

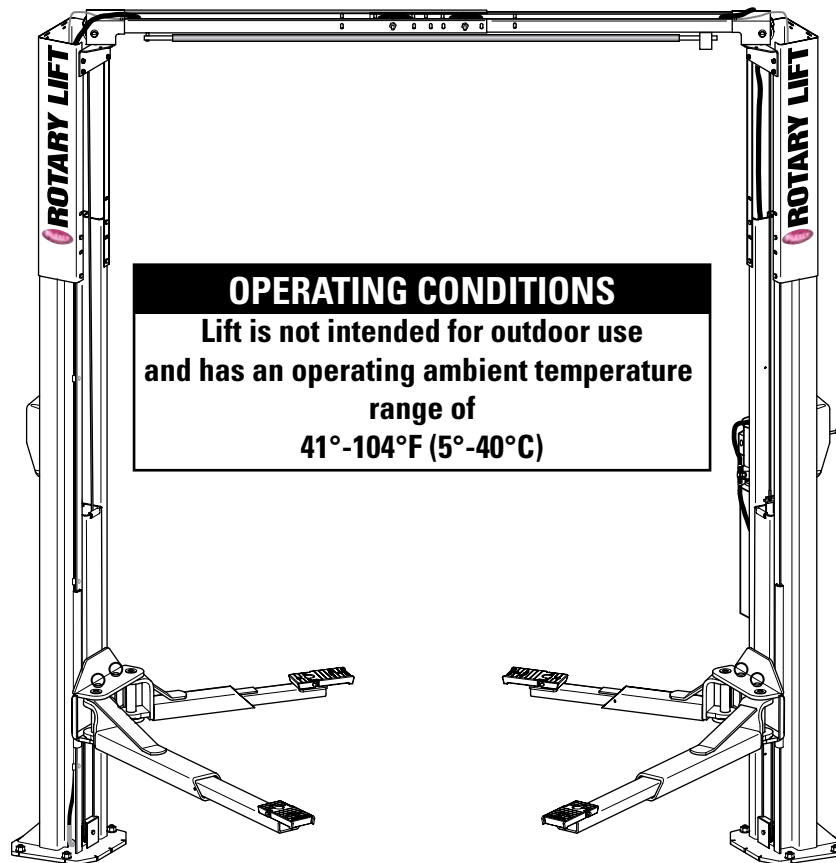


# SPOA10NB, SPOA10, SPO10, SPOA7 (500 -1600 Series Lifts)

SPOA7 Capacity 7,000 lbs. (3,175 kg.)  
SPOA10NB, SPOA10, SPO10 Capacity 10,000 lbs. (4,536 kg.)

**Español Página 73**  
**Français Page 139**

**▲ IMPORTANT** Reference ANSI/ALI ALIS,  
Safety Requirements for  
Installation and Service of Automotive Lifts  
before installing lift.



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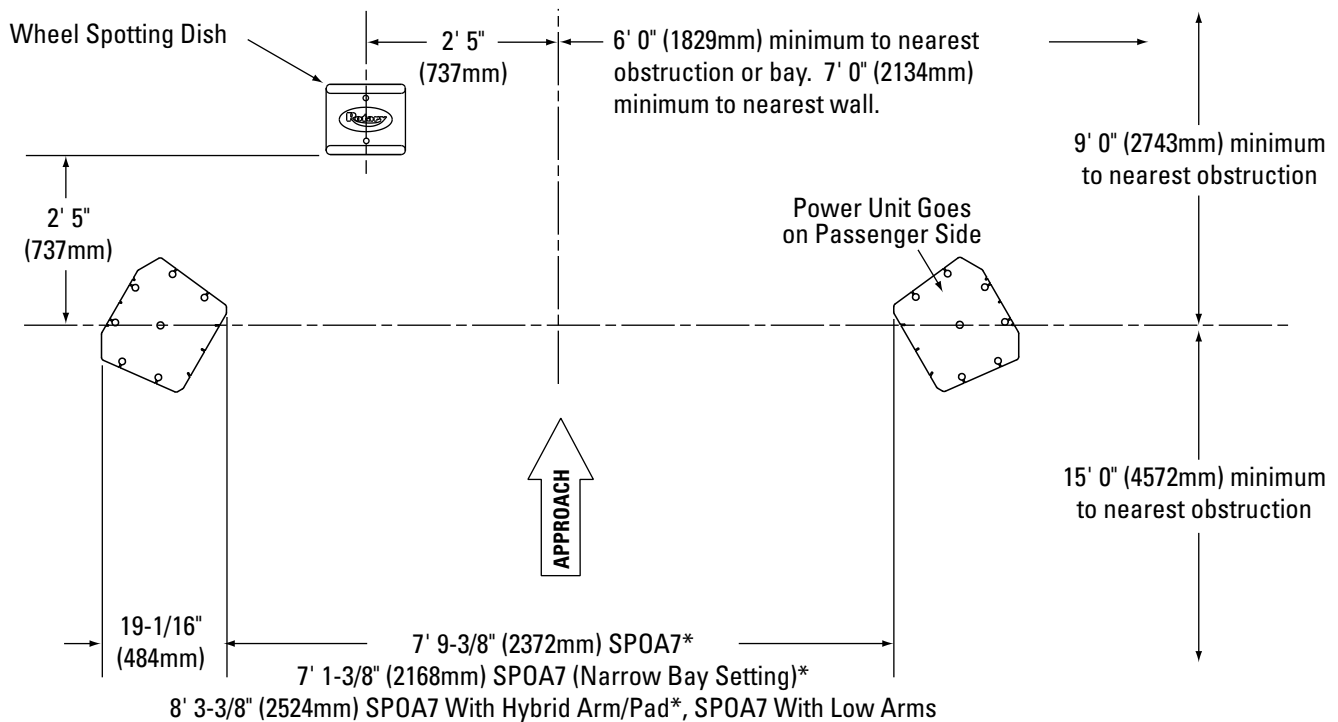
### Column Greasing:

Two post lifts finished with powder coat must have grease applied to the columns. Lifts are greased from the factory, however, it is advised to check and ensure that the columns are still greased when installing the lift. If your lift has a model number that matches the following table, grease the columns with either Lighting grease, Tuf Oil, Sil Glide, or an equivalent grease.

Lift	Series	Model Num
SPOA7	1000	SPOA7x10xx
	1100	SPOA7x11xx
	1200	SPOA7x12xx
	1400	SPOA7x14xx
SPO10	1000	SPO10X10xx
	1100	SPO10X11xx
	1200	SPO10X12xx
	1500	SPO10X14xx
	1600	SPO10X16xx
SPOA10	1000	SPOA10x10xx
	1100	SPOA10x11xx
	1200	SPOA10x12xx
	1500	SPOA10x14xx
	1600	SPOA10x16xx

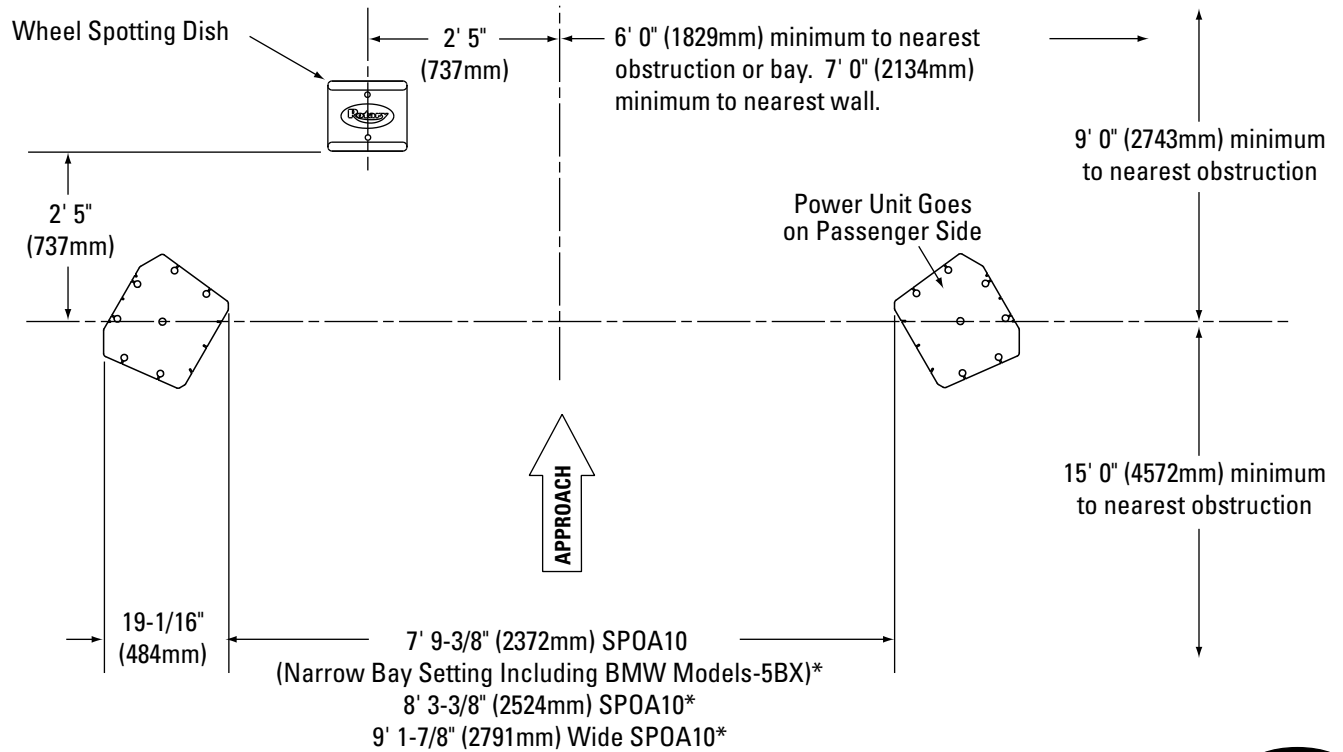
Apply the grease to the columns by wiping on a thin layer and polishing with a rag. Only apply grease on surfaces of the columns where the slider blocks make contact. Be careful not to apply too much grease, only a thin layer is needed, wipe off excess.

### SPOA7 Series



\*NOTE: Dimension is from Inside of Baseplate to Inside of Baseplate.

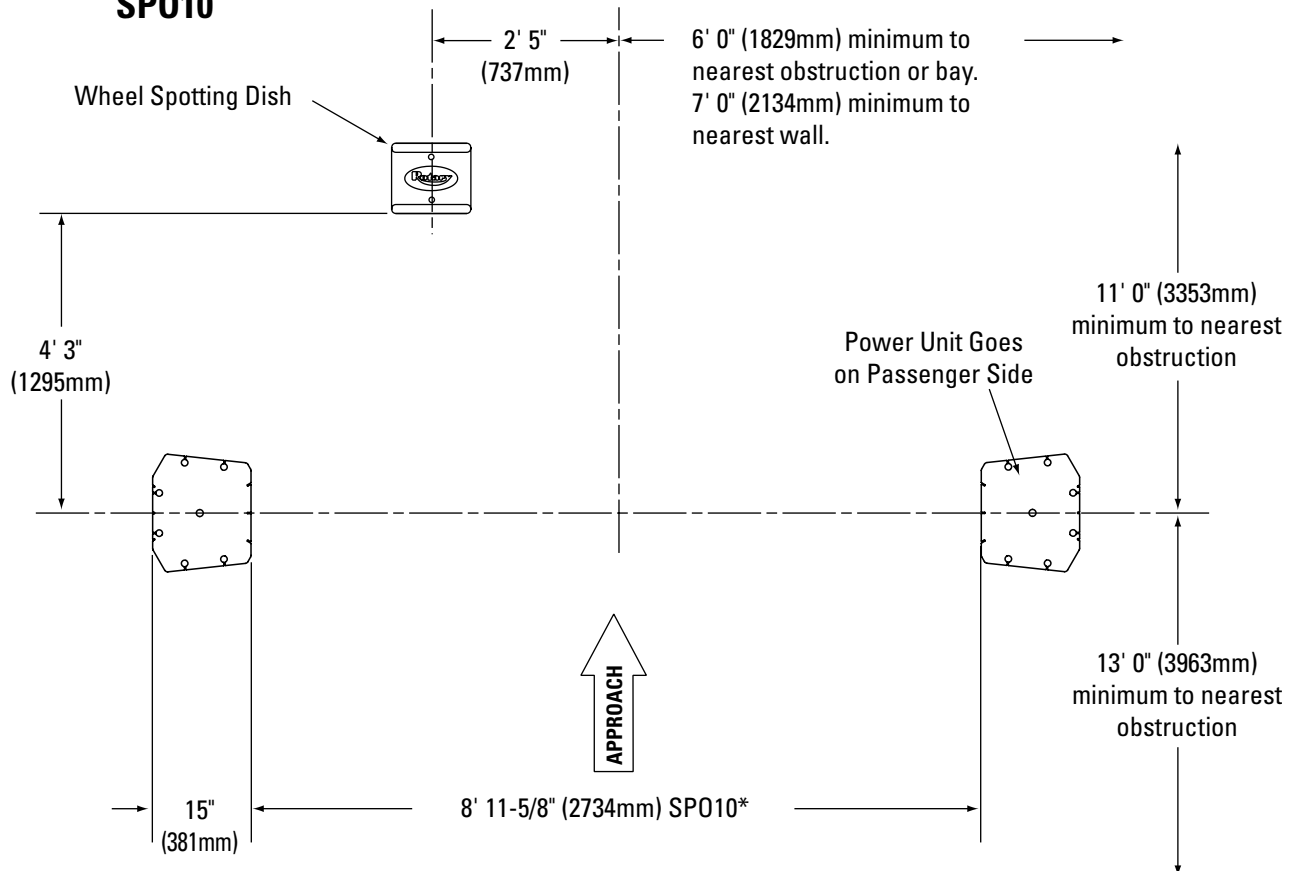
## SPOA10 Series



\*NOTE: Dimension is from Inside of Baseplate to Inside of Baseplate.

Fig. 1a

## SPO10



\*NOTE: Dimension is from Inside of Baseplate to Inside of Baseplate.

Fig. 1b

## SPOA7 - SPOA10 Seismic Base Plate

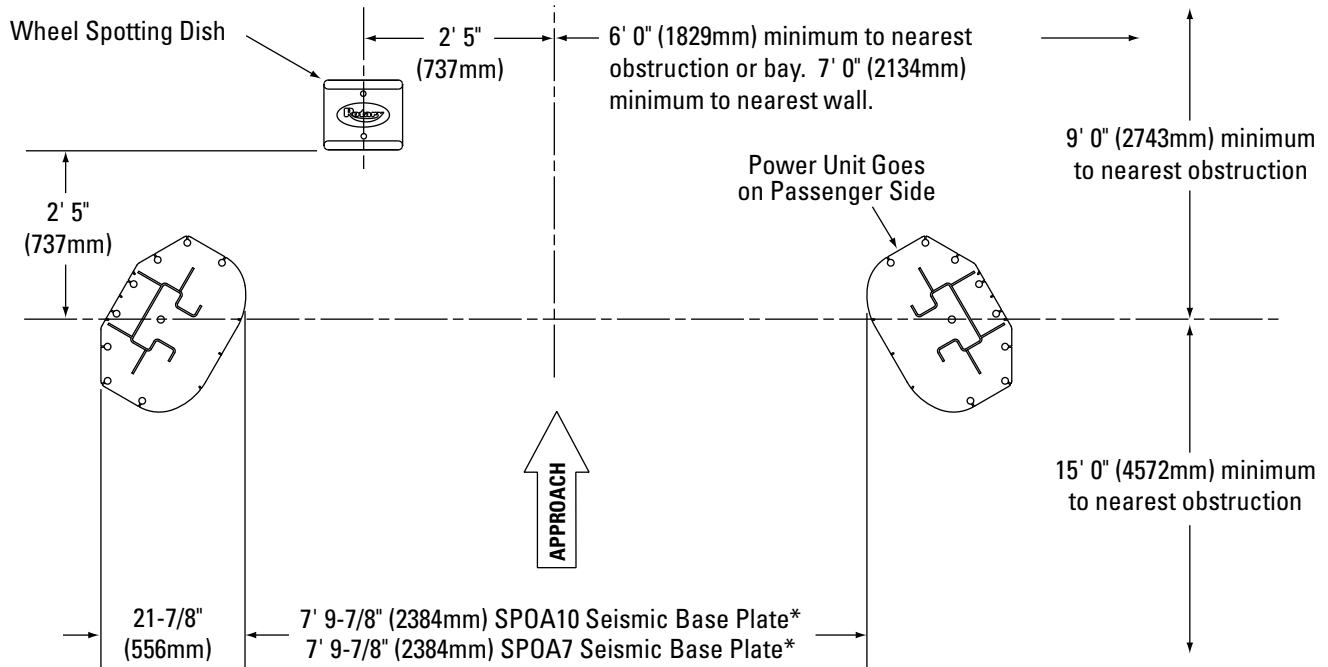


Fig. 1c

\*NOTE: Dimension is from Inside of Baseplate to Inside of Baseplate.

## SP010 Seismic Base Plate

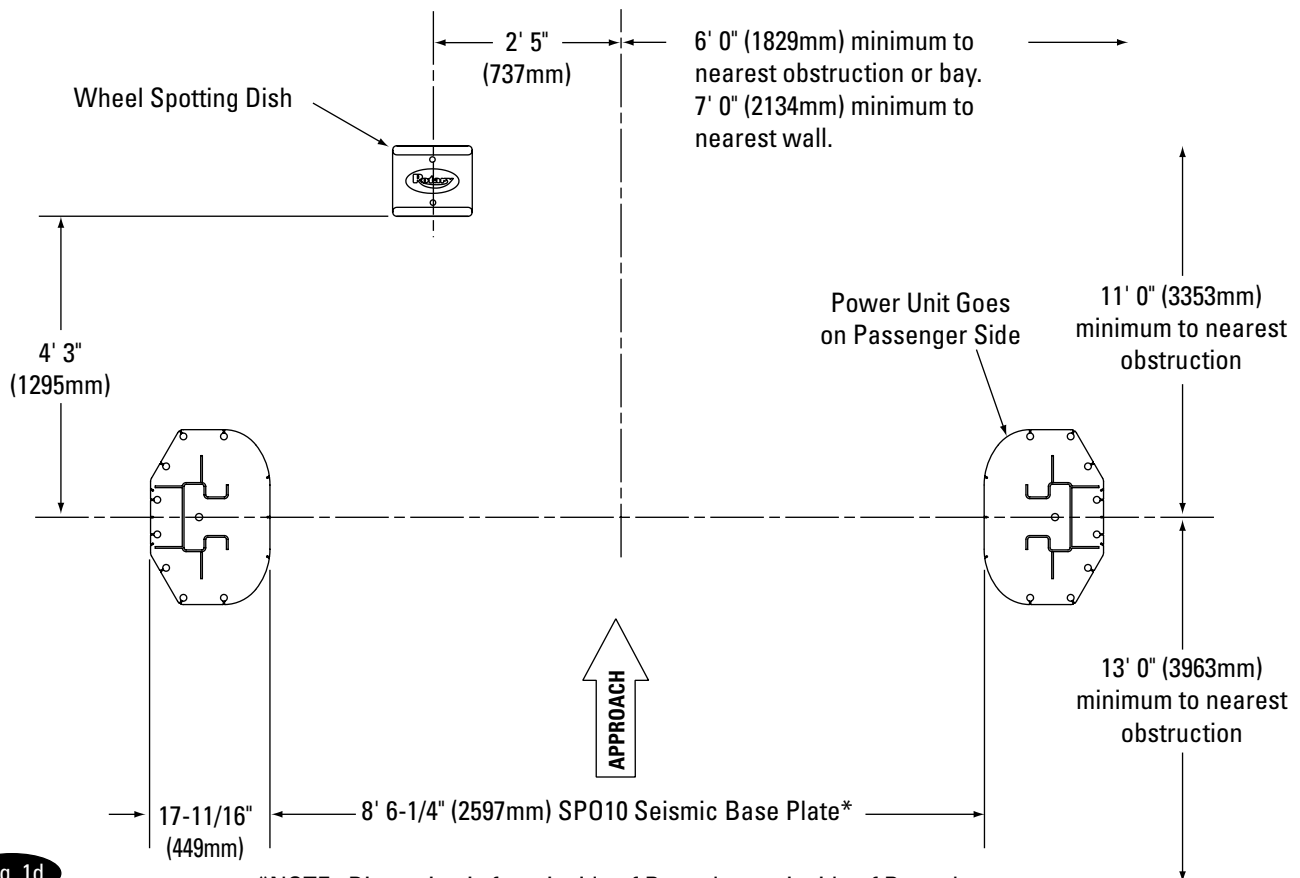


Fig. 1d

\*NOTE: Dimension is from Inside of Baseplate to Inside of Baseplate.

## EH0 POSITIONS (N4125)

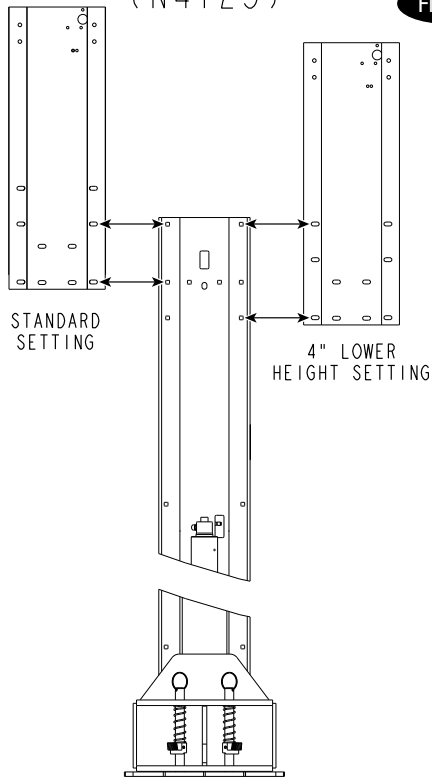


Fig. 2a

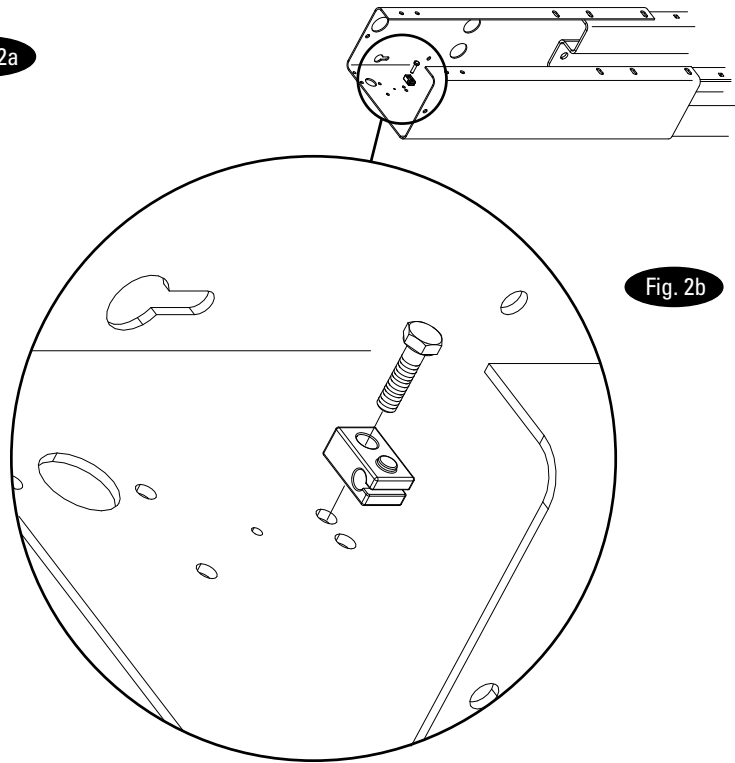
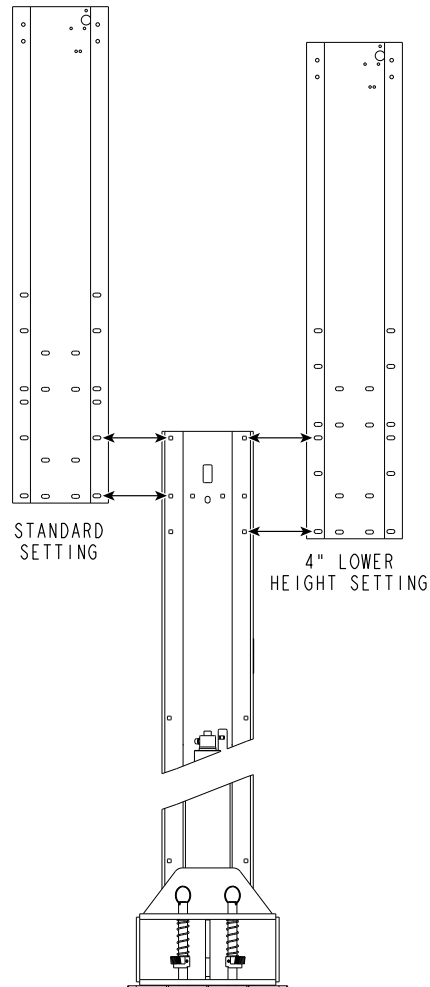


Fig. 2b

## EH2 POSITIONS (N4121)

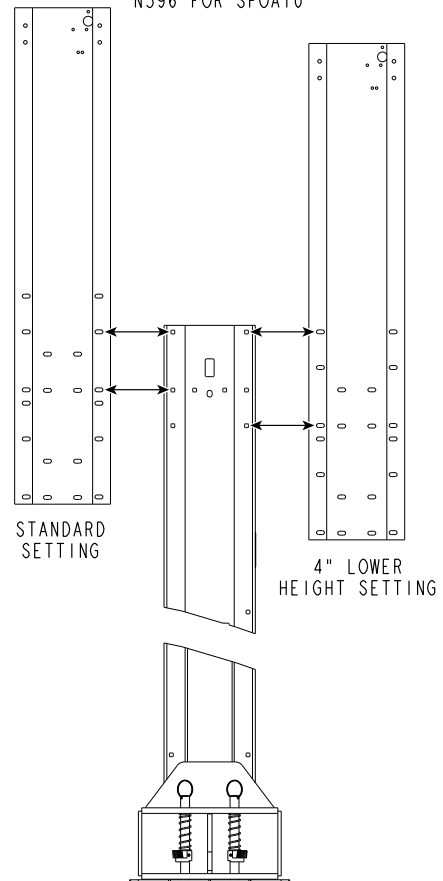
Fig. 2c



## EH1 FIELD RETROFIT POSITIONS (N4121)

Fig. 2d

CABLE KIT REQUIRED:  
N595 FOR SPO10  
N596 FOR SPOA10



1. Lift Location: Use architects plan when available to locate lift. Fig. 1a, Fig. 1b, Fig. 1c, Fig. 1d, shows dimensions of a typical bay layout.

2. Lift Height: See Fig. 3 for overall lift height of each specific lift model. Add 1" min. to overall height to lowest obstruction.

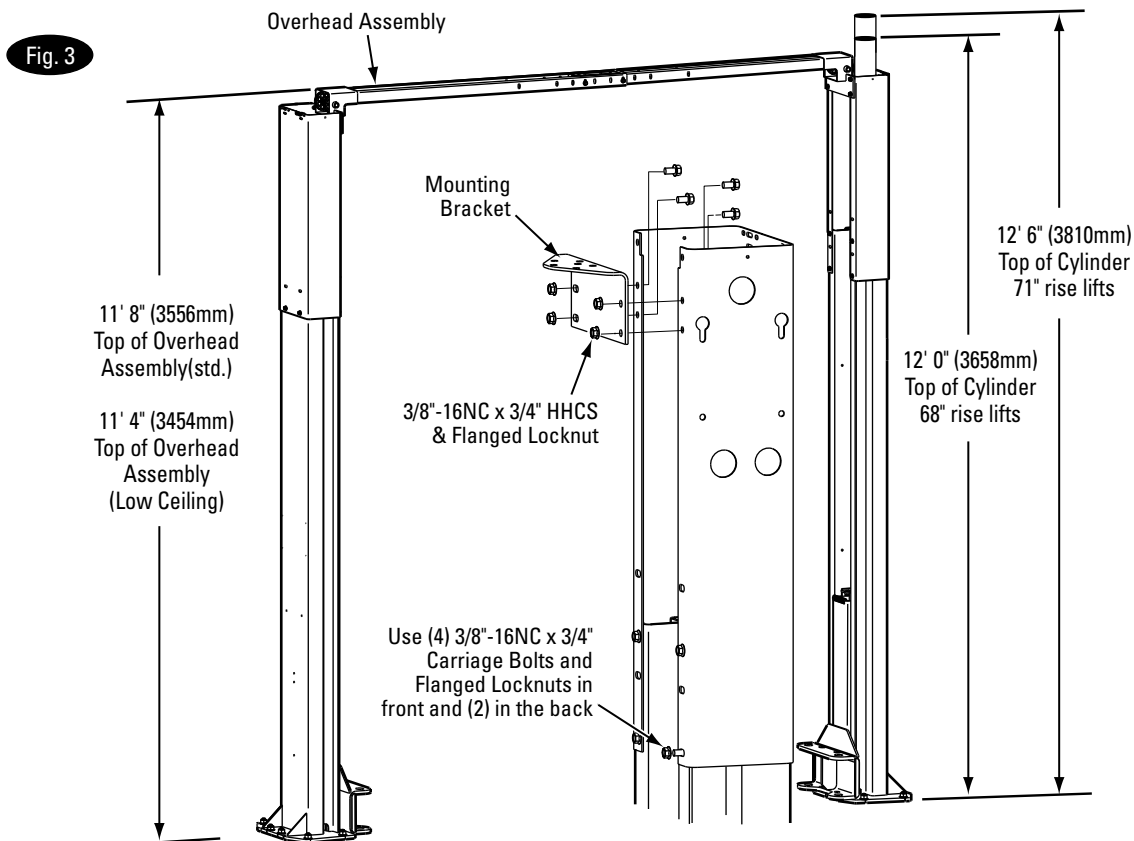
**⚠ WARNING** DO NOT install this lift in a pit or depression due to fire or explosion risks.

3. Column Extensions: Before standing columns upright, install the column extensions using (12) 3/8"-16NC x 3/4" Carriage HHCS and Flanged Locknuts, Fig. 3, Fig. 2a, 2c, and 2d.

4. Latch Cable Guides: Install the latch cable conduit guide brackets to column extensions with (1) 1/4"-20NC x 1" HHCS and 1/4"-20NC Flanged Locknuts, Fig. 2b. HHCS should go through hole nearest the edge as shown, Fig. 2b.

5. Overhead Mounting Bracket: Install Mounting Brackets to column extensions as shown, Fig. 3.

6. Lift Setting: Position columns in bay using dimensions shown in Fig. 1a & Fig. 1b. Place column with power unit mounting bracket on vehicle passenger side of lift. Both column base plate backs must be square on center line of lift. Notches are cut into each base plate to indicate center line of lift. Use appropriate equipment to raise carriage to first latch position. Be sure locking latch is securely engaged.



## Concrete and Anchoring:

If you are installing a seismic lift, consult with a structural engineer and manufacturer's representative for concrete and anchoring requirements (varies by location). Fig. 4 and the below table apply to non-seismic lifts only.

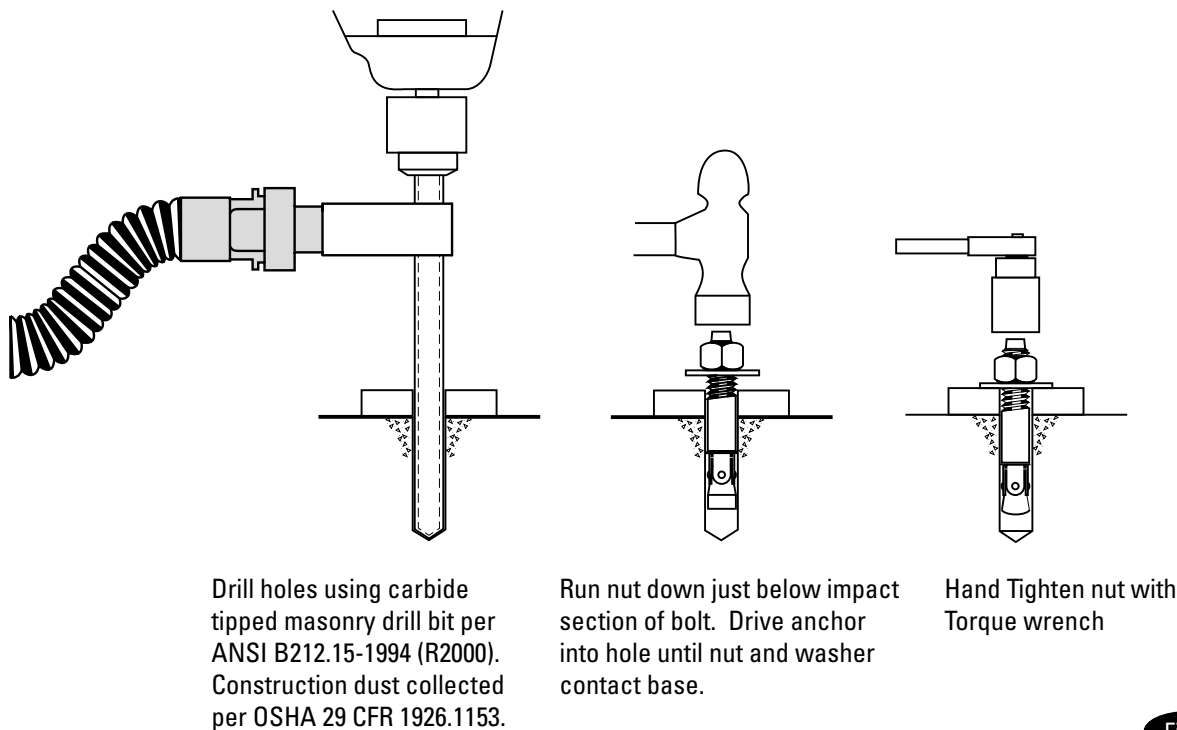


Fig. 4

Anchor Installation Reference Guide								
Lift Models:	Anchor:	Min Concrete Thickness	Min Edge Distance	Min Anchor Embedment	Installation Anchor Torque Ft-lbs	Min Concrete PSI Strength For All Standards	Concrete pad Size If Concrete Does Not Meet Requirements	Maintenance Torque Values**
A7Di, A7Pi, SPOA10N700, SPOA10N8T0, A10i, SPO10, S10i, TL07, SPOA82, SPOA10LPA, SPOA10-TRIO	Hilti Kwik Bolt I (3/4" x 5-1/2") *KB1	4-1/4" (108mm)	6-1/4" (159mm)	3-1/4" (83mm)	110	3000	4'x4'x8"	65
	Hilti Kwik Bolt III (3/4" x 5-1/2") KB3	4-1/4" (108mm)	3-3/8" (86mm)	3-1/4" (83mm)	110	3000	4'x4'x8"	65
	"Hilti HY200 epoxy (with HAS threaded rod) 3/4" Dia."	5" (134mm)	2 1/4" (57mm)	3-1/2" (89mm)	100 / less than 2-1/8" edge distance use Torque Value of 30 FT/LBS	3000	4'x4'x8"	N/A

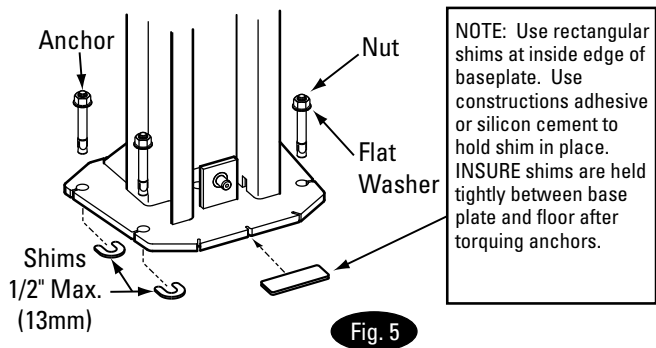
#### Non-Seismic Lifts:

Drill (10) 3/4" dia. holes in concrete floor using holes in column base plate as a guide. See Fig. 4 for hole depth, hole spacing, and edge distance requirements.

**CAUTION** DO NOT install on asphalt or other similar unstable surfaces. Columns are supported only by anchors in floor.

**IMPORTANT** Using the horse shoe shims provided, shim each column base until each column is plumb. If one column has to be elevated to match the plane of the other column, full size base shim plates should be used (Reference FA5112 Shim Kit or FA5208 for seismic lift shims). Recheck columns for plumb. Tighten anchor bolts to an installation torque of 110 ft-lbs (149 Nm). Shim thickness MUST NOT exceed 1/2" (13mm) when using the 5-1/2" (140mm) long anchors provided with the standard lifts, Fig. 5. Adjust the column extensions plumb.

If anchors do not tighten to 110 ft-lbs (149 Nm) installation torque, replace concrete under each column base. See Figs. 5a and 5b.



NOTE: If more than 2 horse shoe shims are used at any of the column anchor bolts, pack non-shrink grout under the unsupported area of the column base. Insure shims are held tightly between the baseplate and floor after torquing anchors.



**NOTE:** FIG. 5a and 5b were taken from drawing SPEC0475.  
If you would like the drawing in cad form or PDF please  
contact customer service.

**FOUNDATION NOTES:**

- 1. THE FOUNDATIONS HAVE BEEN DESIGNED BASED ON A PRESUMPTIVE LOAD-BEARING VALUE OF 1500 PSF PER IBC SECTION 1806. AN INSPECTOR OR SOILS ENGINEER SHALL VERIFY LOAD-BEARING VALUE CAPACI
- 2. FOUNDATIONS SHALL BEAR ON PROPERLY PREPARED AND COMPACTED SOILS CAPABLE OF SUPPORTING 2-POST LIFT (12 KIP MAXIMUM LOAD PER VERTICAL LEG OF LIFT) SURFACE LOADS.
- 3. PROTECT EXISTING UTILITIES AND STRUCTURES (OVERHEAD OR UNDERGROUND) WITHIN THE WORK AREA AS WELL AS ANY EXISTING FOUNDATION SYSTEM(S).
- 4. FOUNDATIONS WERE DESIGNED UTILIZING KBC SECTION 1605 ' ALTERNATIVE BASIC LOAD COMBINATIONS WITHOUT THE 1/3 INCREASE IN THE ALLOWABLE BEARING PRESSURES DUE TO SHORT-TERM LOADING.
- 5. FOUNDATIONS SHALL BE PLACED ACCORDING TO THE DEPTHS SHOWN ON THE DRAWINGS. SHOULD SOIL ENCOUNTERED AT THESE DEPTHS NOT BE APPROVED BY THE INSPECTOR OR SOILS ENGINEER, FOUNDATION ELEVATIONS/DIMENSIONS MAY NEED TO BE MODIFIED BY THE ENGINEER. NOTIFY THE ENGINEER OF RECORD IF THIS IS THE CASE.
- 6. NOT APPLICABLE FOR AREAS WITH SEISMIC DESIGN CATEGORY D OR GREATER.

**CONCRETE NOTES:**

- 1. CONCRETE COMPRESSIVE STRENGTH - PROVIDE CONCRETE WITH THE FOLLOWING STRENGTHS AT THE LOCATIONS NOTED. MIX DESIGN, SLUMP, AIR ENTRAINMENT, AGGREGATE SIZE, ETC. SHALL BE IN CONFORMANCE WITH THE ACI 301, LATEST EDITION.  

LOCATION	STRENGTH (PSI @ 28 DAYS)
SPREAD FOOTING PADS.....	3000 PSI NORMAL WEIGHT
- 2. REINFORCING STEEL - ASTM A615 GRADE 60.
- 3. FABRICATE AND PLACE REINFORCEMENT IN ACCORDANCE WITH ACI PUBLICATION SP-66, ACI DETAILING MANUAL - LATEST EDITION.
- 4. PLACE CONCRETE IN COMPLIANCE WITH ACI 304. ALL CONCRETE SHALL BE MECHANICALLY VIBRATED.
- 5. REINFORCING SUPPORT - ALL REINFORCING SHALL BE ADEQUATELY CHAIRED/BOLSTERED. LIFTING OR HOOK IS NOT PERMITTED.

Fig. 5a



7a. Overhead Assembly: Fig. 6: Adjust overhead to appropriate dimension. Install (4) 3/8"-16NC x 3/4" HHCS & 3/8"-16NC Flanged Locknuts, do not tighten.

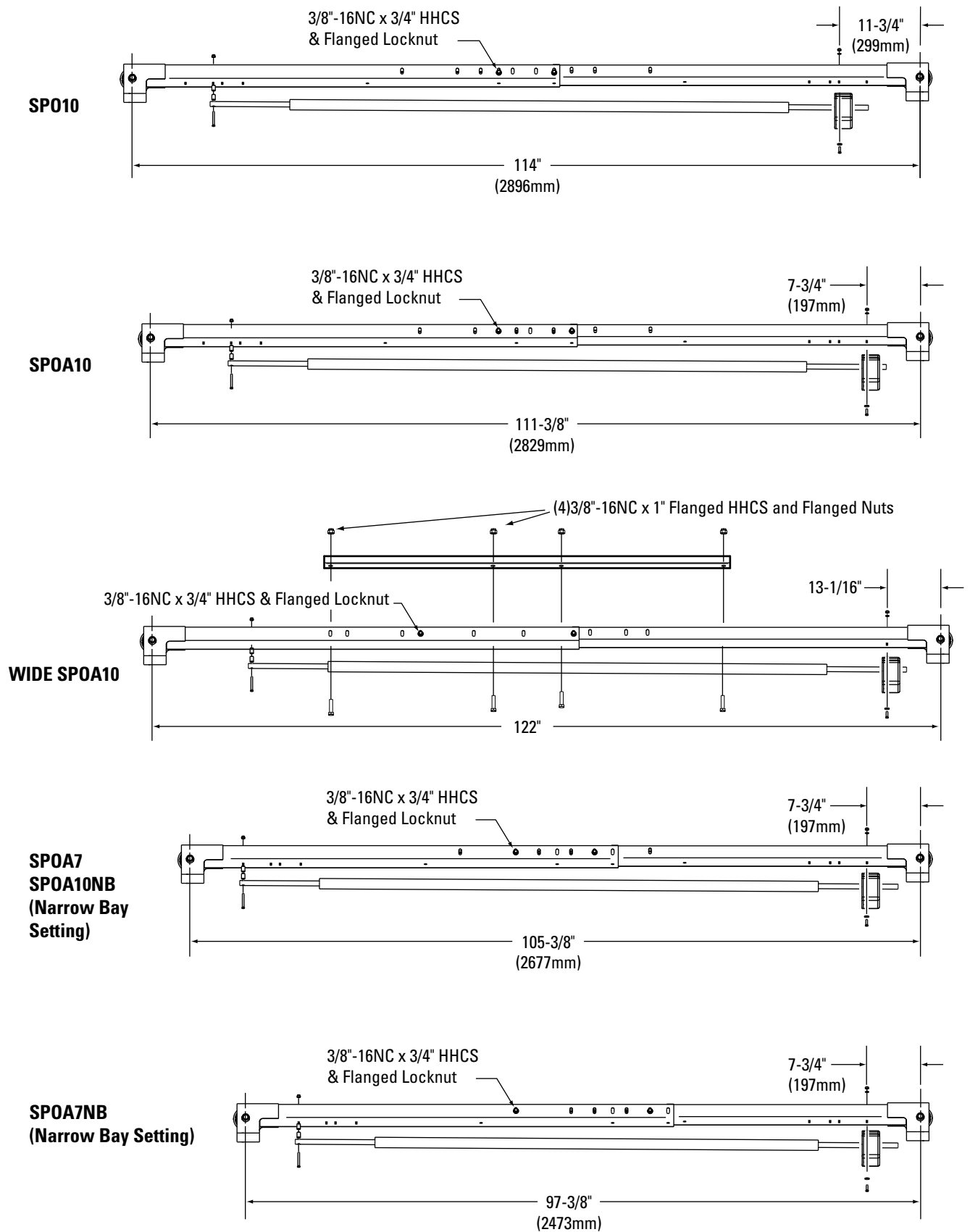


Fig. 6

## Hardware Detail For Overhead Assembly

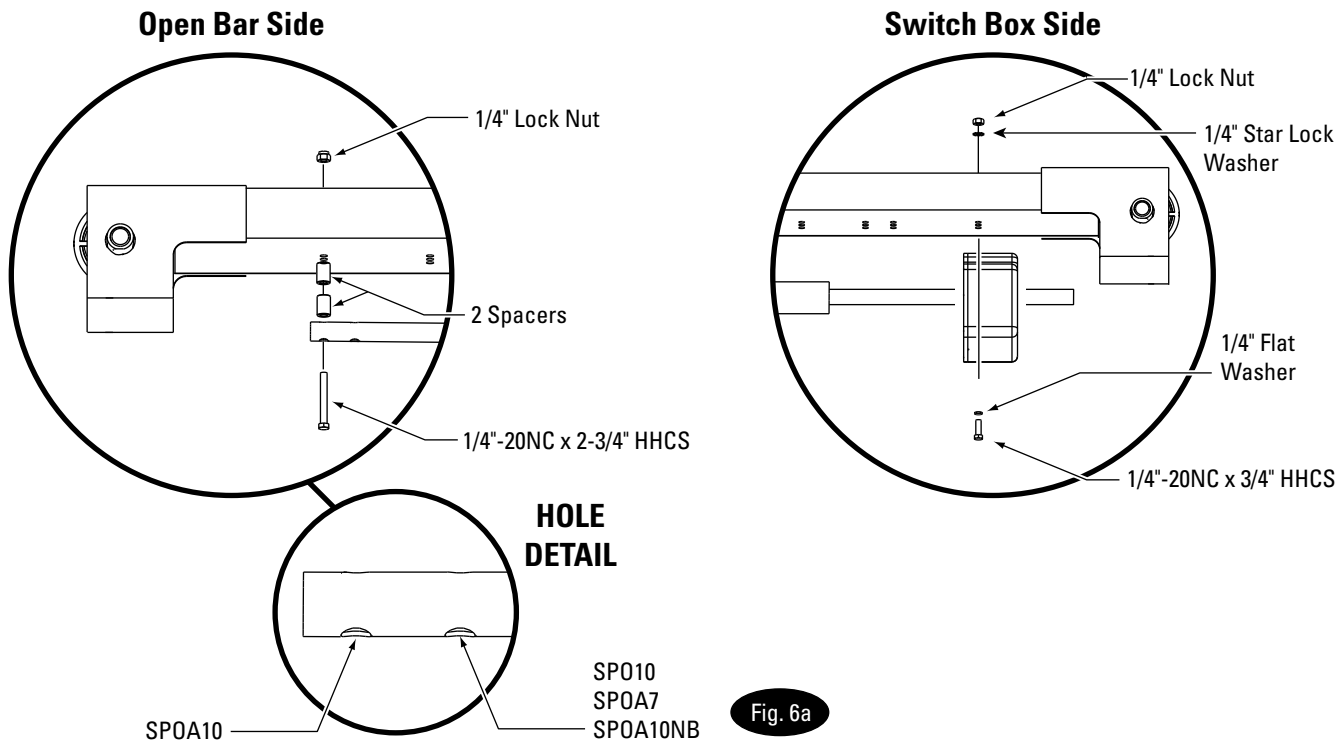


Fig. 6a

Slide Switch Box over switch bar ensuring knock out holes face the power unit column, Fig. 7 and Fig. 8. Use (2) 1/4\"-20NC x 3/4\" lg. HHCS, 1/4\"-20NC Nuts and 1/4\" Star Washers to mount switch box to overhead, see Fig. 6a. For SPOA10 Extra Narrow Bay Setting installation, see step 7b, all others go to step 7c.

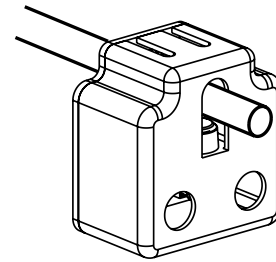


Fig. 7

7b. For Extra Narrow Bay installation only: Cut off 11\" (279mm) from the length of the bar and cushion on the end opposite the 1/4\" mounting hole(s). Continue to step 7c.  
7c. Continued Overhead Assembly:

For single phase and three phase lifts with push button control box: Insert 1/4\"-20NC x 2-3/4\" HHCS through pivot hole in end of switch bar. Insert opposite end of bar through slot in switch mounting bracket. Then secure HHCS and Switch Bar to overhead as shown, Fig. 6 and 6a, using (2) 3/4\" (19mm) spacers and 1/4\"-20NC Locknut. Tighten Hex bolt leaving 1/16\" (1.6mm) gap between the spacer and the overhead assembly.

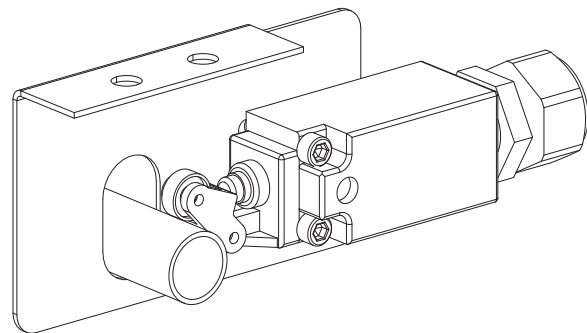
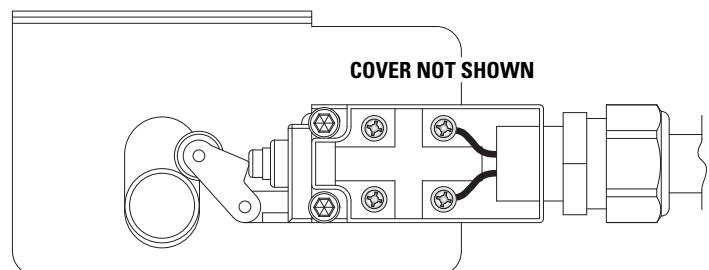
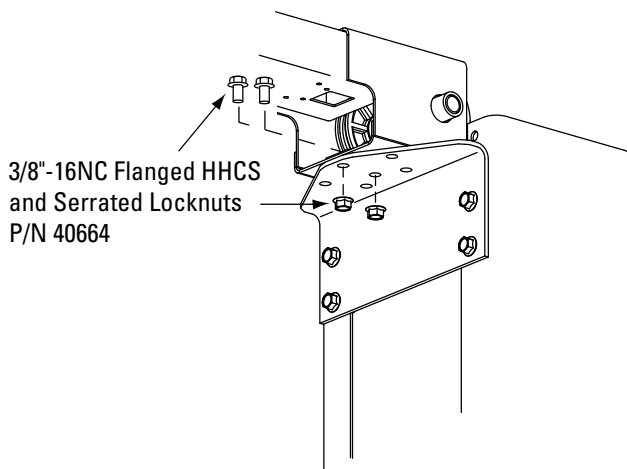


Fig. 8

8. Overhead Installation: Install overhead assembly to Mounting Bracket with (2) 3/8\"-16NC x 3/4\" Flanged HHCS, (2) 3/8\"-16NC Flanged Serrated Locknut, Fig. 6. Use middle holes for SPO9/SPO10 and outside holes (marked L for Left and R for Right) for SPOA7/SPOA9/SPOA10NB/SPOA10. Tighten bolts at center of overhead assembly.





9. Power Unit: Put the (4) 5/16"-18NC x 1-1/2" flanged Locking HHCS thru holes in power unit bracket using Push-Nuts to hold in place, Fig. 9. Mount unit with motor up to column bracket and install (2) 5/16" flanged locking nuts. Install and hand tighten Branch Tee to pump until O-ring is seated. Continue to tighten the locknut to 10-15 ft-lbs (14-20 Nm), or until the nut and washer bottom out against the pump manifold. NOTE: You may still be able to rotate the Branch Tee. This is acceptable unless there is seepage at the O-ring. If so, slightly tighten the locknut.

**CAUTION** Over tightening locknut may tear O-ring or distort threads in pump manifold outlet.

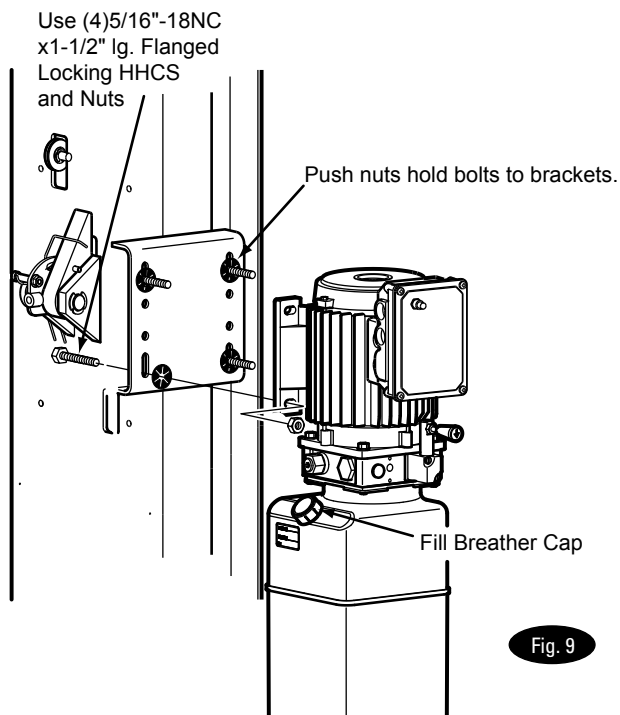


Fig. 9

10. Hoses: Clean adapters and hose. Inspect all threads for damage and hose ends to be sure they are crimped, Fig. 10. Install hose and hose clamps, Fig. 11, Fig.12 & Fig. 16.

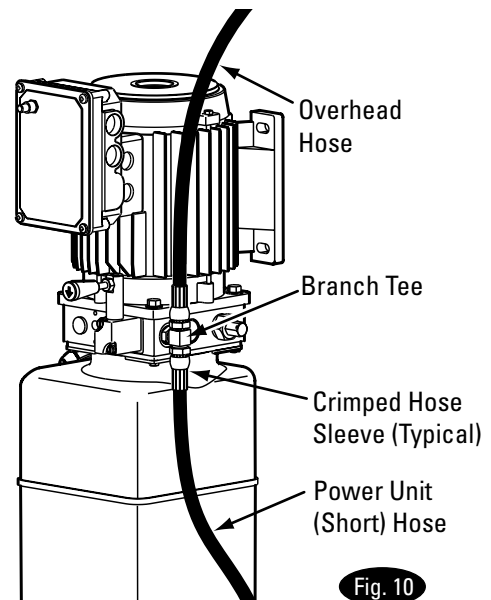
#### Flared Fittings Tightening Procedure

1. Screw the fittings together finger tight. Then, using the proper size wrench, rotate the fitting 2-1/2 hex flats.

**IMPORTANT** Flare seat MUST NOT rotate when tightening. Only the nut should turn.

2. Back the fitting off one full turn.  
3. Again tighten the fittings finger tight; then using a wrench, rotate the fitting 2-1/2 hex flats. This will complete the tightening procedure and develop a pressure tight seal.

**CAUTION** Overtightening will damage fitting resulting in fluid leakage.



### Adapter & Hose Installation (see Figs. 11 and 12)

1. Install Pc. (2) with metal hose clamps, on power unit column side connecting it to the cylinder (1) first.
2. Install Pc. (3) with plastic hose clamps starting at opposite column cylinder (1) and working toward the power unit column. All excess hose should be at bends & inside overhead assembly. DO NOT try to use optional column extension mounting holes when attaching hose clamps. They will NOT work. Use lower set of holes.
3. Install Pc. (4) into power unit.
4. Connect Pc. (2) & Pc. (3) to Tee (4).

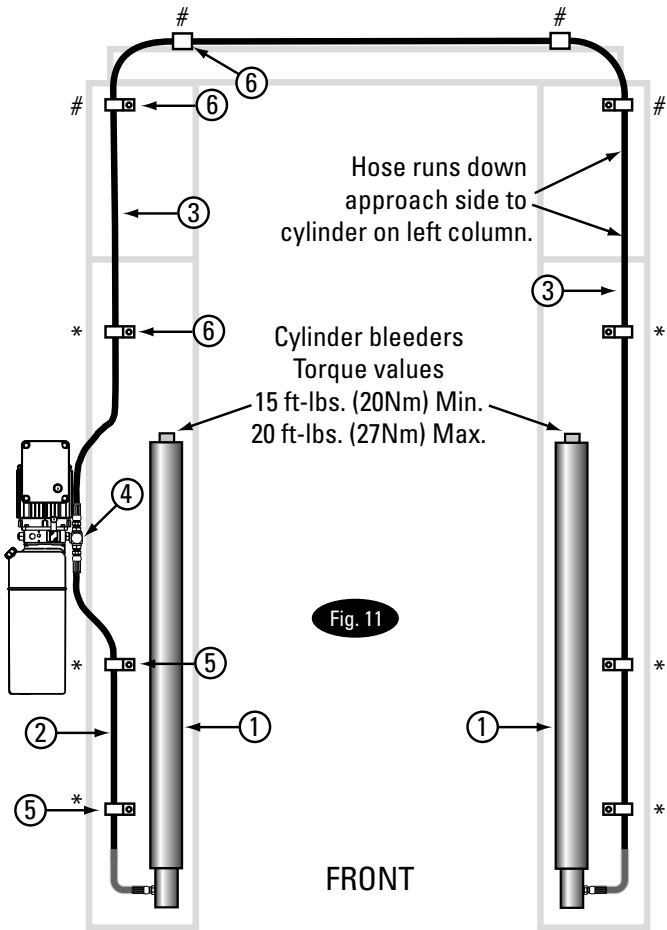


Fig. 11

ITEM	QTY.	DESCRIPTION
1	2	Hydraulic Cylinder
2	1	Power Unit Hose
3	1	Overhead Hose
4	1	Branch Tee
5	2	Metal Hose Clips
	*6	3/8-16NC x 3/4" lg. Carriage Bolts
	*6	3/8"-16NC Flanged Locknuts
6	8	Plastic Hose Clips
	#4	3/8-16NC x 3/4" lg. Flanged HHCS
	#4	3/8"-16NC Flanged Locknuts

Fig. 12

NOTE: Route Power Unit hose inside columns using slots provided at column base, Fig. 14. Route Overhead Hose in column channel on outside of column, Fig. 14. Overhead hose goes over top end of overhead assembly, Fig. 12 & Fig. 16a & Fig. 16b.

11. Equalizing Cables
  - A) Refer to Fig. 13 for the general cable arrangement. First, run a cable end up through the small hole in the lower tie-off plate. Fig. 15.
  - B) Push the cable up until the stud is out of the carriage top opening.
  - C) Run a nylon insert locknut onto the cable stud so 1/2" (13mm) of the stud extends out of the locknut.
  - D) Pull the cable back down, Fig. 15.

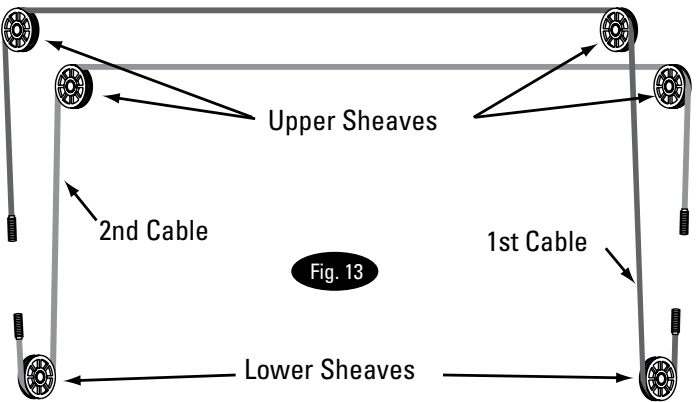


Fig. 13

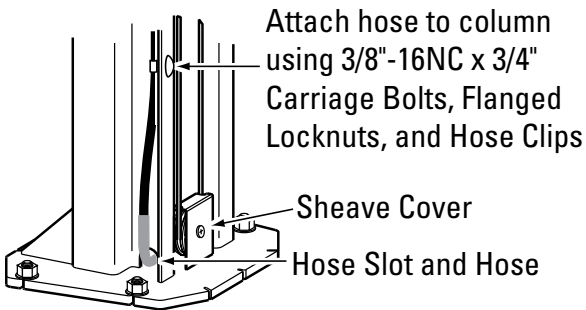


Fig. 14

- E) Run cable around the lower sheave, then up and around overhead sheave and across and down to the opposite carriage, Fig. 13. Install sheave cover, Fig. 14.
- F) Fasten the cable end to the carriage upper tie-off bracket, Fig. 15. Tighten the locknut enough to apply light tension to the cable.
- G) Repeat procedure for the second cable. Complete lift assembly. Adjust the tension of both cables during the final adjustments in Paragraph 20.

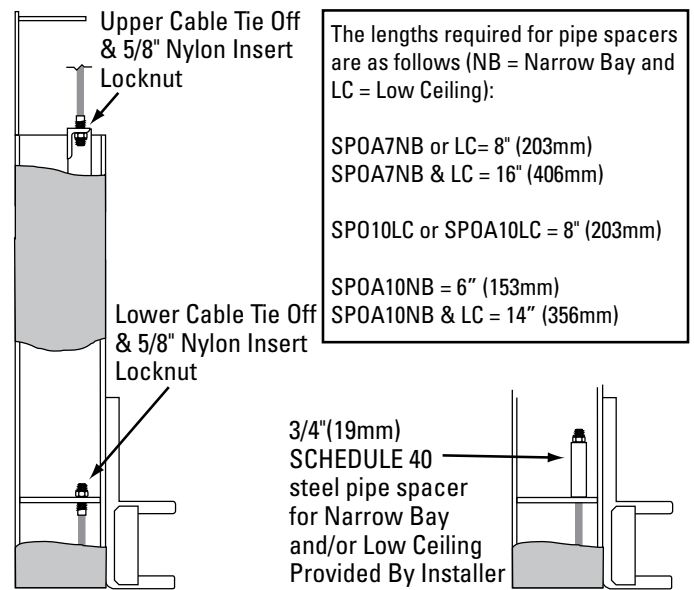


Fig. 15

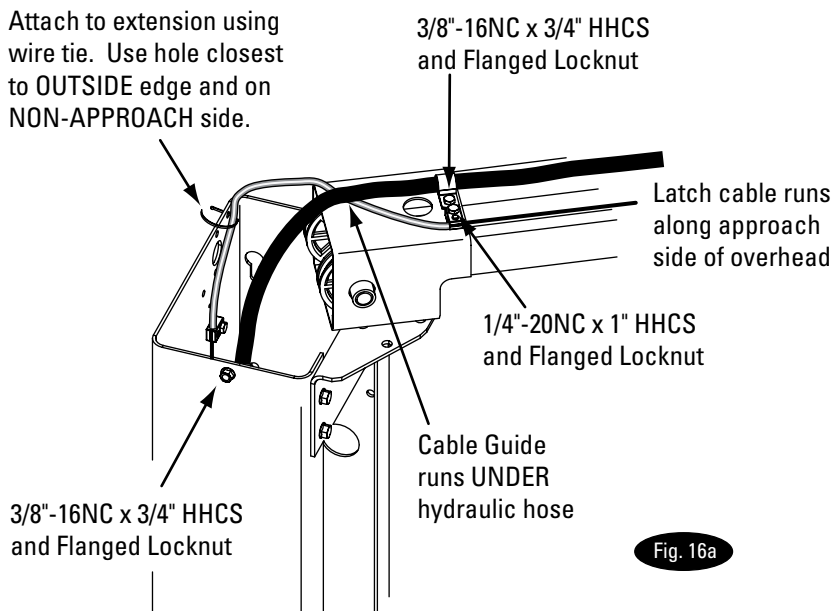


Fig. 16a

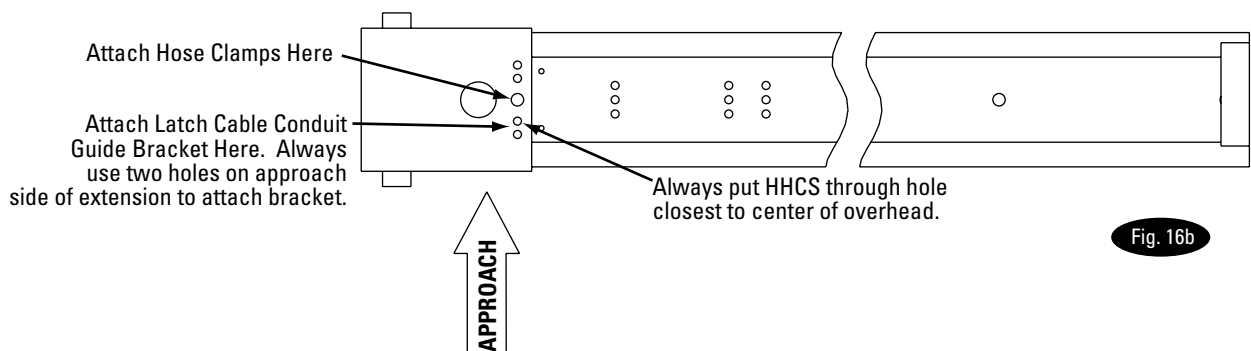


Fig. 16b

## 12. Locking Latch Cable

- A) Install latch cable sheave and retaining rings in upper slot of power unit column as shown, Fig. 17.
- B) Slip loop end of cable over end of shoulder screw on right side latch control plate, Fig. 17.
- C) Feed the other end of the cable through the latch cable sheave slot making sure that the cable is running under the bottom side of the latch cable sheave and inside the right column, Fig. 17.

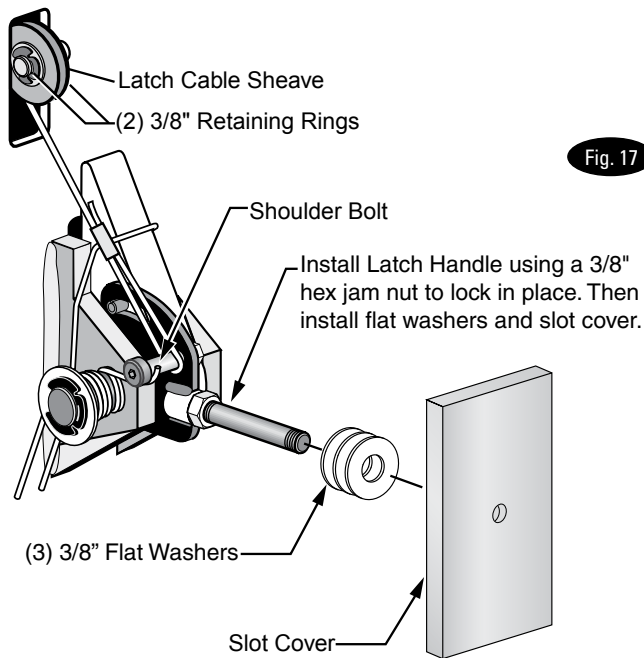


Fig. 17

- D) Attach latch cable conduit guide brackets to overhead as shown, Fig. 16a & Fig. 16b. Always use the holes on the approach side of the lift. HHCS should be in hole nearest the center of the overhead, Fig. 16b.
- E) Route cable up inside column and through the latch cable guide, Fig. 16a & Fig. 18.

**IMPORTANT** Using wire ties provided, tie off cable guide to column extension as shown, Fig. 16a. Guide must be attached in hole closest to the outside edge of the column on the NON-APPROACH side.

- F) Continue routing cable to the left column latch cable guide, Fig. 16a & Fig. 18, routing the cable through the left column latch cable guide, Fig. 16a.

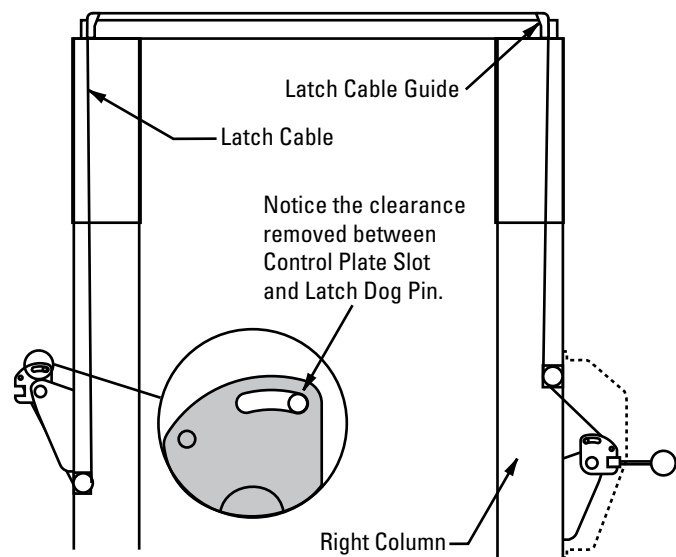


Fig. 18



**IMPORTANT**

Using wire ties provided, tie off cable guide to column extension as shown, Fig. 16a. Guide must be attached in hole closest to the outside edge of the column on the NON-APPROACH side.

- G) Bring the cable down inside the left column and feed the end of the cable through the lower latch cable sheave slot so that the cable is now back outside the column, Fig. 19.
- H) Install latch cable sheave and retaining rings in lower slot of non-power unit column as shown, Fig. 19.
- I) Route cable under the bottom side of the latch cable sheave, Fig. 19.
- J) At this point you **MUST** install the latch handle, jam nut, and right column latch cover Fig. 17 & Fig. 20. Install latch handle ball, Fig. 20.
- K) Insert cable in cable clamp along one side, loop around shoulder screw and back down, inserting cable along other side of cable clamp, Fig. 19. Place top back on clamp, barely tightening.
- L) Next, pull the control plate down, Fig. 18 & Fig. 19, to eliminate any clearance between the control plate slot and the latch dog pin, Fig. 18.
- M) Using Pliers, pull cable tight and secure the clamp close to the shoulder screw. Tighten clamp.

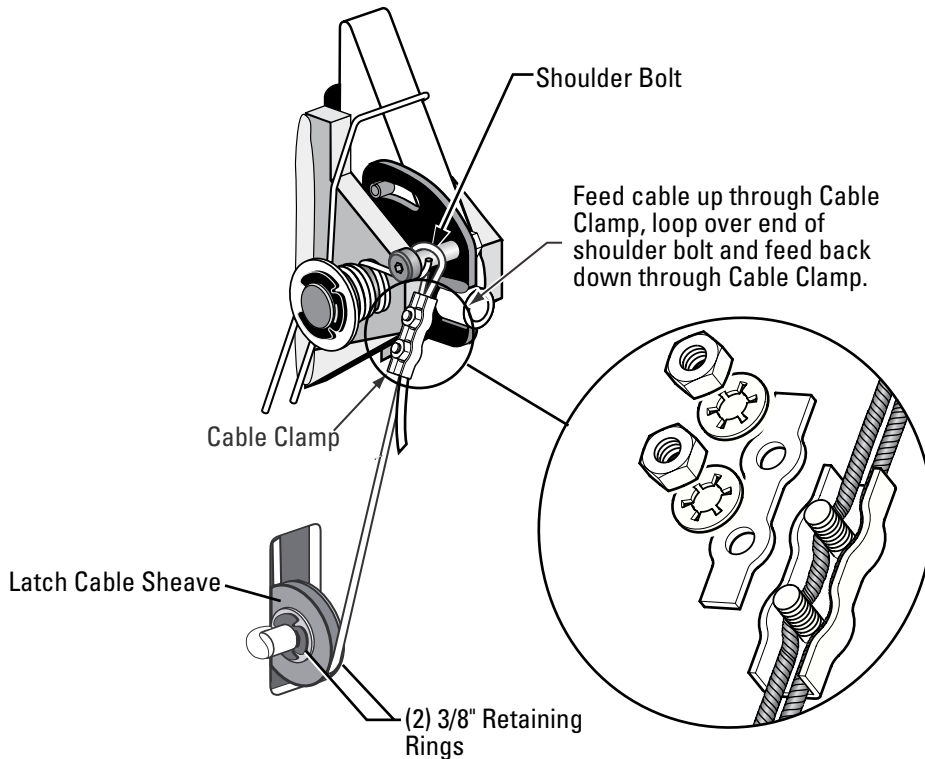


Fig. 19

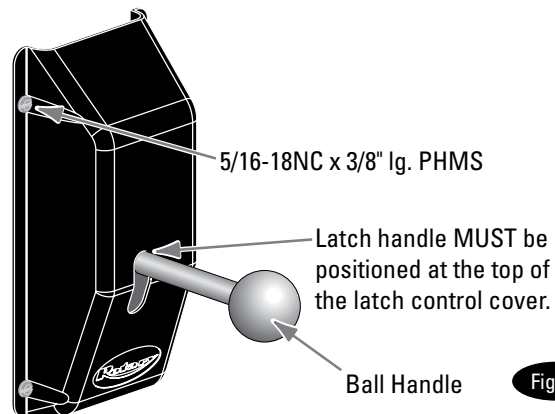


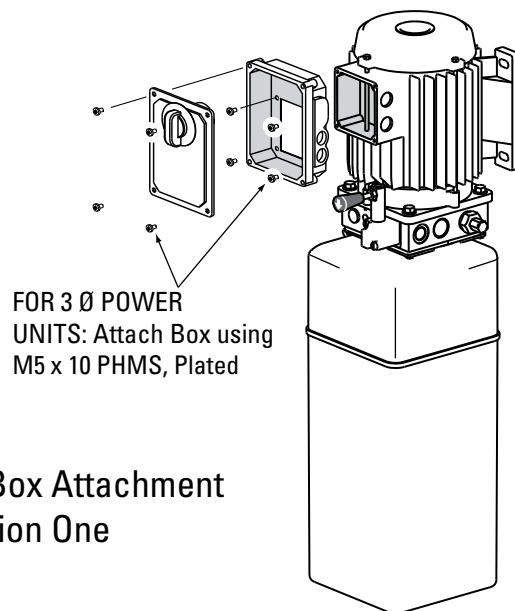
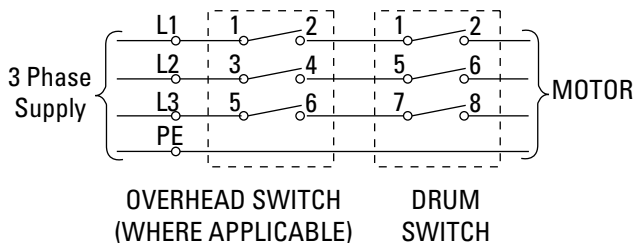
Fig. 20

- ### **CAUTION**

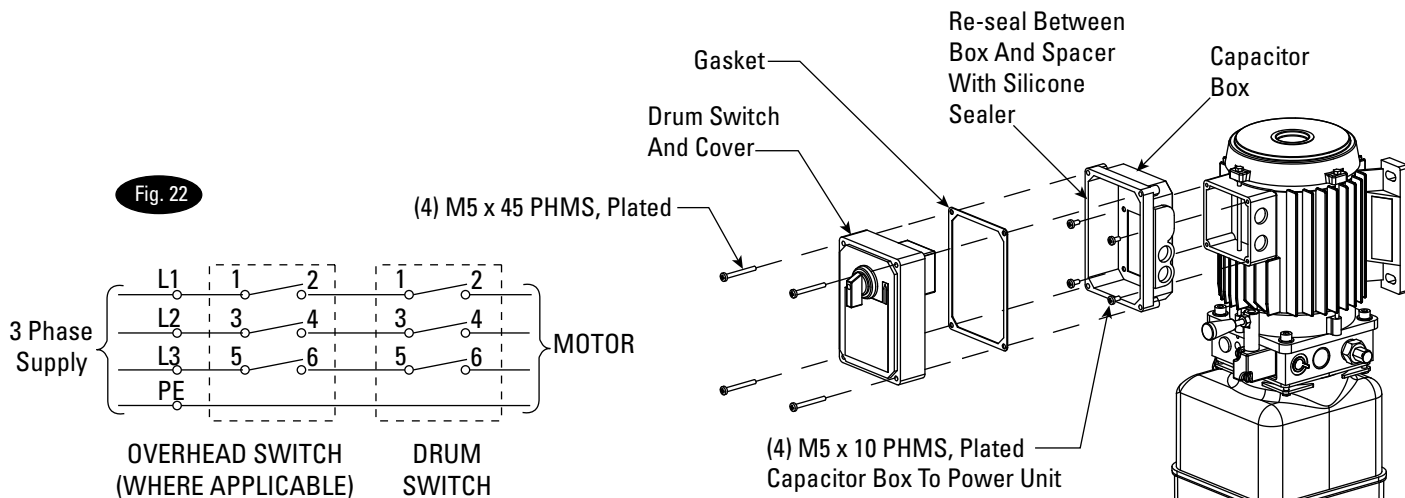
**NOTE: Two Different Drum Switches were used please select one of the two options below.**  
**Newer model three phase lifts use the push button control box with contactor. Its instructions follow the Drum Switch instructions.**

**NOTES:**

1. Unit not suitable for use in unusual conditions. Contact Rotary for moisture and dust environment duty unit.
2. Control Box must be field mounted to power unit.
3. Motor rotation is counter clockwise from top of motor.



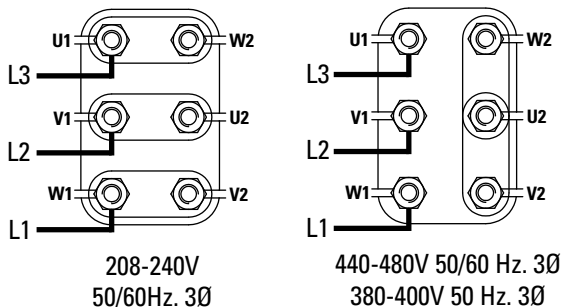
**Capacitor Box Attachment Option One**



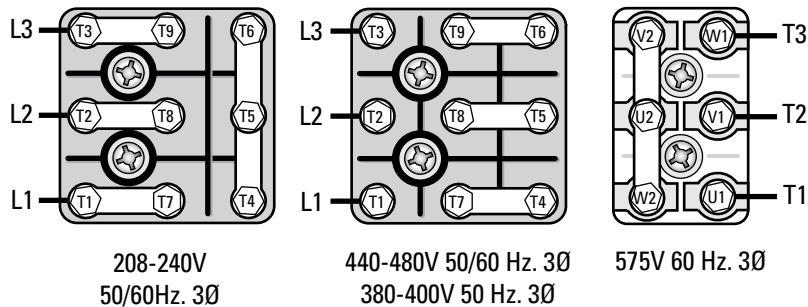
**Three Phase Power Unit**

MOTOR OPERATING DATA TABLE - THREE PHASE	
LINE VOLTAGE	RUNNING MOTOR VOLTAGE RANGE
208-240V 50/60Hz.	197-253V
400V 50Hz.	360-440V
440-480V 50/60Hz.	396V-528V
575V 60Hz.	518V-632V

**Current Pin Layouts**



**Older Pin Layouts**



#### 14. 3ø Control Box Installation:

- Attach Mounting Bracket on column, as shown in Fig. 22a, using (1) 5/16" -18NC x 1/2" Socket Head Counter Sunk Machine Screw, (2) 5/16" -18NC x 1/2" HHCS, and (2) 5/16" Flat Washers.
- Attach Control Box to Bracket using (4) 1/4" -20NC x 1/2" HHCS, (4) 1/4" Flat Washers, and (4) 1/4" Star Washers.
- Route cord through strain relief on motor and connect per table on the bottom of page 13.

#### Note:

The contactor in the control box has a 480V coil. For installations where the electric supply is 230V, the coil must be replaced with the extra 230V coil shipped with the control box. For 575V electric supply, the coil must be replaced with the extra 575V coil shipped with the lift.

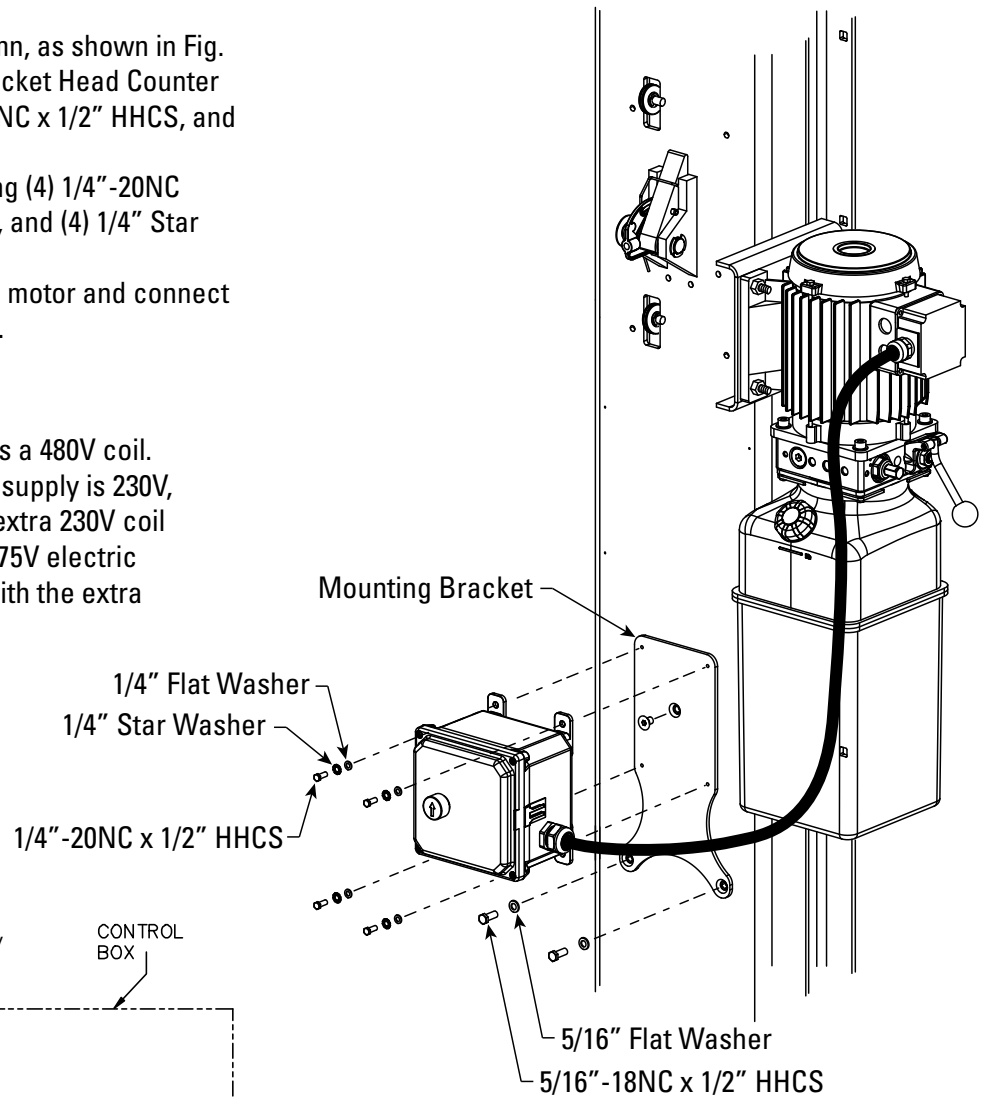


Fig. 22a

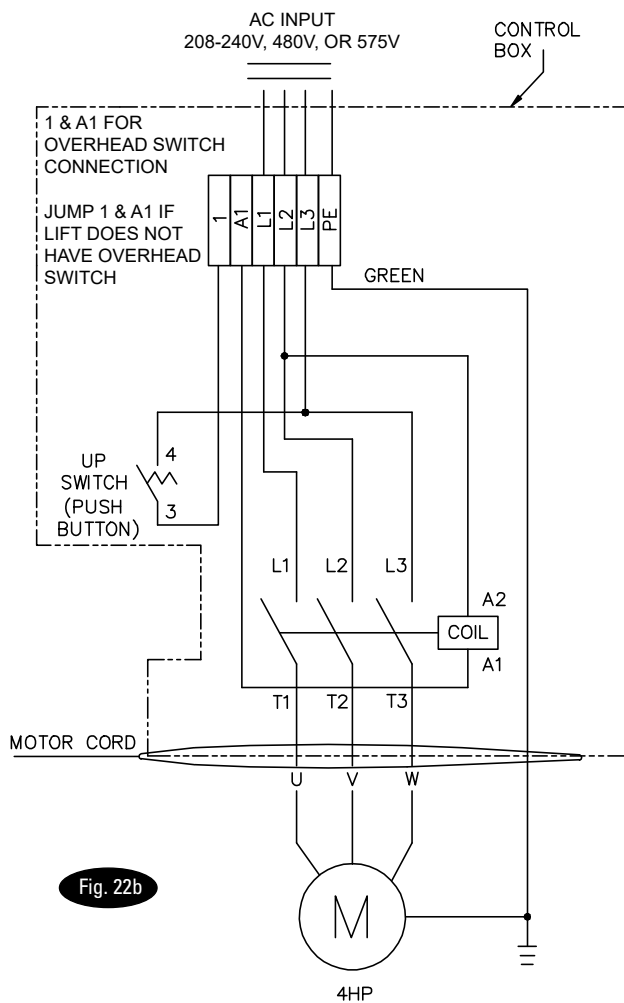


Fig. 22b

15. Oil Filling & Bleeding: Use Dexron III ATF, or Hydraulic Fluid that meets ISO 32 specifications. Remove fill-breather cap, Fig. 10. Pour in (8) quarts of fluid. Start unit, raise lift about 2 ft (62 cm). Open cylinder bleeders approximately 2 turns, Fig. 12.

Close bleeders when fluid streams. Torque values for the bleeders are 15 ft-lbs (20 Nm) minimum and 20 ft-lbs (27 Nm) maximum. Fully lower lift. Add more fluid until it reaches the MIN\_\_\_\_\_ mark on the tank. Replace fill-breather cap.

**CAUTION** If fill-breather cap is lost or broken, order replacement. Reservoir must be vented.

16. Overhead switch: Check overhead switch assembly to assure that switch bar is depressing switch plunger sufficiently to actuate the switch. The overhead switch is wired normally open, see Fig. 21, Fig. 22, and Fig. 22b. Lift will not operate until weight of switch bar is depressing switch plunger. Verify that Power Unit stops working when switch bar is raised, and re-starts when the bar is released.

17. Arms & Restraints: Before installing arms, raise carriages to a convenient height. Grease swivel arm pins and holes with Lithium grease. Slide arm into yoke, Fig. 23a. Install 1-3/4" diameter arm pin(s), Fig. 23a.

After installing arms and pins, install arm Restraint Gears as follows: Install Restraint Gear onto arm clevis, as shown, Fig. 23b. Ensure side of gear marked TOP is facing upward, Fig. 23b.

NOTE: TOP is stamped on top side of gear. You may need to pull up on the pin-ring to allow enough room to install Restraint Gear.

Arms With 5 Holes In Bearing Bar: Then, install the (2) 3/8"-16NC x 1-1/2" HHCS (8 total for all 4 arms) and 3/8" Spring Lock washers into the gear and arm, but do not tighten.

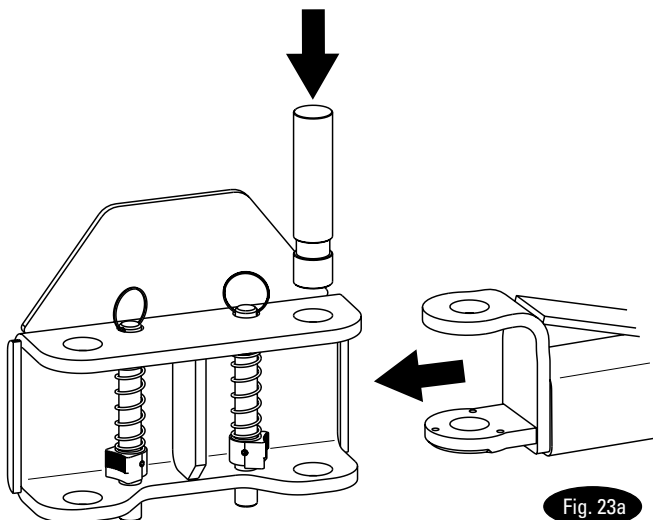
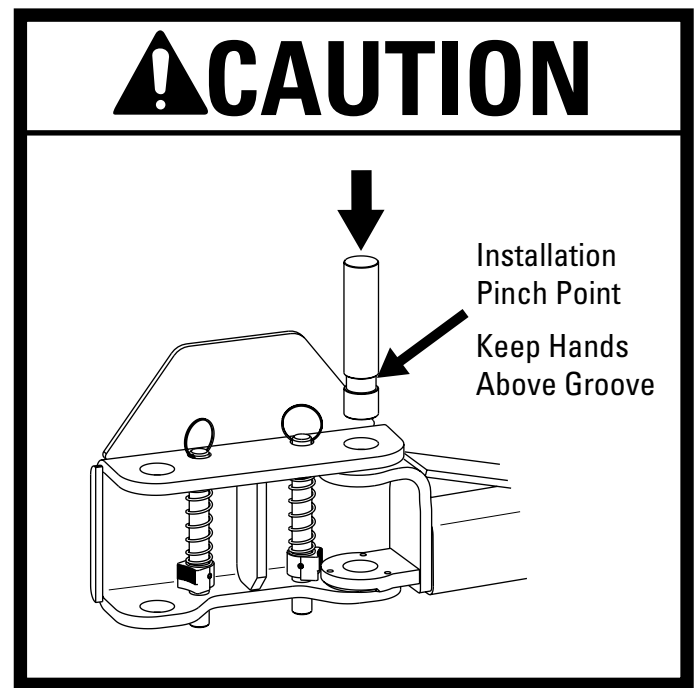


Fig. 23a



Reference Fig. 23c, Fig. 24a, and Fig. 24b. Arms With 3 Holes In Bearing Bars: Then, install the (2) 3/8"-16NC x 1-1/2" Lg. HHCS ((8) total for all (4) arms) into the gear and arm. Using 3/8" hex jam nuts, secure restraint gears to arms. Reference Fig. 23c and Fig. 24b.

Torque the Restraint Gear bolts to 30-34 ft-lbs (41-46Nm).

NOTE: To check operation of arm restraints, raise carriage 1" (25mm) min. from full down position. Pull up on pin-ring and adjust arms to desired position. To engage restraint, let pin-ring down allowing gear teeth to mesh together. It may be necessary to rotate arm slightly to engage gear teeth.

NOTE: Once arm is installed in yoke, pull up actuator pin and swing arm fully around, being sure that the Restraint Gear and Gear Block always stay aligned. If they do not stay aligned, remove restraint gear and install in the opposite position.

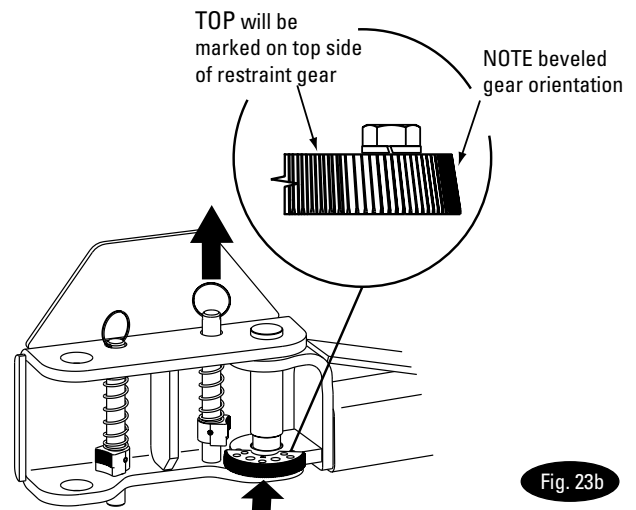
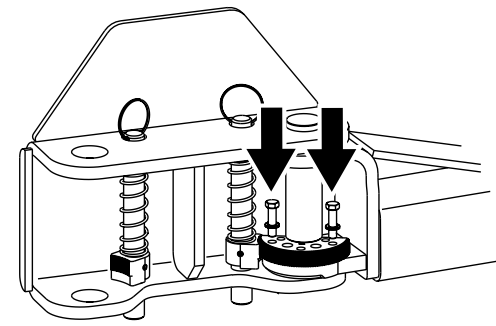
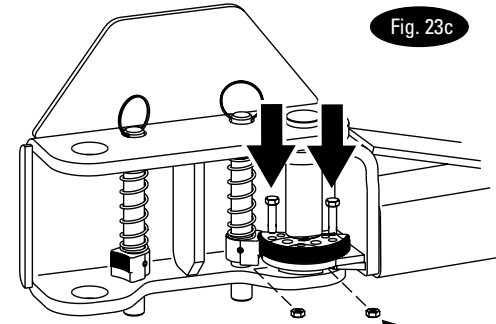


Fig. 23b



**BEARING BAR WITH 5 HOLES**

Fig. 23c



**BEARING BAR WITH 3 HOLES**

**BEARING BAR WITH 5 HOLES**

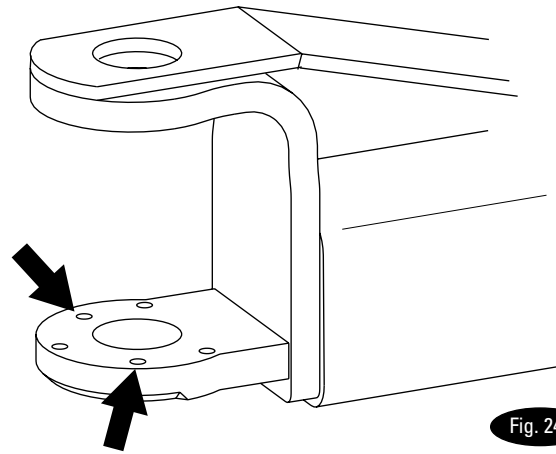
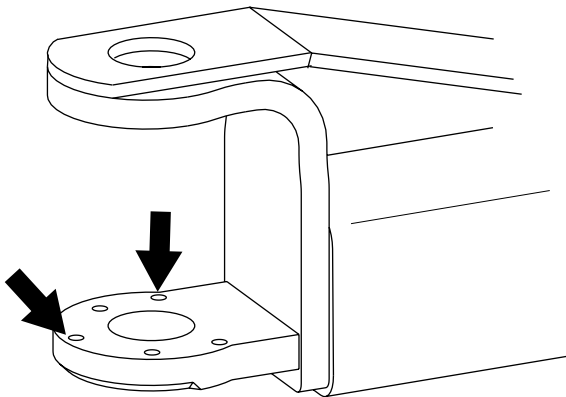


Fig. 24a

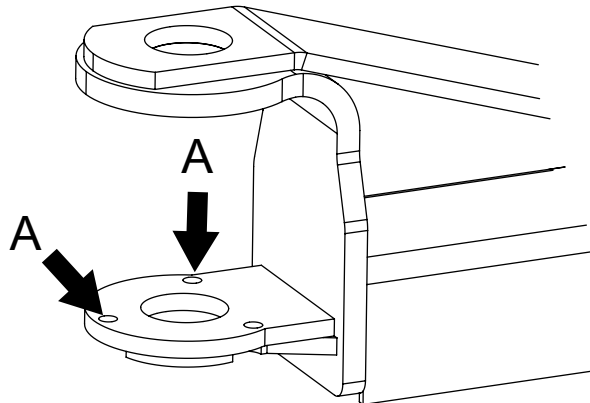
DO NOT use holes marked with arrows.

**BEARING BAR WITH 5 HOLES**



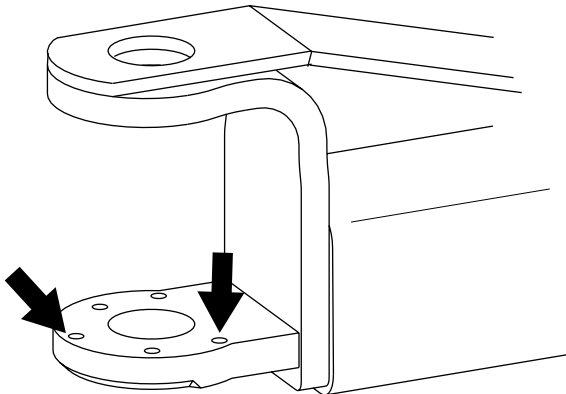
Use holes marked with arrow for Right Front and Left Rear.

**BEARING BAR WITH 3 HOLES**

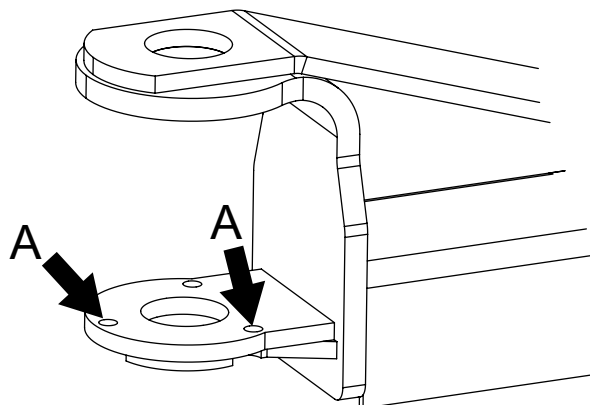


Use holes marked "A" for Right Front and Left Rear.

Fig. 24b



Use holes marked with arrow for Left Front and Right Rear.



Use holes marked "A" for Left Front and Right Rear.

NOTE: Pin & Ring, Spring, & Gear Block are all pre-assembled.

Assemble adapters into arms (800 Series only):

For RA and truck adapters, slide adapter insert into end of inner arm. Place adapter through slot in inner arm and into adapter insert.

For flip-up adapters, place load plate onto inner arm with stop on bottom in the inner arm slot and towards the end of the arm. Slide adapter insert into end of inner arm and line up with hole in load plate. Orient small hole in adapter insert so it runs the length of the arm and you can see it when looking in the end of arm. Slide large pin from adapter assembly through the load plate and into the adapter insert lining up the holes in the pin and the insert. Install the retaining pin through the adapter insert and pin pushing it in until the head or pin hits the insert. Swivel the entire assembly around 180° and install the cotter pin, Fig 24c.

Note: Load plate with partial ears are used on A10 front arms.

18. Door Bumper Installation:

- A) Press long bumper on column edge, Fig. 25.
- B) Press short bumper on top edge of carriage tube, Fig. 25.

19. Latch Cable Adjustment:

- A) Check to make sure the latch will properly engage and disengage. **Slowly** release the latch handle. A 1/8" (3mm) gap between the top of the latch dog and the column is allowable.
- B) When raising, listen to latches to be sure that both latch dogs fall into latch slots. If they do not, loosen clamp and adjust tension as necessary.

C) Install left latch cover using 5/16-18NC x 3/8" lg PHMS.

20. Pressure Test: Run lift to full rise and keep motor running for 5 seconds. Stop and check all hose connections. Tighten or reseal if required. Repeat air bleeding of cylinders.

21. Equalizer Cable Adjustment: Raise lift to check equalizer cable tension. Below carriage, grasp adjacent cables between thumb and forefinger, with about 15 lbs. effort you should just pull the cables together. Adjust at upper tie-offs Fig. 15.

22. Latch Release Decal: Install latch release decal on cover above latch release handle, Fig. 26.

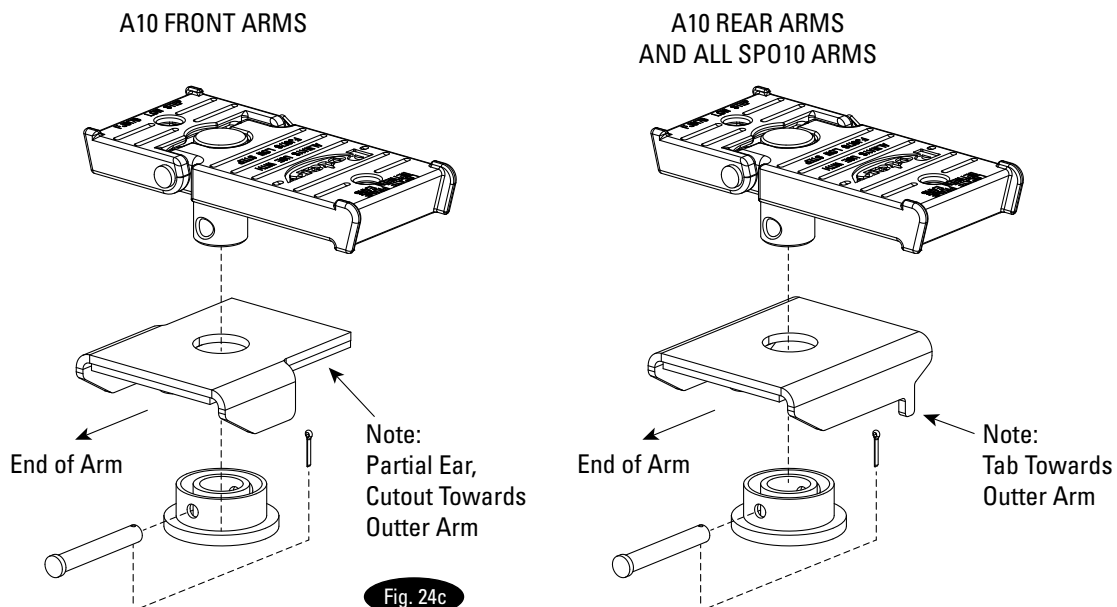
23. Pinch Point Decal Location: Install enclosed pinch point decals. Place (1) decal on each column, Fig. 27. Decals should be a minimum of 8" (20.3 cm) from the bottom of decal to the ground.

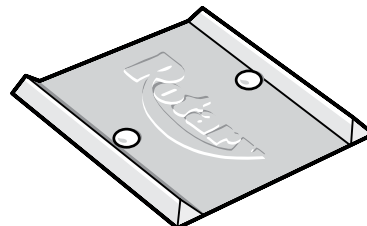
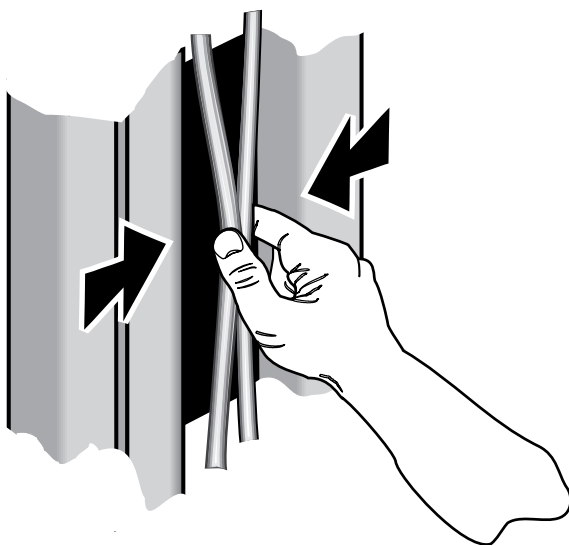
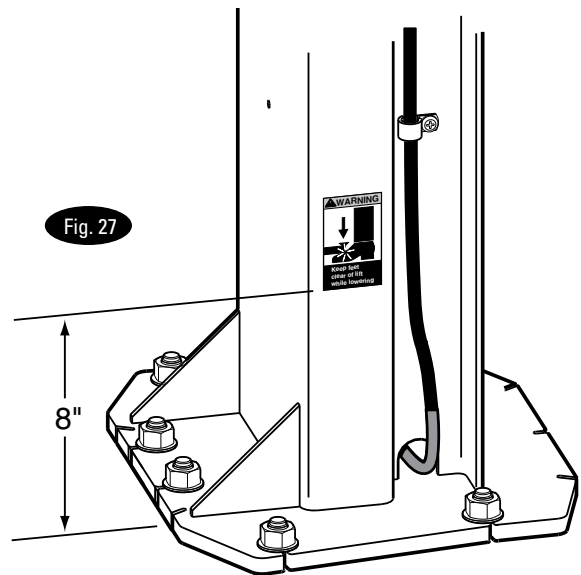
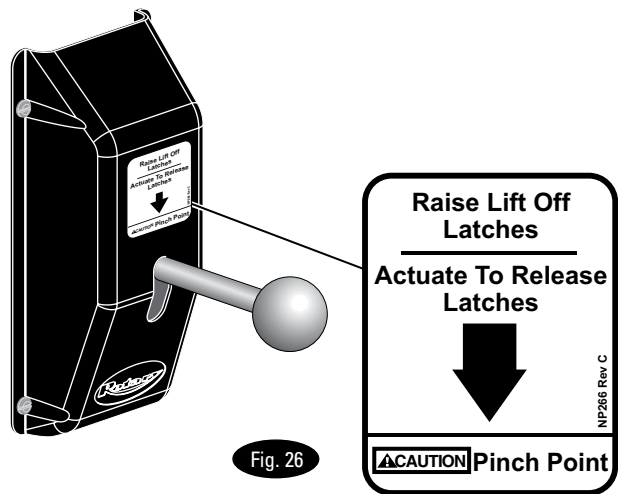
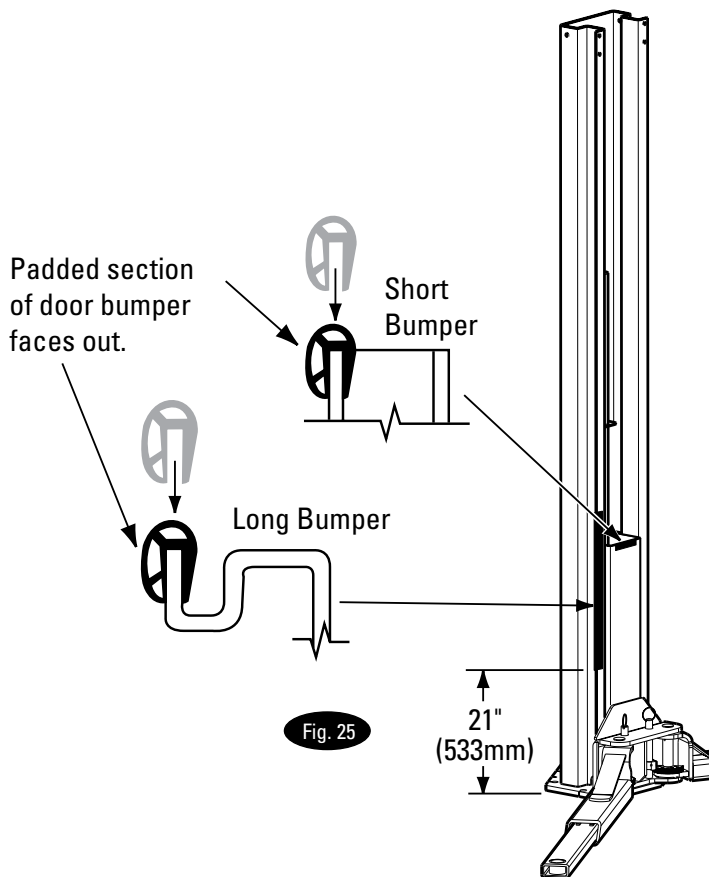
24. Wheel Spotting Dish: Position wheel spotting dish as illustrated in Fig. 1a or 1b. Drill (2) 3/8" holes 2-1/2" (64 mm) deep in concrete floor using holes in wheel spotting dish as guide. Drive both anchors, provided, into concrete to secure dish.

25. Upon completion of the assembly of the lift, the lift is to be operated to assure proper function. Observe for locks operating in all locking positions, each side lifts equally, hydraulics do not leak, all electrical controls function as labeled, all pneumatics are functional and leak free, ramps rotate freely (if applicable), and proper clearances with all items in bay have been maintained.

Operate the lift with a typical vehicle and observe to assure the same items for proper functioning.

NOTE: FOR FA ARMS ONLY







Notes:

Notes:

Notes:

**Installer:** Please return this booklet to literature package, and give to lift owner/operator.

***Thank You***

***Trained Operators and Regular Maintenance Ensures Satisfactory Performance of Your Rotary Lift.***

***Contact Your Nearest Authorized Rotary Parts Distributor for Genuine Rotary Replacement Parts. See Literature Package for Parts Breakdown.***

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e [userlink@rotarylif.com](mailto:userlink@rotarylif.com)

Sales:

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f 800.578.5438  
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Latin America / Caribbean: +54.3488.431.608  
Middle East / Northern Africa: +49.771.9233.0

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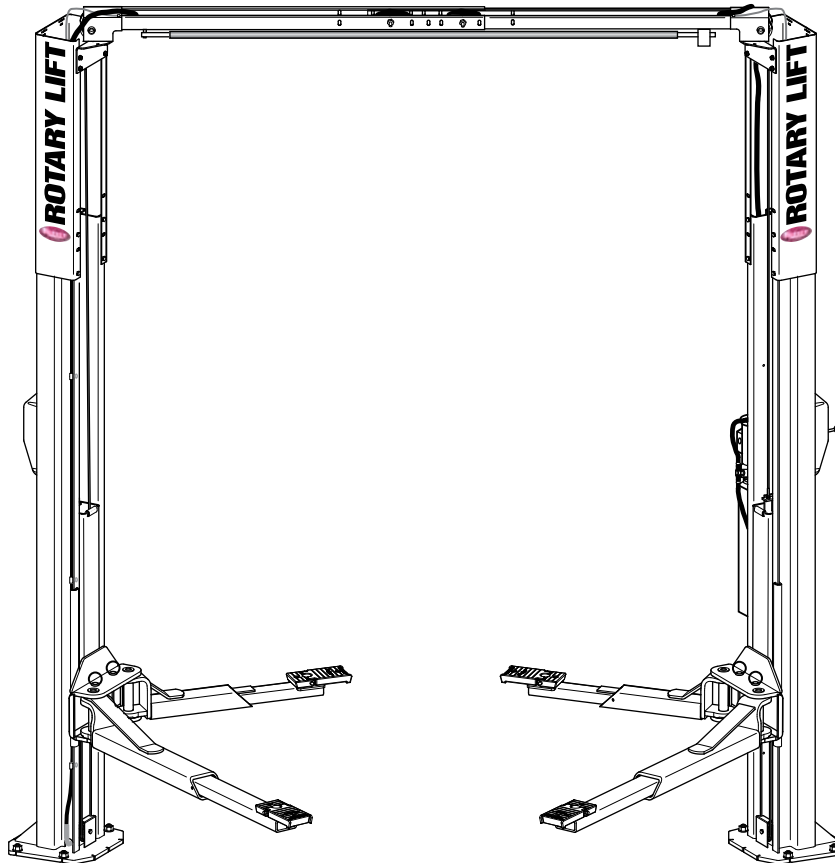
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# SPOA10, SP010, SPOA7 Hybrid, & Shockwave™ Models

(500-1600 Series Lifts)  
Capacity 10,000 lbs. (4,536 kg.)



P  
A  
R  
T  
S  
  
B  
R  
E  
A  
K  
D  
O  
W  
N

**IMPORTANT:** When ordering parts or requesting service always give exact model and power unit serial number. Model number is shown on nameplate attached to power unit column. Power unit serial number is located on side of power unit.

**OWNERS RECORD**  
Complete information  
at right and keep in  
a safe place.

Date Installed \_\_\_\_\_

Installed in Bay # \_\_\_\_\_

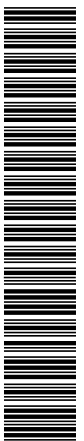
Power Unit Serial # \_\_\_\_\_

Power Unit Model # \_\_\_\_\_

Lift Serial # \_\_\_\_\_

Lift Model # \_\_\_\_\_

**NOTE:** For replacement parts -See your nearest Rotary Parts Distributor.



1. L.H. Column Weldment (500-1200 Series) .....	N752
L.H. Column Weldment (1300-1600 Series) .....	N788
L.H. Seismic Column Weldment .....	N766
2. R.H. Column Weldment (500-1200 Series) ...	N755
R.H. Column Weldment (1300-1600 Series) ...	N789
R.H. Seismic Column Weldment .....	N768
3. Column Extension	
Standard Height .....	N4125
EH-1 MODEL .....	***N4121
EH-2 MODEL .....	***N4121
4. Carriage Yoke Weldment .....	N822
5. Arm Pin .....	N2154
6. 1/4"-20NC x 3/4" Lg. HHCS .....	40099
7. Hydraulic Cylinder Assembly 68" Rise .....	N346-1
71" Rise .....	N347
8. Power Unit	
1Ø 60H .....	**P1302/P3302
1Ø 50Hz .....	**P1389/P3389
3Ø .....	**P1347/P3347
3Ø 575V .....	**P1359/P3359
3Ø 380V (S Model) .....	**P1510/P3510
9. Power Unit Hose .....	FJ837
10. 5/16"-18NC x 1-1/2" Flanged HHCS (Full Thread) .....	40509
11. NA .....	NA
12. 5/16"-18NC Hex Flanged Lock Nut .....	40678
13. Actuator Pin Handle .....	FJ7985-1
14. Actuator Pin .....	N121-1
15. Retaining Pin .....	N119-3
16. Arm Restraint Spring .....	FJ7656-2
17. Bleeder Screw (Specify Manufacturer) .....	N/A
18. Carriage Bumper .....	FA941
19. Arm Restraint Pawl .....	N2121
20. Approach bumper .....	FJ7391-1
21. 5/8"-11NC Nylon Insert Lock Nut .....	40743
22. Truarc #5304-75 Klipring for 3/4" Shaft .....	41411
23. Sheave .....	N377
24. 1/4"-20NC Zinc Hex Nut .....	40627
25. Sheave Cover .....	N119-1
26. 1/4"-20NC x 3/8" Lg. PHMS Plated (2 pcs.) .....	40063
27. Slider block .....	FJ7360
28. 3/4" Concrete Anchor (500-1200 Series) .....	FJ7380
3/4" Concrete Anchor (1300-1600 Series) .....	FJ7385
29. 1-1/2" O.D. x .760-.770" I.D. x .045" Bushing .....	41388
30. 1/4"-20NC x 2-3/4" HHCS .....	40114
31. 1/4"-20NC Insert Locknut .....	40642
32. 1/8" x 1" Lg. Cotter Pin (3Ø only) .....	41200
33. Switch Bar Assembly	
1Ø SPOA10NB .....	N415
1Ø SPOA10/SPO10 / 3Ø w/ Push Button .....	N467
3Ø .....	N434
34. Wheel Spotting Dish Kit .....	FF729
35. 1/4" Flat Washer .....	40795
36. 3/8"-16 NC x 3/4" Long Flanged HHCS .....	40124
*37. Arm Restraint Kit (1 arm) .....	*N2148
38. Overhead Hose	
Standard .....	N3103
EH-1 MODEL .....	FJ842
EH-2 MODEL .....	FJ843
EH-4 MODEL (SPO10 only) .....	FJ845
SPOA10 WIDE STANDARD HEIGHT .....	N394
SPOA10 WIDE EH-1 .....	N370
SPOA10 WIDE EH-2 .....	N3110
39. Equalizer Cables	
SPOA10NB .....	N384
SPOA10NB EH-1 MODEL .....	N385

SPOA10NB EH-2 MODEL .....	N386
SPOA10 .....	N372
SPOA10 WIDE STANDARD HEIGHT .....	N3129
SPOA10 WIDE EH-1 .....	N3130
SPOA10 WIDE EH-2 .....	N3131
SPOA10 EH-1 MODEL .....	N378
SPOA10 EH-2 MODEL .....	N373
SPO10 .....	N374
SPO10 EH-1 MODEL .....	N379
SPO10 EH-2 MODEL .....	N375
SPO10 EH-4 MODEL .....	N376
40. Capacitor Box .....	FA7147-1
Capacitor Box Cover Plate .....	FA7366-1
Drum Switch .....	FA7364
Drum Switch Lever .....	FA7364-1
M5 x 45 PHMS, Plated .....	41672
41. Locking Latch Cable .....	FJ7600
42. Cable Guide .....	N618
43. 3/8"-16NC Flanged Locknut .....	40664
44. Sheave Shaft .....	FJ7444-8
45. Actuator Assembly (3Ø) .....	N432-5
46. Cable End Bracket .....	N619
47. Hose Clip .....	N383
48. L.H. Overhead Assembly (Outer) .....	N480
SPOA10 WIDE .....	N493-1
49. R.H. Overhead Assembly (Inner) .....	N481
SPOA10 WIDE .....	N494-1
SPOA10 WIDE STIFFNER ANGLE (NOT SHOWN) .....	N463
50. Branch Tee .....	FJ7668
51. Column Mounting Bracket .....	N439
52. 3/8"-16NC x 3/4" Carriage Bolts .....	N/A
53. 1/4"-20NC Flanged Locknut .....	40641
54. 3/4" Spacer .....	FJ7871
55. Cutoff Switch Assembly	
1Ø / 3Ø w/ Push Button .....	N413
3Ø .....	N432
Explosion Proof Controls .....	N4118
Cutoff Switch .....	1Ø / 3Ø w/ Push Button .....
3Ø .....	N432-1
Explosion Proof Controls .....	N4118-2
56. 1/4" External Tooth Lockwasher .....	40779
57. 1/4"-20NC x 1" HHCS Grade 5 .....	40108
58. Spring Pin-1/4" dia. x 1-1/2" Lg. (Stainless) 14427	
59. Shim .....	FJ716-6
60. Front Shim .....	FJ7659-3
61. Straight Adapter .....	FJ7352-3

\*Arm Restraint Kit (1 Arm) Includes items 13, 14, 15, 16, 19 & 58.  
Also includes Restraint Gears and attaching hardware (items 21, 22 & 23) from Arm Detail section.

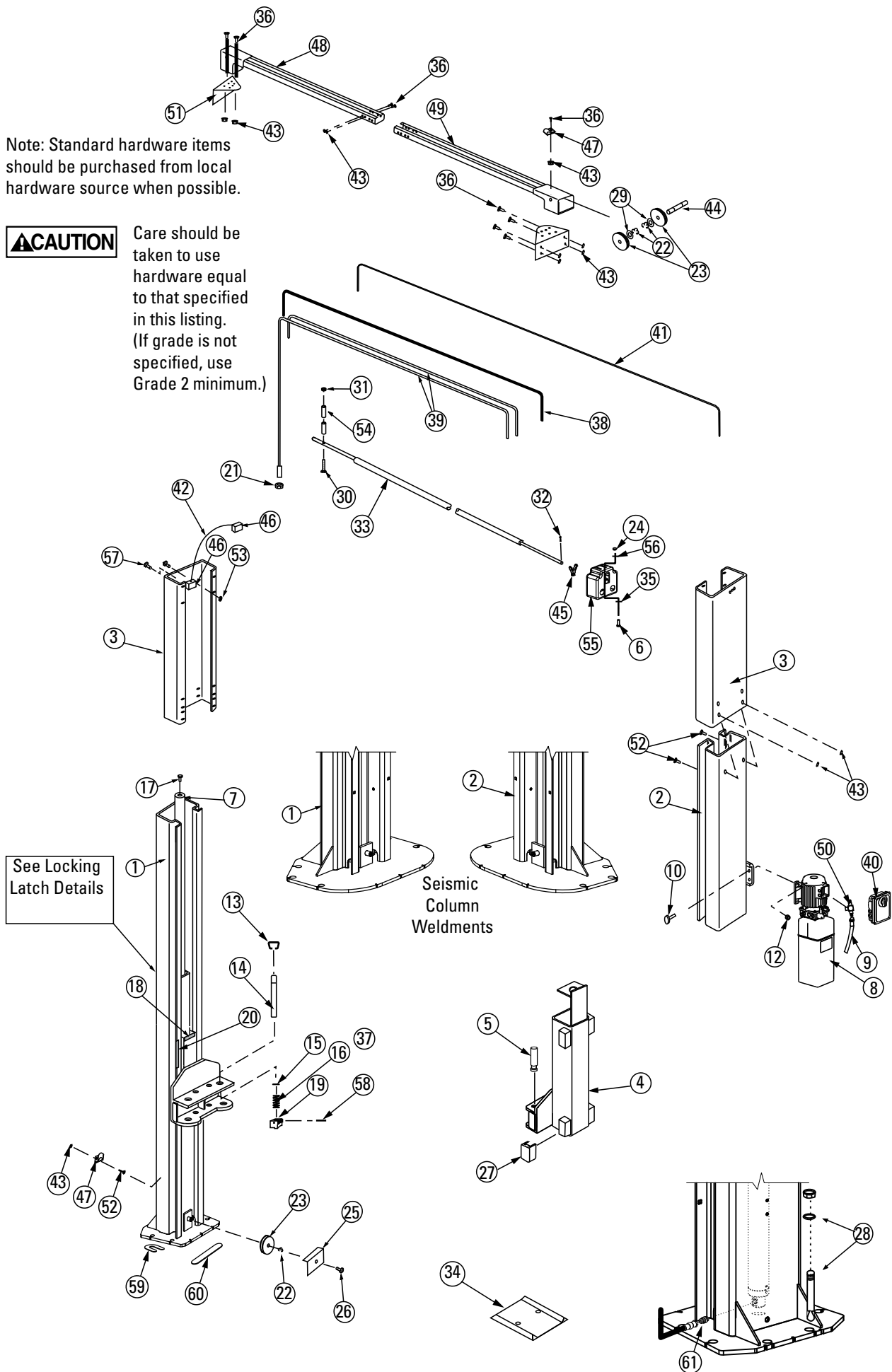
\*\*Two different power units were used. Please verify your model number before ordering parts.

\*\*\*EH1/EH2 Extension field retrofitted to EH1 height by installing cable kit:  
N595 SPO10  
N596 SPOA10

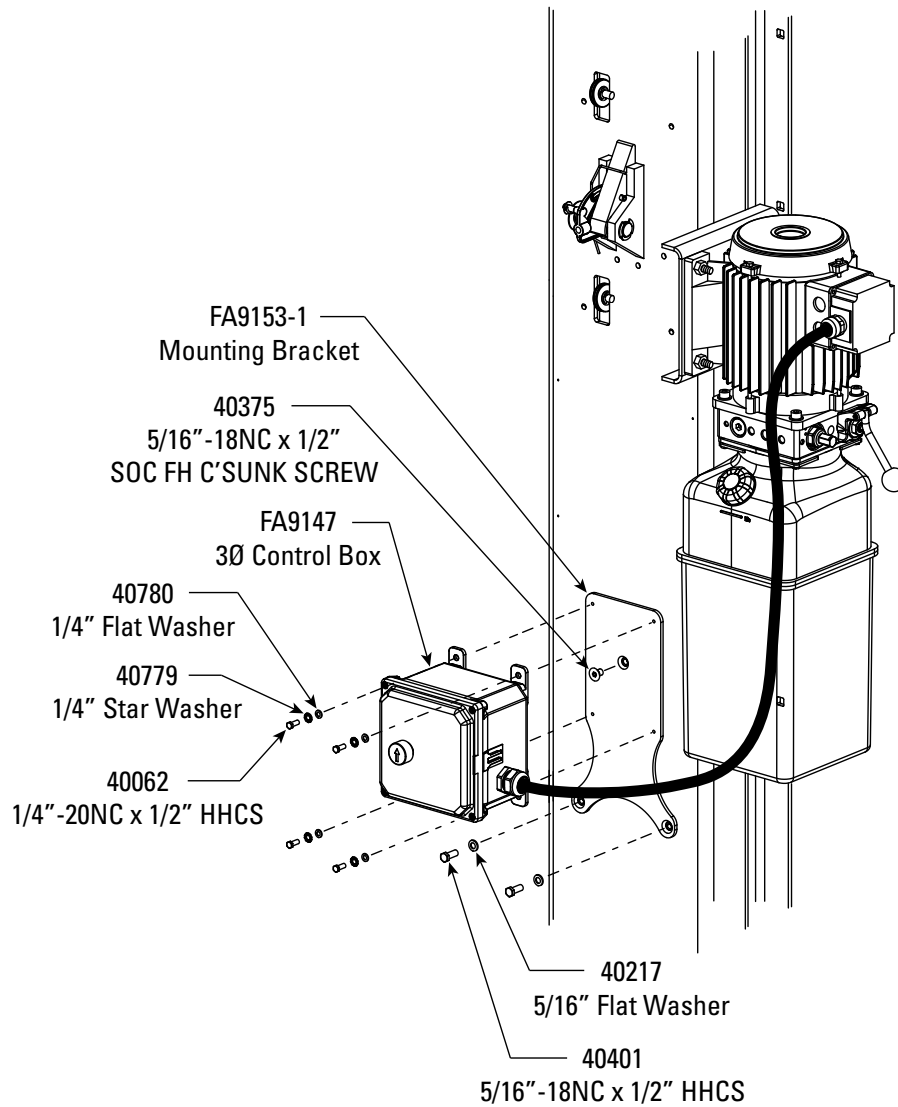
Note: Standard hardware items should be purchased from local hardware source when possible.



Care should be taken to use hardware equal to that specified in this listing. (If grade is not specified, use Grade 2 minimum.)



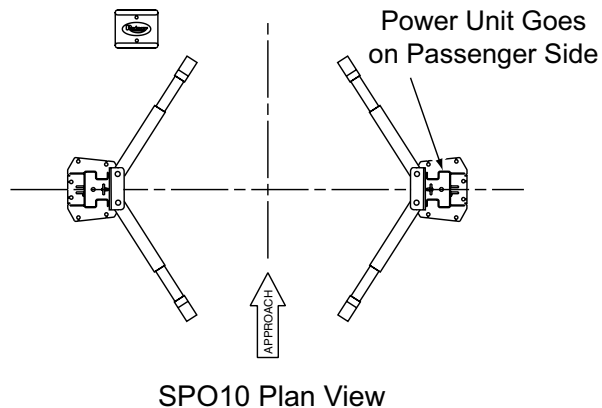
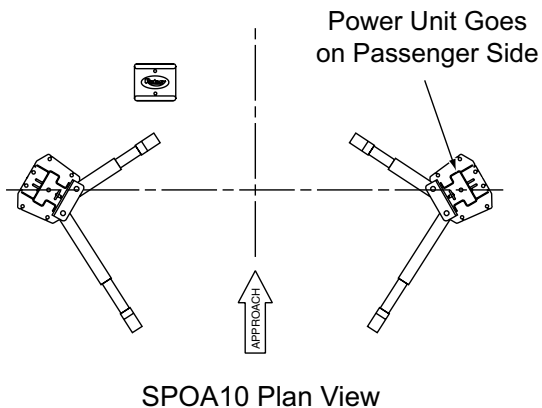
## 3Ø POWER UNIT



FA9147 Includes Items:	
FA9147-1	3Ø Control Box Enclosure with Gasket
FA9147-2	25 AMP Contactor, 3 Pole with 480 Volt Coil GE CR553AB3CAA
FA9147-6	Contactor Coil DB1AB 208-240 Volt for Contactor GE CR553A
FA9147-8	Switch Momentary Push Button with Contact Block
FA9147-9	Cord 600 Volt 4-Wire 42" Long with Ring Terminals

FA9147-12	550-600 Volt Coil GE Pin PB1AD for 575 Volt Lifts Only
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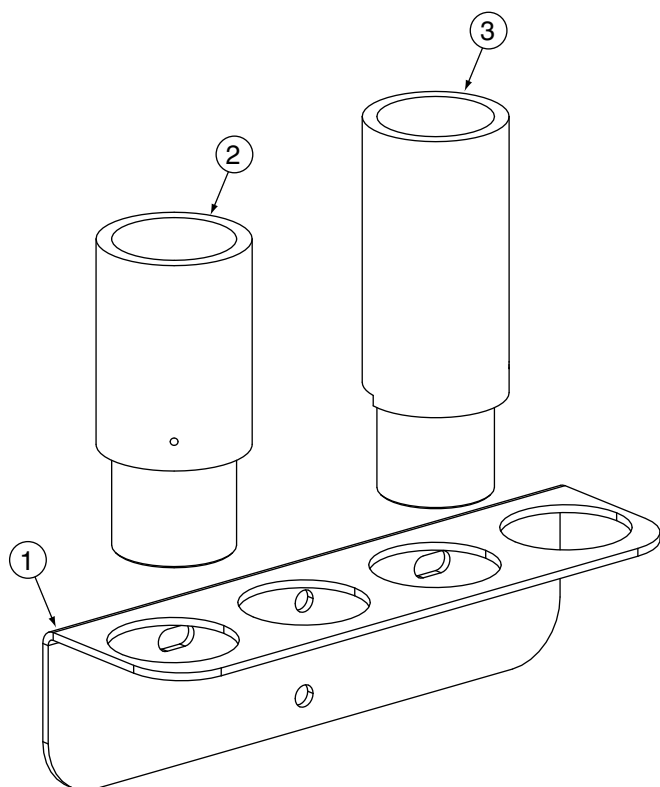


**\*Notes: 5TX, 5GX or 5BX Series?**

To find out if you have a 5TX, 5GX or 5BX series arms look at the **last (3) numbers on the end** of your lift model number.

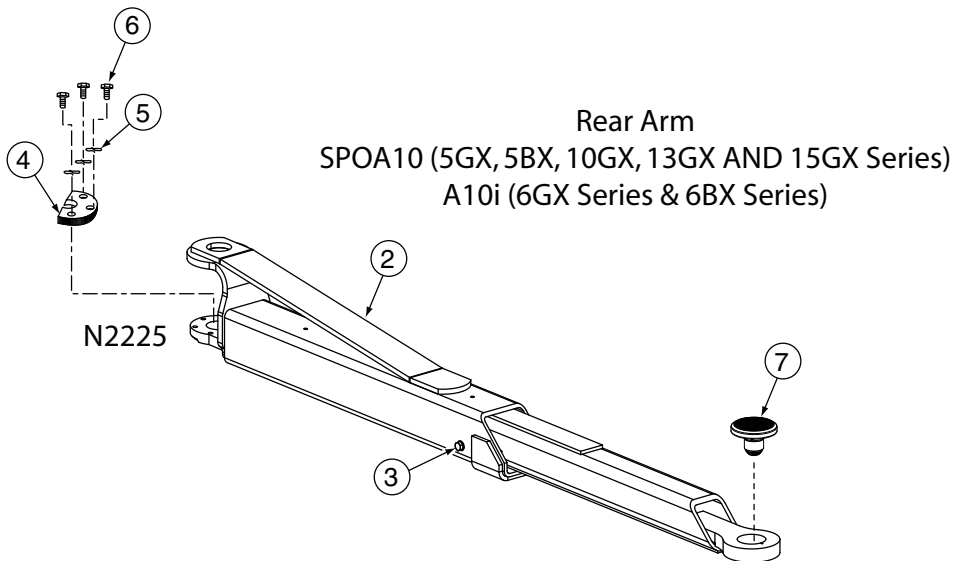
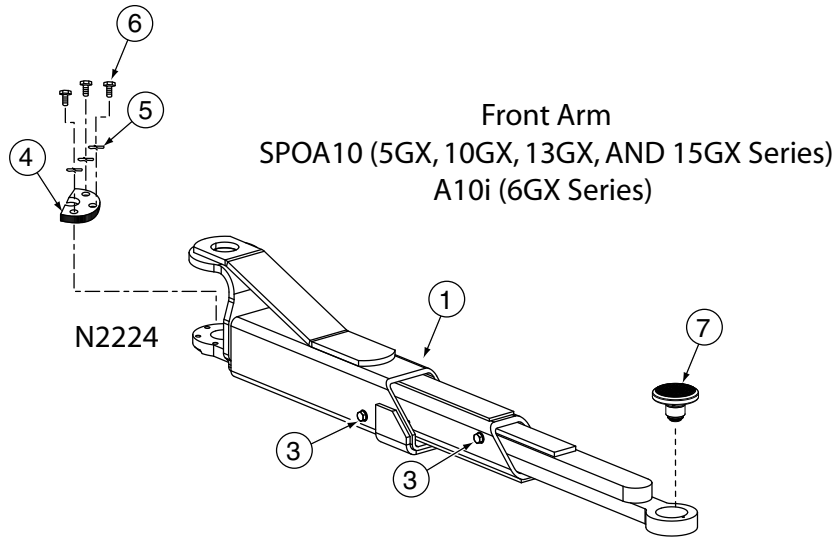
EXAMPLE: SPOA10N**5G5** would be a **5GX Series** model.

Model number can be found on a tag on the side of the lift.  
The "X" is a variable number used to fill the place of the actual last number on your lift model number tag.



1.	Adapter Rack	FJ6127
2.	3-1/2" (90mm) Adapter Extension	FJ6171-1
3.	5-1/4" (130mm) Adapter Extension	FJ6171-2

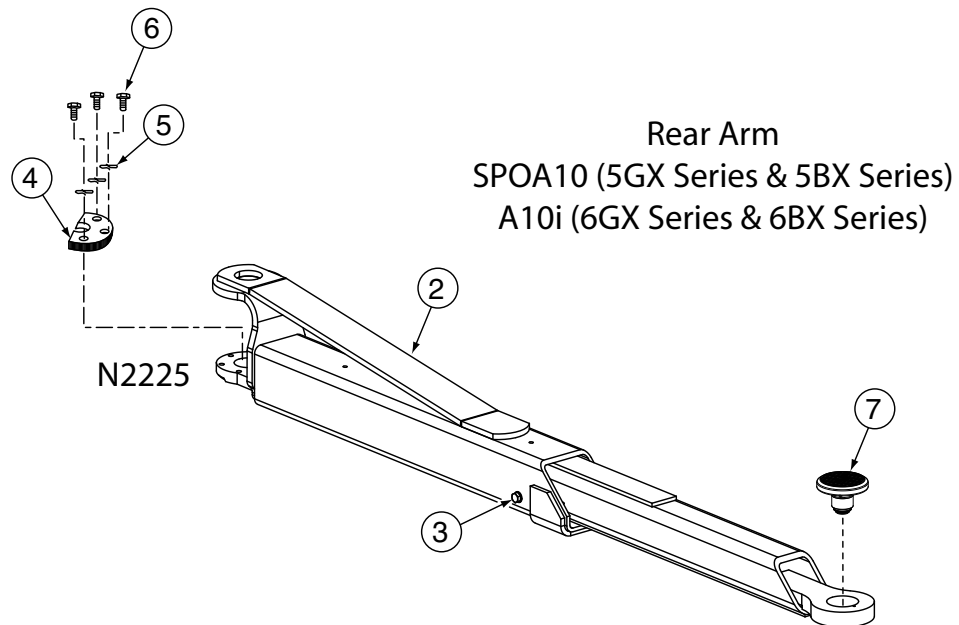
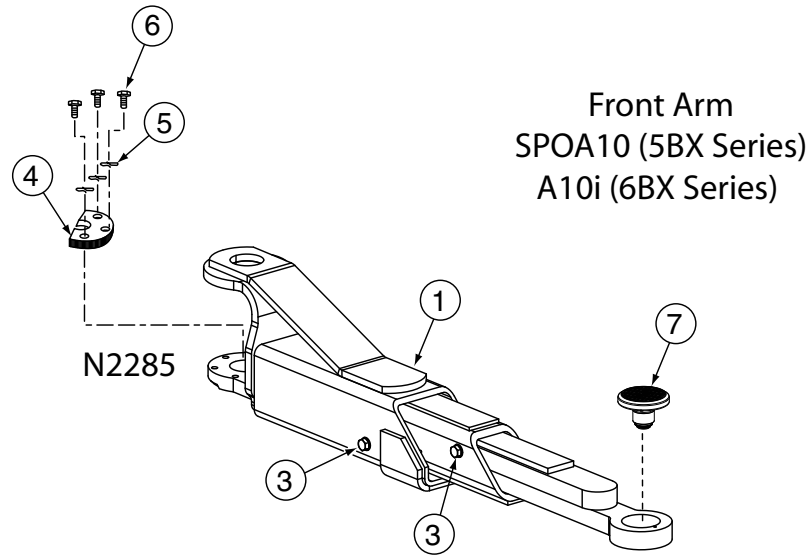
# Arm Detail



1.	Front Arm SPOA10 (5GX Series)	*N2224
2.	Rear Arm SPOA10 (5GX Series) & (5BX Series)	*N2225
3.	Stop Bolt Assembly	N219
4.	Arm Restraint Gear	N2122
5.	3/8" Spring Washers (For Lifts With Tapped Bearing Bar)	40818

6.	3/8"-16NC x 1-1/2" HHCS Grade 5	40201
7	Low Profile Adapter Assembly Rubber Pad	FJ6202 FJ6202-3

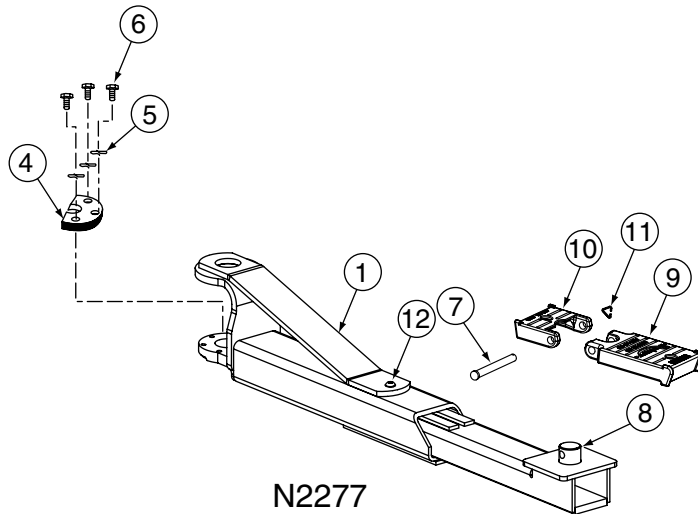
# Arm Detail



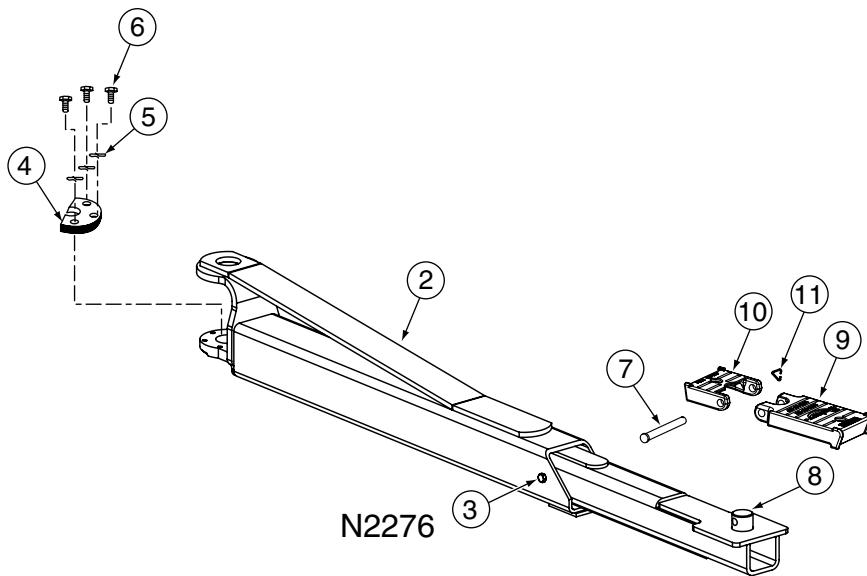
1.	Front Arm SPOA10 (5BX Series)	*N2285
2.	Rear Arm SPOA10 (5GX Series) & (5BX Series)	*N2225
3.	Stop Bolt Assembly	N219
4.	Arm Restraint Gear	N2122
5.	3/8" Spring Washers (For Lifts With Tapped Bearing Bar)	40818

6.	3/8"-16NC x 1-1/2" HHCS Grade 5	40201
7.	Low Profile Adapter Assembly	FJ6202
	Rubber Pad	FJ6202-3

# Arm Detail



Front Arm  
SPOA10 (70X, 110X, 130X, AND 150X Series)  
A10i (70X Series)

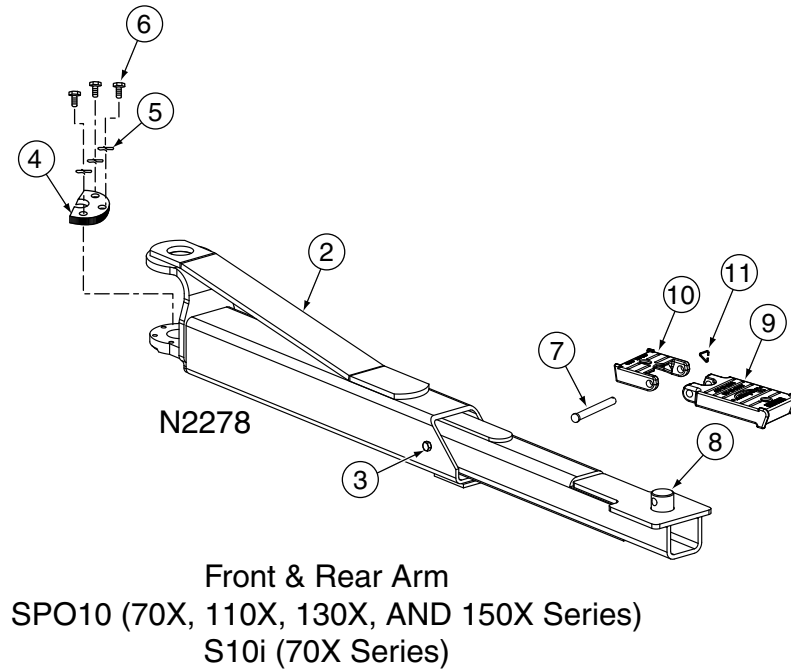
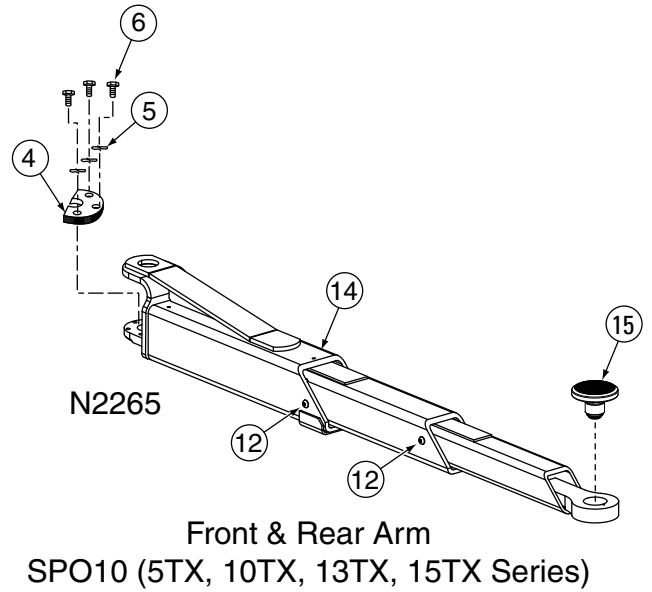
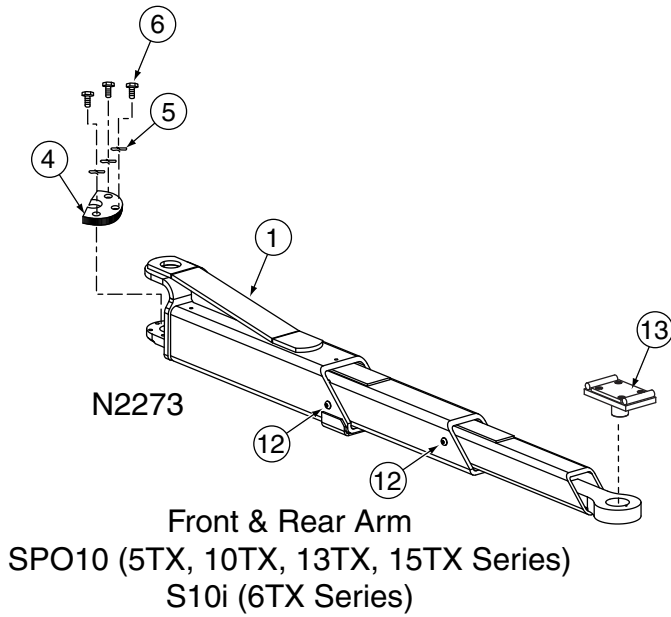


Rear Arm  
SPOA10 (70X, 110X, 130X, AND 150X Series)  
A10i (70X Series)

1.	Front Arm SPOA10 (70X Series)	*N2277
2.	Rear Arm SPOA10 (70X Series)	*N2276
3.	Stop Bolt 3/8"-16NC x 1/2" Lg. HHCS	40126
4.	Arm Restraint Gear	N2122
5.	3/8" Spring Washers (For Lifts With Tapped Bearing Bar)	40818
6.	3/8"-16NC x 1-1/2" HHCS Grade 5	40201
7.	Adapter Pin	FJ6179
8.	Adapter Swivel Pin	FJ79-6
9.	High Step Adapter	FJ6177

10.	Low Step Adapter	FJ6178
11.	3/32" Hog Ring for 1/2" Shaft (8 required)	FJ671-6
12.	Front Stop Bolt (M10 x 1.5 x 20mm BHCS)	41650

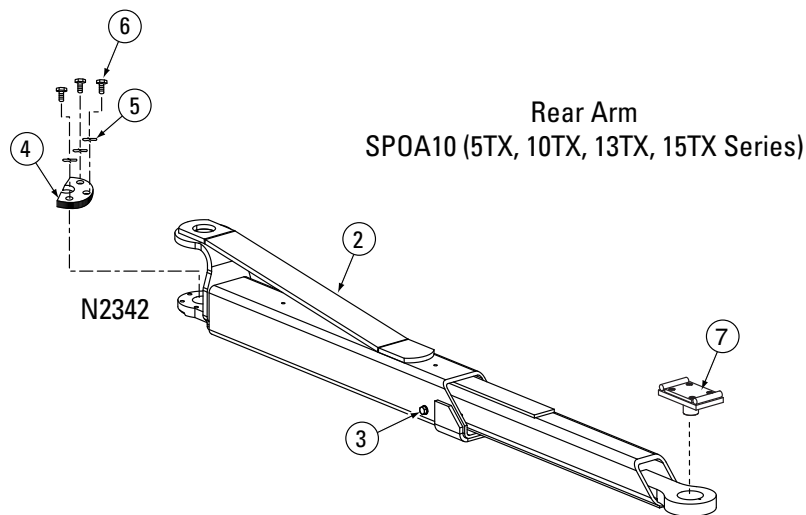
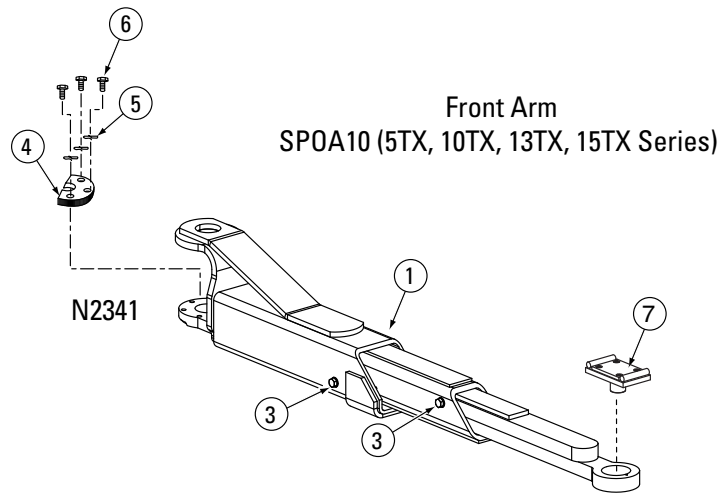
# Arm Detail



1.	Front And Rear Arm SPO10 (5TX Series)	*N2273
2.	Rear Arm SPO10 (70X Series)	*N2278
3.	Stop Bolt 3/8"-16NC x 1/2" Lg. HHCS	40126
4.	Arm Restraint Gear	N2122
5.	3/8" Spring Washers (For Lifts With Tapped Bearing Bar)	40818
6.	3/8"-16NC x 1-1/2" HHCS Grade 5	40201
7.	Adapter Pin	FJ6179
8.	Adapter Swivel Pin	FJ79-6
9.	High Step Adapter	FJ6177
10.	Low Step Adapter	FJ6178
11.	3/32" Hog Ring for 1/2" Shaft (8 required)	FJ671-6

12.	Front Stop Bolt (M10 x 1.5 x 20mm BHCS)	N2264-15
13.	Adapter Assembly (SPO10) 3-Stage Arm Rubber Pad	FJ6214 FJ6158-4
14.	Front and Rear Arm SPO10 (5GX Series)	*N2265
15.	Low Profile Adapter Assembly Rubber Pad	FJ6202 FJ6202-3

# Arm Detail



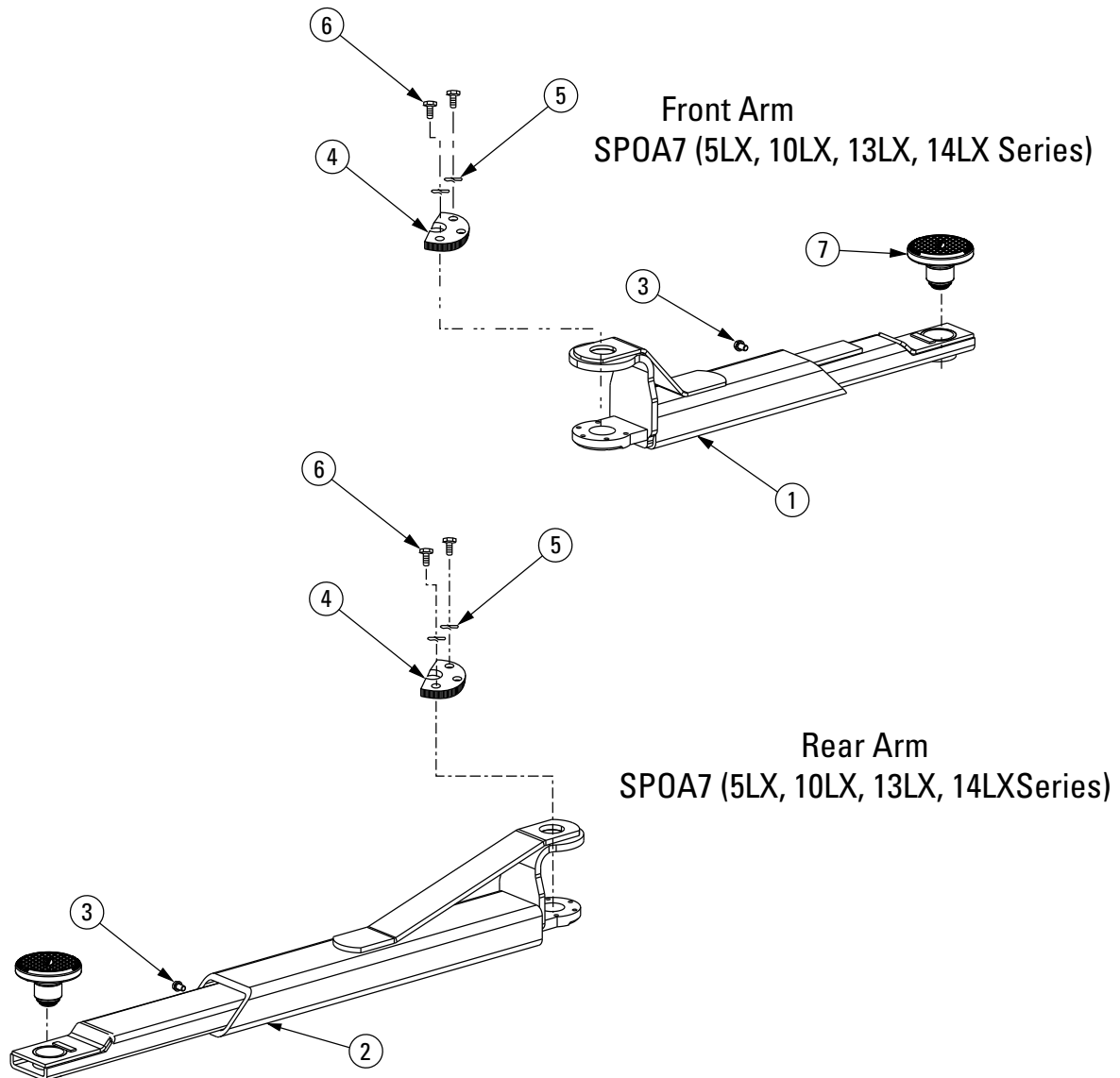
1.	Front Arm SPOA10 (5TX Series)	*N2341
2.	Rear Arm SPOA10 (5TX Series)	*N2342
3.	Stop Bolt Assembly	N219
4.	Arm Restraint Gear	N2122
5.	3/8" Spring Washers (For Lifts With Tapped Bearing Bar)	40818

6.	3/8"-16NC x 1-1/2" HHCS Grade 5	40201
7	Adapter Assembly 3-Stage Arm Rubber Pad	FJ6214 FJ6158-4

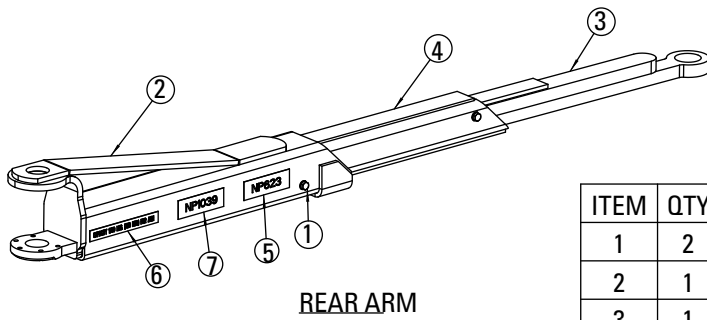
# Arm Detail SPOA7 Low Profile Arm

1.	Front Arm SPOA10 (5TX Series)	*N2295
2.	Rear Arm SPOA10 (5TX Series)	*N2294
3.	Stop Bolt Assembly	N219
4.	Arm Restraint Gear	N2122
5.	3/8" Spring Washers (For Lifts With Tapped Bearing Bar)	40818

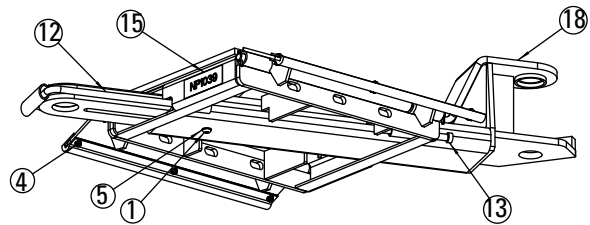
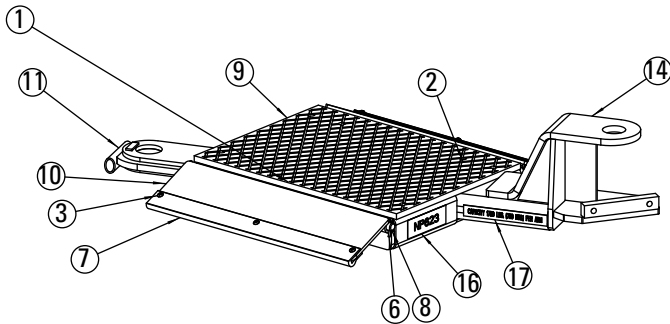
6.	3/8"-16NC x 1-1/2" HHCS Grade 5	40201
7.	Adapter Assembly 3-Stage Arm Rubber Pad	FJ6202
		FJ6202-3



# Arm Detail SPOA7 Hybrid



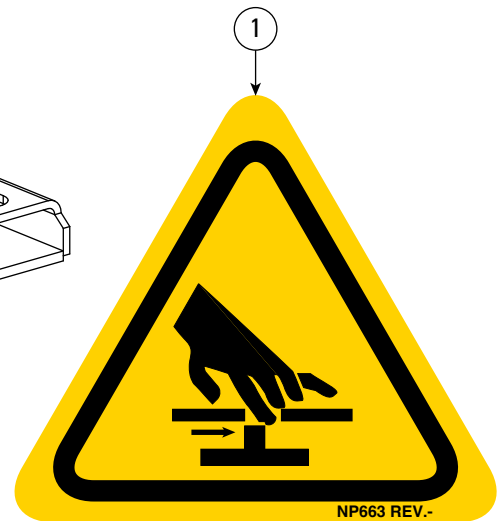
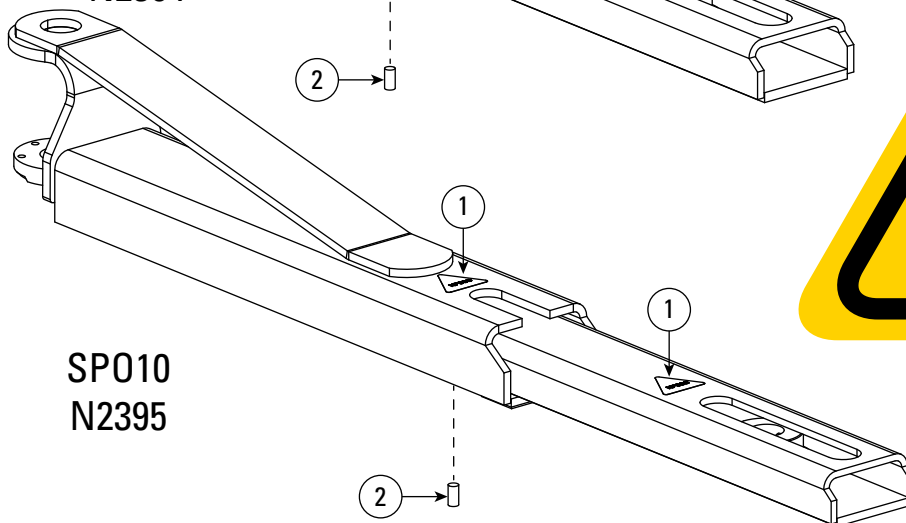
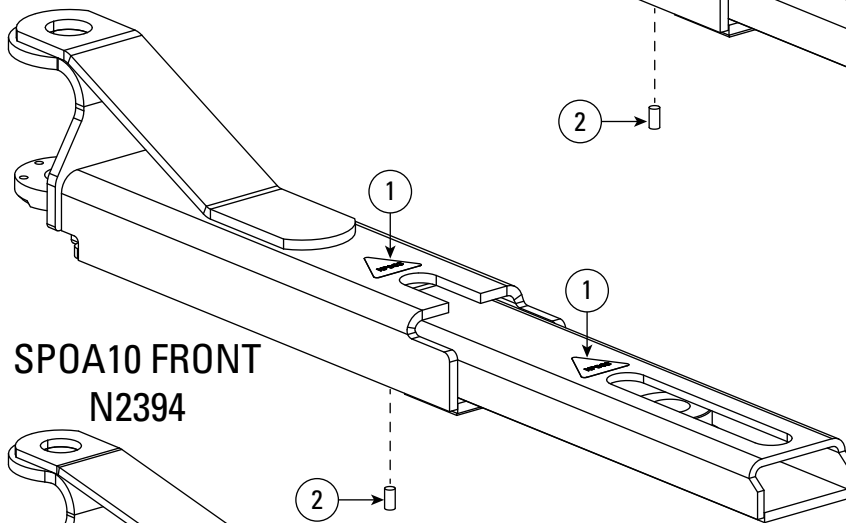
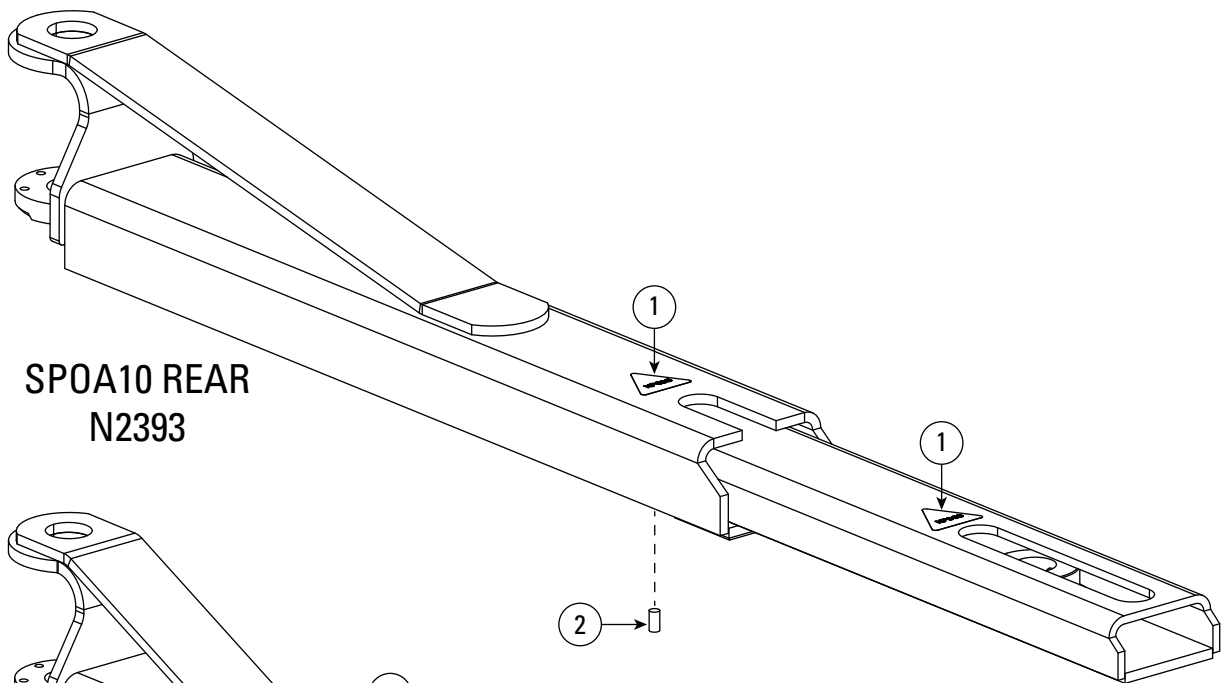
ITEM	QTY	PART NO.	DESCRIPTION
1	2	N219	STOP BOLT ASSEMBLY
2	1	N2336-1	7K 3-STAGE OUTER ARM WELDMENT
3	1	N2336-2	7K 3-STAGE INNER ARM WELDMENT
4	1	N2336-3	7K 3-STAGE MIDDLE ARM WELDMENT
5	2	NP623	ALWAYS USE ADAPTERS NAMEPLATE
6	2	NP874	CAPACITY NAMEPLATE
7	2	NP1039	USE TRUCK ADAPTERS NAMEPLATE



ITEM	QTY	PART NO.	DESCRIPTION
1	1	40157	3/8"-16NC x 3/4" Lg HEX SOC BHCS, GRD2
2	4	40174	1/4 x .475 BLIND RIVET McMASTER-CARR #97517A651 or EQ.
3	6	40192	#10-24NC x 3/4 Lg. PHILLIPS TRUSS HEAD SCREW, PLATED
4	6	40633	#10-24NC HEX FLGD WZLOCK NUT, PLTD
5	1	40843	3/8" INT TOOTH LW, PLTD
6	4	41202	5/32" x 1" Lg COTTER PIN
7	2	FC134-33	RAMP CHOCK SLIDE
8	2	FC5179-5	PIN
9	1	FJ2494	FRONT PAD RUBBER PAD
10	2	N2249	2-POST PAD LIFT RAMP WELDMENT
11	1	N2338-6	FRONT PAD INNER ARM WELDMENT
12	1	N2338-13	FRONT PAD INNER ARM ACTUATOR BAR
13	1	N2338-16	INNER ARM ACTUATOR ROD THUMB SCREW
14	1	N2339-1	LEFT HAND FRONT PAD WELDMENT
15	1	NP1039	USE TRUCK ADAPTER NAMEPLATE
16	1	NP623	RUBBER PAD ADAPTER NAMEPLATE
17	1	NP874	CAPACITY 1750 LBS NAMEPLATE
18	1	N2338	RIGHT HAND FRONT PAD WELDMENT

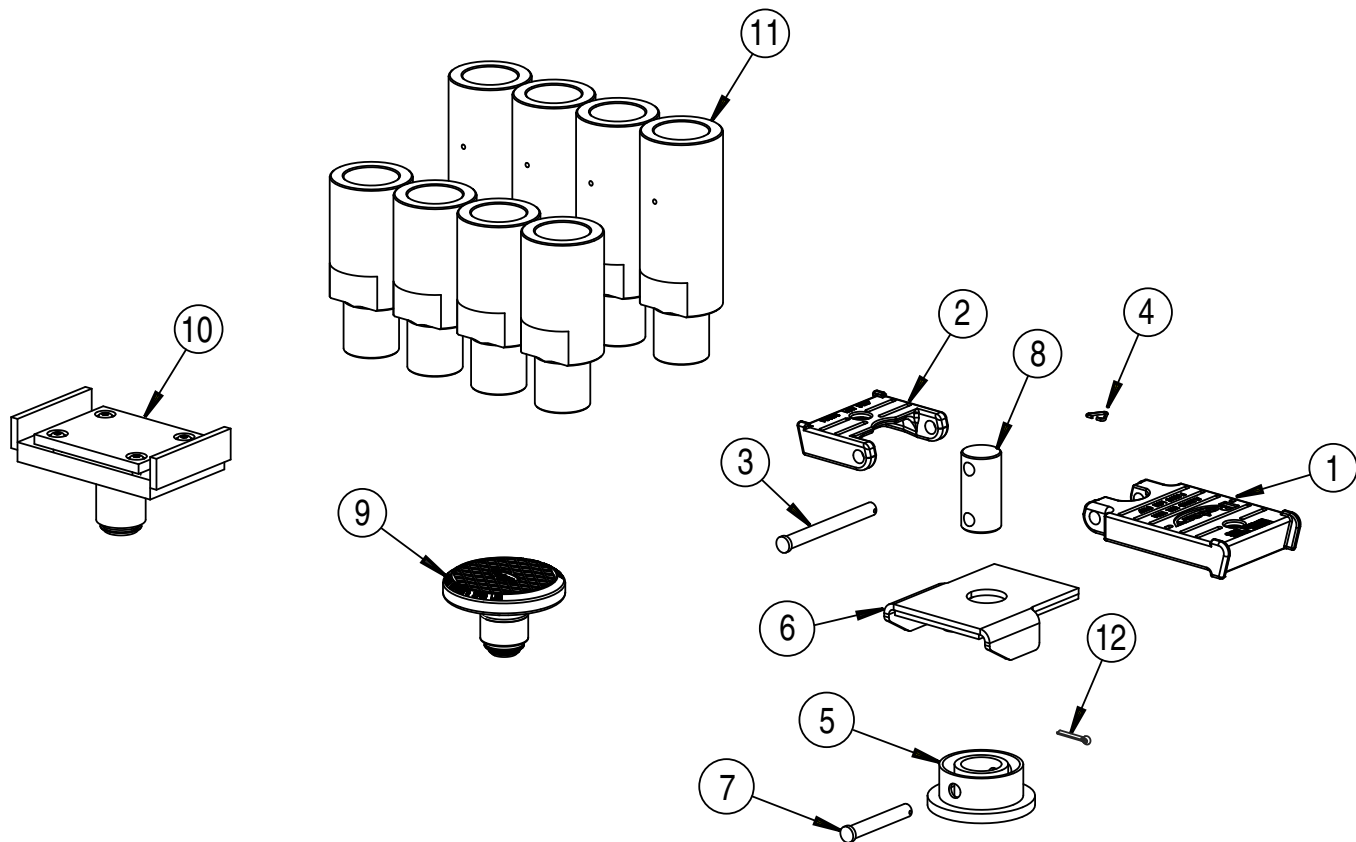


# 800, 1400, AND 1600 Series Arms Detail



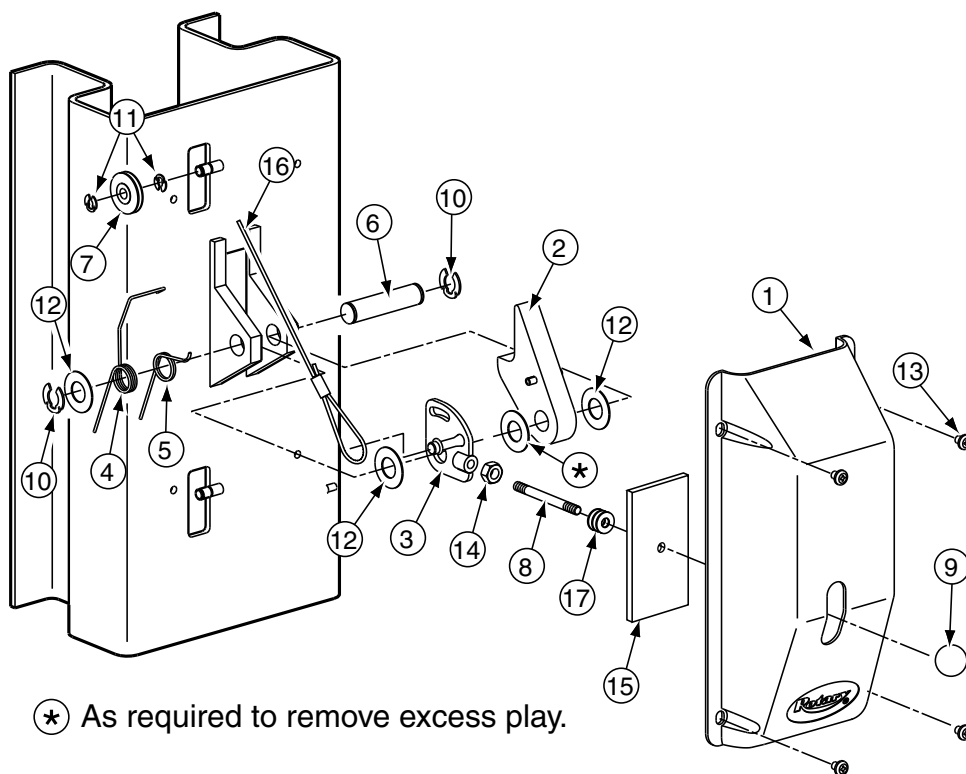
1.	Pinch Point Decal	NP663
2.	3/8-16 x 3/4" Set Screw**	40319
	1/2-13 x 3/4" Set Screw**	41746
**Set Screw Part Number Dependent Upon Specific Version		

## 800, 1400, AND 1600 Series Options Detail



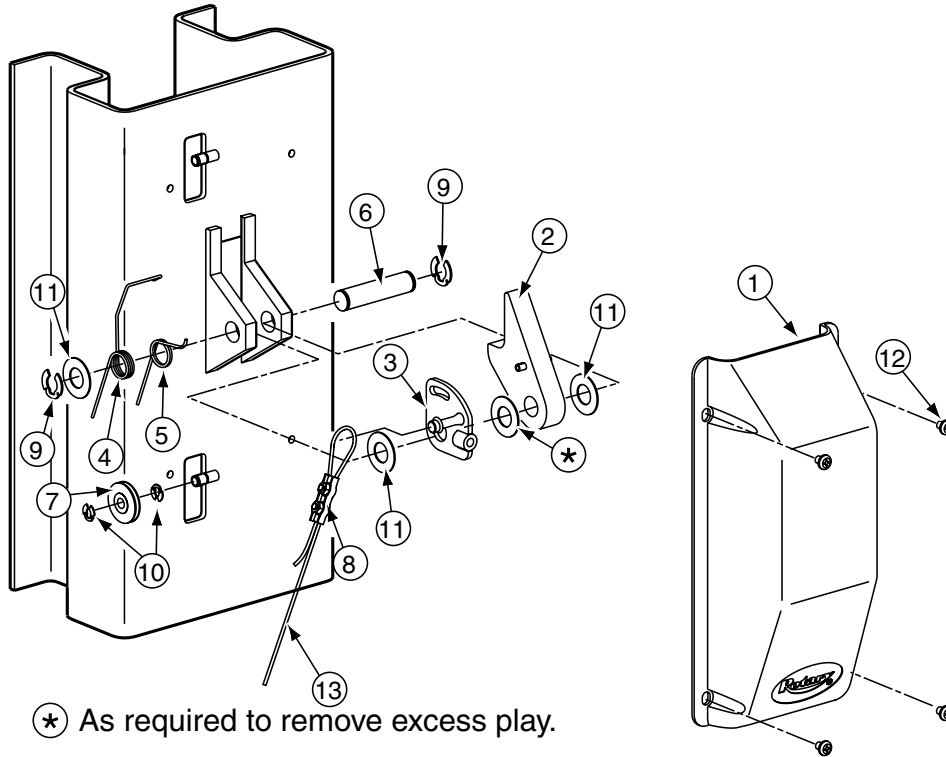
ITEM	DESCRIPTION	PART
1	High Step Adapter	FJ6177
2	Low Step Adapter	FJ6178
3	Adapter Pin	FJ6179
4	3/32" Hog Ring For 1/2" Shaft	FJ671-6
5	Adapter Insert	T120309
6	Load Plate Weldment	FJ6233
7	Adapter Insert Pin	T130669
8	Swivel Pin	T130668
9	Low Profile Round RA Adapter	FJ6219
10	Truck Adapter	T110564
11	Extension Adapter Kit (Sold Separately)	T100271
12	7/64" x 3/4" Cotter Pin	41205

## Locking Latch Detail (Right Column)

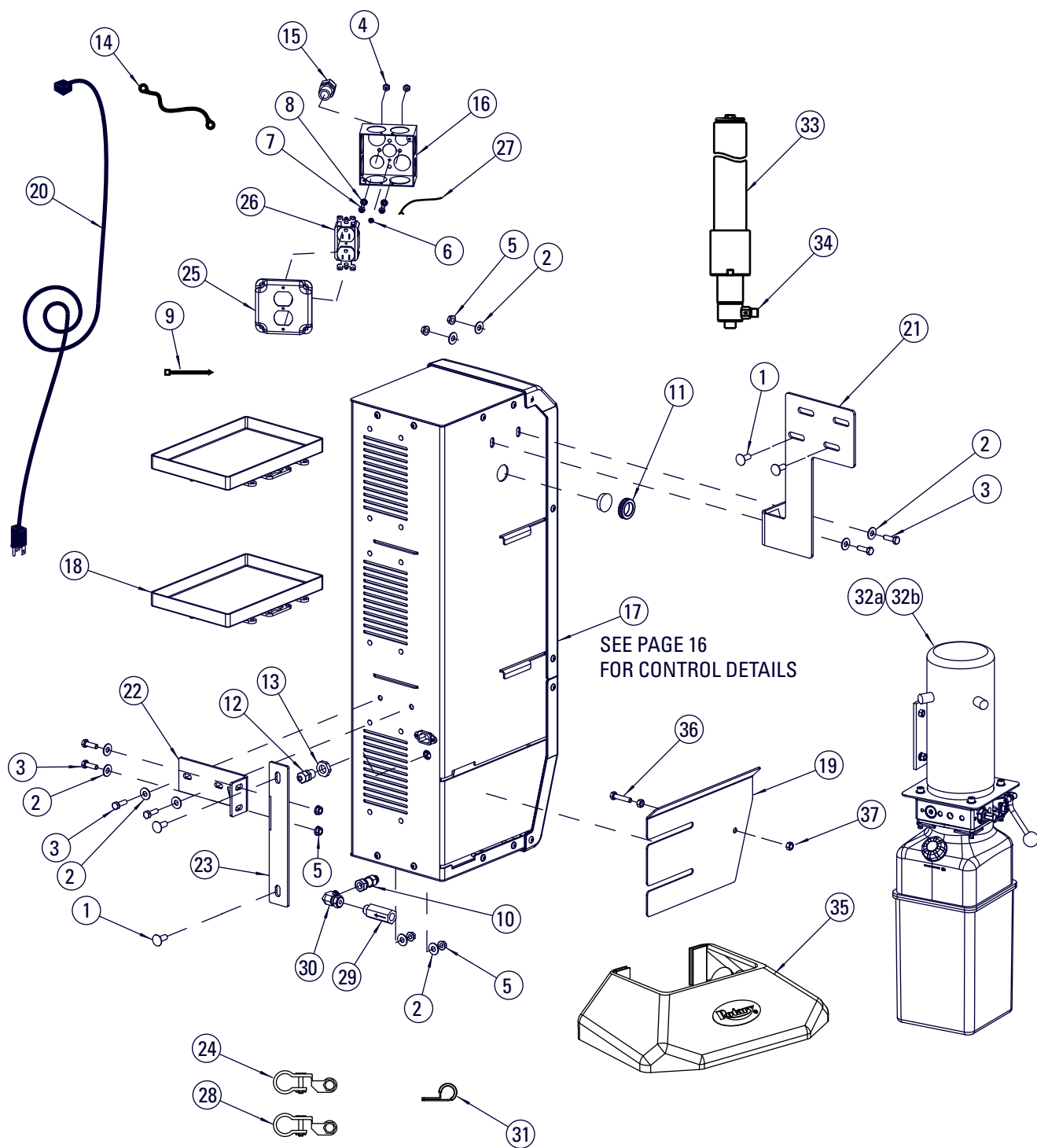


ITEM	DESCRIPTION	PART#
1.	Control Side Cover .....	FJ7452
2.	Locking Latch Dog .....	N616
3.	Control Plate .....	FJ7594-2
4.	Spring.....	FJ7566-10
5.	Spring.....	FJ7382-9
6.	Latch Shaft.....	FJ7382-34
7.	Locking Latch Sheave .....	FJ7322
8.	Handle.....	FJ7382-18
9.	Ball Handle.....	FC134-91
10.	Truarc Klipring #5304-75 for 3/4" Shaft.....	41411
11.	Truarc Klipring #5304-37 for 3/8" Shaft.....	41410
12.	1-1/2" O.D. x 3/4" I.D. x .045" Mach. Bush.....	41388
13.	5/16"-18NC x 3/8" Lg. PHMS .....	40227
14.	3/8" - 16NC Hex Jam Nut.....	40658
15.	Slot Cover.....	N617
16.	Locking Latch Cable .....	FJ7600
17.	3/8" Flat Washer .....	40820

## Locking Latch Detail (Left Column)



ITEM	DESCRIPTION	PART#
1.	Latch Cover.....	FJ7451
2.	Locking Latch Dog.....	N616
3.	Control Plate.....	FJ7594-2
4.	Spring.....	FJ7566-10
5.	Spring.....	FJ7382-9
6.	Latch Shaft.....	FJ7382-34
7.	Locking Latch Sheave.....	FJ7322
8.	Latch Cable Clamp.....	N63-1
9.	Truarc Klipring #5304-75 for 3/4" Shaft.....	41411
10.	Truarc Klipring #5304-37 for 3/8" Shaft.....	41410
11.	1-1/2" O.D. x 3/4" I.D. x .045" Mach. Bush.....	41388
12.	5/16"-18NC x 3/8" Lg. PHMS.....	40227
13.	Locking Latch Cable.....	FJ7600

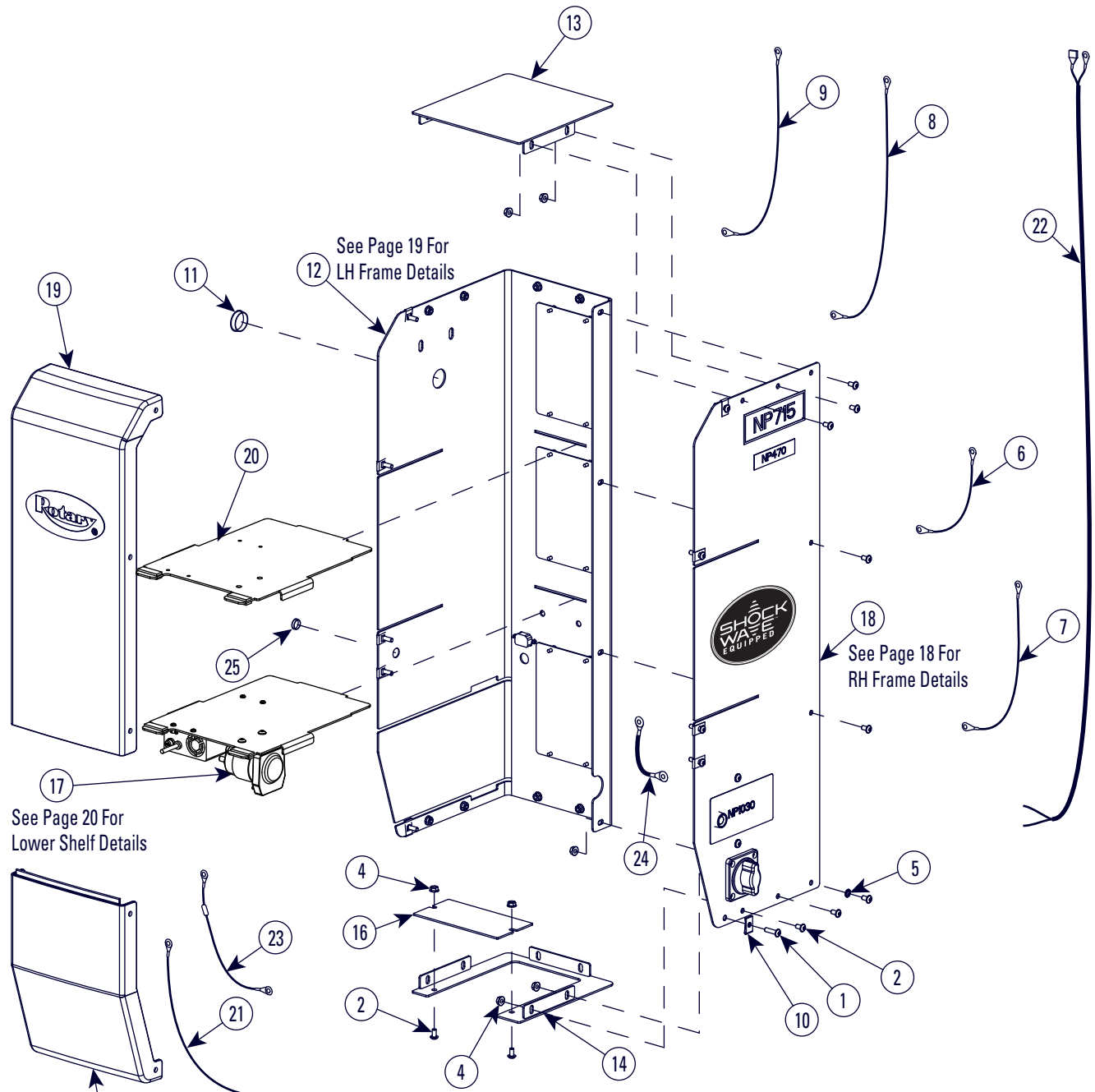


**DC CONTROL MOUNTING**

# Shockwave Detail

ITEM	PART NO.	DESCRIPTION
1	40167	3/8"-16NC x 1" Lg. CAR. BOLT, Gr. 5, PLTD.
2	40217	5/16" USS FLAT WASHER, PLTD
3	40221	5/16"-18NC x 1" Lg HHCS, GRD5 PLTD
4	40650	#12-24NC HEX NUT, PLTD
5	40678	5/16"-18NC HEX FLGD WZLOCK NUT, PLTD
6	FA997-1	#10-32 x 1/4" Lg. HEX WHSFTS, PLTD, COLORED GREEN
7	41526	#12-24NC x 3/4" Lg. PHIL. PHMS, PLTD
8	41527	#12 EXT TOOTH LW, PLTD
9	629888	TY-RAP CABLE TIE, NYLON, BLACK, 11 1
10	EFX60010319	ADAPTER, STRAIGHT THREAD/ SWIVEL (ORB/ORFS 6X6)
11	FA7180-31	WIRE GROMMET
12	FA7189-14	3/8" NPT STRAIN RELIEF
13	FA7189-15	3/8" NPT LOCKNUT
14	FA7616	BATTERY-BATTERY CABLE
15	FA7958-28	CORD GRIP
16	FA997	JUNCTION BOX
17	FA966	DC CONTROL ASSEMBLY
18	FA966-16	BATTERY TRAY
19	FA966-47	BATTERY CABINET 2-POST SPLASH SHIELD
20	FA966-51	10FT UNIVERSAL POWER CORD (NEMA 5-15P TO IEC320C13)
21	FA966-55	BATTERY CABINET UPPER MOUNTING BRKT WELD
22	FA966-56	BATTERY CABINET MOUNTING BRKT WELD
23	FA966-57	BATTERY CABINET MOUNTING COLUMN BRKT WELD
24	FA979	POSITIVE BATTERY TERMINAL END
25	FA980-1	DUPLEX RECEPTACLE COVER 4" SQUARE BOX
26	FA980-2	DUPLEX FEMALE RECEPTACLE
27	FA980-3	GROUND WIRE
28	FA981	NEGATIVE BATTERY TERMINAL END
29	FJ71003	FLOW REGULATOR
30	FJ71007	MALE ORFS x FEMALE ORFS SWIVEL ELBOW
31	FJ7669	COLUMN HOSE CLAMP
32a	P3577	DC POWER UNIT - PAD LIFT
32b	P3579	DC POWER UNIT - ARM LIFT
32c	P3586	DC POWER UNIT - SPO12
33	N3151Y	HYDRAULIC CYLINDER
34	FJ7352-3	ADAPTER
35	N539	BASE PLATE COVER (FOR SPOA10 & SPO10 MODELS ONLY)
36	40271	5/16"-18NC x 1-1/2" HHCS FULL THREAD
37	40670	5/16"-18NC HEX NUT

# Shockwave Detail

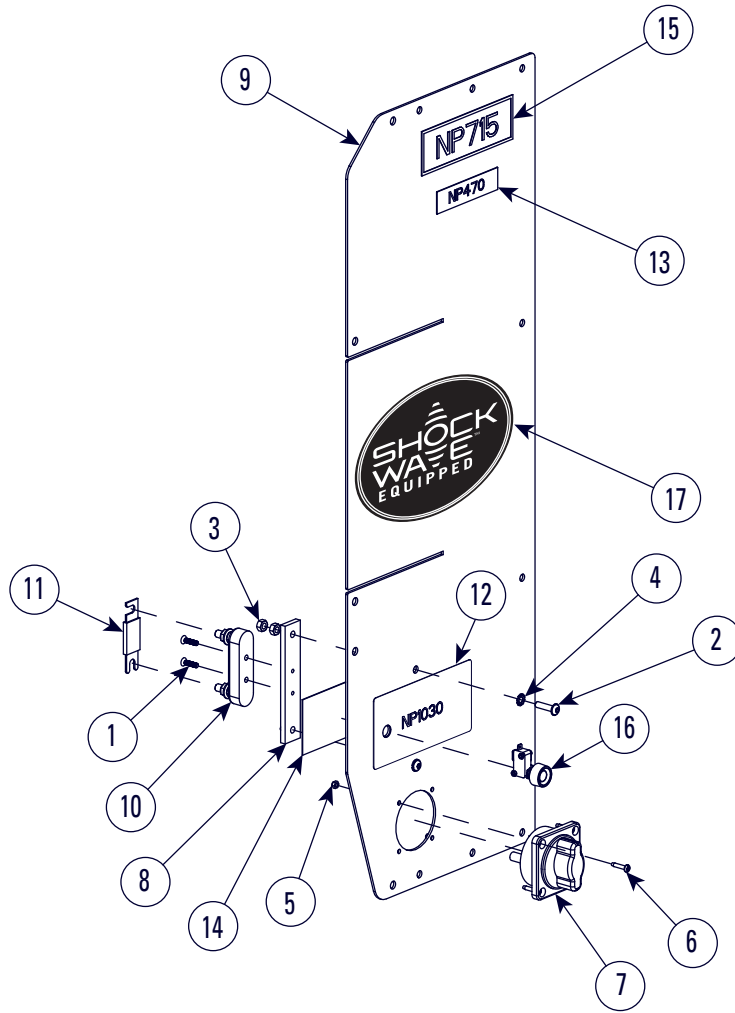


# Shockwave Detail

DC CONTROL		
ITEM	PART NO.	DESCRIPTION
1	40077	1/4"-20NC x 1" Lg FLGD HEX SOC BHCS, GRD2
2	40094	1/4"-20NC x 1/2" Lg FLGD HEX SOC BHCS
3	NA	NA
4	40641	1/4"-20NC HEX FLGD WZLOCK NUT, PLTD
5	40779	1/4" EXT TOOTH LW
6	FA7618	DISCONNECT-FUSE CABLE
7	FA7619	FUSE-CONTACTOR CABLE
8	FA7667	BATTERY-DISCONNECT CABLE
9	FA7668	BATTERY-MOTOR CABLE
10	FA966-22	CLIP-ON NUT
11	FA966-34	1-1/4" HOLE PLUG
12	FA966-37	BATTERY CABINET LH FRAME ASSY
13	FA966-39	BATTERY CABINET TOP COVER WELDMENT
14	FA966-42	BATTERY CABINET BOTTOM COVER WELDMENT
15	FA966-45	BATTERY CABINET FRONT BOTTOM COVER
16	FA966-46	BATTERY CABINET SMALL BOTTOM COVER
17	FA966-48	BATTERY CABINET LOWER SHELF ASSEMBLY
18	FA986-1	BATTERY CABINET RH FRAME ASSEMBLY
19	FA966-50	BATTERY CABINET FRONT TOP COVER ASSY
20	FA966-58	BATTERY CABINET SHELF WELD
21	FA970	CONTACTOR HARNESS
22	FA971	OVERHEAD HARNESS
23	FA978	DISCONNECT HARNESS
24	FA982	GROUND WIRE
25	FA966-60	TRANSPARENT HOLE PLUG

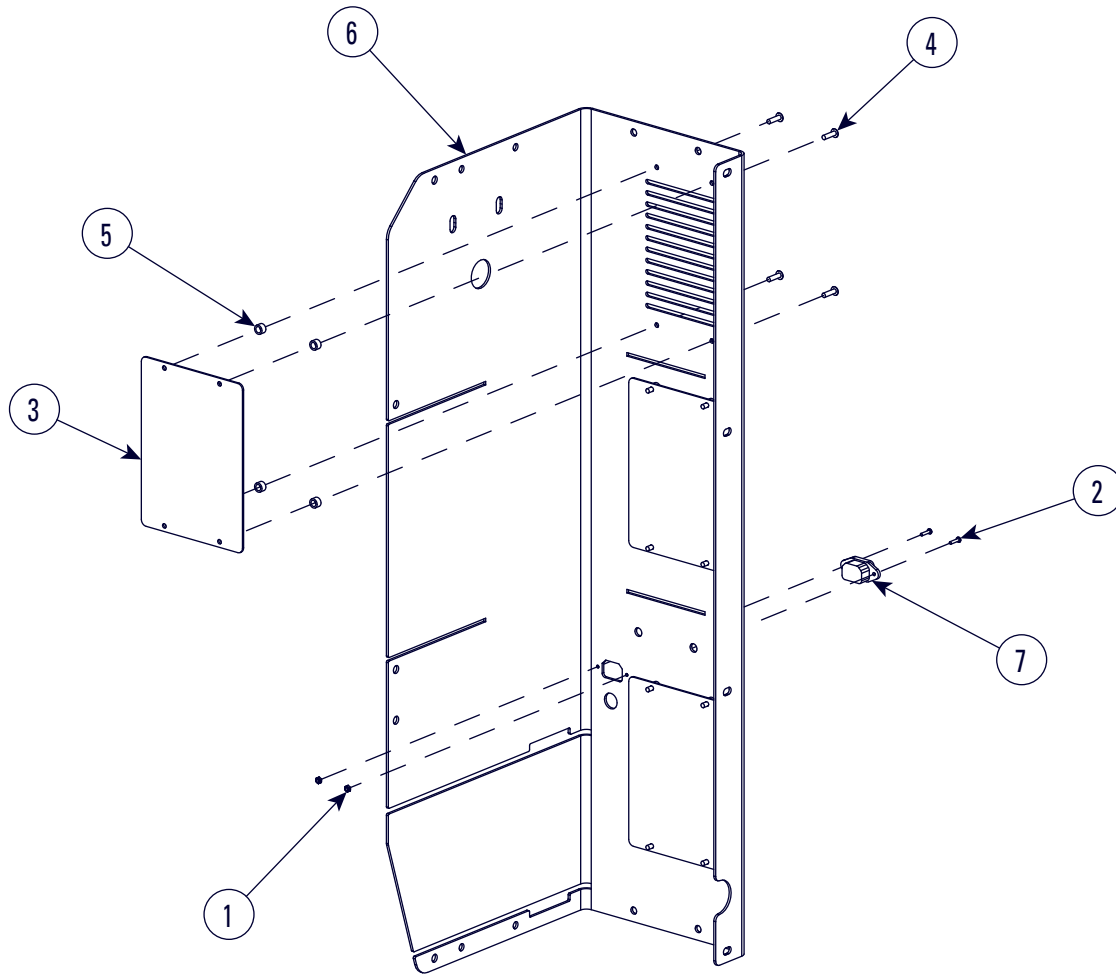


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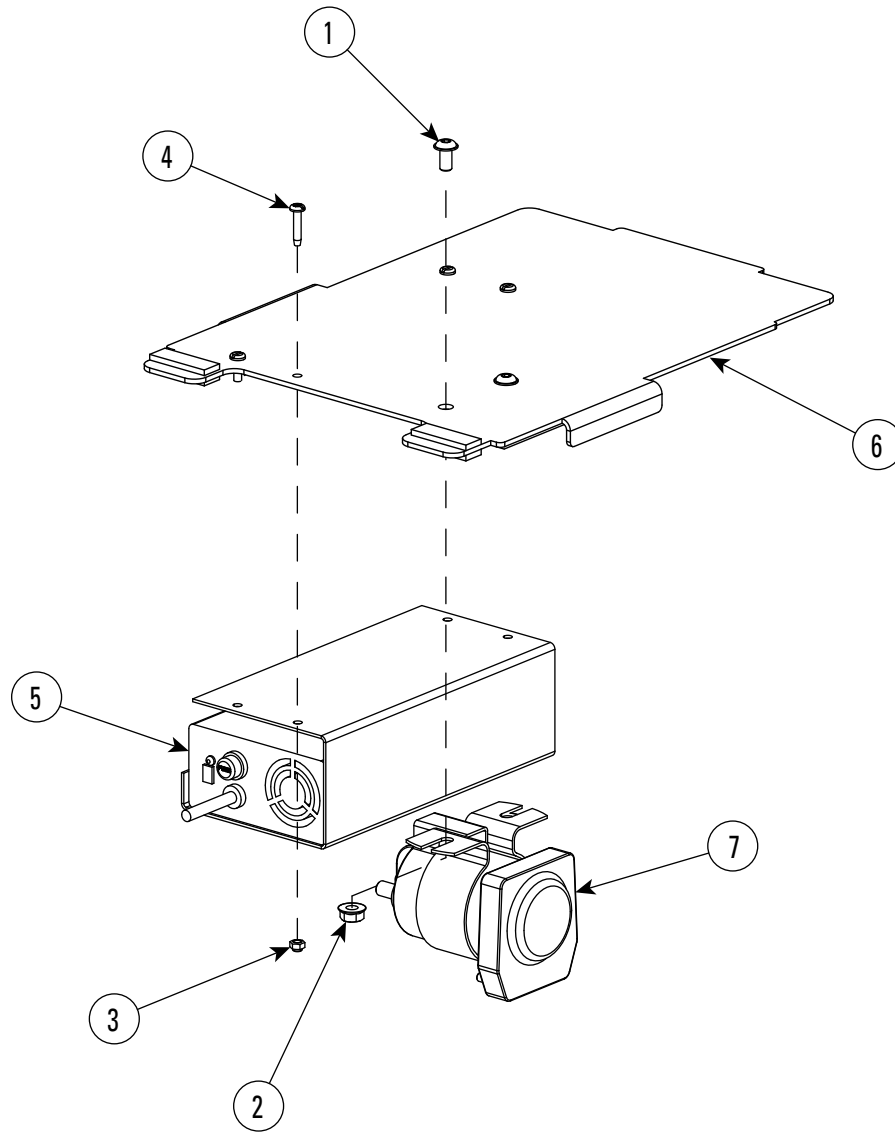
RIGHT HAND FRAME ASSEMBLY		
ITEM	PART NO.	DESCRIPTION
1	40004	#10-24 x 5/8 PFHMS, McMASTER-CARR # 90471A315 or EQUAL
2	40077	1/4"-20NC x 1" Lg FLGD HEX SOC BHCS, GRD2
3	40627	1/4"-20NC HEX NUT, PLTD
4	40779	1/4" EXT TOOTH LW
5	450957	#8-32NC NYLON LOCKNUTS
6	40022	#8-32NC X 1/2" Lg PHMS
7	FA7958-4	DC DISCONNECT SWITCH
8	FA966-8	FUSE HOLDER MOUNTING BRACKET
9	FA986-10	BATTERY CABINET RH FRAME
10	FA975	FUSE HOLDER
11	FA975-1	350 AMP FUSE
12	NP1030	PUSHBUTTON NAMEPLATE
13	NP470	MOTOR LOCATION WARNING LABEL
14	NP692	NAMEPLATE
	NP1066	NAMEPLATE
15	NP715	NAMEPLATE
16	P1483	LIMIT SWITCH ASSEMBLY
17	NP1067	SHOCKWAVE DECAL

# Shockwave Detail



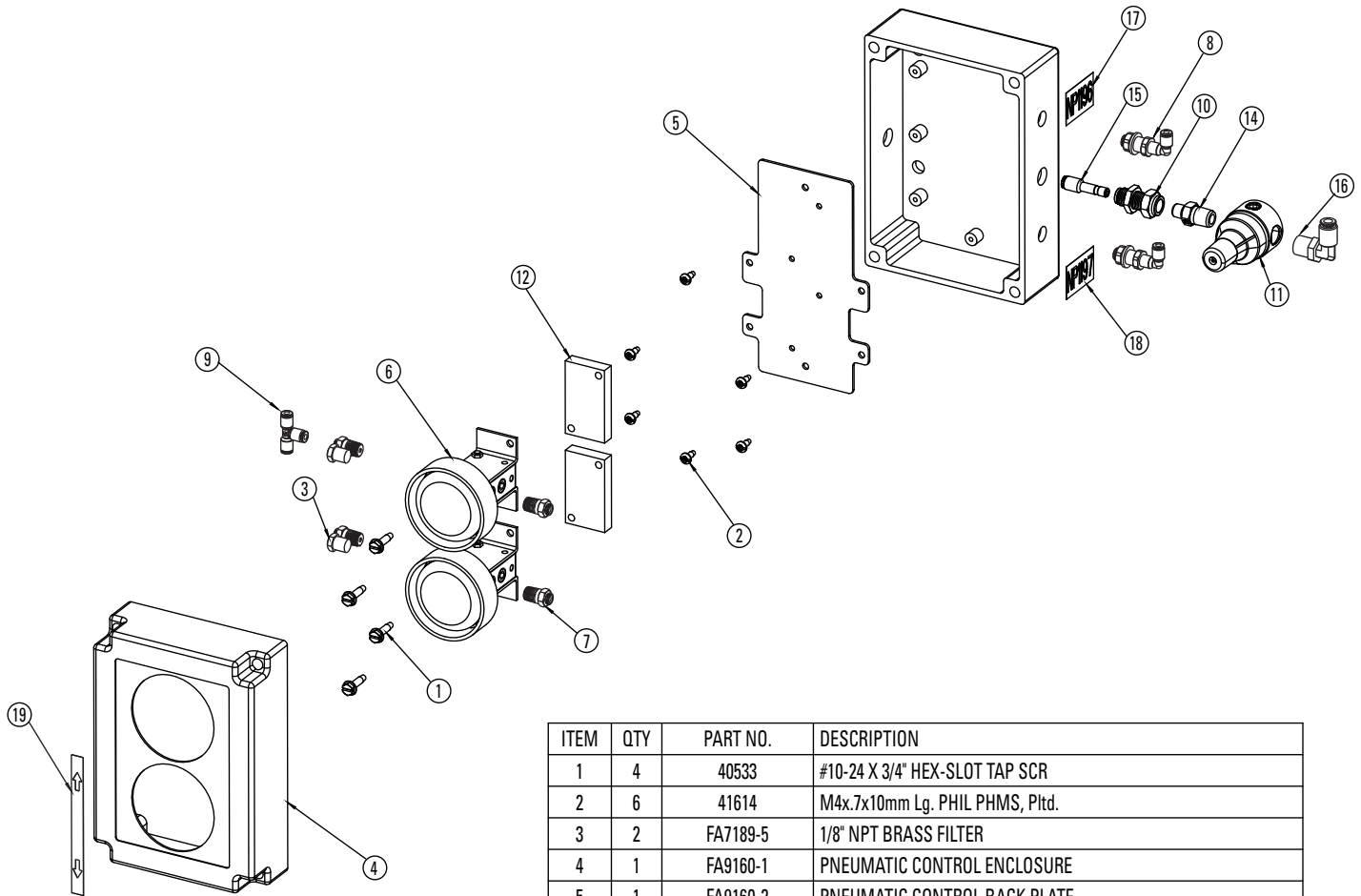
LEFT HAND FRAME ASSEMBLY		
ITEM	PART NO.	DESCRIPTION
1	41628	#4-40 NYLON INSERT LOCKNUT MMC #90633A005
2	796443	#4-40 x 1/2 Lg. PHMS, PLTD
3	FA966-17	SPLASH SHIELD
4	FA966-18	DOME HEAD RIVET
5	FA966-21	SPACER
6	FA966-52	BATTERY CABINET LH FRAME FORMING
7	FA983	CHARGER INTERNAL POWER CORD

# Shockwave Detail



LOWER SHELF ASSEMBLY		
ITEM	PART NO.	DESCRIPTION
1	40094	1/4"-20NC x 1/2" Lg FLGD HEX SOC BHCS
2	40641	1/4"-20NC HEX FLGD WZLOCK NUT, PLTD
3	450957	#8-32NC NYLON LOCK NUT
4	40022	#8-32NC x 1/2" LG. PHMS
5	FA966-62	24V 8A CHARGER ASSEMBLY
6	FA966-58	BATTERY CABINET SHELF WELD
7	FA976	DC CONTACTOR

# Pneumatic Control Panel



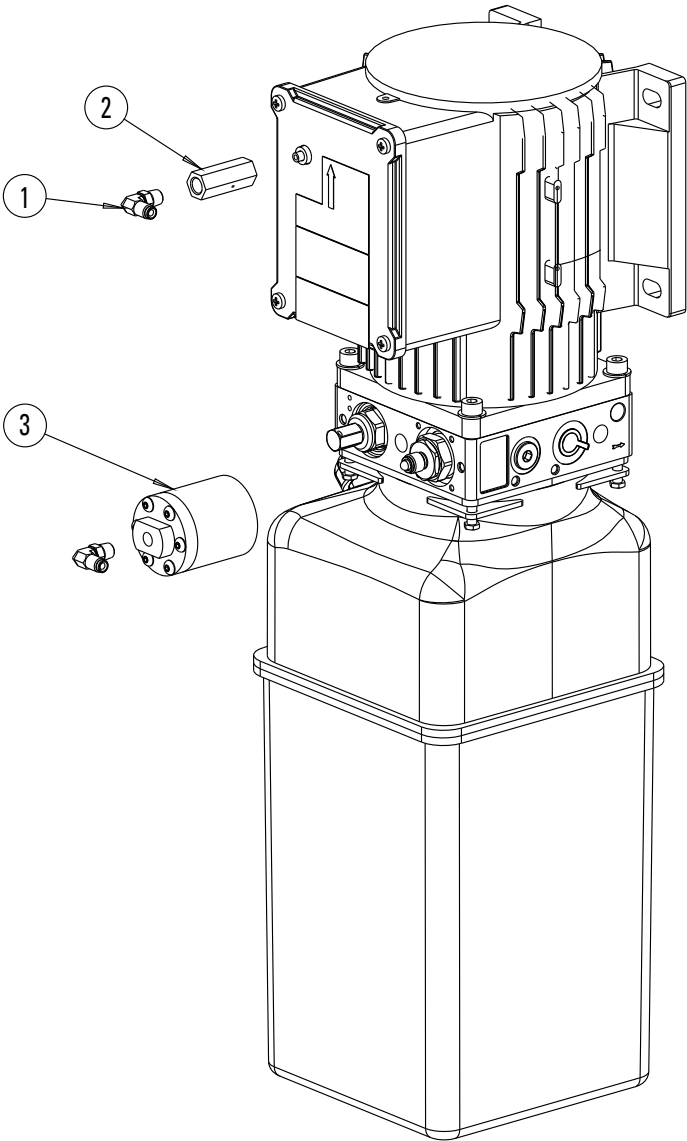
ITEM	QTY	PART NO.	DESCRIPTION
1	4	40533	#10-24 X 3/4" HEX-SLOT TAP SCR
2	6	41614	M4x.7x10mm Lg. PHIL PHMS, Pltd.
3	2	FA7189-5	1/8" NPT BRASS FILTER
4	1	FA9160-1	PNEUMATIC CONTROL ENCLOSURE
5	1	FA9160-2	PNEUMATIC CONTROL BACK PLATE
6	2	FA9160-3	LIGHT TOUCH PNEUMATIC ACTUATOR
7	4	FC67-97	STRAIGHT FITTING 5/32" TUBE TO 1/8" NPTF (MALE)
8	2	FA9160-14	SWIVEL ELBOW BULKHEAD FITTING FOR 5/32" TUBE
9	1	450932	UNION TEE FOR 5/32" PRESS-TO-LOCK
10	1	FA7189-4	THROUGH-WALL BULKHEAD ADAPTER 1/8" NPTF(F) TO 1/4" TUBE
11	1	FA9160-9	NON-ADJUSTABLE PRESSURE REGULATOR (40 PSI)
12	2	FA9160-10	SPACER
13	1	FA9160-15	5/32" O.D. AIR TUBE
14	1	FA9160-12	HEX NIPPLE 1/8" NPTF(M) TO 1/4" NPTF(M)
15	1	FA793-6	1/4" TO 5/32" TUBE END REDUCER
16	1	FC5341-90	MALE ELBOW CONNECTOR
17	1	NP1196	AIR OULET (RAISING) NAMEPLATE
18	1	NP1197	AIR OULET (LOWERING) NAMEPLATE
19	1	NP1200	DIRECTIONAL ARROWS NAMEPLATE

Note: FA9160-15 not shown

# Power Unit for use with Pneumatic Control Panel

60 Hz Model - P3666  
50 Hz Model - P3667

**Note:** P3666 and P3667 are identical to the standard single phase power unit except for the addition of the T140245 and FA9161.



ITEM	QTY	PART NO.	DESCRIPTION
1	2	FA793-3	SWIVEL ELBOW 1/8" NPTF (MALE) TO 5/32" TUBE
2	1	FA9161	AIR TO ELECTRIC SWITCH
3	1	T140245	PNEUMATIC ACTUATOR





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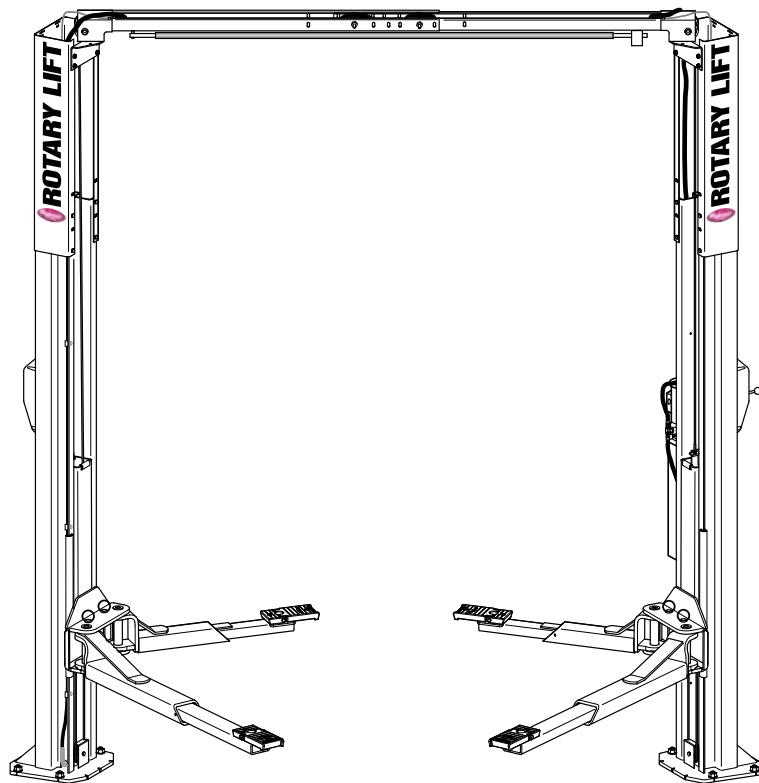
# SPOA10NB, SPOA10, SP010

(500-1600 Series Lifts & Shockwave™ Models)

## SPOA7

(500-1400 Series Lifts)

SPOA7	Capacity 7,000 lbs. (3,175 kg.)
SPOA9, SP09	Capacity 9,000 lbs. (4,082 kg.)
SPOA10NB, SPOA10, SP010	Capacity 10,000 lbs. (4,536 kg.)



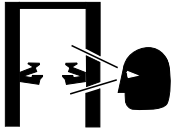
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Approved Accessories.....	65

**Installer: Please return this booklet to literature package and give to lift owner/operator.**

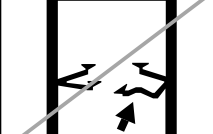
## SAFETY INSTRUCTIONS

### SAFETY INSTRUCTIONS



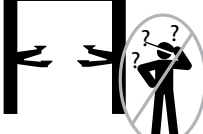
Proper maintenance and inspection is necessary for safe operation. ©

### SAFETY INSTRUCTIONS



Do not operate a damaged lift. ©

### CAUTION



Lift to be used by trained operator only. ©

- Daily inspect your lift. Never operate if it malfunctions or if it has broken or damaged parts. Use only qualified lift service personnel and genuine Rotary parts to make repairs.
- Thoroughly train all employees in use and care of lift, using manufacturer's instructions and "Lifting It Right" and "Safety Tips" supplied with the lift.
- Never allow unauthorized or untrained persons to position vehicle or operate lift.
- Prohibit unauthorized persons from being in shop area while lift is in use.
- Do Not permit anyone on lift or inside vehicle when it is either being raised or lowered.
- Always keep area around lift free of tools, debris, grease and oil.
- Never overload lift. Capacity of lift is shown on nameplate affixed to the lift.
- Do Not stand in front of the vehicle while it is being positioned in lift bay.
- Do Not hit or run over lift arms or adapters. This could damage lift or vehicle. Before driving vehicle into lift bay, position arms and adapters to provide unobstructed entrance onto lift.
- Load vehicle on lift carefully. Position lift adapters to contact at the vehicle manufacturer's recommended lift points. Raise lift until adapters contact vehicle. Check adapters for secure contact with vehicle. Raise lift to desired working height.

### CAUTION

DO NOT go under vehicle if locking latches are not engaged.

- Do Not block open or override self-closing lift controls; they are designed to return to the "Off" or Neutral position when released.
- Do Not remove or disable arm restraints.
- Remain clear of lift when raising or lowering vehicle.
- Always use safety stands when removing or installing heavy components.
- Avoid excessive rocking of vehicle while on lift.
- Clear area if vehicle is in danger of falling.
- Remove tool trays, stands, etc. before lowering lift.
- Release locking latches before attempting to lower lift.
- Position lift arms and adapters to provide an unobstructed exit before removing vehicle from lift area.

### CAUTION



Authorized personnel only in lift area. ©

### SAFETY INSTRUCTIONS



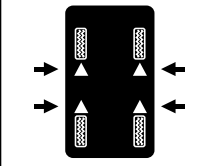
Read operating and safety manuals before using lift. ©

### WARNING



Position vehicle with center of gravity midway between adapters. ©

### CAUTION



Use vehicle manufacturer's lift points. ©

### WARNING



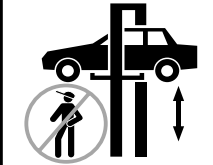
Do not override self-closing lift controls. ©

### WARNING



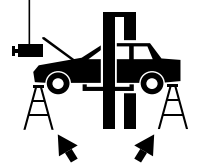
Position vehicle with center of gravity midway between adapters. ©

### WARNING



Remain clear of lift when raising or lowering vehicle. ©

### CAUTION



Always use safety stands when removing or installing heavy components. ©

### WARNING



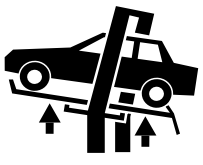
Avoid excessive rocking of vehicle while on lift. ©

### WARNING



Clear area if vehicle is in danger of falling. ©

### CAUTION



Auxiliary adapters may reduce load capacity. ©

## The Owner/Employer:



- Shall ensure that lift operators are qualified and that they are trained in the safe use and operation of the lift using the manufacturer's operating instructions; ALI/SM01-1, ALI Lifting it Right safety manual; ALI/ST-90 ALI Safety Tips card; ANSI/ALI ALOIM-2008, American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance; ALI/WL Series, ALI Uniform Warning Label Decals/Placards; and in the case of frame engaging lifts, ALI/LP-GUIDE, Vehicle Lifting Points/Quick Reference Guide for Frame Engaging Lifts.
- Shall establish procedures to periodically inspect the lift in accordance with the lift manufacturer's instructions or ANSI/ALI ALOIM-2008, American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance; and The Employer Shall ensure that lift inspectors are qualified and that they are adequately trained in the inspection of the lift.
- Shall establish procedures to periodically maintain the lift in accordance with the lift manufacturer's instructions or ANSI/ALI ALOIM-2008, American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance; and The Employer Shall ensure that lift maintenance personnel are qualified and that they are adequately trained in the maintenance of the lift.
- Shall maintain the periodic inspection and maintenance records recommended by the manufacturer or ANSI/ALI ALOIM-2008, American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance.
- Shall display the lift manufacturer's operating instructions; ALI/SM 93-1, ALI Lifting it Right safety manual; ALI/ST-90 ALI Safety Tips card; ANSI/ALI ALOIM-2008, American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance; and in the case of frame engaging lifts, ALI/LP-GUIDE, Vehicle Lifting Points/Quick Reference Guide for Frame Engaging Lifts; in a conspicuous location in the lift area convenient to the operator.
- Shall provide necessary lockout/tagout means for energy sources per ANSI Z244.1-1982 (R1993), Safety Requirements for the Lockout/Tagout of Energy Sources, before beginning any lift repairs.
- Shall not modify the lift in any manner without the prior written consent of the manufacturer.

## OPERATING CONDITIONS

Lift is not intended for outdoor use and has an operating ambient temperature range of 41°-104°F (5°-40°C).

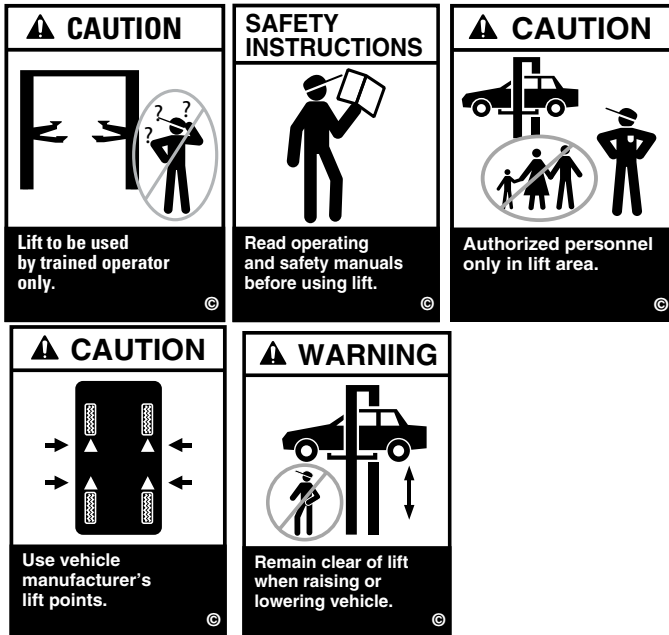
## OPERATING INSTRUCTIONS

### ⚠ WARNING

To avoid personal injury and/or property damage, permit only trained personnel to operate lift. After reviewing these instructions, get familiar with lift controls by running the lift through a few cycles before loading vehicle on lift.

### IMPORTANT

Always lift the vehicle using all four adapters. NEVER raise just one end, one corner, or one side of vehicle.



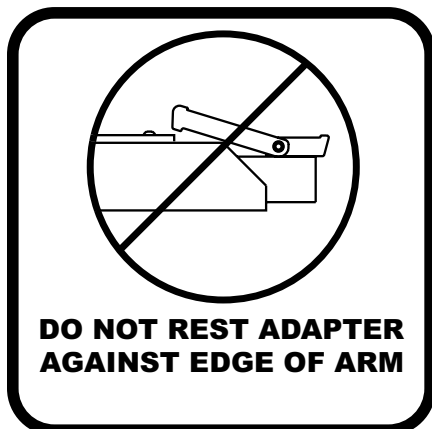
Observe and heed Safety, CAUTION and Warning labels on the lift.

1. Before Loading: Lift must be fully lowered and service bay clear of all personnel before the vehicle is brought on lift. Swing arms out to full drive-thru position.
2. Spot vehicle over lift with left front wheel in proper spotting position, Fig. 1.
3. Loading: Swing arms under vehicle and position adapters at vehicle manufacturer's recommended lift points, Fig. 2. Use intermediate, high step, or optional adapters for under body clearance when required.

Note: Allow (2) seconds between motor starts. Failure to comply may cause motor burnout.

### IMPORTANT

DO NOT rest adapter against edge of arm.



#### 4. To Raise Lift:

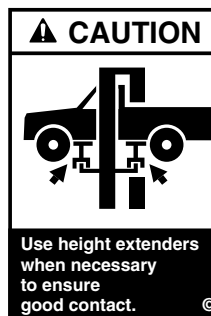
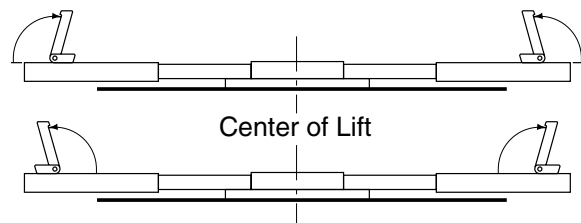
- A. For all lifts. Push Raise switch on power unit, Fig. 3.
- B. Stop before making contact with vehicle. Check arm restraint pins for engagement. If required, slightly move arm to allow restraint gear and pawl to mesh. DO NOT hammer pin down as this will damage the restraint gear teeth.
- C. Raise vehicle until tires clear the floor.
- D. Stop and check adapters for secure contact at vehicle manufacturer's recommended lift points.
- E. Continue to raise to desired height only if vehicle is secure on lift.
- F. Do Not go under vehicle if all four adapters are not in secure contact at vehicle manufacturer's recommended lift points.
- G. Repeat complete spotting, loading and raising procedures if required.
- H. Lower lift onto locking latches.

\*Maximum operation pressure is:

2103 psi (14500 kPa) for SPOA7

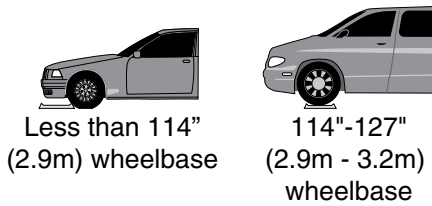
2755 psi (18995 kPa) for SPO9, SPOA9

2755 psi (18995 kPa) for SPO10, SPOA10, SPOA10NB



## Typical Wheel Spotting Postions

### Front Wheel Drive Vehicles



### Rear Wheel and 4 Wheel Drive Vehicles

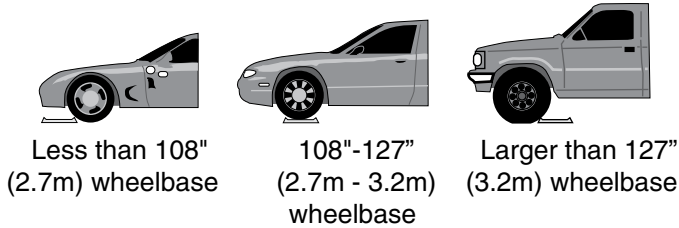
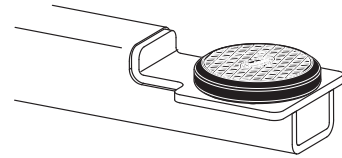


Fig. 1

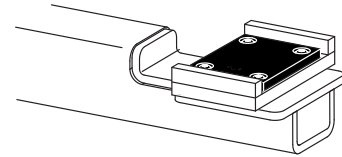
### WARNING

Most specialty or modified vehicles cannot be raised on a frame engaging lift. Contact vehicle manufacturer for raising or jacking details.

## Rubber Adapter Usage



This style adapter only for use on Unibody Vehicles.



This style adapter must be used when lifting Pickup Truck Frame, Stub Frame and Perimeter Frame Vehicles.

### IMPORTANT

Adapter extensions are furnished in 3-1/2" (89mm) & 5" (127mm) increments. The stack-up height should not exceed 10-1/2" (267mm). Use adapter extension combination to keep vehicle as level as possible while it is being supported by the lift.

## Typical Lifting Points

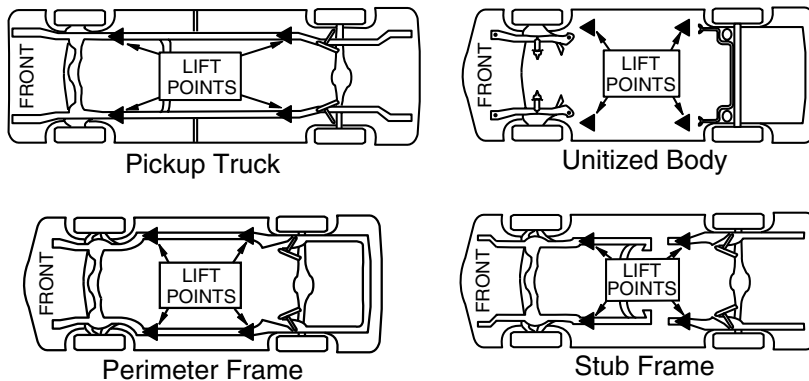
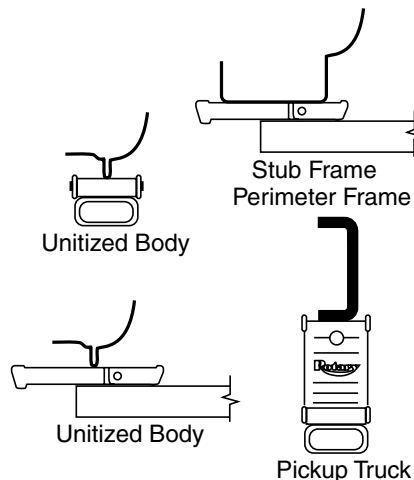
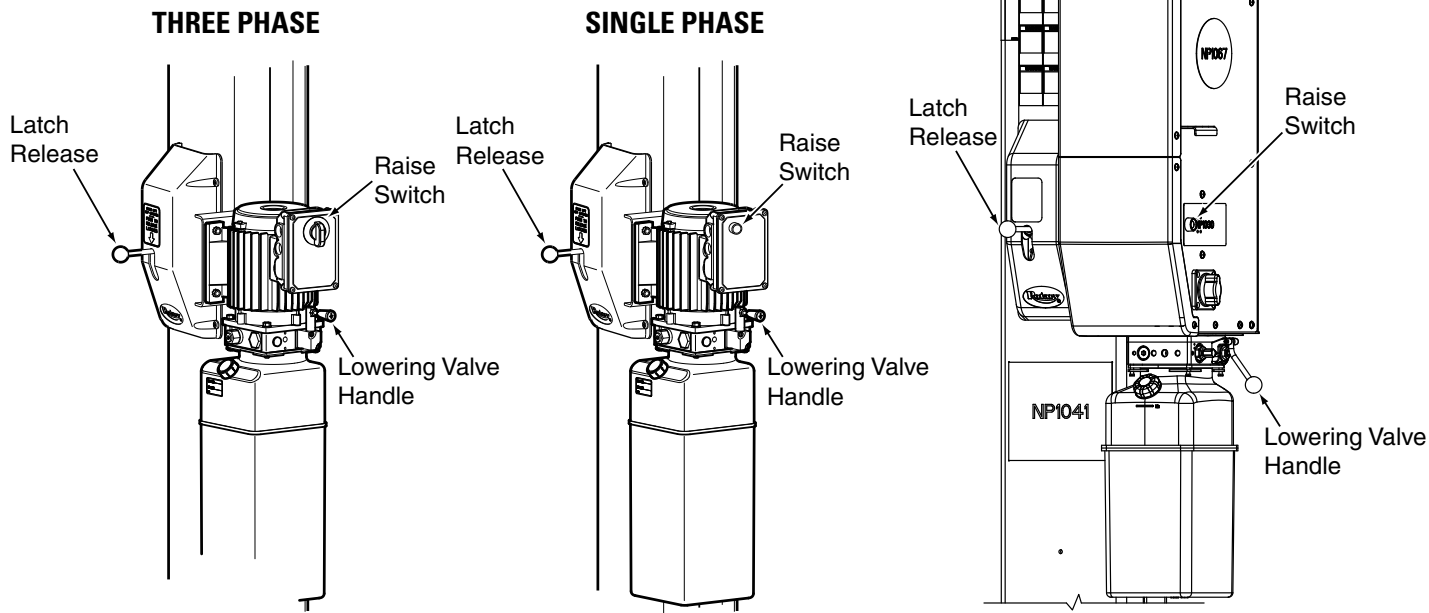


Fig. 2

NOTE: Some vehicles may have the manufacturer's Service Garage Lift Point locations identified by triangle shape marks on it's undercarriage (reference ANSI/SAE J2184-1992). Also, there may be a label located on the right front door lock face showing specific vehicle lift points. If the specific vehicle lift points are not identified, refer to the "Typical Lift Points" illustrated herein. ALWAYS follow the operating instructions supplied with the lift.



**Fig. 3**





DO NOT go under vehicle if locking latches are not engaged.



Before attempting to lift pickup trucks or other truck frame vehicles, be sure that:

- A. Vehicle frame is strong enough to support it's weight and has not been weakened by modification or corrosion.
- B. Vehicle individual axle weight does not exceed one-half lift capacity.
- C. Adapters are in secure contact with frame at vehicle manufacturers recommended lift points.
- D. Vehicle is stable on lift and neither front nor "tail" heavy.
- E. The overhead switch bar will contact the highest point on the vehicle.
- F. Rotate front and rear adapter to oppose each other when using the high step adapter and/or any auxiliary height extending adapter.

5. While Using Lift:

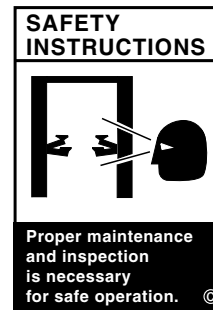
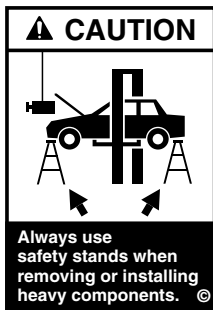
- A. Avoid excessive rocking of vehicle while on lift.
- B. Always use safety stands as needed or when removing or installing heavy components.

6. To Lower Lift:

- A. Remove all tools or other objects from lift area.
- B. Raise lift off locking latches.
- C. Pull latch release handle fully and hold.
- D. Push lowering valve handle to lower, Fig. 3.

Note: Both latch release and lowering valve handles are deadman-type design. Each must be held down to lower lift. Do not override self-closing lift controls.

7. Remain clear of lift when lowering vehicle. Observe pinch point warning decals.
8. Remove adapters from under vehicle and swing arms to full drive-thru position before moving vehicle.
9. If lift is not operating properly, Do Not use until adjustment or repairs are made by qualified lift service personnel.



## MAINTENANCE INSTRUCTIONS

If you are not completely familiar with automotive lift maintenance procedures; **STOP**: Contact factory for instructions. To avoid personal injury, permit only qualified personnel to perform maintenance on this equipment.

- Always keep bolts tight. Check periodically.
- Always keep lift components clean.
- Always if oil leakage is observed, call local service representative.
- Always if electrical problems develop, call local service representative.
- Daily: Check cables and sheaves for wear. Observe for frayed cable strands. Wipe cables with a rag to detect hard to see small broken cable strands. Replace cables showing any broken strands. Replace worn parts as required with genuine Rotary parts.
- Daily: Inspect adapters for damage or excessive wear. Replace as required with genuine Rotary parts.
- Monthly: Check equalizer cable tension. Adjust per lift installation instructions. If there are no more threads available for adjustment, replace the cable. Do not use washers to stand off the nut to use previously used threads.
- Monthly: Lubricate arm pins with lubricating oil unless lubricating with grease or anti-seize on a semi-annual basis.
- Monthly: Lubricate locking latch shafts. Push latch handle several times for oil to penetrate pivot points.
- Every 3 Months: Check anchor bolts for tightness. Anchors should be torqued to 65 ft/lbs (88 Nm).
- Semi-Annually: Check fluid level of lift power unit and refill if required per lift installation instructions.
- Replace all caution, warning or safety related decals on the lift if unable to read or missing. Reorder labels from Rotary Lift.

### Column Greasing:

Two post lifts finished with powder coat must have grease applied to the columns. Columns need to be re-greased every 5000 cycles or six months, whichever comes sooner. If your lift has a model number that matches the following table, grease the columns with either Lighting grease, Tuf Oil, Sil Glide, or an equivalent grease.


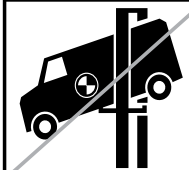
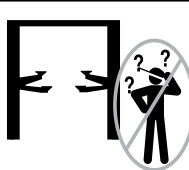


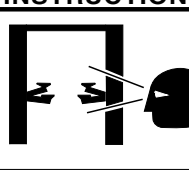
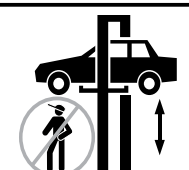

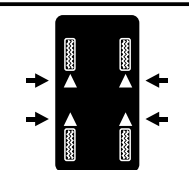
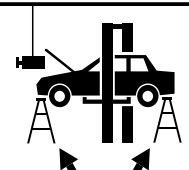
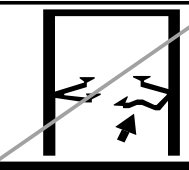

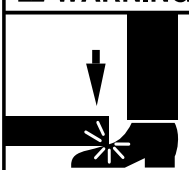
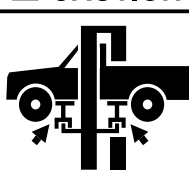

Lift	Series	Model Num
SPOA7	1000	SPOA7x10xx
	1100	SPOA7x11xx
	1200	SPOA7x12xx
	1400	SPOA7x14xx
SPO10	1000	SPO10X10xx
	1100	SPO10X11xx
	1200	SPO10X12xx
	1500	SPO10X14xx
	1600	SPO10X16xx
SPOA10	1000	SPOA10x10xx
	1100	SPOA10x11xx
	1200	SPOA10x12xx
	1500	SPOA10x14xx
	1600	SPOA10x16xx

Apply the grease to the columns by wiping on a thin layer and polishing with a rag. Only apply grease on surfaces of the columns where the slider blocks make contact. Be careful not to apply too much grease, only a thin layer is needed, wipe off excess.



## INSPECTION and MAINTENANCE

See ANSI/ALI ALOIM booklet for periodic inspection checklist and maintenance log sheet.

<p><b>⚠ WARNING</b></p>  <p><b>Clear area if vehicle is in danger of falling.</b></p> <p style="text-align: right;">©</p>	<p><b>⚠ WARNING</b></p>  <p><b>Position vehicle with center of gravity midway between adapters.</b></p> <p style="text-align: right;">©</p>	<p><b>⚠ CAUTION</b></p>  <p><b>Lift to be used by trained operator only.</b></p> <p style="text-align: right;">©</p>	<p><b>⚠ CAUTION</b></p>  <p><b>Authorized personnel only in lift area.</b></p> <p style="text-align: right;">©</p>	<p><b>SAFETY INSTRUCTIONS</b></p>  <p><b>Read operating and safety manuals before using lift.</b></p> <p style="text-align: right;">©</p>	<p><b>SAFETY INSTRUCTIONS</b></p>  <p><b>Proper maintenance and inspection is necessary for safe operation.</b></p> <p style="text-align: right;">©</p>
<p><b>⚠ WARNING</b></p>  <p><b>Remain clear of lift when raising or lowering vehicle.</b></p> <p style="text-align: right;">©</p>	<p><b>⚠ WARNING</b></p>  <p><b>Avoid excessive rocking of vehicle while on lift.</b></p> <p style="text-align: right;">©</p>	<p><b>⚠ CAUTION</b></p>  <p><b>Use vehicle manufacturer's lift points.</b></p> <p style="text-align: right;">©</p>	<p><b>⚠ CAUTION</b></p>  <p><b>Always use safety stands when removing or installing heavy components.</b></p> <p style="text-align: right;">©</p>	<p><b>SAFETY INSTRUCTIONS</b></p>  <p><b>Do not operate a damaged lift.</b></p> <p style="text-align: right;">©</p>	
<p>The messages and pictographs shown are generic in nature and are meant to generally represent hazards common to all automotive lifts regardless of specific style.</p> <p>Funding for the development and validation of these labels was provided by the Automotive Lift Institute, PO Box 33116 Indianalantic, FL, 32903-3116.</p> <p>They are protected by copyright. Set of labels may be obtained from ALI or its member companies.</p> <p style="text-align: right;">© 1992 by ALI, Inc. ALI/WL101w</p>					
<p><b>⚠ WARNING</b></p>  <p><b>Do not override self-closing lift controls.</b></p> <p style="text-align: right;">©</p>	<p><b>⚠ WARNING</b></p>  <p><b>Keep feet clear of lift while lowering.</b></p> <p style="text-align: right;">©</p>	<p><b>⚠ CAUTION</b></p>  <p><b>Use height extenders when necessary to ensure good contact.</b></p> <p style="text-align: right;">©</p>	<p><b>⚠ CAUTION</b></p>  <p><b>Auxiliary adapters may reduce load capacity.</b></p> <p style="text-align: right;">©</p>	<p>The messages and pictographs shown are generic in nature and are meant to generally represent hazards common to all automotive lifts regardless of specific style.</p> <p>Funding for the development and validation of these labels was provided by the Automotive Lift Institute, PO Box 33116 Indianalantic, FL, 32903-3116.</p> <p>They are protected by copyright. Set of labels may be obtained from ALI or its member companies.</p> <p style="text-align: right;">© 1992 by ALI, Inc. ALI/WL101c</p>	

## TROUBLE SHOOTING

<b>Trouble</b>	<b>Cause</b>	<b>Remedy</b>
Motor does not run.	<ol style="list-style-type: none"> <li>1. Blown fuse or circuit breaker.</li> <li>2. Incorrect voltage to motor.</li> <li>3. Bad wiring connections.</li> <li>4. Motor up switch burned out.</li> <li>5. Overhead limit switch burned out.</li> <li>6. Motor windings burned out.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace blown fuse or reset circuit breaker.</li> <li>2. Supply correct voltage to motor.</li> <li>3. Repair and insulate all connections.</li> <li>4. Replace switch.</li> <li>5. Replace switch.</li> <li>6. Replace motor.</li> </ol>
Motor runs but will not raise lift.	<ol style="list-style-type: none"> <li>1. Open lowering valve.</li> <li>2. Pump sucking air.</li> <li>3. Suction stub off pump.</li> <li>4. Low oil level.</li> </ol>	<ol style="list-style-type: none"> <li>1. Repair or replace lowering valve.</li> <li>2. Tighten all suction line fittings.</li> <li>3. Replace suction stub.</li> <li>4. Fill tank to proper level with ISOVG32 Hydraulic Oil or Dexron III ATF.</li> </ol>
Motor runs—raises unloaded lift but will not raise vehicle.	<ol style="list-style-type: none"> <li>1. Motor running on low voltage.</li> <li>2. Debris in lowering valve.</li> <li>3. Improper relief valve adjustment.</li> <li>4. Overloading lift.</li> </ol>	<ol style="list-style-type: none"> <li>1. Supply correct voltage to motor.</li> <li>2. Clean lowering valve.</li> <li>3. Replace relief valve cartridge.</li> <li>4. Check vehicle weight and/or balance vehicle weight on lift.</li> </ol>
Lift slowly settles down.	<ol style="list-style-type: none"> <li>1. Debris in check valve seat.</li> <li>2. Debris in lowering valve seat.</li> <li>3. External oil leaks.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean check valve.</li> <li>2. Clean lowering valve.</li> <li>3. Repair external leaks.</li> </ol>
Slow lifting speed or oil blowing out filler breather cap.	<ol style="list-style-type: none"> <li>1. Air mixed with oil.</li> <li>2. Air mixed with oil suction.</li> <li>3. Oil return tube loose.</li> </ol>	<ol style="list-style-type: none"> <li>1. Change oil using ISOVG32 Hydraulic Oil or Dexron III ATF.</li> <li>2. Tighten all suction line fittings.</li> <li>3. Reinstall oil return tube.</li> </ol>
Lift going up unlevel.	<ol style="list-style-type: none"> <li>1. Equalizer cables out of adjustment.</li> <li>2. Lift installed on unlevel floor.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust equalizer cables to correct tension.</li> <li>2. Shim lift to level columns (Not to exceed 1/2" (13mm)). If over 1/2" (13mm) break out floor and repour per lift installation instructions.</li> </ol>
Anchors will not stay tight.	<ol style="list-style-type: none"> <li>1. Holes drilled oversize.</li> <li>2. Concrete floor thickness or holding strength not sufficient.</li> </ol>	<ol style="list-style-type: none"> <li>1. Relocate lift using a new bit to drill holes. Reference installation instructions for minimum spacing requirements.</li> <li>2. Break out old concrete and repour new pads for lift per lift installation instructions.</li> </ol>
Locking latches do not engage.	<ol style="list-style-type: none"> <li>1. Latch shafts rusted. (Usually occurs on outside installations or in high humidity areas such as vehicle wash bays.)</li> <li>2. Latch spring broken.</li> <li>3. Latch cable needs adjustment.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove covers, oil latch mechanism. Actuate latch release handle several times to allow oil to coat shaft.</li> <li>2. Replace broken spring.</li> <li>3. Adjust clamp at cable end per lift installation instructions.</li> </ol>
Locking latches do not disengage.	<ol style="list-style-type: none"> <li>1. Latch cable is broken.</li> <li>2. Cable is off sheaves/upper guides.</li> <li>3. Latch cable is loose.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace cable.</li> <li>2. Check position of cable on sheaves/upper guides; adjust cable tension.</li> <li>3. Adjust cable tension.</li> </ol>
Lift stops short of full rise or chatters.	<ol style="list-style-type: none"> <li>1. Low oil level.</li> <li>2. Air in hydraulic lines/cylinder.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fill tank to proper level with ISOVG32 Hydraulic Oil or Dexron III ATF.</li> <li>2. Bleed lift per installation instructions.</li> </ol>
Lift will not raise off of latches.	<ol style="list-style-type: none"> <li>1. Motor, pump, or cylinder failure.</li> </ol>	<ol style="list-style-type: none"> <li>1. Contact lift manufacturer's Customer Service.</li> </ol>

## TROUBLE SHOOTING: SHOCKWAVE

<b>Trouble</b>	<b>Cause</b>	<b>Remedy</b>
Lift stops short of full rise or slow raise speed.	<ol style="list-style-type: none"> <li>1. Low oil level.</li> <li>2. Air in hydraulic lines/cylinders</li> <li>3. Batteries not being charged (charger lights off)</li> <li>4. Batteries worn out</li> <li>5. Charger failure</li> </ol>	<ol style="list-style-type: none"> <li>1. Fill tank to MIN__ mark with ISO AW 32 hydraulic oil or Dextron III ATF.</li> <li>2. 2-Post: Start unit, raise lift about 2ft (61cm). Open cylinder bleeders 2 turns. Close bleeders when fluid streams. Lower lift and fill tank.</li> <li>3. Ensure that 110 volt power source is reaching control.</li> <li>4. Replace batteries.</li> <li>5. Replace fuse Replace charger</li> </ol>
Motor doesn't run.	<ol style="list-style-type: none"> <li>1. Disconnect switched "OFF"</li> <li>2. Check overhead switch burned out.</li> <li>3. 350 Amp fuse blown</li> <li>4. 2 Amp fuse blown</li> <li>5. Loose wire</li> <li>6. Batteries not being charged</li> <li>7. Batteries worn out</li> <li>8. Charger failure</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn disconnect to "ON" position.</li> <li>2. Replace switch.</li> <li>3. Replace fuse.</li> <li>4. Replace fuse.</li> <li>5. Make sure wired properly.</li> <li>6. Ensure 110 volt power source is reaching control (all plugs attached).</li> <li>7. Replace batteries.</li> <li>8. Replace fuse Replace Charger</li> </ol>
Lift won't lower	<ol style="list-style-type: none"> <li>1. Velocity fuse tripped</li> </ol>	<ol style="list-style-type: none"> <li>1. Raise lift to disengage velocity fuse and then press lower handle slowly.</li> </ol>

## Purpose

This procedure establishes the minimum requirements for the lockout of energy that could cause injury to personnel by the operation of lifts in need of repair or being serviced. All employees shall comply with this procedure.

## Responsibility

The responsibility for assuring that this procedure is followed is binding upon all employees and service personnel from outside service companies (i.e., Authorized Rotary Installers, contactors, etc.). All employees shall be instructed in the safety significance of the lockout procedure by the facility owner/manager. Each new or transferred employee along with visiting outside service personnel shall be instructed by the owner/manager (or assigned designee) in the purpose and use of the lockout procedure.

## Preparation

Employees authorized to perform lockout shall ensure that the appropriate energy isolating device (i.e., circuit breaker, fuse, disconnect, etc.) is identified for the lift being locked out. Other such devices for other equipment may be located in close proximity of the appropriate energy isolating device. If the identity of the device is in question, see the shop supervisor for resolution. Assure that proper authorization is received prior to performing the lockout procedure.

## Sequence of Lockout Procedure

- 1) Notify all affected employees that a lockout is being performed and the reason for it.
- 2) Unload the subject lift. Shut it down and assure the disconnect switch is "OFF" if one is provided on the lift.
- 3) The authorized lockout person operates the main energy isolation device removing power to the subject lift.
  - If this is a lockable device, the authorized lockout person places the assigned padlock on the device to prevent its unintentional reactivation. An appropriate tag is applied stating the person's name, at least 3"x 6" (76 x 152mm) in size, an easily noticeably color, and states not to operate device or remove tag.
  - If this device is a non-lockable circuit breaker or fuse, replace with a "dummy" device and tag it appropriately as mentioned above.
- 4) Attempt to operate lift to assure the lockout is working. Be sure to return any switches to the "OFF" position.
- 5) The equipment is now locked out and ready for the required maintenance or service.

## Restoring Equipment to Service

- 1) Assure the work on the lift is complete and the area is clear of tools, vehicles, and personnel.
- 2) At this point, the authorized person can remove the lock (or dummy circuit breaker or fuse) & tag and activate the energy isolating device so that the lift may again be placed into operation.

## Rules for Using Lockout Procedure

Use the Lockout Procedure whenever the lift is being repaired or serviced, waiting for repair when current operation could cause possible injury to personnel, or for any other situation when unintentional operation could injure personnel. No attempt shall be made to operate the lift when the energy isolating device is locked out.

APPROVED ACCESSORIES		
Item	Capacity	Part Number
Truck Adapter (For Flip-Up Adapter)	2500 lbs. (1134 kg.)	FJ6115
Truck Adapter (For Flip-Up Adapter)	2500 lbs. (1134 kg.)	FJ6133
Mini-Van Adapter (For Flip-Up Adapter)	1750 lbs. (794 kg.)	FJ6137
Polymer Pad Adapter (For Flip-Up Adapter)	2500 lbs. (1134 kg.)	FJ6138
High Step Polymer Pad Adapter	2500 lbs. (1134 kg.)	FJ6139
1" (25 mm) Pad Adapter	2500 lbs. (1134 kg.)	FJ6190
Rubber Adapter for: SPOA7/7LC/9, SP09	2250 lbs. (1134 kg.)	FJ6159
Rubber Adapter for: SPOA10, SP010	2500 lbs. (1134 kg.)	FJ6182
Adapter for: SPOA10, SP010	2500 lbs. (1134 kg.)	FJ6191
3-1/2" (89 mm) Adapter Extension	2500 lbs. (1134 kg.)	FJ7880
5" (127 mm) Adapter Extension	2500 lbs. (1134 kg.)	FJ7880
Air/Electric Utility Box		FA5911
Air/Electric Utility Box Without FRL		FA5910
Filter/Regulator/Lubricator (FRL)		FA5166

## NOTES

## NOTES

## Certificate of Compliance

Rotary Lift is authorized to apply ETL & cETL Listing Marks/Labels to this AC Motor. Authorization: ETL Report No. J98007541-003, FAM. This ETL test certifies that this AC Motor complies with Underwriters Laboratories, Inc. standard ANSI/UL 201 & CSA standard C22.2 No. 68.



SV0021 B Rev. 5/2/14

Trained Operators and Regular Maintenance Ensures  
Satisfactory Performance of Your Rotary Lift.

Replacement Parts: See installers package for parts breakdown sheet. Order Genuine Rotary replacement parts from your nearest Authorized Parts Distributor.

Maintenance Assistance: Contact your local Rotary distributor.

Should further assistance be required, contact Rotary Lift, at one of the phone numbers listed below.

### Rotary World Headquarters

2700 Lanier Drive  
Madison, IN 47250, USA  
[www.rotarylif.com](http://www.rotarylif.com)

### North America Contact Information

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f 800.578.5438  
e [userlink@rotarylif.com](mailto:userlink@rotarylif.com)  
Sales: p 800.640.5438  
f 800.578.5438  
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