed weight capacity.
4. Be sure that operating area is free of obstructions and personnel.
5. Do NOT operate lift with covers removed.

128-308-2

128-308-2

Decals on Console (refer to placement diagram)



**CAUTION:**

1. DO NOT RAISE OR LOWER LIFT WITH VEHICLE SUPPORTED ON JACKS.
2. ALWAYS SET BRAKE AND CHOCK A REAR WHEEL BEFORE OPERATING LIFT.
3. DO NOT EXCEED WEIGHT CAPACITY.
4. BE SURE OPERATING AREA IS FREE OF OBSTRUCTIONS AND PERSONNEL.
5. DO NOT OPERATE LIFT WITH COVERS REMOVED.

**TO RAISE RACK**

1. PUSH RAISE BUTTON TO RAISE RACK.
2. RELEASE RAISE BUTTON AT DESIRED HEIGHT.
3. PUSH LOWER BUTTON TO SET LIFT ONTO LOCKS.

**TO LOWER RACK**

1. PRESS THE RAISE BUTTON TO LIFT RACK OFF THE LOCKS. (USUALLY ONE SECOND)
2. PRESS AND HOLD THE LOCK RELEASE BUTTON.
3. PRESS LOWER BUTTON TO LOWER LIFT TO DESIRED HEIGHT. RELEASE BOTH BUTTONS WHEN LIFT HAS REACHED DESIRED HEIGHT.
4. PRESS LOWER AGAIN TO LOWER ONTO LOCKS OR GROUND.

128-1552-2

128-1552-2

**⚠ DANGER**  
 Lockout power before working on equipment.  
128-310-2

**⚠ DANGER**  
 Disconnect power before removing covers.  
128-309-2

**⚠ WARNING**  
 RISK OF EXPLOSION. THIS INSTRUMENT CABINET HAS INTERNAL ARCING OR SPARKING PARTS WHICH SHOULD NOT BE EXPOSED TO FLAMMABLE VAPORS. TO REDUCE THE RISK  
 ATTENTION: Ne pas utiliser à un niveau inférieur à celui du plancher du garage ou du sol.  
128-158-2

DUTY CYCLE OF THIS LIFT IS 60 SEC ON AND 540 SEC OFF

IF CONNECTED TO A CIRCUIT PROTECTED BY  
*Si connecté à un circuit protégé par des fusibles utiliser des fusibles à une action différée marqués D.*

128-1358-3  
 DECAL - LIFT RACK CONSOLE

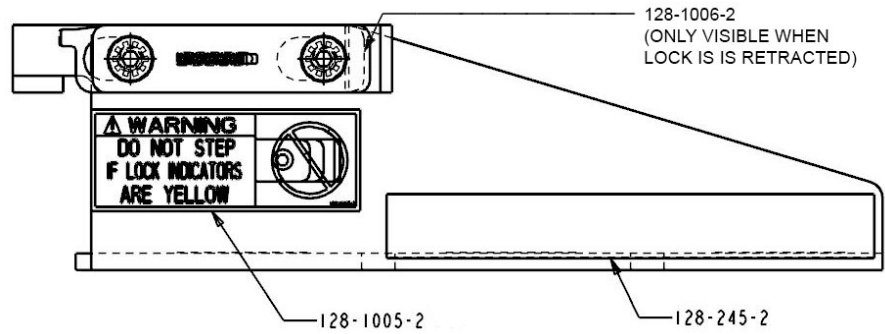



128-1358-3

**CAUTION** - TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER - SERVICEABLE PARTS INSIDE. REFER TO QUALIFIED SERVICE PERSONNEL.

128-158-2 (on top of console)

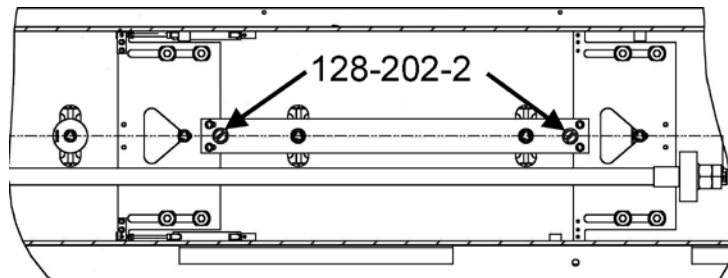
## Work Step Decals



Placement Diagram (Decals on Both Sides of Workstep)



## PowerSlide Mechanism Decals



Underneath PowerSlide Runways

## Ramps and Post Baseplates Decal to Increase Visibility





## 2. SPECIFICATIONS

### 2.1 Lift Capabilities

| <b>Specifications</b>             | <b><u>L451</u></b>               | <b><u>L454</u></b>                        | <b><u>L451L</u></b>              | <b><u>L454L</u></b>                       |
|-----------------------------------|----------------------------------|---|----------------------------------|---|
| Maximum Load Capacity             | 8164 kg<br>(18,000 lb.)          | 8164 kg<br>(18,000 lb.)                   | 8164 kg<br>(18,000 lb.)          | 8164 kg<br>(18,000 lb.)                   |
| Maximum Lifting Height            | 1905 mm<br>(75 inches)           | 1905 mm<br>(75 inches)                    | 1905 mm<br>(75 inches)           | 1905 mm<br>(75 inches)                    |
| Alignment Height <sup>1</sup>     | 914 mm<br>(36 inches)            | 914 mm<br>(36 inches)                     | 914 mm<br>(36 inches)            | 914 mm<br>(36 inches)                     |
| Overall Height                    | 2489 mm<br>(98 inches)           | 2489 mm<br>(98 inches)                    | 2489 mm<br>(98 inches)           | 2489 mm<br>(98 inches)                    |
| Power Unit:<br>435E 139-65-2      | N/A                              | 3PH, 50 HZ,<br>208/230/400/460 VAC<br>9 A | N/A                              | 3PH, 50 HZ,<br>208/230/400/460 VAC<br>9 A |
| Power Unit:<br>50E 139-66-2       | 1 PH, 50 Hz,<br>208-230 VAC 25 A | 1 PH, 50 Hz,<br>208-230 VAC 25 A          | 1 PH, 50 Hz,<br>208-230 VAC 25 A | 1 PH, 50 Hz,<br>208-230 VAC 25 A          |
| Lifting Speed                     | 77 seconds                       | 77 seconds                                | 77 seconds                       | 77 seconds                                |
| Lowering Speed                    | 40 seconds                       | 40 seconds                                | 40 seconds                       | 40 seconds                                |
| Pressure Relieve Valve            | Contact Hunter                   | Contact Hunter                            | Contact Hunter                   | Contact Hunter                            |
| Valve Stamped ID                  | Contact Hunter                   | Contact Hunter                            | Contact Hunter                   | Contact Hunter                            |
| By-pass Pressure                  | 241.3 bar<br>(3500 psi)          | 241.3 bar<br>(3500 psi)                   | 241.3 bar<br>(3500 psi)          | 241.3 bar<br>(3500 psi)                   |
| Tread Width:                      |                                  |   |                                  |   |
| Minimum Inside<br>Tires           | 1016 mm<br>(40 inches)           | 1016 mm<br>(40 inches)                    | 1016 mm<br>(40 inches)           | 1016 mm<br>(40 inches)                    |
| Maximum<br>Outside Tires          | 2159 mm<br>(85 inches)           | 2159 mm<br>(85 inches)                    | 2159 mm<br>(85 inches)           | 2159 mm<br>(85 inches)                    |
| Maximum Wheelbase:                |                                  |   |                                  |   |
| General Service                   | 4902 mm<br>(193 inches)          | 4902 mm<br>(193 inches)                   | 5766 mm<br>(227 inches)          | 5766 mm<br>(227 inches)                   |
| with Extensions                   | N/A                              | N/A                                       | N/A                              | N/A                                       |
| 2-Wheel <sup>2</sup><br>Alignment | 4496 mm<br>(177 inches)          | 4496 mm<br>(177 inches)                   | 5359 mm<br>(211 inches)          | 5359 mm<br>(211 inches)                   |
| with Extensions                   | N/A                              | N/A                                       | N/A                              | N/A                                       |
| 4-Wheel<br>Alignment              | 4013 mm<br>(158 inches)          | 4013 mm<br>(158 inches)                   | 4013 mm<br>(158 inches)          | 4013 mm<br>(158 inches)                   |
| with Extensions                   | N/A                              | N/A                                       | N/A                              | N/A                                       |
| Minimum Wheelbase:                |                                  |   |                                  |   |
| 4-Wheel<br>Alignment              | 2235 mm<br>(88 inches)           | 2235 mm<br>(88 inches)                    | 2235 mm<br>(88 inches)           | 2235 mm<br>(88 inches)                    |

<sup>1</sup> The Four-Post lift may be leveled at a different height for alignment. Alignment height is indicated by striped decals on the right hand runway and right front post.

<sup>2</sup> Jacking compensation may be required to align some long wheelbase vehicles.



# 3. GETTING STARTED

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## 3.1 Operator Responsibilities

Read and thoroughly familiarize yourself with these instructions before operating the lift.

The operator shall operate the automotive lift only after proper instruction or trained as outlined below (see Operator Training).

The operator shall use all applicable safety features provided on the automotive lift, and operate the lift in accordance with the instructions furnished with the lift.

The operator of the lift shall be responsible for maintaining the cleanliness and orderliness of the lift and its surroundings so the lift may be safely operated in accordance with the instructional and safety materials furnished with the lift.

The lift owner or employer shall take all appropriate steps to follow the recommended inspection procedures, but in no event shall the lift operator fail to inspect or take notice of the procedures in the tables in Section 5. All procedures shall be completed within the time frame noted in the table.

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## 3.2 Operator Qualifications

To avoid personal injury, only qualified personnel with a clear understanding of lift operations should be allowed to operate and perform maintenance on this equipment.

The operator must be capable of reading and understanding all of the provided instructions and the Automotive Lift Institute publication, "Lifting It Right," "Safety Tips," and "Warning Labels."

If inspection of the equipment results in components requiring replacement, contact your factory **Authorized Service Representative**. Call 1-800-448-6848 for the phone number of your local **Authorized Service Representative**.

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## 3.3 Operator Training

The owner or employer shall ensure that operators of automotive lifts are instructed in the safe use of the lift using all of the provided instructions and the Automotive Lift Institute publication: "Lifting It Right," "Safety Tips," and "Warning Labels."

The owner or employer shall display these materials in a conspicuous location in the lift area.

The owner or employer shall appropriately document operating training.

A Maintenance/Training documentation form has been provided in the Appendix.



# 4. DETAILED OPERATION INSTRUCTIONS

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## 4.1 Preparation

### Lift Operation Safety Rules

Read and familiarize yourself with these instructions before operating lift.

Do not try to operate an improperly functioning lift.

Do not attempt to use a lift for any purposes other than lifting vehicles.

Properly chock vehicle before operating lift.

Make sure lift is clear of personnel and obstructions before operating. Do not operate a lift with anyone on or under the lift structure.

Watch lift and vehicle when operating.

Do not operate a lift with anyone in the vehicle.

Always set lift on safety lock latches before working on the vehicle.

Do not operate the vehicle while it is raised on the lift.

Do not operate a lift if the vehicle to be lifted is supported on jacks or any other auxiliary devices.

Do not install or use any unauthorized lifting devices or accessories.

Perform regular maintenance in accordance with instructions in Section Five.

**NOTE:** It is advisable to use a second person as a “spotter” to give visual assistance to the driver when approaching and driving onto and off the runways.

**CAUTION:** For safety, proper chocking of vehicle wheels is necessary to prevent the vehicle from rolling while positioned on elevated runways.

---

## 4.2 Chocking Procedure

Read and thoroughly familiarize yourself with these instructions before operating the lift.

Adjust the turning angle gauges (with lock pins installed) to match the tread width of the vehicle.

Drive the vehicle onto the rack, place the transmission in PARK, and SET the emergency brake.

Place a wheel chock, 22-442-2, at the front and rear of the left rear wheel.



**LEFT REAR WHEEL SHOWN**

Leave the wheel chocks in place while elevating the lift, performing service operations on the vehicle, and while lowering the lift.

After lowering the lift, remove the wheel chocks from the front and rear of the left rear tire before moving the vehicle.

## 4.3 Using the Workstep

The lift is supplied with portable worksteps that fits into the side of the rack through specially designed cutouts.

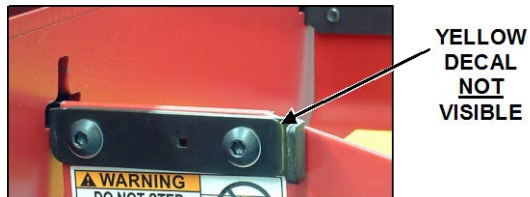
When using a workstep, always ensure the workstep is fully engaged and locked into the cutout in the side of the runway.

Always use two hands to install the workstep as follows:

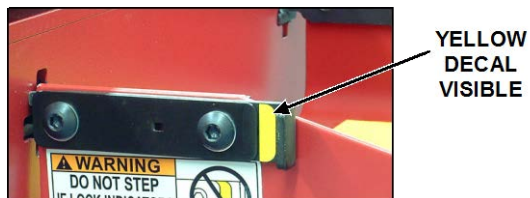
Align the workstep hanger brackets with the cutouts in side of lift rack.

Push the workstep forward and down until the locks “snap” into place.

Note the photos below:



**Correct Installation, Fully Inserted** - The workstep hanger brackets have been fully inserted through the cross-cutout and are locked in place.



**Improper Installation, Partially Inserted** - The workstep is only partially through the cutouts. The yellow decal indicates the workstep is not locked onto the side of the runway. In this unsafe condition, the step can easily be pulled out of the runway. Push step forward and down until locked.

**CAUTION:** Do not use a workstep that is improperly installed. If the yellow decal indicates the workstep is not locked, the step can pull out. Resulting injuries from falling are possible.

Check the stability of the workstep by pushing down on the stepping surface before standing on it.

When using the workstep, always use a safe, sturdy, OSHA-approved two-rung stepladder, as intermediate steps to mount the workstep.

**CAUTION:** If using more than one portable workstep on one side of the lift do not attempt to step across or jump from one step to another. Serious injury could result from improper usage of the worksteps.

To remove workstep, simultaneously pull back tabs to disengage locks.

## 4.4 Lift Operation

### Raising the Lift

L45x 4 post lifts have consoles mounted to the front left post. There are no controls on the pump housing.

Check the lift and immediate area for obstructions and remove any that are found.

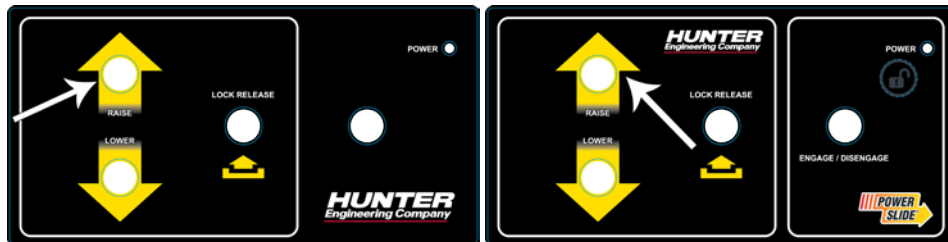
Verify that the turnplates and runway slip plates are locked in place.

**⚠ WARNING:** Do NOT operate lift with jacks in use. Serious injury may result if the lift is raised or lowered with a vehicle supported by jacks.

Verify “POWER” light is illuminated, indicating electrical power is supplied to console and the power switch located on the side of the console is in the “ON” position.



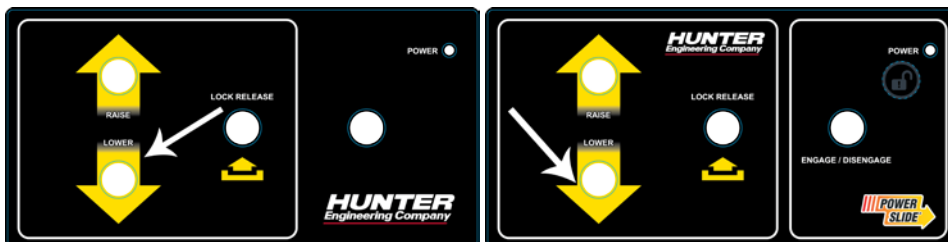
Depress and hold the “RAISE” button. The pump will begin to operate, raising the lift.



**⚠ CAUTION:** Listen for the sound of the mechanical locks passing over their detents. If the sound is not heard, release the “RAISE” button and refer to the troubleshooting section of this manual.

Release the “RAISE” button when the lift reaches the desired height. The pump will shut off and the lift will stop.

Press and hold the “LOWER” button until the lift stops lowering and mechanical locks engage.



**⚠ CAUTION:** Ensure mechanical locks are fully engaged before proceeding to service the vehicle.

## Lowering the Lift

Remove all obstacles from under the rack and runways.

Be certain the vehicle is resting firmly on the runways with chocks both in front of and behind the left rear wheel.

**⚠ WARNING:** Do NOT operate lift with jacks in use. Serious injury may result if the lift is raised or lowered with a vehicle supported by jacks.

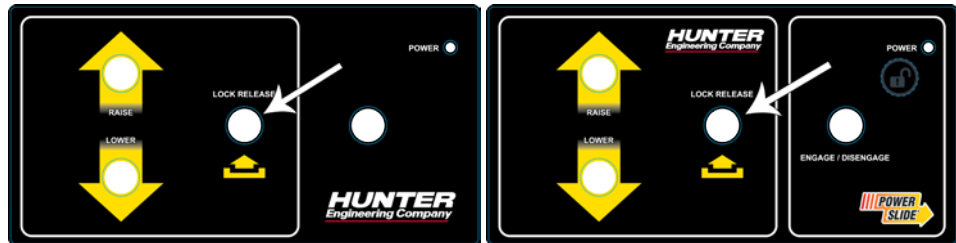
**⚠ CAUTION:** Ensure the jacks are in the stored position, before completely lowering the lift.

Verify that the turnplates and runway slip plates are locked in place.

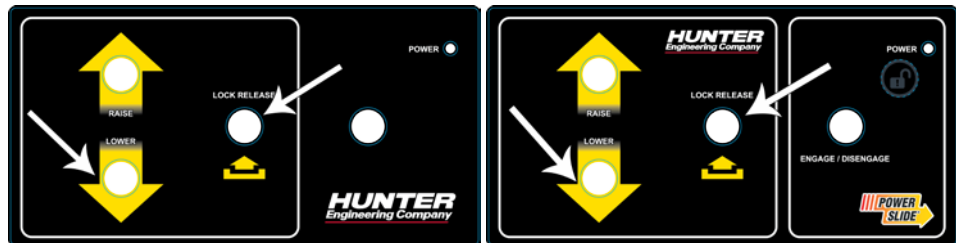
**NOTE:** On lifts with PowerSlide, the slip plates automatically lock as the lift is lowered to the floor.

Depress and hold the “RAISE” button until the lift rises off the locks (approximately 25 mm [1 inch]).

Depress and hold the “LOCK RELEASE” button to disengage the locks.



While continuing to hold the “LOCK RELEASE” button, depress the “LOWER” button until the lift reaches the desired height.



Release both buttons when the lift reaches the desired height.

Depress and hold the “LOWER” button until the mechanical locks engage.

If the lift is being lowered completely, ensure the lift rack is resting fully on the floor before removing the wheel chocks.

Remove all wheel chocks.

Before removing vehicle from lowered lift, verify that the turnplates and runway slip plates are locked in place. Use lock pins if optional PowerSlide feature is not present.

Carefully drive the vehicle off the runways.

## Unlock and Lock Slip Plates with PowerSlide® Slip Plates (Optional)

Controls for the PowerSlide® slip plates are located either near lift controls (-PS models) or on the FIA console (-IS models).



PS Buttons with Lift Controls  
(L45xT-PS models)



PS Buttons on FIA Console  
(L45xT-IS models)

For L45x lifts without a FIA console (-PS models), operate PowerSlide as follows:

Locate the “PowerSlide” switch alongside the lift controls.

With the lift at alignment height, unlock the slip plates by depressing PS button. “Unlock” indicator will glow as shown above.

Depress PS button again to lock the slip plates.

For L45x lifts with FIA console units (-IS models), operate PowerSlide as follows:

With the lift at alignment height, press the image of the free slip plate or the locked slip plate to control the status of slip plates.

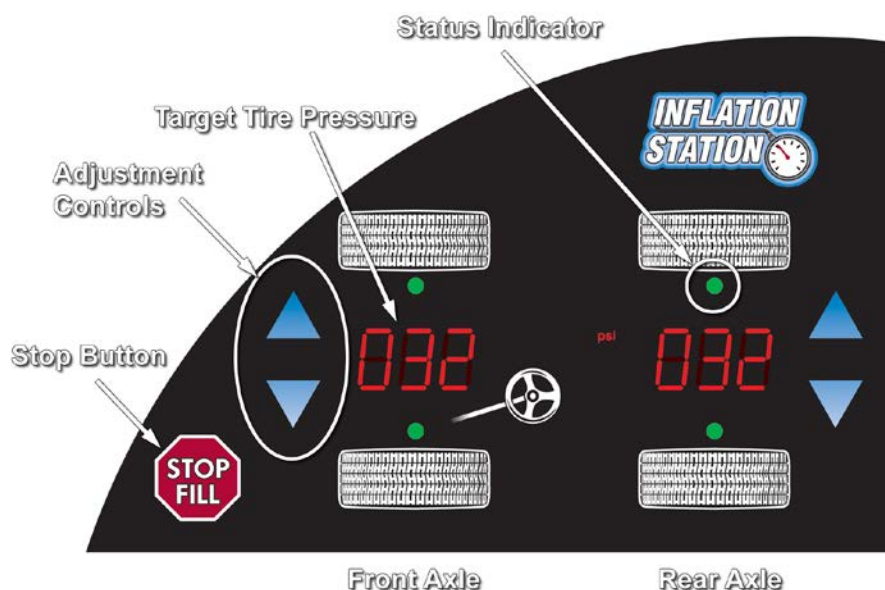
The status of slip plate is indicated by the glowing green LED located next to the image of the free slip plate or the locked slip plate.

**NOTE:** Have slip plates locked when not performing an alignment.



## Inflation Station (Optional)

Keypad controls for the Inflation Station system are located in the lower-middle section of the control panel.



## Tire Pressure Adjustment

**NOTE:** Inflation station provides pressure adjustment for inflated tires. Initial tire pressure must be at least 0.6 bar (8 PSI).

Connect the air line(s) to the vehicle.



Use the adjustment control arrows on either side of the pressure displays to set the desired tire pressure for each axle.

Each tire has a LED indicator to provide status information:

**RED** – Air line disconnected during adjustment.

**YELLOW** – Tire pressure currently adjusting.

**GREEN** – Tire pressure is adjusted correctly.

After each status indicator has turned green, the air lines may be removed from the vehicle.

The “Stop Fill” button may be pressed at any time to immediately stop tire pressure adjustments.


---


## 4.5 Auxiliary Jacks

Refer to jack operation instructions if your lift is so equipped.


The total lifted load of the jacks must not exceed the lift capacity.

Do not operate the lift when jacks are in use.

 **WARNING:** Do NOT operate lift with jacks in use. Serious injury may result if the lift is raised or lowered with a vehicle supported by jacks.

 **CAUTION:** The jacks **can not** be located closer than 1524 mm (60 inches) of each other. Damage to lift, jack or vehicle shifting may occur.

Always fold jacks into the stowed position before lowering the lift.

 **CAUTION:** Ensure the jacks are in the stored position, before completely lowering the lift.

# 5. REGULAR MAINTENANCE

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## 5.1 Corrosion

**⚠ CAUTION:** Wire ropes are a high wear item and must be inspected regularly to prevent failure. They MUST be replaced at the first sign of any symptoms listed below. The complete set MUST be replaced every 20,000 cycles or every six years unless earlier replacement is indicated by the required service inspections (see the maintenance schedule following).

The best preventive maintenance against wire rope corrosion is to keep the wire ropes well lubricated. The oil prevents moisture from entering into the wire rope strands. Once salt and moisture have penetrated into the core of the wire rope they are very difficult to displace and corrosion will begin immediately. The best method to prevent early replacement of wire ropes is to keep them well oiled.

The following are specific signs to look for when inspecting wire ropes for corrosion:

- More than surface rust on exterior of the wire rope is unacceptable. In other words, if you can't remove the rust easily with a wire brush, it's too deep and the wire rope should be replaced.
- Any pitting of the wire rope indicates unacceptable amounts of corrosion. The wire rope should be replaced.
- Loss of flexibility of the wire rope is unacceptable. This can be checked with the lift raised and set on the locks. If found, the wire rope should be replaced.
- If any wires are broken, the wire rope should be replaced.
- Any "necking" or reduction in cross sectional area of the wire rope indicates a problem and the wire rope should be replaced.

**NOTE:** If an area of the wire rope has no lubricant on its surface, the wire rope is rust bound and should be replaced. Once the wire rope has lost oil protection, moisture has already entered the core and is nearly impossible to remove.

## 5.2 Maintenance Schedule

**NOTE:** For lockout / tagout instructions, refer to ANSI Z244.1.

Maintenance is to be performed by shop employee or trained lift service personnel.

Worn, damaged or broken parts need replaced with parts approved by the original equipment manufacturer or with parts meeting original manufacturer specifications.

| MAINTENANCE SCHEDULE | PERFORM THE FOLLOWING MAINTENANCE  |
|----------------------|--|
| Daily                | <p>Check that the operating procedures, safety tips and generic safety material are accessible to the operator.</p> <p>Check that all safety warning labels are accessible and readable.</p> <p>Take notice of the rated load capacity of the lift.</p> <p>Check for proper operation of the lift controls.</p> <p>Check auxiliary locks at all four posts for free rotation and ensure they properly line up with lock ladder.</p> <p>Check the air lock at all four posts for free movement and ensure they are properly lined up with the lock ladder.</p> <p><b>KEEP LOCK AREA CLEAN AND FREE OF DEBRIS AT ALL TIMES.</b></p> <p>Check the hydraulic cylinder, power unit, hydraulic lines and fittings, air lines and fittings, and air cylinders for leaks. Any leak must be repaired immediately.</p> <p>Check the floor near the base of each post for cracks or loose concrete around the lag bolts. If any flaws are found, stop using the lift immediately. This is an indication of an unsafe condition and the concrete will have to be replaced.</p> <p>Check for unusual noises, sudden movements, erratic operation or evidence of chips or filings during use.</p> <p>Check all four lifting wire ropes for damage or wear. If any signs of severe corrosion, broken or damaged strands, wire rope elongation, reduced cable diameter, or any other changes in appearance as compared to a normal wire rope are found, the lift must be taken out of service and the wire rope(s) must be replaced prior to further use.</p> <p>Fully lower the lift and check the portion of the wire ropes running vertically inside each post. Pay close attention to the portion of the wire rope that enters the threaded stud at the top of each post. Broken strands indicate signs of fatigue and if found the wire rope(s) must be replaced prior to further use.</p> <p>Raise the runway just enough for observation and set on the mechanical locks. Inspect the wire ropes by looking through cutouts in the bottom of the runways. <b>Note: Use a trouble light for better visibility.</b></p> <p>Raise the runways to several intermediate locations and set on the mechanical locks. Inspect the wire ropes by looking through cutouts in the bottom of the runways, and inside the inspection door on the rear beam. <b>Note: Use a trouble light for better visibility.</b></p> <p>Fully raise the runways and set on mechanical locks. Inspect the wire ropes by looking through cutouts in the bottom of the runways, and inside the inspection door inside the rear beam. <b>Note: Use a trouble light for better visibility.</b></p> <p>Check all sheaves for wear or damage. Look for cracks, worn surfaces, or abnormal play or looseness as they rotate around mounting shafts. Check that all sheave mounting shaft retaining bolts are tight.</p> <p>Check for any fluid loss from the hydraulic system. <b>NOTE: When adding hydraulic fluid, the lift MUST be lowered completely.</b></p> |

| MAINTENANCE SCHEDULE | PERFORM THE FOLLOWING MAINTENANCE   |
|----------------------|---|
| Weekly               | <p>Check the turning angle gauges and rear slip plates for smooth and easy operation. Clean by blowing out with clean, dry compressed air. Disassembly is not required. DO NOT lubricate turning angle plates or slip plates. <b>(CAUTION: Always wear eye protection when using compressed air).</b></p> <p>Check anchor bolts on each post for tightness. Torque to 136-149 Nm (100-110 ft.-lb.)</p> <p>Check and lubricate rear ramp pivots with SAE 30 oil.</p>   |
| Monthly              | <p>Check wire ropes for damage and lubricate with a thin oil (SAE 5W-30). <b>Note: Do not use used motor oils. They contain contaminants that will break down factory applied lubricants. Also, do not use oils containing a solvent base (solvent cutback oils.) They also will break down factory applied lubricants. Replace wire ropes immediately if any sign of wire rope damage is found.</b></p> <p>Inspect entire lift for loose, damaged, or broken bolts. Replace as necessary.</p> <p>Check columns and runways for corrosion. Corrosive agents, solvents, and road salts can greatly reduce the life of the lift in a very short period of time. If these types of agents are spilled or splashed onto the lift, immediately rinse area thoroughly with water. If they come in contact with the wire ropes, wash the wire ropes immediately with water and re-lubricate with low viscosity oil.</p> <p>Check the power unit reservoir oil level. Add oil if necessary (use Hunter's specially filtered DEXRON III transmission fluid, 148-128-2). <b>NOTE: Oil must be checked and filled when the lift is in its fully lowered position.</b> Remove air breather cap and oil full level screw located at the top of the reservoir. Fill reservoir with oil until the oil begins to drip from full level screw hole. Replace air breather cap and oil full level screw. If the oil level is found to be low, determine the source of the oil loss and repair immediately.</p> <p><b>Notes about corrosion:</b> The best preventive maintenance against wire rope corrosion is to keep the wire ropes well lubricated. The oil prevents moisture from entering into the wire rope strands. Once salt and moisture have penetrated into the core of the wire rope it is very difficult to displace and corrosion will begin immediately.</p> |

| MAINTENANCE SCHEDULE | PERFORM THE FOLLOWING MAINTENANCE   |
|----------------------|---|
| Annually             | The entire lift should be inspected yearly (more frequently for severe use applications) by your factory authorized service representative.   |
| Every Two Years      | <p>Change hydraulic fluid. Use 15 liters (4 gallons) of Hunter's specially filtered DEXRON III transmission fluid, 148-128-2. <b>NOTE: Oil must be filled when the lift is in its fully lowered position.</b></p> <p>Drain fluid from reservoir by dropping pump reservoir <b>with the lift lowered completely.</b></p> <p>Clean any metal particles that may be on the magnet.</p> |

**NOTE:** The suggested maintenance above is for normal working conditions. Equipment exposed to unusually dirty or harsh corrosive conditions such as heavy winter road salt may require more frequent maintenance and service.

If any of the conditions described above are observed before, during, or after operation of the lift, the operator shall stop using the lift and report the condition to the supervisor, employer or owner. The lift shall not be used until the cause of the problem has been determined and the appropriate repairs have been made by qualified automotive lift personnel.

# 6. TROUBLESHOOTING

## 6.1 Troubleshooting Chart

| PROBLEM   | POSSIBLE CAUSE                                      | SOLUTION  |
|---|---|---|
| Lift does not operate.  | Circuit breaker or fuse blown in shop power panel.  | Locate shop power panel and restore power. If overload repeats due to lift operation, contact factory service representative. |
|   | Hydraulic system malfunction.                       | Contact factory service representative.   |
| "RAISE" button depressed, motor runs but lift will not rise to full height. | Low hydraulic fluid reservoir.                      | Lower lift, check hydraulic fluid level, and fill. Determine reason for low hydraulic fluid level.                            |
|   | Overhead obstruction to vehicle.                    | Lower lift and remove obstruction.  |
|   | Voltage supply low.                                 | Contact factory service representative.   |
|   | Hydraulic system malfunction.                       | Contact factory service representative.   |
| "RAISE" button depressed, motor runs, lift does not move.                   | Vehicle is beyond 8164 kg (18,000 lb.) capacity.    | Do not attempt to raise vehicles in excess of lift capacities.  |
|   | Electrical/Hydraulic controls malfunction.          | Contact factory service representative.   |
| Runways continue to rise after "Raise" button is released.                  | Electrical control malfunction.                     | Turn circuit breaker "Off" at shop power panel. Contact factory service representative.                                       |
| Locks do not retract.   | One or more locks still engaged on the lock ladder. | Raise lift more before pressing "LOCKS RETRACT" switch.   |
|   | Air control malfunction.                            | Check air supply and hoses.   |
|   | Leak in the air circuit.                            | Check air circuit and repair any leaks. Contact factory service representative.   |

## Troubleshooting (continued)

| PROBLEM   | POSSIBLE CAUSE   | SOLUTION  |
|---|--|---|
| <p>“Lower” sequence started; lift raises but then does not lower.</p> | <p>One or more locks still engaged on the lock ladder.</p> <p>Air control malfunction.</p> <p>Velocity fuse tripped.</p> <p>Electrical/Hydraulic controls malfunction.</p> | <p>Raise lift more before pressing “LOCKS RETRACT” switch.</p> <p>Check air supply and hoses.</p> <p>Contact factory service representative.</p> <p>Contact factory service representative.</p> |
| <p>Lift continues to descend after “LOWER” button is released.</p>    | <p>“LOWER” button is stuck or 2-way valve (“LOWER” solenoid valve) is stuck open</p>   | <p>Contact factory service representative.</p>  |



# APPENDIX

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## Maintenance and Training Documentation

A thorough record of each maintenance/training procedure must be prepared by the owner/employer. Use the following documentation sheet.

**NOTE:** Make several copies of this documentation sheet before beginning entries are made.

| Type of Maintenance/<br>Training | Date Performed | Performed By<br>(Initials) | Type of Maintenance/<br>Training | Date Performed | Performed By<br>(Initials) |
|----------------------------------|----------------|----------------------------|----------------------------------|----------------|----------------------------|
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