



MTP-9F

9,000 LBS. CAPACITY
TWO-POST FLOOR-PLATE LIFT

INSTALLATION & OPERATION MANUAL

***READ THIS MANUAL BEFORE INSTALLING OR
OPERATING YOUR LIFT***

REV 20140325.SAY01 BD

INSPECT YOUR LIFT UPON DELIVERY. NOTE ANY DAMAGE ON DELIVERY RECEIPT.

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EAGLE EQUIPMENT

www.eagleequip.com

Sales: **1-888-207-3391**

En Espanol:

Parts: **1-800-535-0016**

1-877-221-1600

TRANSPORTATION

All shipments are F.O.B Greensboro and become the property of the customer when they leave our dock. Eagle Equipment uses common carriers (Fed-Ex Ground, UPS, etc.) and independent freight haulers for shipping. We negotiate the most competitive freight rates possible and pass these savings along to our customers. And we make every effort to minimize freight charges and provide a timely delivery for our customers. We cannot advise customers of exact time-of-delivery. We can provide an Estimated Time of Arrival (ETA), and tracking information.

Customer is responsible for unloading the lift. Eagle Equipment assumes no responsibility for any additional charges due to delayed delivery, or damages that may be incurred unloading product from the delivering carrier's truck. Freight carriers may have restrictions on deliveries to residential addresses and may require pick-up at a freight terminal.

An automotive lift is a heavy piece of equipment. A fork-lift or other similar mechanism is necessary for its loading, off-loading and movement. (Lifts cannot be unloaded with a lift-gate.) Upon arrival, customer is responsible for unloading and receiving the lift from the freight carrier. Customer's site must be accessible to the freight carrier.



INSPECT YOUR LIFT UPON DELIVERY.
NOTE ANY DAMAGE ON DELIVERY RECEIPT.



SHIPPING AND DAMAGE CLAIMS

All shipments must be inspected immediately upon receipt. For your protection, any external damage must be noted on the Bill of Lading at the time of delivery in order to qualify for a claim against the freight carrier.

Concealed damage must be reported to the freight company within three (3) days of delivery. It is the customer's responsibility to file for damage claims against the freight company. Eagle Equipment is not responsible for loss or damages caused by shipping.

Shortages or missing parts must be reported to **Eagle Equipment Customer Service** (1-888-207-3391) within three (3) days of delivery.

INTRODUCTION

Thank you for your purchase.

Your lift is the result of decades of research, testing and development; and represents the most advanced technology on the market.

The care with which you maintain and operate your lift will directly affect its overall performance and longevity.

BE SAFE

Your lift was designed and built with safety in mind. However, safety relies on proper training and thoughtful use on the part of the operator. **DO NOT** operate or repair this equipment without reading this manual and the important safety instructions shown inside.

Keep these instructions accessible, and make sure that ALL USERS read this manual.



READ THIS ENTIRE MANUAL
CAREFULLY AND COMPLETELY
BEFORE INSTALLATION
OR OPERATION OF THE LIFT.



RECORD THE MODEL NUMBER AND THE SERIAL NUMBER

(LOCATED ON THE MAIN POST OF YOUR LIFT)

Model Number: _____

Serial Number: _____

Manufacturing date: _____

THIS INFORMATION WILL BE REQUIRED
SHOULD YOU EVER NEED TO CALL IN
FOR PARTS OR TECHNICAL ASSISTANCE.

For assistance, please call: 1-800-535-0016

IMPORTANT SAFETY INSTRUCTIONS

Read These Safety Instructions Thoroughly

1. Read and understand all operation & safety warning procedures before operating lift.
2. Keep hands and feet clear. Remove hands and feet from any moving parts. Keep feet clear of lift when lowering. Avoid pinch points.
3. Keep work area clean. Cluttered work areas invite injuries.
4. Consider work area environment. Do not expose equipment to rain. Do not use in damp or wet locations. Keep area well lighted.
5. Only trained personnel should operate this lift. All non-trained personnel should be kept away from the work area. Never let non-trained personnel come in contact with, or operate lift.
6. Use lift correctly. Use lift in the proper manner. Never use lifting adapters other than those provided by the manufacturer, in any manner other than intended.
7. Do not override self-closing controls.
8. Remain clear of lift when raising or lowering vehicle.
9. Clear area if vehicle is in danger of falling.
10. Always insure that the safeties are engaged before any attempt is made to work on or near vehicle.
11. Dress properly. Non-skid, steel-toe foot-wear is recommended when operating lift.
12. Carefully inspect the lift on a regular basis. Perform maintenance according to the maintenance schedule.
12. Guard against electric shock. This lift must be grounded while in use to protect the operator from electric shock. Never connect the ground wire to a live terminal. This is for ground only.
13. **Danger!** The power unit used on this lift contains high voltage. Disconnect power at the receptacle before performing any electrical repairs. Secure plug so that it cannot be accidentally plugged in during service.
14. **Warning!** Risk of explosion. This equipment has internal arcing or sparking parts which should not be exposed to flammable vapors. This machine should not be located in a recessed area or below floor level.
15. Maintain with care. Keep lift clean for better and safe performance. Follow manual for proper lubrication and maintenance instructions. Keep control handles and/or buttons dry, clean and free from grease and oil.
16. Stay alert. Watch what you are doing. Use common sense. Be aware.
17. Check for damaged parts. Check alignment of moving parts, breakage of parts or any condition that may affect its operation. Do not use lift if any component is broken or damaged.
18. Never remove safety related components from the lift. Do not use the lift if safety related components are damaged or missing.

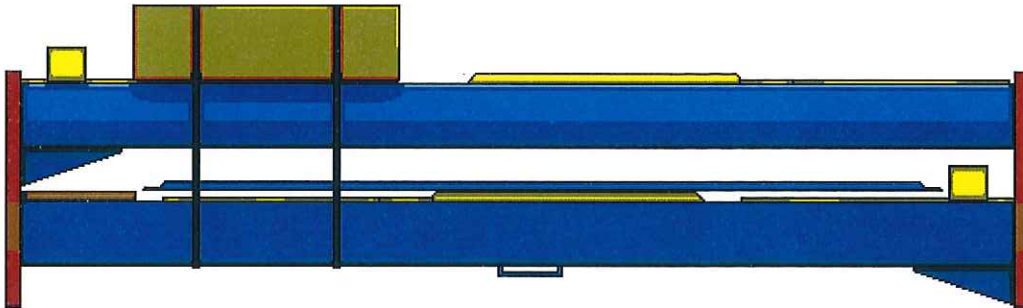
UNPACKING



WARNING Failure to follow the Unpacking and Assembly Directions **WARNING**
may cause personal injury and/or impair the operation of this machine.
Please read thoroughly.



- 1] Your lift comes packaged as a single unit (Fig. 1). A fork-lift, floor-jack or other heavy-lifting equipment may be necessary to separate the components. Exercise caution when disassembling the packaged lift, as shifting may have occurred during shipping.
- 2] Carefully remove the shipping bands and brackets from the lift. Check for any obvious shipping damage. (Remember to report any shipping damage to the carrier and make a notation on the delivery receipt.) Save all bolts, nuts and washers securing the shipping brackets, as these may be used in the assembly of the lift.
- 3] The unit is composed of several main components. (See Fig. 2, below)
- 4] An Accessory Box is included with the lift, for smaller components.
- 5] Un-strap and remove Power Unit box from packaged lift. (Literature such as the Installation Manual, Warranty Card, and Serial Number Plate is usually included inside this box.) Inspect the power unit, and note any possible shipping damage on the shipping bill.
- 6] Remove Arms from their shipping location inside towers, and set aside.



(Fig. 1)



Shipments must be inspected immediately upon receipt.



**External damage must be noted on Bill-of-Lading.
Concealed damages must be reported to freight company within three days of delivery.**

**Shortages must be reported to Eagle Equipment within three days of delivery.
(1-888-207-3391)**

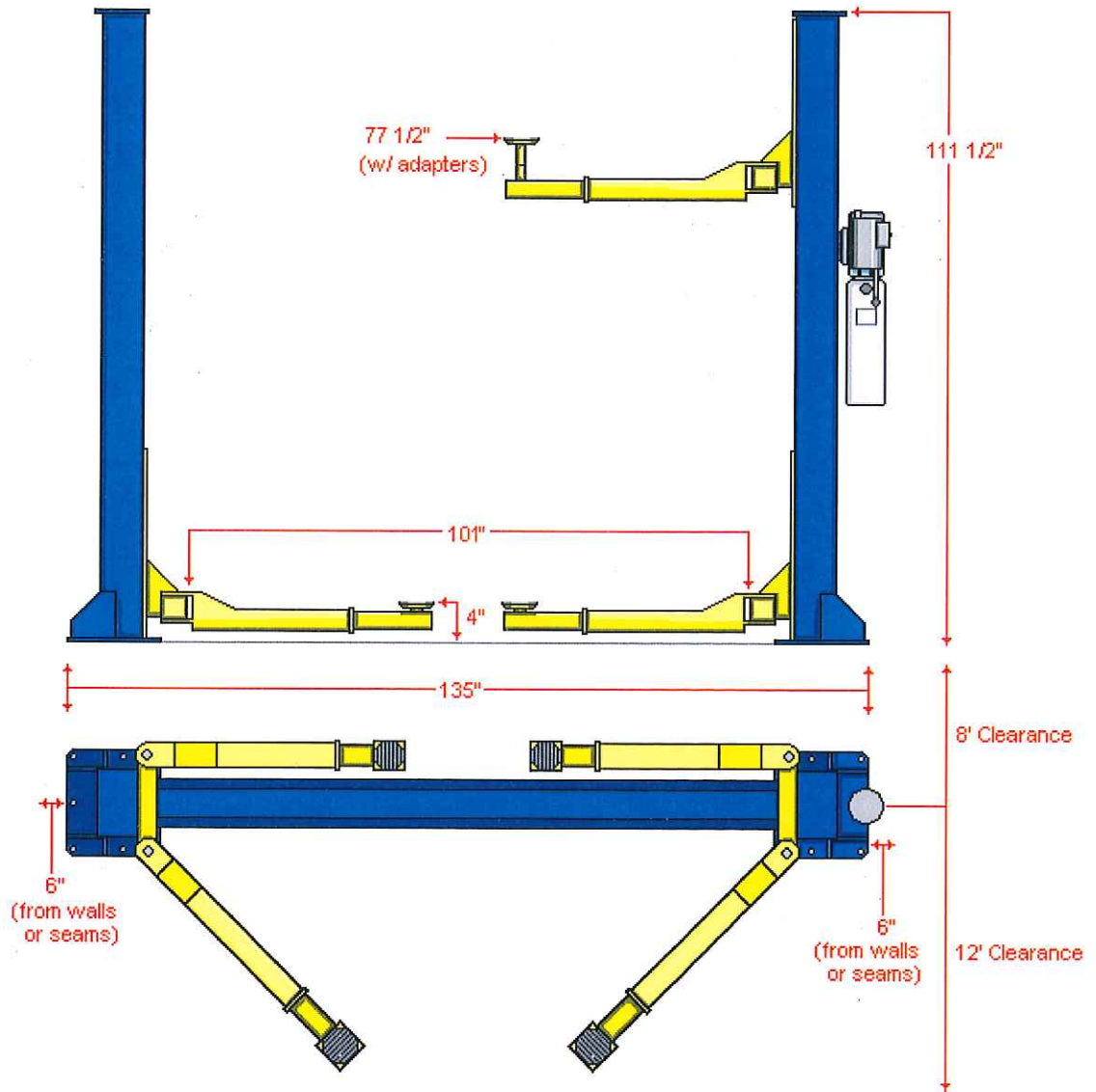
BASIC STRUCTURE OF PRODUCT

This product is a two-post, dual cylinder, chain-over-hydraulic lift which uses steel cables for equalization. The main components are the towers, lifting carriages, swing arms, cylinders, chains, cables and power unit. Arms and carriages have locking mechanisms for simple and safe operation.

Depressing the switch on the power unit raises the lift. Releasing the switch stops the lift. Lift should always be settled on the carriage locking mechanisms. To lower the lift, simply raise the carriages up off the locks, pull on the small ringed cables below both carriages to disengage the locks, and depress the lowering handle.

Arms rotate and telescope for easy use. Adapters are included for raising the height of the base-pad at the end of the arm. Swing arm locks automatically engage as the carriages rise, and disengage once they are lowered to the floor.

Style	Symmetric
Lifting capacity	9,000 lbs.
Overall height	111 1/2"
Overall width (outside of base plate)	135"
Width (outside of columns)	125"
Cover height	1 3/4"
Inside columns	110 1/2"
Front arm min reach	32"
Front arm max reach	48"
Rear arm min reach	32"
Rear arm max reach	48"
Min pad height	4"
Rise	70"
Lift height max (pad only)	74 1/2"
Lift height max (with adapters)	77 1/2"
Drive-thru clearance	101"
Motor	2HP 220VAC
Time to full rise (NO LOAD)	45 seconds (220 PU)
Max load per arm	2,250 lbs.
Shipping Weight	1,500 lbs.
Shipping Dimensions	L 116 " x W 21" H 44"



(Fig. 2)


WARNING

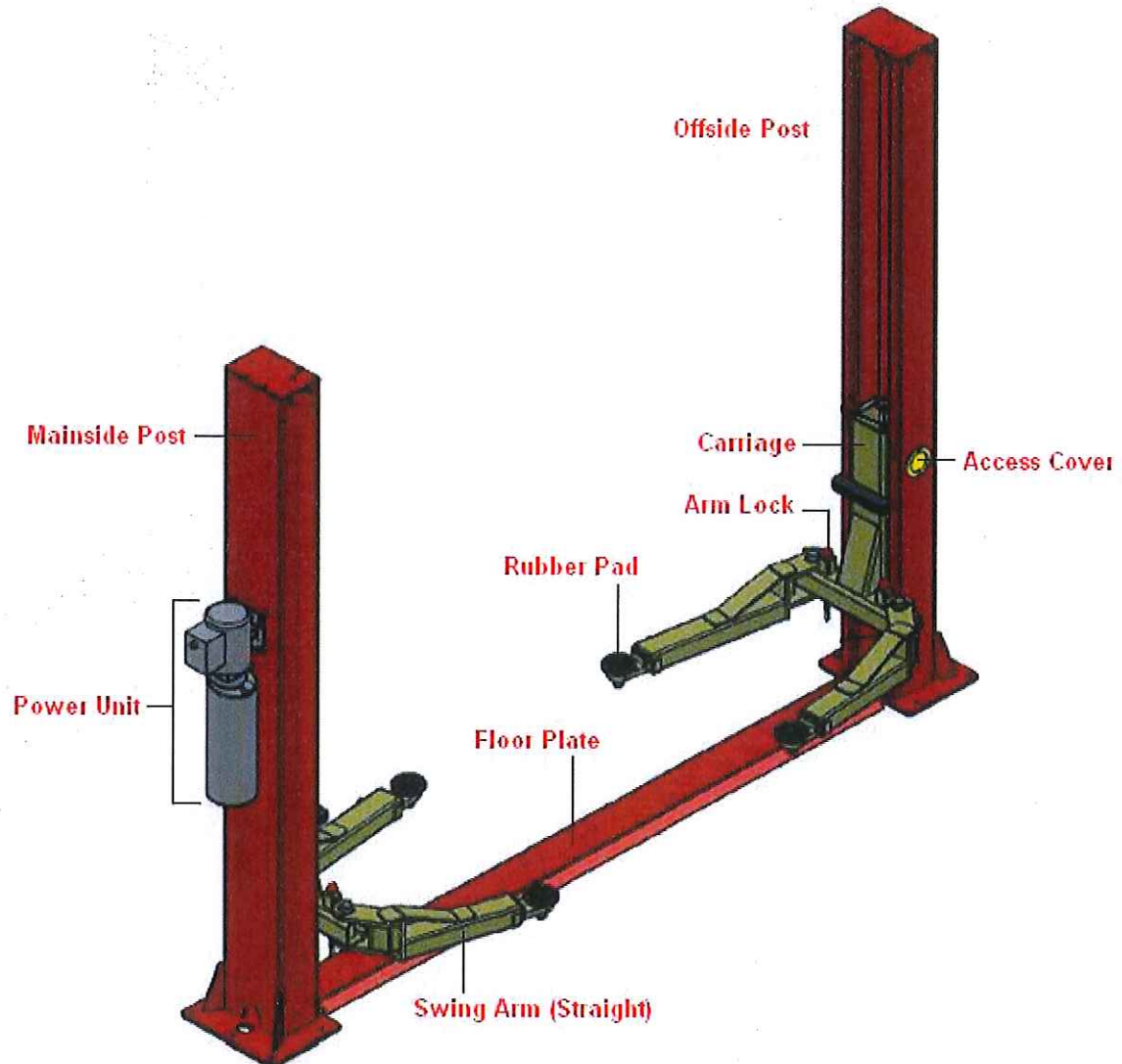

WARNING

**NEVER ATTEMPT TO LIFT ANY PART OR PORTION OF A VEHICLE
 WITH LESS THAN ALL FOUR (4) ARMS AT ANY TIME.**

COMPONENTS



It is a good idea to familiarize yourself with the components of your lift and the terms describing them. (Fig. 3)



(Fig. 3)

INSTALLATION



NOTE: Installation is the Customer's Responsibility.



It is the responsibility of the purchaser to ensure proper installation of this lift. Automotive lifts are pieces of heavy machinery and precision equipment, so their installation is extremely important. In preparing for the installation, it is necessary to procure the correct tools and choose the right site. Work-space, floor-strength, ceiling height & overhead clearance, and a sufficient & reliable power source should all be considered well in advance. Any questions about floor capacity should be resolved prior to beginning the installation.

A professional lift installer is suggested. Whoever installs the lift should read this manual thoroughly and familiarize themselves with its content.

A certified electrician is required for the final connection of the lift's power unit; and all local codes and requirements should be followed.

Always wear the proper clothing, safety-gear and Personal Protection Equipment (PPI) when installing or servicing this lift.

TOOLS REQUIRED

25' Measuring Tape
Chalk Line
Marker or Floor Crayon
Rotary Hammer Drill
 $\frac{3}{4}$ " (19mm) dia. Masonry Drill Bit
4lbs. Hammer
SAE Wrenches & Ratchet Set
Metric Wrenches & Ratchet Set
Torque Wrench
2' Level
4' Level
Pry Bar
12' Step Ladder
Side Cutters
Vise Grips
Screwdriver Set
4" x 4" Wooden Blocks (to assist in unpacking)
Floor-Jack or Dollies (to assist in unpacking)
4 gal. AW-32 Hydraulic Oil
Funnel
White Lithium Spray

INSTALLATION

STEP 1

Selecting the Site

Your lift requires **220v, 20amp, single phase** electrical power. The area of operation should provide the minimum space shown above (Fig. 2). There should be room enough to operate the lift in a safe manner and without restrictions. The area should be kept clean of oil, grease, etc., and clear of clutter. Avoid areas where customers or other bystanders may be present.

Before installing your lift, check the following:

1] LIFT LOCATION: Always use architect's plans when available. Check layout dimension (fig. 2) against floor plan requirements making sure adequate space is available.

2] OVERHEAD OBSTRUCTIONS: The area where the lift will be located should be free of overhead obstructions such as heaters, building supports, electrical lines, doors, etc.

3] DEFECTIVE FLOOR: Visually inspect the site where the lift is to be installed and check for cracked or defective concrete.

4.] OPERATING TEMPERATURE: Only operate lift between temperatures of 41-104 degrees Fahrenheit.



**ATTENTION: This lift is intended for indoor installation only.
Improper installation may result in voiding of warranty,
damage to lift and property, and/or personal injury.**



STEP 2

Floor Requirements

Specifications of concrete must be adhered to. Failure to do so could cause lift failure resulting in personal injury or death.

A level floor is suggested for proper installation and level lifting. Small differences in floor slopes may be compensated for by proper shimming. If a floor is of questionable slope, consider a survey of the site and/or the possibility of pouring a new level concrete slab.

DO NOT install this lift on any asphalt surface or any surface other than concrete.

DO NOT install this lift on expansion seams or on cracked or defective concrete.

LIFT must be installed at least 6" from the edge of the concrete slab.

CONCRETE ANCHORS must be at least 4" from any cracks, seams, or saw cuts in the concrete.

SHIMS must be installed at all anchor points where there is a gap between the base plate and the concrete. Do not shim more than 1/2".

DO NOT install this lift on a second/elevated floor without first consulting building architect.

DO NOT install this lift outdoors. If you insist on installing this lift outside, special consideration should be made to protect the power unit from inclement weather conditions. (**Warranty does not cover damage or wear due to outside installation.**)

CONCRETE SPECIFICATIONS

<u>LIFT MODEL</u>	<u>CONCRETE REQUIREMENT</u>
MTP-9F (9,000 lbs.)	4" <u>Minimum</u> Thickness

NOTE: All models **MUST** be installed on 3,000 PSI or greater reinforced concrete; conforming to the minimum requirements shown above. New concrete must be adequately cured for at least 30 days.



ATTENTION: DO NOT ATTEMPT TO PRE-SET ANCHORS!



**Anchors are designed to be inserted into holes drilled in a properly poured, cured and reinforced floor, at the time of the lift's installation.
(See Step 5)**

Attempting to pre-set anchors will unnecessarily complicate the installation process, and may compromise the integrity of lift.

STEP 3

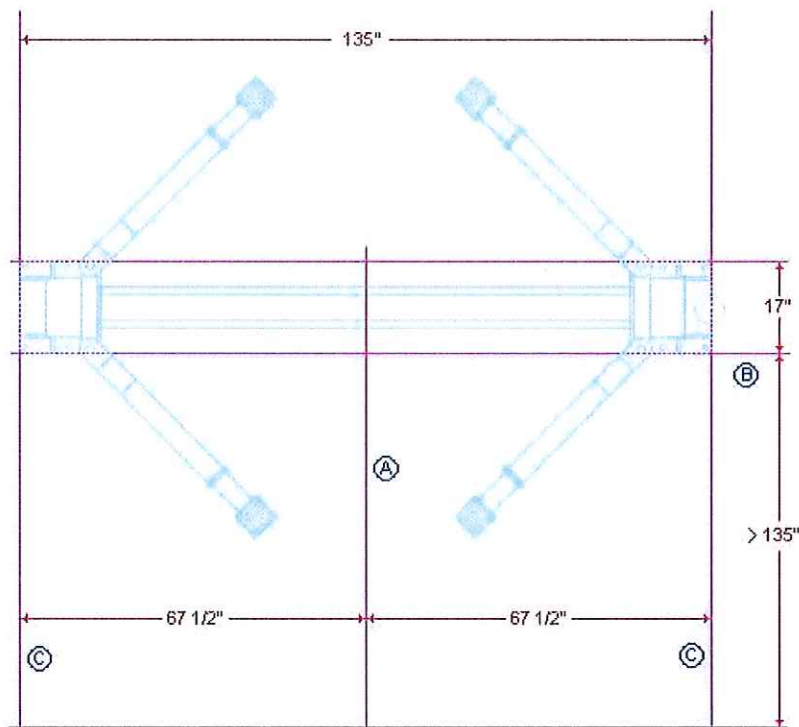
Positioning the Posts

1] Determine the approach angle for the lift.

Note: It can be helpful to pull a vehicle into the bay prior to installation, to give you a general idea of where you want to place your posts. Mark and use these locations when chalking more specific lines.

2] Determine where the power unit will be located. The **POWER SIDE** post has the power unit mounting bracket attached to the side. This post can be positioned on either side.

3] Once location is determined, use a carpenter's chalk line to layout a grid for post locations. (Fig. 4) Keep all dimensions, and square of the dimensions, within 1/8" or lift malfunction can occur.



(Fig. 4)

4] First, snap a center line (A) down the middle of the bay where the lift will be installed.

5] Next, determine the distance your lift will sit from the back of the bay or door. Twelve (12) feet minimum are recommended to the center of your lift. Snap a line 135" (or wherever the back edge of the lift will be set) from the door (B).

6] Snap lines 67-1/2" from the center-line on either side of the bay (C) for a total width of 135".

7] Raise and position the posts inside the corners of these lines as shown above (Fig. 4).

STEP 4

Securing the Main Side Post



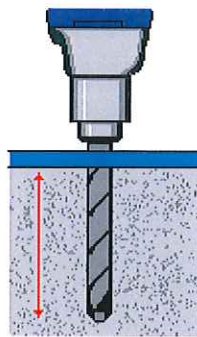
WARNING BE VERY CAREFUL NOT TO DISTURB THE POSTS AT THIS POINT **WARNING**
AS THEY MAY TIP OVER AND CAUSE PERSONAL INJURY.



1] Double check all dimensions and make sure the layout is square. Verify the position of the Main Post within the square.

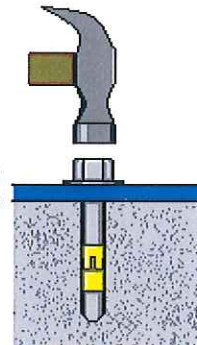
2] Once the Main Side Post is in its final position, drill holes in the concrete using the base plate of the post as your template (Fig. 5). Use a $\frac{3}{4}$ " hammer drill bit and drill straight clear holes. Drill all the way through the slab when possible to allow for replacing an anchor if necessary. Keep the hammer drill straight when drilling to prevent egging out the holes.

Drill Holes In Concrete
As Follows
**MAKE SURE TO USE
 $\frac{3}{4}$ " HAMMER DRILL-BIT**



(Fig. 5)

Tap anchor bolts into each hole
with a hammer until the washer
rests against the baseplate



(Fig. 6)

3] Once holes are drilled, vacuum out the dust and insert anchor bolt(s) into hole(s) and tap down until washer rests against the base plate (Fig. 6). Be sure nut is flush with top of bolt before tapping into hole.

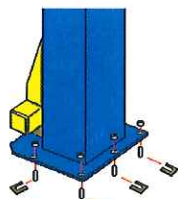
DO NOT TIGHTEN AT THIS TIME.



CAUTION: Hitting the anchor bolts too hard
may result in damaged threads,
which may prevent proper tightening of the nut.
Tap firmly, but carefully.



4] Before tightening the anchor bolts, check for plumb of the Main Side post with a 4' level. Shim as necessary (Fig. 7). Shims must be installed at all anchor points where there is a gap between the base plate and the concrete. Do not shim more than $\frac{1}{2}$ ".



(Fig. 7)



(Fig. 8)

Tighten nut
120 ft. lbs.
DO NOT use
an impact wrench.

5] Once the Main Side post is positioned and shimmed correctly, secure it to the floor by tightening the anchor bolts to 120 foot-pounds. **DO NOT** use an impact wrench (Fig. 8).

6] All anchors must have a minimum of 3 ¼" embedment in the concrete. If the top of the anchor exceeds 2 ¼" above the floor grade, you **DO NOT** have enough depth on the anchors.

STEP 5

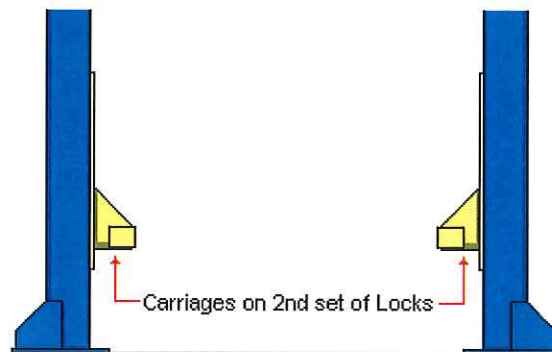
Securing the Off Side Post

- 1] Re-check the position and placement of the Off Side Post. Make sure the post is plumb and square in relation to the Main Side Post.
- 2] Drill through the holes in the base plate and install anchor bolts and secure the Off Side Post as described in **Step 5, numbers 1-6 above.**
- 3] Both posts are now secured.

STEP 6

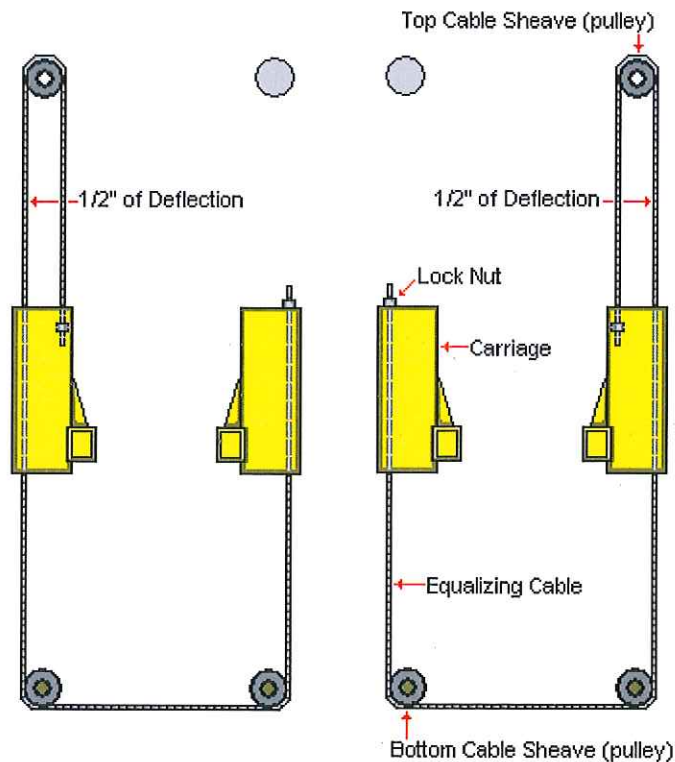
Installing the Cables

- 1] Manually raise both carriages to rest on the second set of locks from the floor (Fig. 9).



(Fig. 9)

- 2] Make sure both carriages are resting on the second set of locks. Carriages must be equal height from floor.
- 3] Unwrap both cables. Install 2 nuts on one end of each cable. About an inch (1") of thread should show through the nuts. Lock these two nuts tightly against each other. This end will be inside and at the rear of the carriage after routing.
- 4] With both carriages in place on the second set of locks, route cables as shown (Fig. 10).





(Fig. 10)

5] All adjustments should be made at the exposed cable end pointing upward at the rear of each carriage. It may be necessary to secure the cable end with a pair of vice grips inside the carriage.

6] Remove the slack from both cables. Before all slack is removed, begin to alternate from one post to the other. First tighten one cable a few turns, before returning to the other post and tightening the second cable an equal number of turns. If done correctly, both cables will tighten up an equal amount, and neither carriage will lift off the locks as they are tightening against one another.

7] Continue to tighten the cables until there is $\frac{1}{2}$ " of deflection in the cable about 3 feet above the carriage at the front of each column (Fig 10).

8] Install a second nut on each of the cable ends and lock them tightly against the first nut.


NOTE: Cable tension is very important to the correct and safe operation of your lift.


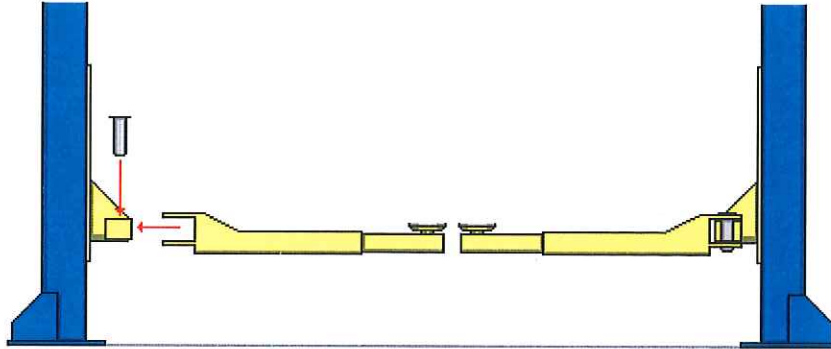
See the Maintenance Section of this manual for information on maintaining proper cable tensions.

STEP 7

Installing the Swing Arms

1] With the carriages still on the second set of locks from the previous installation step, install the swing arms on the carriages (Fig. 11). Note: the shorter arms attach at the front of the lift as pictured in the overhead view (Fig. 2).

2] Install the arm pins as shown.



(Fig. 11)



WARNING



WARNING

**NEVER ATTEMPT TO LIFT ANY PART OR PORTION OF A VEHICLE
WITH LESS THAN ALL FOUR (4) ARMS AT ANY TIME.**

**NEVER RAISE VEHICLE WITHOUT ENSURING THE SWING-ARM LOCKS ARE ENGAGED,
AND THE ARMS PREVENTED FROM MOVING.**

NEVER OPERATE LIFT WITH DEFECTIVE LOCKS.

(See Section on Lift Maintenance Below.)

STEP 8

Installing the Swing Arm Restraints



WARNING

NOTE: ARM LOCKS MUST BE INSTALLED CORRECTLY.



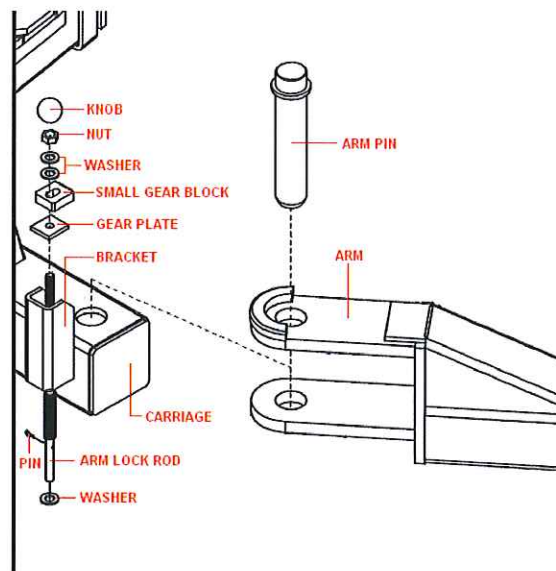
WARNING

**The Arm Locks are essential to the safe operation of the lift.
Always maintain proper function of Arm Locks.
NEVER DEFEAT OR DISABLE ARM LOCKS.
Never operate lift with malfunctioning or defective Arm Locks.**

- 1] Locate the Arm Lock Assemblies in the hardware box.
- 2] Install the four (4) Arm Lock Assemblies (one (1) in each carriage bracket) as shown (Fig. 12A).
- 3] Adjust each Small Gear Block up or down in the carriage bracket to fully engage the Half-Moon Gear on the arm. Teeth of both gears should mesh when lift is raised. When lift is lowered to the ground, gears should completely disengage to allow arms to swing freely. Be sure gear does not rise above the bracket.
- 4] Adjust each Small Gear Block forward or backward in the carriage bracket to fully engage the Half-Moon Gear on the arm. Teeth of both gears should mesh as described above. Tighten the lock nut to secure
- 5] Teeth on all gears should mesh as completely as possible. Be sure all gears “bite” completely.



**NOTE: Failure to mesh gears properly
can cause slipping of lock mechanism, damage to lift and significant safety issues.**

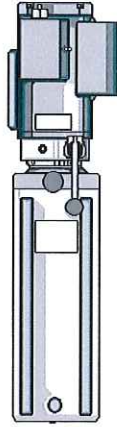


(Fig. 12A)

STEP 9

Installing the Power Unit

1] Carefully remove the Power Unit (Fig. 12) from its box and packaging; inspect and immediately notify Eagle Equipment Customer Service if any shipping damage is found.



(Fig. 12)

2] Mount the Power Unit to the mounting bracket on the Main-Side Post, using four (4) 5/16" x 3/4" hex bolts, flat washers, lock washers, and nuts. Use the lower 2 pairs of slotted holes on the power unit bracket.

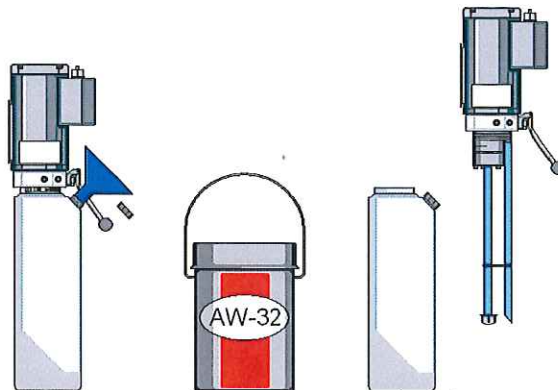
3] Fill the reservoir to the fill line with hydraulic oil. USE ONLY: **ISO-32** or **AW-32** 10-wt. Hydraulic Oil. **DO NOT USE DEXRON, ATF, TRACTOR OIL or JACK OIL.** AW-32 can be purchased at your local auto parts store.



WARNING: DO NOT use ATF in this lift!



NOTE: Power Unit Reservoir can be filled either before or after mounting it to the lift; whichever the installer finds easier.



(Fig. 13)

STEP 10

Installing the Hydraulic Fittings

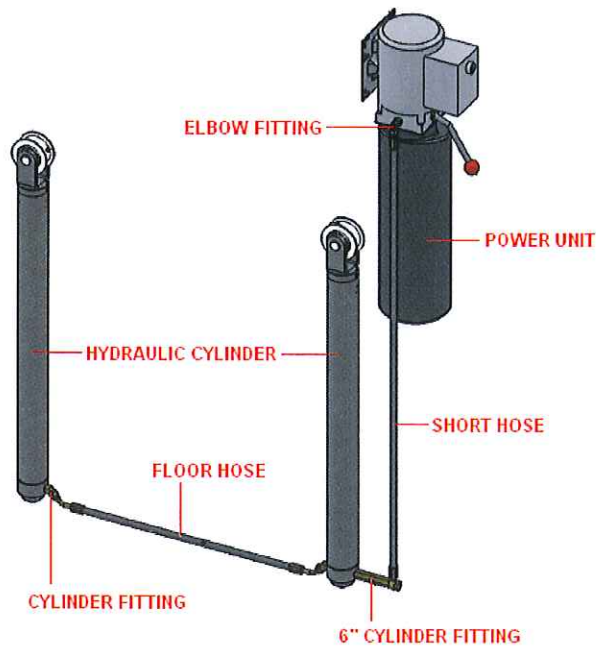
1] Remove the red plastic plug from the pressure port. Install the hydraulic O ring "elbow" fitting into this port. Wind the fitting in by hand until the O ring is up against the face of the pump and the elbow is pointed down. Hold the fitting in this position with a wrench and tighten the jamb nut with a second wrench until the washer compresses the O ring. Do not use Teflon tape.

STEP 11

Installing the Hoses

1] Connect one end of the short hydraulic hose to the elbow fitting at the pump. Connect the other end of the hose to the fitting at the base of the main side cylinder. Do not use Teflon tape.

2] Connect each end of the long hydraulic floor-hose to the short-fitting at the inside base of each cylinder. Route along the floor, to lie between the equalizing cables, beneath the floor-plate. Do not use Teflon tape.



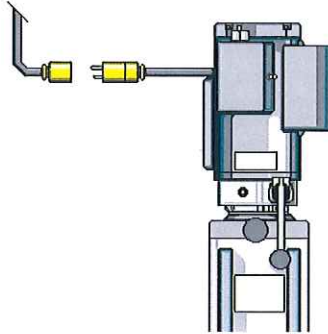
(Fig. 13A)

STEP 12

Wiring the Lift

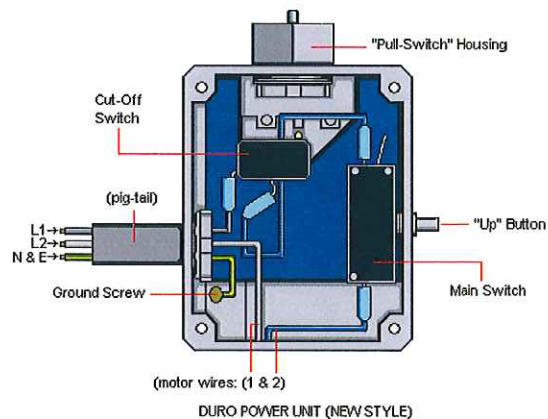
WARNING  **FINAL ELECTRICAL CONNECTION MUST BE MADE BY A CERTIFIED ELECTRICIAN.**  **WARNING**

1] The power unit may or may not come with a "pig-tail" already attached and wired to the motor. It is recommended that a twist-lock connection be installed at this pig-tail as an emergency disconnect (Fig. 14).



(Fig. 14)

2] Wiring may vary, depending on the Power Unit. The typical connection is L1 to black power unit wire, L2 to white power unit wire, Neutral and Ground both connect to the chassis of the power unit. (Refer to wiring diagram on the inside of your switch cover for confirmation.)



WARNING  **DO NOT ASSUME WIRING COLORS OR LABELS ARE ACCURATE. VERIFY THE WIRING INSIDE SWITCH BOX OF POWER UNIT IS ROUTED CORRECTLY TO PROVIDE 220v/20@/SINGLE PHASE TO THE SWITCH AND MOTOR, WITH PROPER GROUND.**  **WARNING**

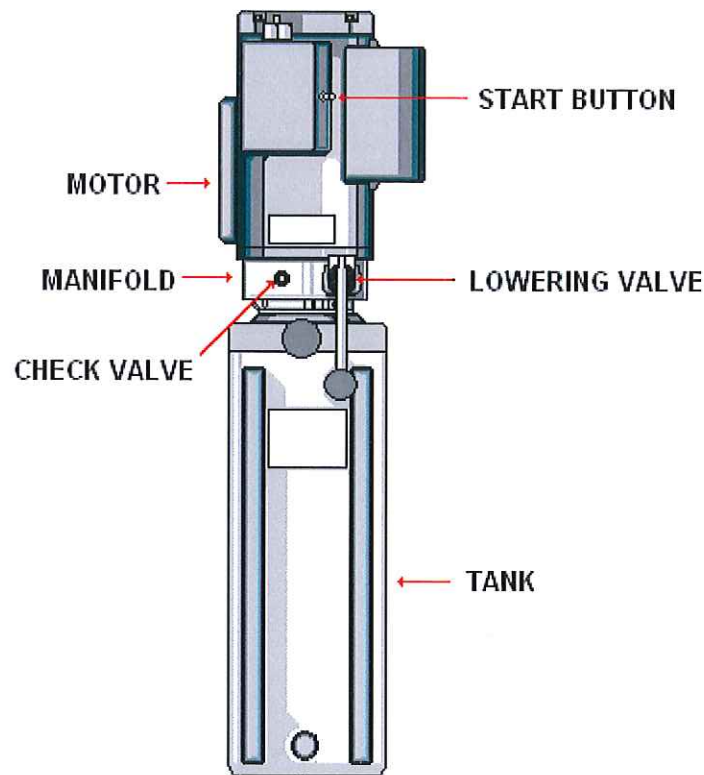


STEP 13

POWER UNIT PRIMING PROCEDURE

THE PROBLEM: Power unit runs fine but will not pump any fluid.

Step 1 – Locate the check valve, the flush plug to the left of the lowering valve.
(See illustration below.)



Step 2 – Using an Allen wrench and shop towel – with shop towel in place to catch fluid – loosen the check valve plug 2-1/2 turns to allow it to leak.

Step 3 – Push the **START** button for one second, then release for three seconds. Repeat these steps until the unit starts pumping fluid.

Step 4 – Tighten the check valve.

THE POWER UNIT SHOULD BE PRIMED

STEP 14

Start Up

- 1] Make sure the reservoir is filled with **AW-32 hydraulic oil**.
- 2] Spray inside corners of columns, where the guide blocks slide, with lithium grease.
- 3] Press the "UP" switch on the power unit. Lift will slowly raise.



IF THE LIFT DOES NOT RAISE



- CHECK** hose connections: Fluid should be pumping through the hose connected to the Power Unit.
- CHECK** fluid level: Verify pick-up tube inside reservoir is connected to pump.
- CHECK** electrical connection: Verify 220v, 20@, 1ph connection is properly wired.
- CHECK** Power Unit Priming: See "Priming Procedure", page 20.



**NOTE: There will be some initial stretching of the cables in the beginning.
It will be necessary to re-adjust the cables a week after first use.
Then every six (6) months thereafter.**



- 4] Run the lift up and down a few times to bleed the hydraulic system then top off the reservoir with the lift in the fully lowered position.
- 5] Be sure that both carriage locks are clicking simultaneously and that the arm safety mechanisms are functioning properly. Re-adjust the cables until the carriage locks click in sync if necessary. This is accomplished by tightening the cable on the side that is clicking first.

STEP 15

Installing the Floor-Plate

1] Secure the Floor-Plate to the base of the columns using the Allen cap-bolts and washers provided. Floor-Plate should cover the hose and cables, without making contact with the cables. Cables should not rub against edge of Floor-Plate.

OPERATION

RAISING A VEHICLE ON THE LIFT

- 1] Read these Operating Instructions completely before using the lift. Read and Install Operating and Safety Decals on the lift. (These are sometimes included with the literature for application after installation.)
- 2] Center the vehicle between the columns. **(DO NOT BACK VEHICLE ONTO LIFT.)**
- 3] Adjust swing arms so that the vehicle is positioned with the center of gravity midway between the pads. Always lift vehicles at the manufacturer's recommended lifting points.
- 4] Use height adapters as needed. Never exceed 9" of pad height.
- 5] Press the button on the power unit to raise the lift until the pads touch the underside of the vehicle. Re-check pad contact at lifting points; adjust as necessary. Make sure vehicle is secure.
- 6] Continue to raise the vehicle to the desired working height. Lower vehicle onto nearest carriage safety lock before walking under the vehicle.



WARNING

When working on a vehicle



WARNING

ALWAYS make sure that ALL LOCKS are engaged.

**NEVER work beneath a vehicle without it resting securely on the carriage locks.
Ensure that the swing arm locks are engaged.**

LOWERING A VEHICLE

- 1] Raise the lift to clear the safety carriage locks.
- 2] Disengage the carriage locks by pulling on each release cable. Be sure to disengage BOTH carriages.
- 3] Be sure all tools, step-stools, jack-stands, and personnel are out of the way before lowering.
- 4] Depress the lowering handle on the power unit to lower the lift and vehicle.



WARNING

When lowering lift PAY CAREFUL ATTENTION.



WARNING

ALWAYS make sure that ALL LOCKS are disengaged.

If one of the locks inadvertently locks on descent the lift and/or vehicle may dislodge causing personal injury or death.

- 5] Before removing vehicle from the lift area, position swing arms and extensions out from under the vehicle to provide an unobstructed exit. NEVER drive over the swing arms.

MAINTENANCE

DAILY MAINTENANCE

- 1] Give the lift a quick once-over before using it each day. Check for any obvious leaks, or defects. Inspect cables, hoses and chains for any sign of wear.
- 2] Verify lift is operating properly, raising levelly and all locking mechanisms for the arms and carriages are working.

WEEKLY MAINTENANCE

- 1] Lubricate all chain rollers and cable pulleys. Grease the carriage tracks inside the towers.
- 2] Check all nuts and bolts; tighten where necessary.
- 3] After the first week, check cable tension and adjust as necessary. Check every 6 months after.

MONTHLY MAINTENANCE

- 1] Check and lubricate all safety mechanisms; ensure they are in proper working order. Replace any worn or defective parts.
- 2] Check and tighten anchor bolts as necessary.
- 3] Inspect all moving parts; replace any worn or defective parts.

CABLE INSPECTION AND MAINTENANCE

- 1] Lift cables normally require replacement every four to five years.
- 2] Lift cables should be replaced if you see three or more broken wires in one strand.
- 3] Replace the cables if you see: corrosion or rusting on the wires or ends, kinking, crushed areas, cutting, spreading, a cable core protruding, or any other abnormality.
- 4] If any cable defects are found the lift should be shut down immediately until the defective cable(s) have been replaced.
- 5] Cables and other lift parts should be kept free of corrosive agents, solvents, and road salt. If such agents are spilled or splashed on any lift component, immediately rinse and wipe down with a clean rag. Spray cables every three months with Penetrating Oil and wipe down. Failure to keep cables free of corrosive agents will lead to reduced service life, cable failure, etc. which could result in property damage and/or personal injury.



- 1] If ANY component of the lift is found to be defective, DO NOT USE LIFT!
- 2] NEVER operate the lift with any person or equipment below.
- 3] ALWAYS stand clear of lift when raising or lowering.
- 4] NEVER exceed rated capacity.
- 5] ALWAYS ensure safeties are engaged before working on or near vehicle.
- 6] NEVER leave lift in an elevated position unless it is settled firmly on the safety locks.
- 7] NEVER attempt to back a vehicle onto an asymmetric lift.

TRUBLE-SHOOTING

ANCHOR BOLTS DO NOT TIGHTEN, OR PULL OUT OF FLOOR

- 1] Faulty concrete, or insufficient floor thickness: Have floor checked for proper specifications.
- 2] Wrong size drill bit size was used. Move the lift and drill new holes with the correct size bit.

LIFT DOES NOT RISE; NO MOTOR NOISE

- 1] No power: Check breaker, power to Power Unit; verify proper wiring.
- 2] Bad switch: Check, replace if necessary.
- 3] Cut-off switch engaged (if present): Verify wiring of cut-off switch.
- 4] Bad motor: Repair or replace.

MOTOR RUNS, BUT LIFT DOES NOT RISE

- 1] No draw from pump: Verify fluid is flowing through hose. Check pick-up tube inside reservoir.
- 2] Check lowering valve for debris or bad o-ring. Inspect check-valve, if present.
- 3] Bad pump: repair or replace.
- 4] Bad motor: Repair or replace.

LIFT RAISES, BUT LABORS

- 1] Wrong Voltage: Lift may be wired at 110vac; verify 220vac.
- 2] Improper flow: Check pressure rating of pump, and verify out-put.
- 3] Vehicle too heavy for lift: Verify weight of vehicle.
- 4] Bad power unit: Repair or replace.

LIFT SHUDDERS OR SHAKES WHEN RAISING OR LOWERING

- 1] Mechanical Binding: Inspect and correct.
- 2] Incorrect fluid used: Verify AW-32, and replace incorrect fluid if necessary.
- 3] Air in lines: Should bleed through reservoir cap; check for restrictions. Bleed manually if necessary.

LIFT RAISES TOO SLOWLY

- 1] Wrong voltage or fluid flow (see above).
- 2] Excessive weight (see above).
- 3] Mechanical binding in structure: Inspect for binding; verify the plum and square of installation.
- 4] Hydraulic flow is restricted: Check hoses and fittings for blockage. Check lowering valve for by-pass.

CARRIAGES RAISE UNEVENLY

- 1] Uneven distribution of weight: Vehicle improperly loaded or out of balance. Re-check and correct.
- 2] Cables out of adjustment: Readjust. Check cables for stretching, fraying or wear. Replace if necessary.
- 3] Unequal hydraulic fluid flow: Check hoses and fittings for restrictions.
- 4] Mechanical binding in one tower: Check and correct as necessary.

CARRIAGE LOCKS DO NOT ENGAGE, OR ENGAGE OUT OF SYNC

- 1] Carriages are not raising evenly: (See above.)
- 2] Locking mechanism(s) are dirty or require lubrication: Lubricate with WD-40, or similar oil.
- 3] Locks are restricted: Check and verify release cable or locking mechanism is not restricted, or jammed.
- 4] Defective components: Inspect and correct or replace as necessary.
- 5] Grease or oil on inside of post is preventing the latch from resetting.

LIFT LOWERS UNEVENLY

- 1] Uneven distribution of weight: Vehicle improperly loaded or out of balance. Re-check and correct.
- 2] Mechanical binding: Inspect and correct.
- 3] Hydraulic restriction: Inspect and correct.
- 4] Cables out of adjustment: Inspect and correct.

LIFT LOWERS SLOWLY

- 1] Mechanical binding: Inspect and correct.
- 2] Hydraulic restriction: Inspect and check. Check Lowering valve for dirt, debris or defect. Clean or replace.

LIFT LOWERS TOO QUICKLY

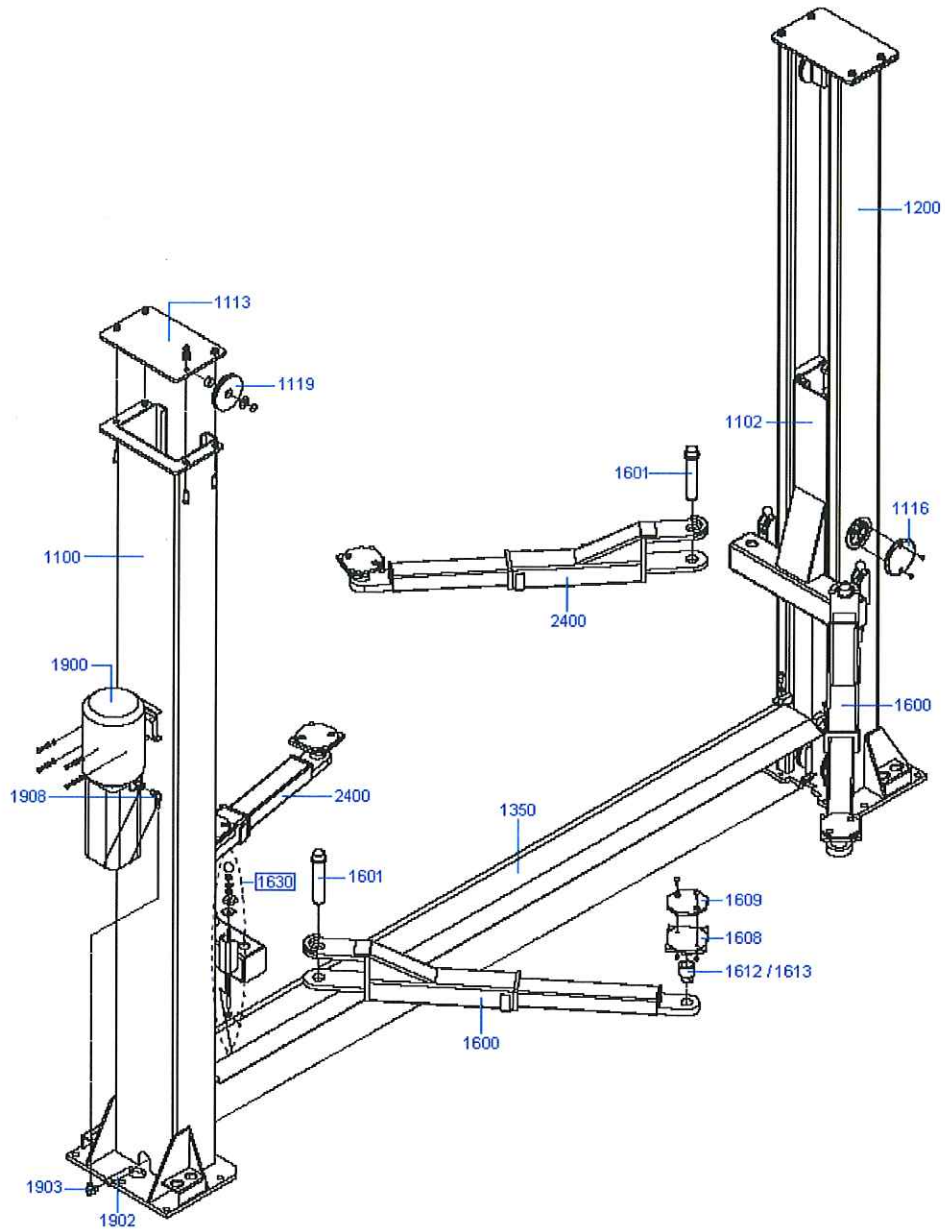
- 1] Wrong fluid used in lift: Verify AW-32, and replace incorrect fluid if necessary.
- 2] Improper Hydraulic Flow: Check for leaks, or defective flow-restrictors or lowering valve.

LIFT WILL NOT COME DOWN

- 1] Verify Carriage Locks are disengaged.
- 2] Check for mechanical binding or restriction. Verify carriages are level.
- 3] Consult professional.

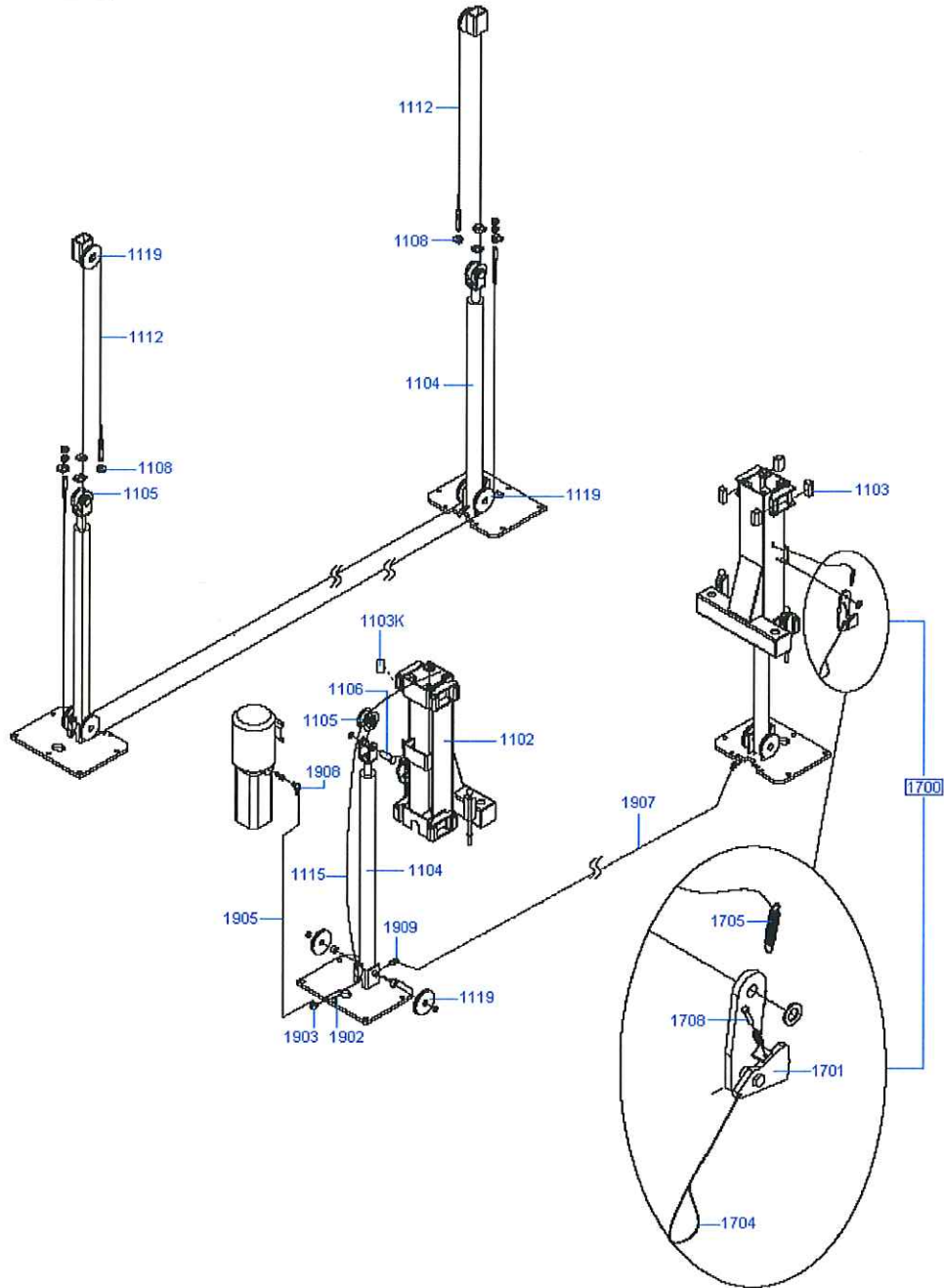
PARTS LISTING

Main Structure



1100	Tower, Main Side	1630	Arm Lock Kit*
1113	Top Cap	*[1602	Rod]
1116	Access Cover	*[1603	Gear]
1119	Cable Sheave (Pulley)	*[1622	Knob]
1200	Tower, Off Side	*[1605	Spring]
1350	Floor-Plate		
1600	Arm Assembly, Rear	1622	Knob
1601	Arm Pin	1900	Power Unit (220vac, 1ph)
1608	Cable Sheave (Pulley)	1902	Fitting, 6" (w/Restrictor)
1609	Rubber Pad, 8-Side (Bolt-On)	1903	Fitting, Elbow
1612	Short Height Extension	1908	Elbow Fitting (O-Ring)
1613	Tall Height Extension	2400	Arm Assembly, Front

Sub-Structures



1102	Carriage Assembly	1700	Carriage Lock Assembly*
1103	Rub Block		*[1701 Latch Plate]
1103K	Shim, Rub Block		*[1704 Release Cable]
1104	Cylinder		*[1705 Spring]
1105	Chain Roller		*[1708 Set Bolt]
1106	Pin, Chain Roller	1902	Straight Fitting
1108	Nut, Cable	1903	Elbow Fitting
1112	Cable	1905	Short Hose
1114	C-Clip, Chain Roller	1907	Long Hose
1115	Chain	1908	O-Ring Elbow Fitting
1119	Cable Sheave (Pulley)		



Eagle Equipment Lift Warranty

Eagle Equipment warrants to the original retail purchaser of an Eagle Automotive Lift that it will replace without charge any part found under normal use, in the United States or Canada, to be defective in materials or workmanship, **for a period of one (1) year from date of purchase.** Warranty covers parts only; purchaser is responsible for any and all labor requirements.

Exclusions

This warranty will not apply to any machine:

1. Which has not been operated or maintained according to specifications
2. Which has been abused, misused, altered, or improperly maintained
3. Which has been improperly installed or assembled

Other limitations

This warranty does not cover:

1. Parts needed for normal maintenance.
2. Wear parts, which include but are not limited to, cables, hoses, slider blocks, chains and rubber pads.
3. On-site labor.

Eagle Equipment reserves the right to make improvements and/or design changes to its equipment without any obligation to previously sold, assembled or fabricated equipment.

There is no other express warranty on the Eagle Automotive Lift equipment and this warranty is exclusive of and in lieu of all other warranties, expressed or implied, including all warranties of merchantability and fitness for a particular purpose.

To the fullest extent allowed by law, Eagle Equipment shall not be liable for loss of use, inconvenience, lost time, commercial loss or other incidental or consequential damages

Some States do not allow exclusion or limitation of consequential damages or how long an implied warranty lasts, so that the above limitations and exclusions may not apply. This warranty gives you specific legal rights and you may have other rights, which may vary from State to State.