MANUAL FOR

WFP15LRR-EE

EXT. 4 POST

LUBE RACK LIFT

WHIP INDUSTRIES, INC
3010 S MAIN ST.
FORT WORTH, TEXAS 76110
PH (800) 256-7391 FAX (817) 289-1412
E-MAIL: WhipInd@whipindustries.com

Rev. -

INTRODUCTION

The four post lift consists of four vertical posts with runway tracks between the posts. The lifting is done by a hydraulic cylinder coupled to heavy duty leaf chains, which roll over sealed roller bearings. A 2 H.P. power unit supplies up to 2,500 p.s.i. to the cylinder for the lifting

The installation is a relatively simple task that can be accomplished by 2 men in just a few hours. A forklift or a fourth man will be helpful while raising the toprail into place and installing the runways.

TO PREVENT MISTAKES AND SAVE TIME, PLEASE READ THIS MANUAL COMPLETELY BEFORE BEGINNING THE INSTALLATION.

LIFT LOCATION

Choose your installation site carefully. Keep in mind doors, power supply, and overhead obstructions. These are all important considerations that will help make the lift the most valuable tool in your shop.

The most important thing to look for is a good concrete floor. It should be a minimum of 4" thick and 4,000 p.s.i. with steel reinforcement. Pads must be at least 30"x 30"x 5" thick with steel reinforcement.

There must be adequate overhead clearance to raise vehicles 6 feet above the ground. The recommended minimum ceiling height is 10 feet.

The toprail can be placed on the left or right side.

TOOLS REQUIRED

Concrete rotary hammer drillwith 3/4” carbide bit

Open end wrenches: 1/2”, 9/16”, 11/16”, 3/4”

Ratchet driver

Sockets: 3/4”, 1/2” deep

12” crescent wrench

Hammer

Needle nose pliers

Level

Fish tape

25’ tape measure

Chalk line

Small drift punch

Step ladder

4 wooden blocks (2 x 4’s)

4 gallons non-detergent hydraulic fluid 10 wt.
(example: Mobil DTE 25, Texaco HD 46, or Dextron II & III ATF)

ANCHORING TIPS

1. Anchor must be at least 5” from the edge of the slab or any seam.
2. Use a concrete hammer drill with a 3/4” carbide bit.
3. Do not use a worn bit.
4. Drill in a perpendicular line with the hole.
5. Do not apply excessive pressure to the drill. Let the drill do the work.
6. Lift the drill up and down occasionally to remove residue and to reduce binding.
7. Drill the hole depth equal to the length of the anchor, or completely through the slab.
8. For better holding power, blow all dust and residue from the hole before driving anchor into hole.

Place a flat washer over threaded end of anchor. Spin nut 1/4” down past end of anchor. Carefully tap anchor into the concrete until nut and flat washer are against base plate. Do not use an impact wrench to tighten. Tighten ¾”-10UNC x 5 ½” anchors to 125 ft-lbs. of torque.

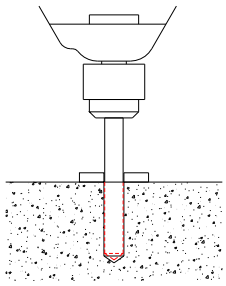


FIG. #1

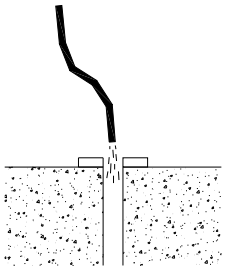


FIG. #2

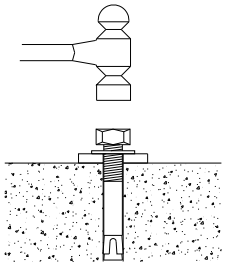


FIG. #3

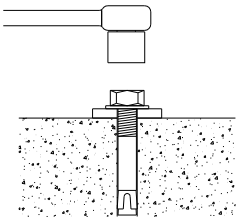


FIG. #4

INSTALLATION INSTRUCTIONS

1) Area required for four post lift is a minimum of (16’-6" x 27’-6”) area.

2) Using the chalk line layout a rectangle 21’-1” x 13’-5 1/2” at least 3’-4” from the ramp location and 1’-7 3/8” from either side of the lift (see Layout & Installation Specification sheet). This should give the lift 4” clearance in front of the ramps.

3) Unpacking lift, inspect lift for any damages due to transportation and check shipping list for missing parts.

4) Locate the both Mainside Legs (see Fig. #2). Position legs as shown in the Installation Specification sheet for recommended installation. Optional - Mainside legs can be mounted on opposite side of lift depending on customer preference.

5) After measuring, Step #1 (see Fig. #9) is to drill holes using a ¾” diameter carbide drill bit. Keep in mind the anchoring tips mentioned previously in the manual. After drilling all 8 hole on the Mainside Legs, anchor them down with ¾-10UNC 5 ½ anchor bolts (8 pcs. - 91578A501). Make sure legs are level and plumb. Make sure all bolts are properly set and meet 75 ft. lbs of torque. DO NOT USE AN IMPACT.

6) Locate Top Rail assembly as shown in Fig. #1. Step #2 is to mount Top Rail assembly on top of Mainside Legs (see Fig. #6). Secure Top Rail to Mainside Legs using ½-13UNC x 2 HHCS (4 pcs. – 91247A720), 1/2 flat washers top and bottom (4 pcs. – 90126A033), ½ lock washers (4 pcs. - 91102A033) & ½-13UNC hex nut (4 pcs. – 90473A223).

7) Locate LH & RH Cross Rails see Fig.#12. Fig. #12 shows RH Cross Rail. The pin stops and the hose guide brackets are some of the determining factor between the LH and RH Cross Rails. Both pin stops and hose guide brackets go to the inside of the lift. Also locate cross rail leaf chain (2 pcs.). Run chain through Cross Rail as shown in Fig.#12. Chain goes over the 2 ¼” pulley on the mainside end and under the pulley at the offside end. Do the same for both Cross Rails. After routing chains through Cross Rails Step #3 is to connect the end of the mainside chains to the chain connector at the bottom of both Mainside Legs using 5/16 x 1 ¼ shoulder bolt (2 pcs. - 91259A585) and ¼-20UNC nylon lock

nut (2 pcs. – 90640A129). **__IMPORTANT - Leaf chain must be mounted vertically on the chain connector to eliminate any chance of binding or kinking.__ __*IMPORTANT*__ __- Note the orientation of the Top Rail to the location of the LH and RH Cross Rail on Fig. #5A. The Cross Rail with the short chain connector must connect to the long Top Rail chain and the tall chain connector must connect to the short Top Rail chain. If the Top Rail is rotated 180 degrees the chain connectors must be switched. The lift will lift load uneven if the connectors are not at the proper location.__ Do this before moving the Cross Rail into the Mainside Leg weldment. Now move Cross Rail into the leg to mount nylon rub blocks (3 pcs.) and guide brackets. The ALIG-418-093-XX always goes to the outside of the lift and ALIG-418-096-XX always goes to the inside of the lift. Move Cross Rail to the inside of the lift about an 1" off center and mount the double guide bracket with the rub block first. Slide rub blocks into each cut out of guide brackets see Fig. #8. Take the guide assembly to the top of the inside leg and rotate the assembly so that it goes into the formed leg see Fig. #6. Slide it down the leg and bolt it to the out side of the Cross Rail using ½-13UNC x ¾ HHCS (2 pcs. - 92865A710). Repeat the same procedure for Single Guide (ALIG-418-096-XX).

8) Step #4 is to repeat the same procedure on the opposite mainside for the LH Cross Rails.

9) Step #5 is to locate the LH/RH Offside Legs shown in Fig. #2. LH Offside Leg is shown. See Fig. #9 for location on lift assembly. Slide LH Offside Legs into the RH Cross Rail about 13'-5 1/2" apart form the Mainside at the base plate. Repeat the mounting procedure of the guide brackets and the nylon rub blocks. Guide brackets hold the Offside Leg the correct distance from the Mainside Leg.

10) Step #6 is to connect the cross rail leaf chain on the offside to the Theaded Chain Connector see Fig. #7. Use the 5/16 x 1 ¼ shoulder bolt (2 pcs. - 91259A585) and ¼-20UNC nylon lock nut (2 pcs. – 90640A129) to connect the leaf chain to the chain connector.

11) Step #7 is to repeat Step #5 & #6 of the RH Offside Leg.

12) Step #8 is to move the Offside Legs apart to hold the 20'-0" dimension at the center to center of the legs and to anchor the legs to the concrete repeating Step #1.

13) Step #9 is to locate the LH/RH Track Weldm't. and position them on top of the Cross Rails as shown in Fig. #14. Hold 36" center to center of hole on Track Weldm't.

14) Step #10 is to extend hydraulic cylinder which lower both Top Rail Chain to connect to chain connectors on Cross Rail. Use a 5/16 shoulder screw (2 pcs. – 91259A587) and ¼-20UNC nylon lock nut (2 pcs. – 90640A129) to secure the chain.

15) Step #11 is to mount the 3-way pneumatic valve, F/R/L air system & power unit to the LH Mainside Leg using the #6 pan screw, #6 lock washer #6 hex nut, #10 pan screw, #10 lock washer, #10 hex nut, 5/16-18UNC x 1" bolts, 5/16-18UNC hex nuts and 5/16 lock washers respectively see View A in Fig. #15B. Before connecting the hydraulic hoses from the power unit to the cylinder you must first install two 90 deg. fittings (2501-06-06) on the cylinder and two 90 deg. fittings with o-rings (6801-LL-06-06) on the power unit. The 108" hose (ALIF-412-029) goes from the fitting on the cylinder next to the rod to the fitting of the power unit on the side of the handle. The 48" hose (ALIF-412-030) goes from the fitting of the cylinder next to the power unit to the fitting of the power unit on the opposite side of the handle. Next connect the electricity to the power unit. Power requirements: 230 Volt, single phase power, 12 amp. Use separate circuit for each unit and protect each circuit with 30 amp time delay fuse or circuit breaker.

16) Fill pumping unit with hydraulic medium oil SAE-10 or equivalent. It will take approximately 3 US gallons.

17) Before operating lift visually inspect lift to make sure the chains and hoses are not rubbing on hardware or lift parts.

18) Step #12 is to raise lift with track and rest on latch bar about 30" to 36" to secure Tracks on the Cross Rails and assemble the remaining parts and hardware on the Tracks. Use figure #13 and #14.

19) Step #13 is to assemble and install the air hoses and fitting as shown in Fig. #15A and #15B. **Note: 1/8" tube run thru the hose brackets in the rear Cross Rail and thru the holes underneath the Track Weldm't. Air pressure requirements: 100 psi minimum to 120 psi maximum.**

20) Connect the external air supply to1/4 FNPT Air Ball Valve.

21) Again before operating lift visually inspect lift to make sure hoses are not rubbing on hardware or lift parts. Push button on power unit to raise lift until safety latches rise off the latch bar, then press the 3-Way Pneumatic Valve and at the same time pull release handle on the power unit to lower lift.

22) Raise lift about 60" and set safety latches on latch bar. Adjust latch bars on legs to set Track level. This is done by turning the 7/8-9UNC hex nut on the threaded rod of the latch bar.

23) Raise and lower lift repeatedly to purge air trapped in hydraulic lines and to adjust Cross Rails. Each Cross Rail must be synchronized as the lift moves up and down. Adjust Cross Rails by turning the 1" hex nut of the chain connector on the Offside Legs.

24) Refill tank with hydraulic oil.

25) After lift is leveled and operating properly, pour grout between the base plate and the concrete floor to stabilize the lift. Do not use lift for 24 hours.

SAFETY AND OPERATING PROCEDURES

Before attempting to operate this lift, be familiar with it is basic operational and safety procedures.

1. Prior to lifting a vehicle, walk around the lift and check for any objects that might interfere with the operation of the lift and it's safety latches such as: tools, air hoses, shop equipment, etc.

2. Slowly drive the vehicle fully onto the tracks. Have someone outside the vehicle guide the vehicle down the tracks.

3. After vehicle is secured, begin raising lift by pressing the UP button on the power unit. UNDER NO CIRCUMSTANCES SHOULD ANY PERSONNEL RIDE THE LIFT UP OR DOWN.

4. Pay close attention to the locking mechanism as the unit rises.
The operator should be able to listen for the safety locks acting against the latch rack as the unit goes up.

5. To back vehicle off the lift: Slowly drive vehicle fully off the lift.

PERIODIC MAINTENANCE

1. Anchor bolts: During the first week of use, check and tighten anchors daily. **Do not use an impact wrench.** After first week, check anchors once a month.

2. Concrete: Check concrete for stress cracks daily for the first two weeks of use. Thereafter, check monthly.

3. Check all bolts and nuts monthly.

4. If your lift will raise all the way to the top, your lift has enough oil. Hydraulic oil should be changed and the suction filter cleaned once a year. If the lift environment is outside or dusty, change hydraulic oil and clean suction filter every six months.

5. Chain: Check chain every 3 months for any sign of rust or wear, especially if lift is located outside. Lubricate with a chain lube spray.

6. Bearings: The bearings on your lift are sealed roller bearings, which do not require any additional lubrication. Check bearings every 3 months for excessive wear between the chain and roller.

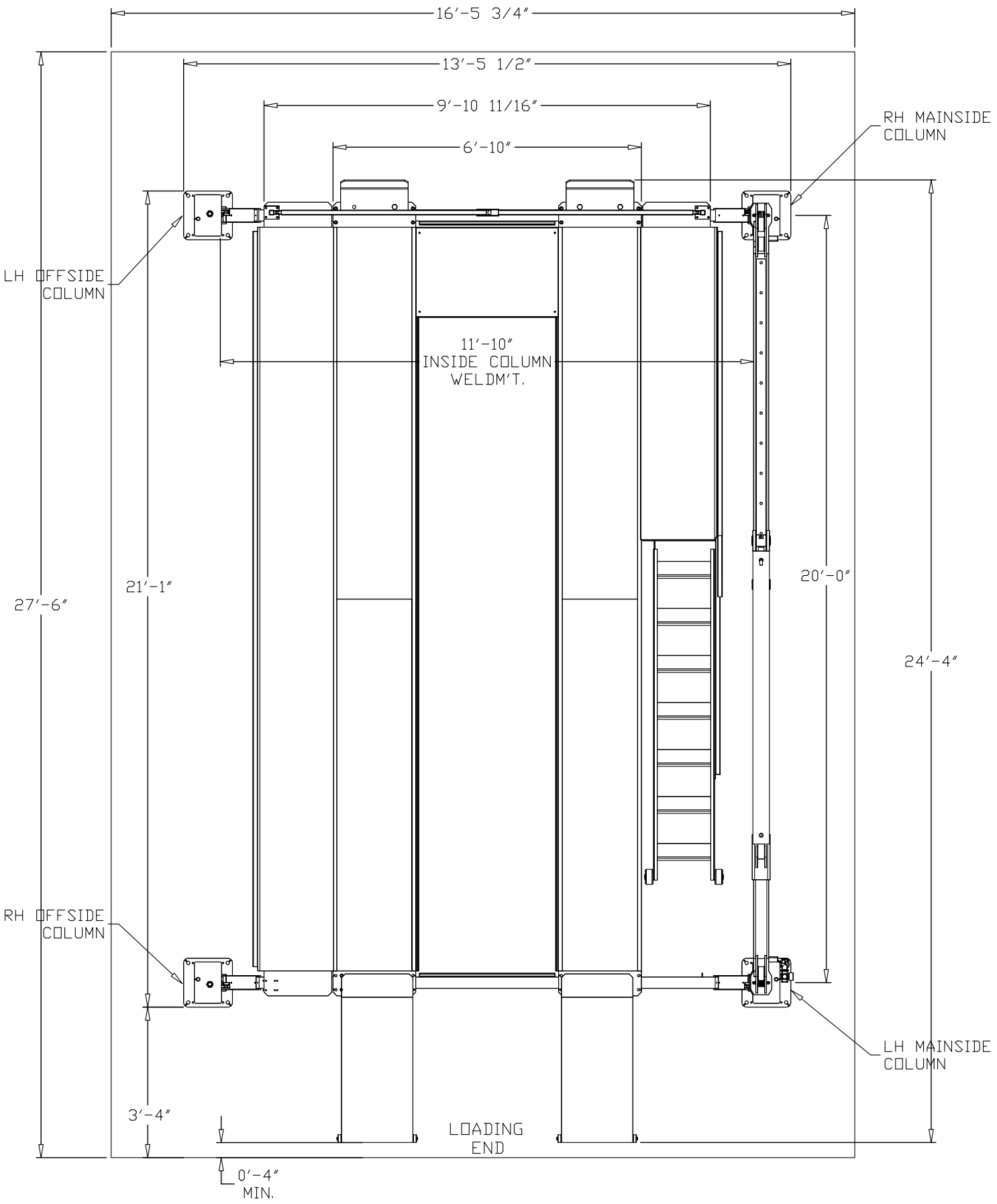
PARTS & SHIPPING LIST

PART NUMBER	DESCRIPTION	QTY.	
2501-06-06	3/8MNPT x 3/8MJIC 90 Deg. Adapter	2	HK
5304ZZ	DS Bearings	4	HK
6801-LL-06-06	0.375M x 0.375F 90 Deg. NPT Adapter w/O-ring	2	HK
7130K55	11” Black Ties		6
HK			
90126A033	½ SAE Flat Washer	6	HK
90473A036	¾-10UNC Hex Nut Grd. 2	4	HK
90473A223	½-13UNC Hex Nut Grd. 2	20	HK
90640A130	5/16-18UNC Hex Nylon Lock Nut Grd. 2	4	HK
91102A033	½ Lock Washer	4	HK
91102A036	¾ Lock Washer	4	HK
91247A583	5/16-18UNC x 1 HHCS Grd. 5	4	HK
91578A501	¾-10UNC x 5 ½ Wedge Anchor Set	16	HK
92865A718	½-13UNC x 1 3/4 Lg. (Full Thrd) HHCS Grd. 5	4	HK
92865A841	¾-10UNC x 1 3/4 Lg. (Full Thrd) HHCS Grd. 5	4	HK
95462A538	¾-10UNC Hex Nut Grd. 5	8	HK
95462A555	1-14UNF Hex Nut Grd. 5	4	HK
95473A030	5/16-18UNC Hex Nut Grd. 2	4	HK
98338A140	3/32 x 1 Cotter Pin	8	HK
98410A128	¾ “ Retainer Ring	6	HK
AH-1009	Power Unit	1	PKG
ALGF-418-016-XX	Ramp Weldm’t.	2	PKG
ALGF-412-034	Ramp Pivot Pin	2	PKG
ALIF-412-001-XX	Front Stop	2	PKG
ALIF-412-029	0.375FJICS x 0.375FJICS Hose x 108”	1	PKG
ALIF-412-030	0.375FJICS x 0.375FJICS Hose x 48”	1	PKG
ALIG-412-099	Sq. U-Bolts	8	PKG
ALRK-415-012L/R-X	LH/RH Lube Track Weldm’t.	1/1	PKG
ALRK-415-519-XX	Short Walkway Weldm’t.	1	PKG
ALRK-415-420-XX	Long Walkway Weldm’t.	1	PKG
ALRK-415-425-XX	Long Handrail	1	PKG
ALRK-415-530-XX	Short Handrail	1	PKG
ALRK-412-036-XX	Gate Post	2	PKG
ALRK-412-040-XX	Ladder Handrail	1	PKG
ALRK-412-043-XX	Gate Latch	1	PKG
ALRK-412-047-XX	72” Ladder Weldm’t.	1	PKG
ALRK-415-037A-X	LH Gate	1	PKG
ALRK-415-037B-X	RH Gate	1	PKG
ALRK-415-060-XX	Bridge Weldm’t.	1	PKG
GL-9-056	1/16 x 1 x 2 ¾ Steel Shim	16	PKG
GL-9-112	¼ x 1 x 2 ¾ Steel Shim	12	PKG

ALIG-418-005L-XX	LHOffside Leg Weldm't.	1	PKG
ALIG-418-005R-XX	RHOffside Leg Weldm't.	1	PKG
ALIG-418-006L-XX	LH Mainside Leg Weldm't.	1	PKG
ALIG-418-006R-XX	RH Mainside Leg Weldm't.	1	PKG
ALIG-415-049	Chain Connector	2	PKG
ALRK-412-BHDWE	**Lube Rack Bolt Box Kit**	**1**	**HK**
90126A031	3/8 SAE Flat Washer	14	HK
90126A033	½ SAE Flat Washer	22	HK
90126A036	¾ SAE Flat Washer	2	HK
90473A223	½-13UNC Hex Nut Grd. 2	22	HK
90640A131	3/8 -16UNC Hex Nylon Lock Nut Grd. 2	1	HK
90640A133	½ -13UNC Hex Nylon Lock Nut Grd. 2	2	HK
91102A030	5/16 Lock Washer	4	HK
91102A031	3/8 Lock Washer	22	HK
91102A033	½ Lock Washer	22	HK
91247A634	3/8–16UNC x 2 ½ Lg. HHCS Grd. 5	1	HK
92865A583	5/16-18UNC x 1 Lg. (Full Thrd) HHCS Grd. 5	4	HK
92865A622	3/8-16UNC x 3/4 Lg. (Full Thrd) HHCS Grd. 5	8	HK
92865A626	3/8-16UNC x 1 1/4 Lg. (Full Thrd) HHCS Grd. 5	14	HK
92865A714	½-13UNC x 1 1/4 Lg. (Full Thrd) HHCS Grd. 5	24	HK
9565K15	1 ¼ x 1.120 ID Sq. Plug Poly	14	HK
9565K28	1 ¼ x 1.010 ID Sq. Plug Poly	2	HK
98410A128	¾ " Retainer Ring	2	HK
	Top Rail Assy.	**1**	**PKG**
AA4015001	72" Stroke Hyd. Cylinder	1	
90126A036	¾ SAE Flat Washer	2	
94945A235	¾-16UNF Thin Nylon Lock Nut	3	
98410A133	1.000 Dia. Retainer Ring	1	
98410A249	1.375 Dia. Retainer Ring	5	
98381A593	0.313 Dia. x 2.5 Lg. Dowel Pin	2	
ALIG-418-236-XX	Top Rail Weldm't.	1	
GL-12-050	Cylinder Chain Connector	1	
GL-12-053-XX	5.5 Dia. Top Rail Wheel	2	
GL-12-056	4.0 Dia. Pulley		3
GL-12-095	Std. BL646, 129 Pitch Male Ends, Short Top Rail Chain	1	
GL-12-096	Std. BL646, 347 Pitch Male Ends, Long Top Rail Chain	1	
ALIG-418-109	1 Dia. Cylinder Pin	1	
ALIG-418-111	1 3/8 Dia. Pulley Pin	3	
ALRK-412-104	**Cross Rail Assy.**	**2**	**PKG**
90108A036	¾ USS Flat Washer	8	
97801A104	1/8 x 2 Lg. Nail	8	
98410A128	0.750 Dia. Retainer Ring	10	
ALIF-412-012	Packing Pin	4	
C1100-112-4500M	1.10 O.D. x 4 ½" Safety Latch Spring	4	

ALRK-412-002-XX	Cross Rail Weldm't.	2	
GL-12-055	2.25 Dia. Pulley	4	
ALRK-412-094	BL634, 271 Pitch Male Ends, Cross Rail Chain	2	PKG
91259A587	0.313 Dia. 1.50 Lg. Shoulder Bolt	2	HK
90640A129	¼-20UNC Nylon Lock Nut	2	HK

*** Note: All hardware unless specified is grade 2. All hardware is zinc coated unless specified. Parts with PKG at the end are packed on the lift and parts with HK at the end are packaged in a box and put on the lift.



WFP15LRR-EE LIFT

LAYOUT & INSTALLATION SPECIFICATION

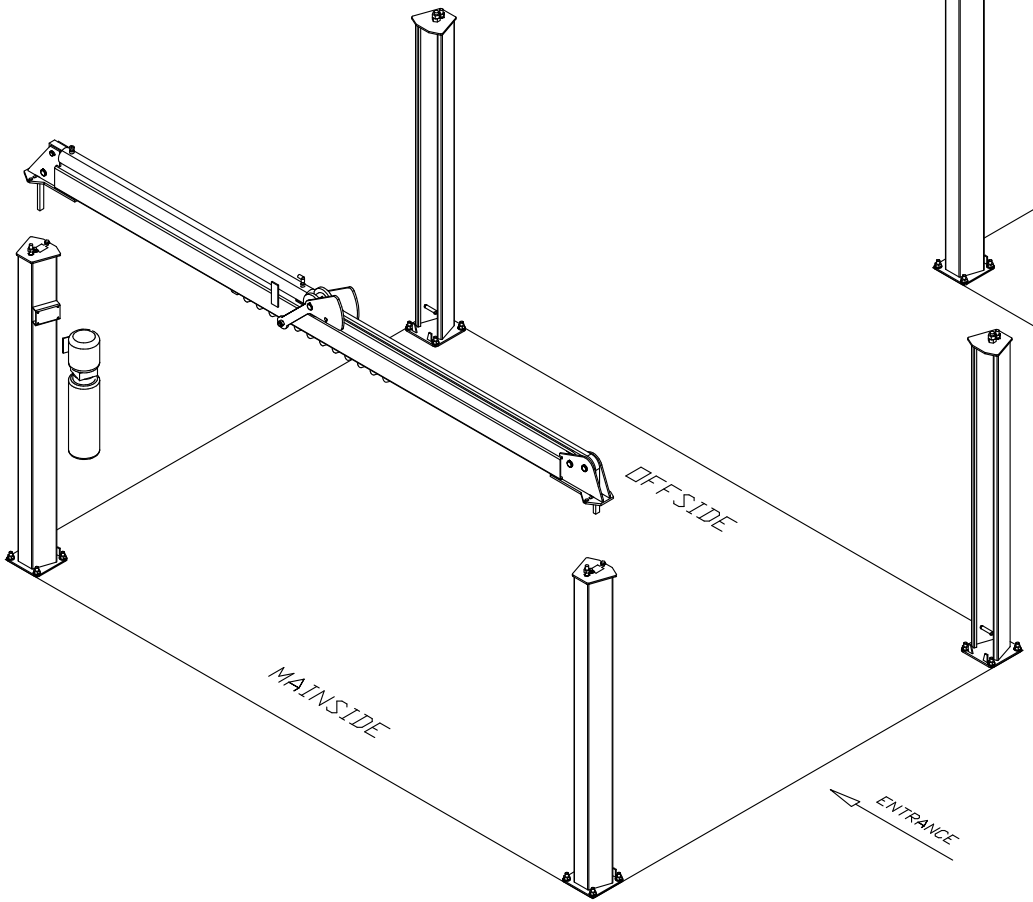


FIG. #2

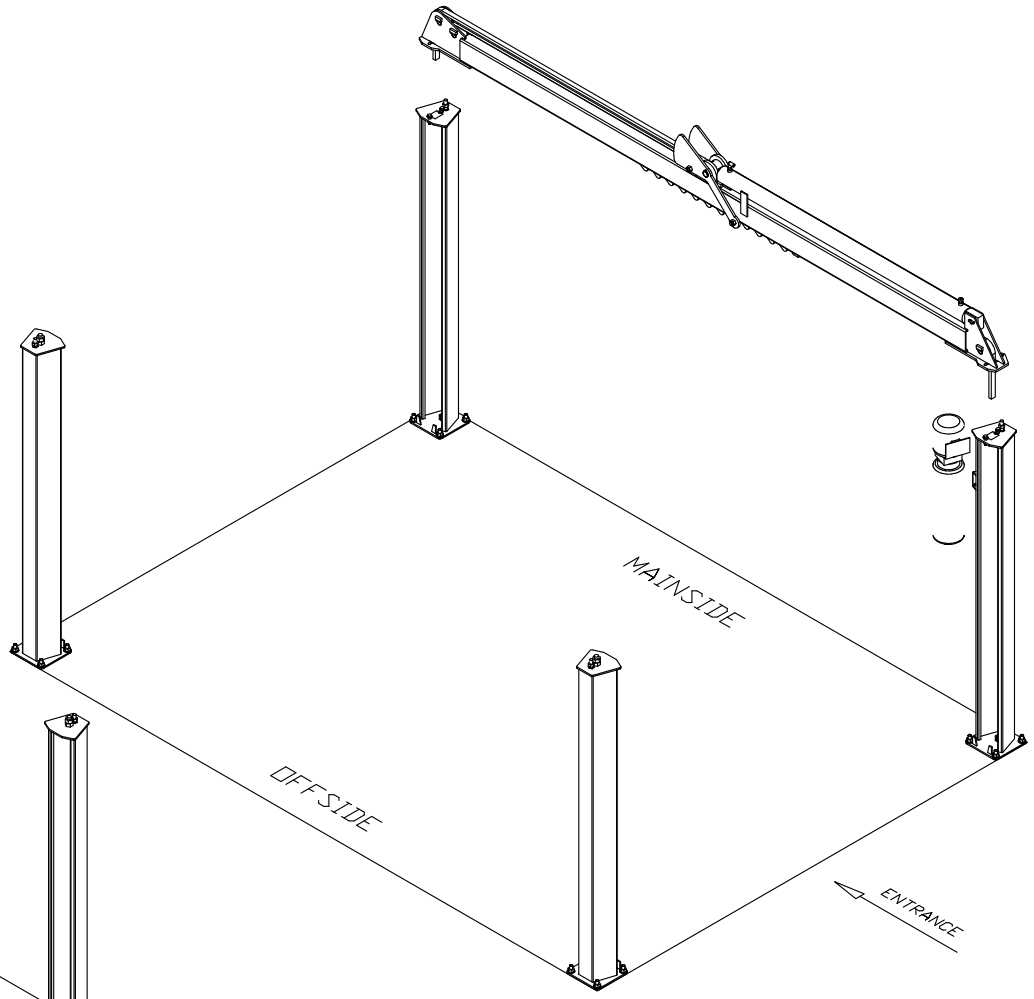


FIG. #2A

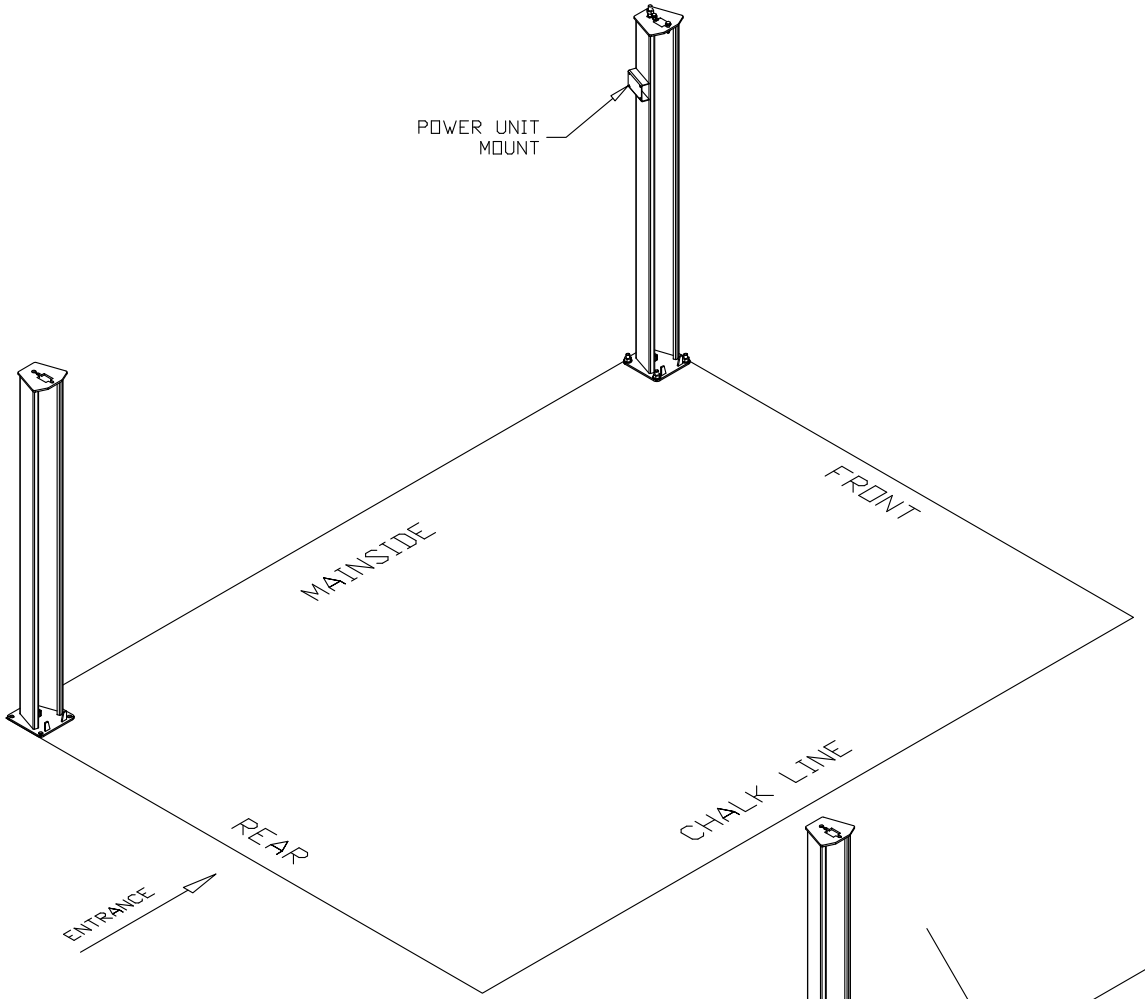

POWER UNIT
MOUNT
MAINSIDE
FRONT
REAR
CHALK LINE
ENTRANCE

FIG. #3

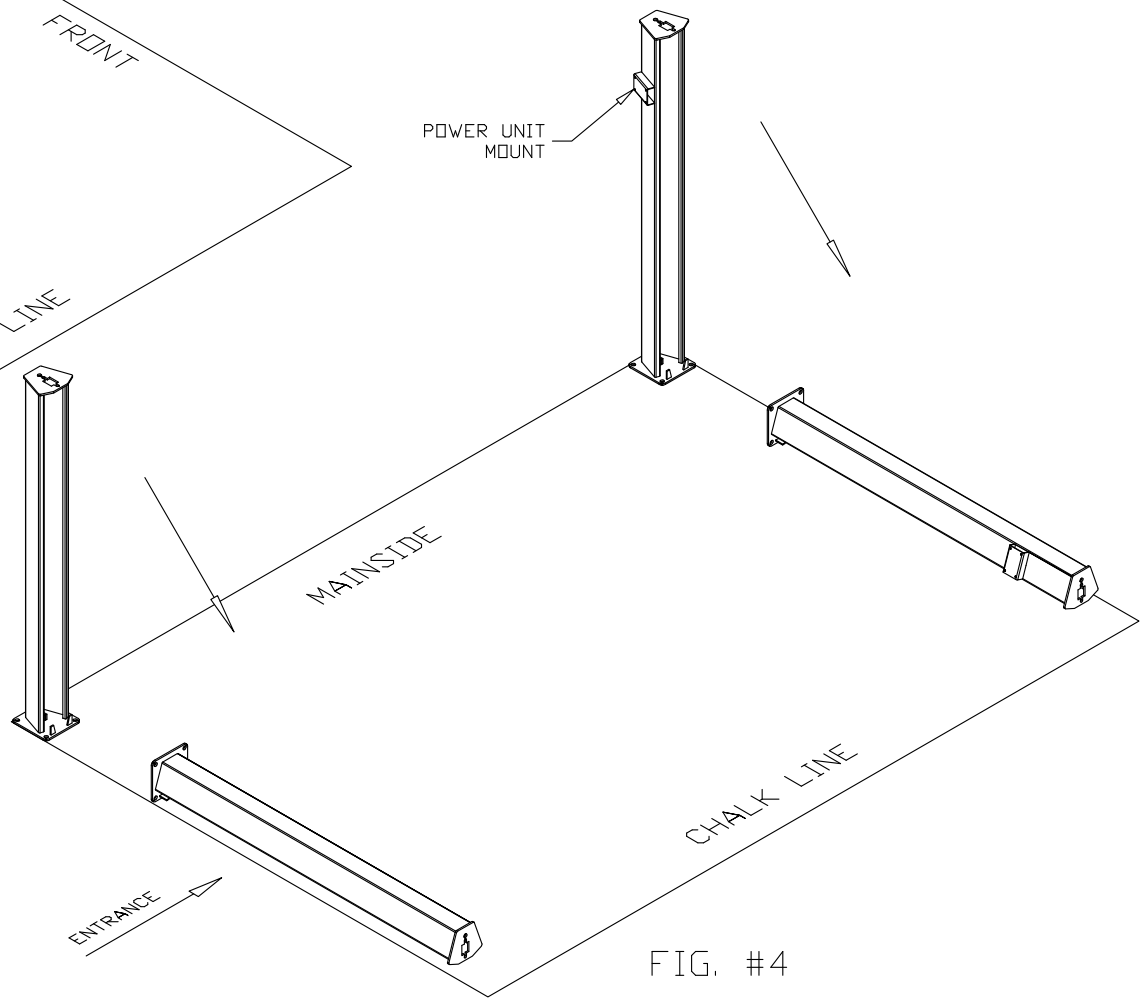

POWER UNIT
MOUNT
MAINSIDE
CHALK LINE
ENTRANCE

FIG. #4

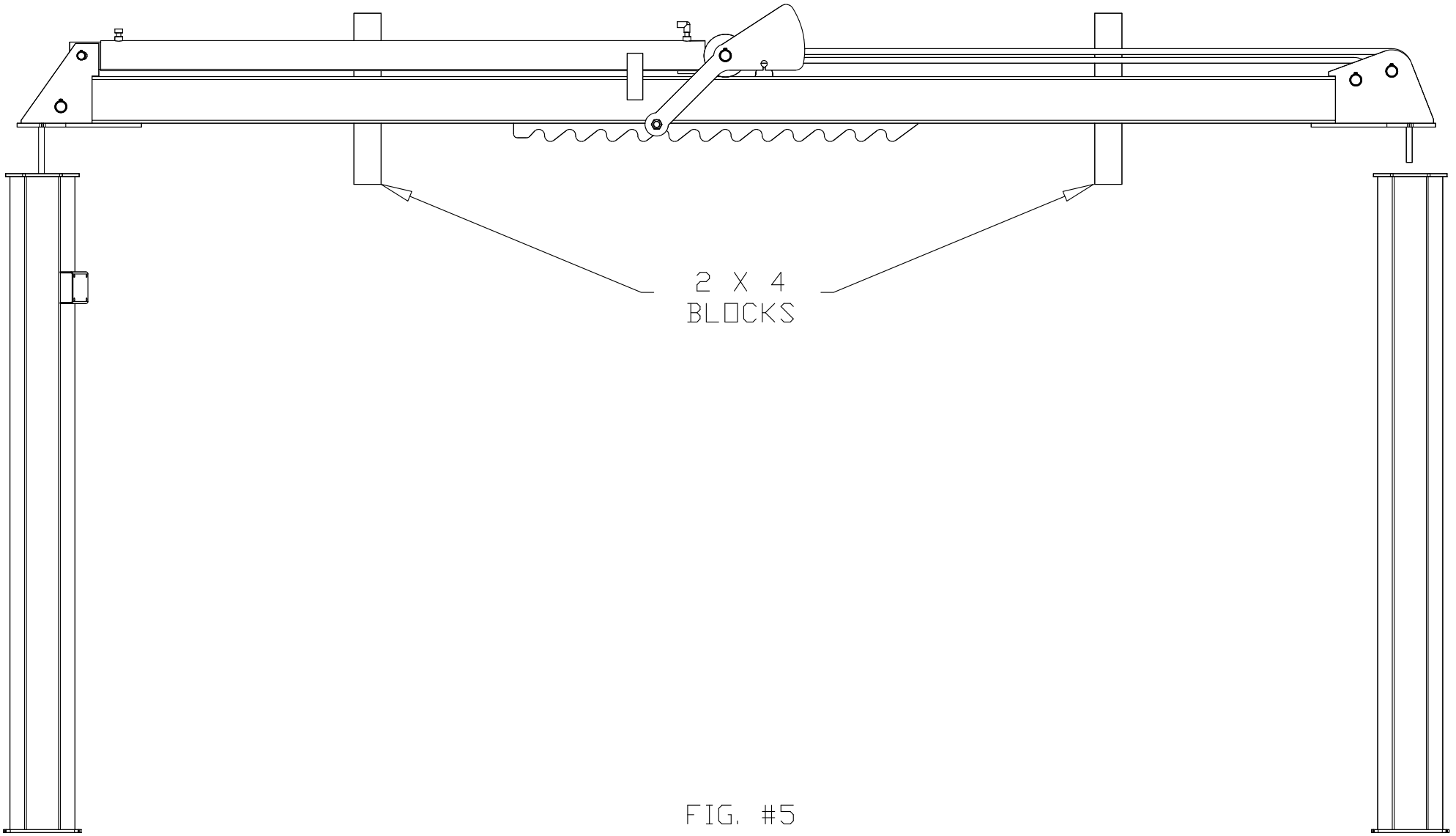


FIG. #5

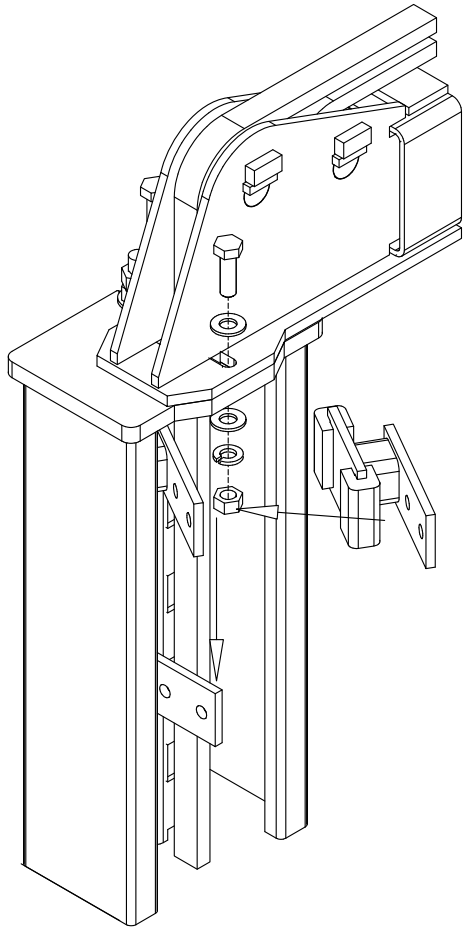


FIG. #6

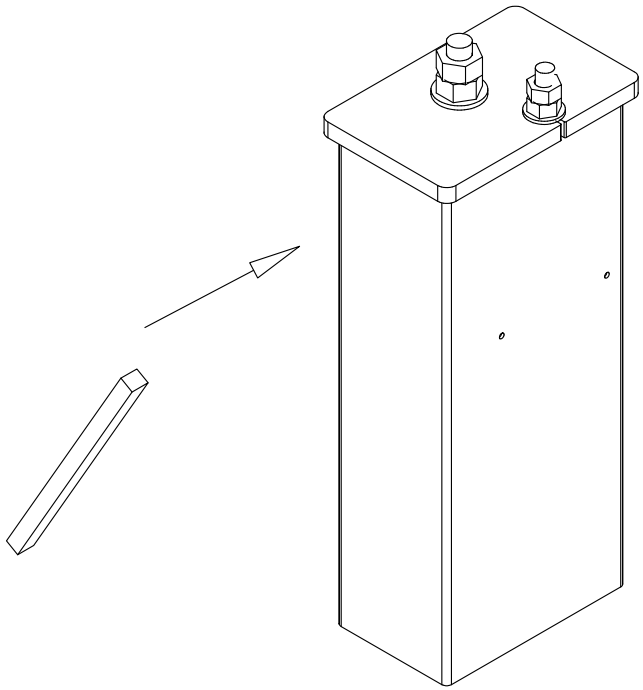


FIG. #7

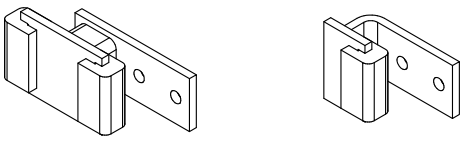


FIG. #8

*NOTE:
-POWER UNIT CAN BE MOUNTED ON EITHER MAINSIDE COLUMN. MAINSIDE COLUMNS CAN BE LOCATED ON EITHER SIDE OF LIFT. IF MAINSIDE COLUMNS ARE SWITCHED TO OPPOSITE SIDE OF LIFT THEN CROSS RAILS MUST ALSO BE CHANGED IN RESPECT.
-THE ROUTING OF THE HYDRAULIC AND AIR LINES CHANGE DEPENDING ON WHERE THE POWER UNIT IS LOCATED AND WHICH SIDE THE MAINSIDE COLUMNS ARE LOCATED ACCORDING THE LIFT.

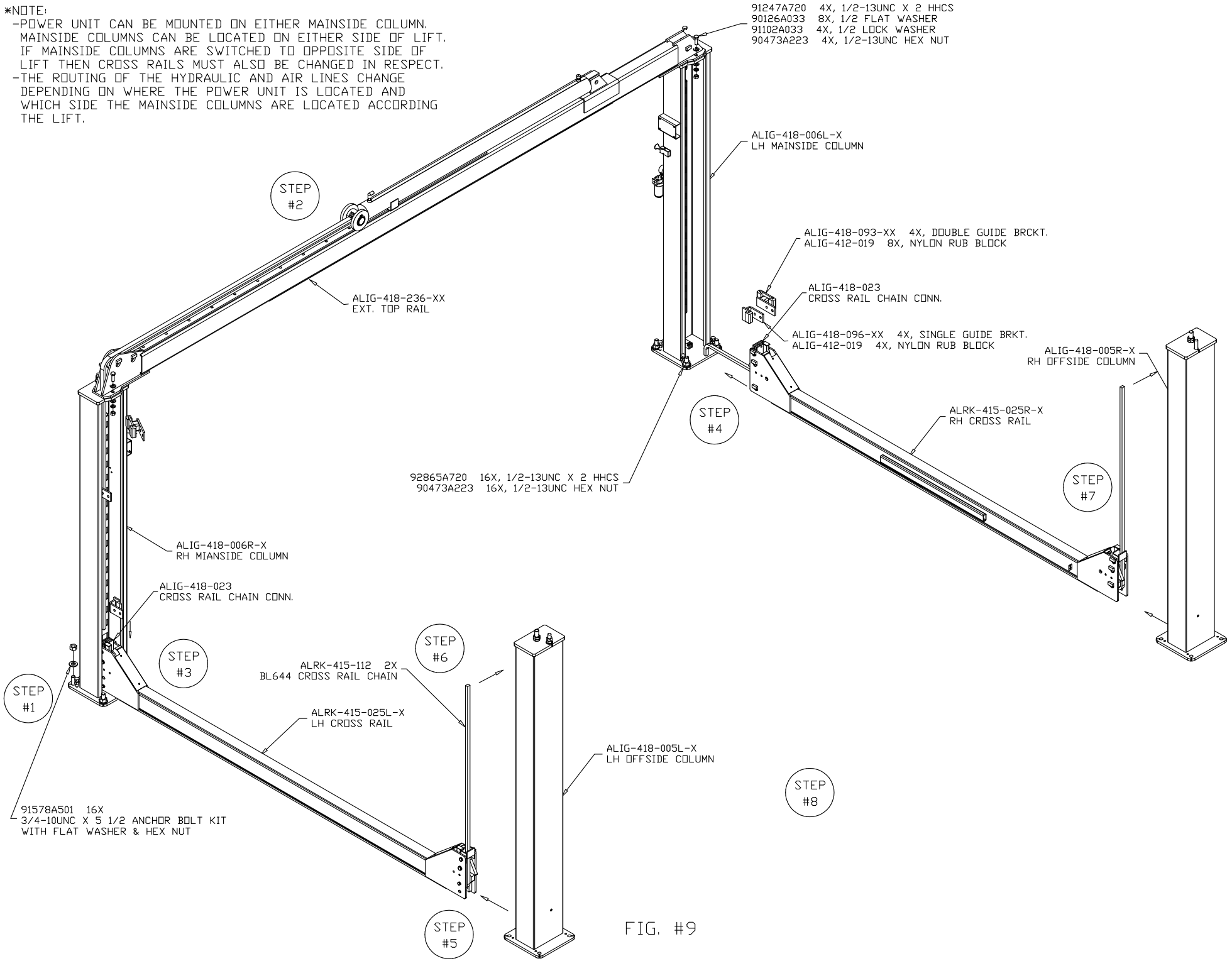
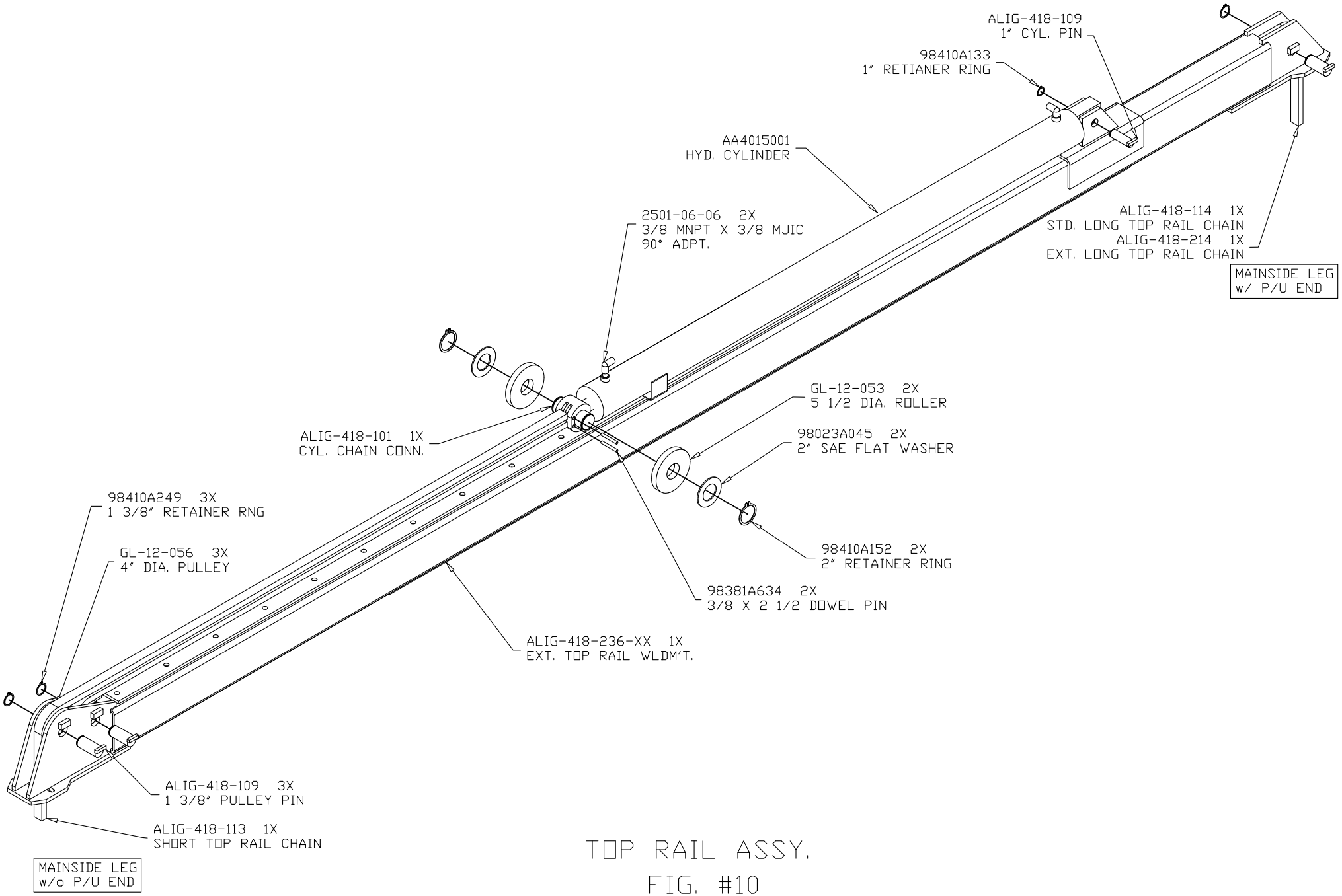


FIG. #9



TOP RAIL ASSY.

FIG. #10

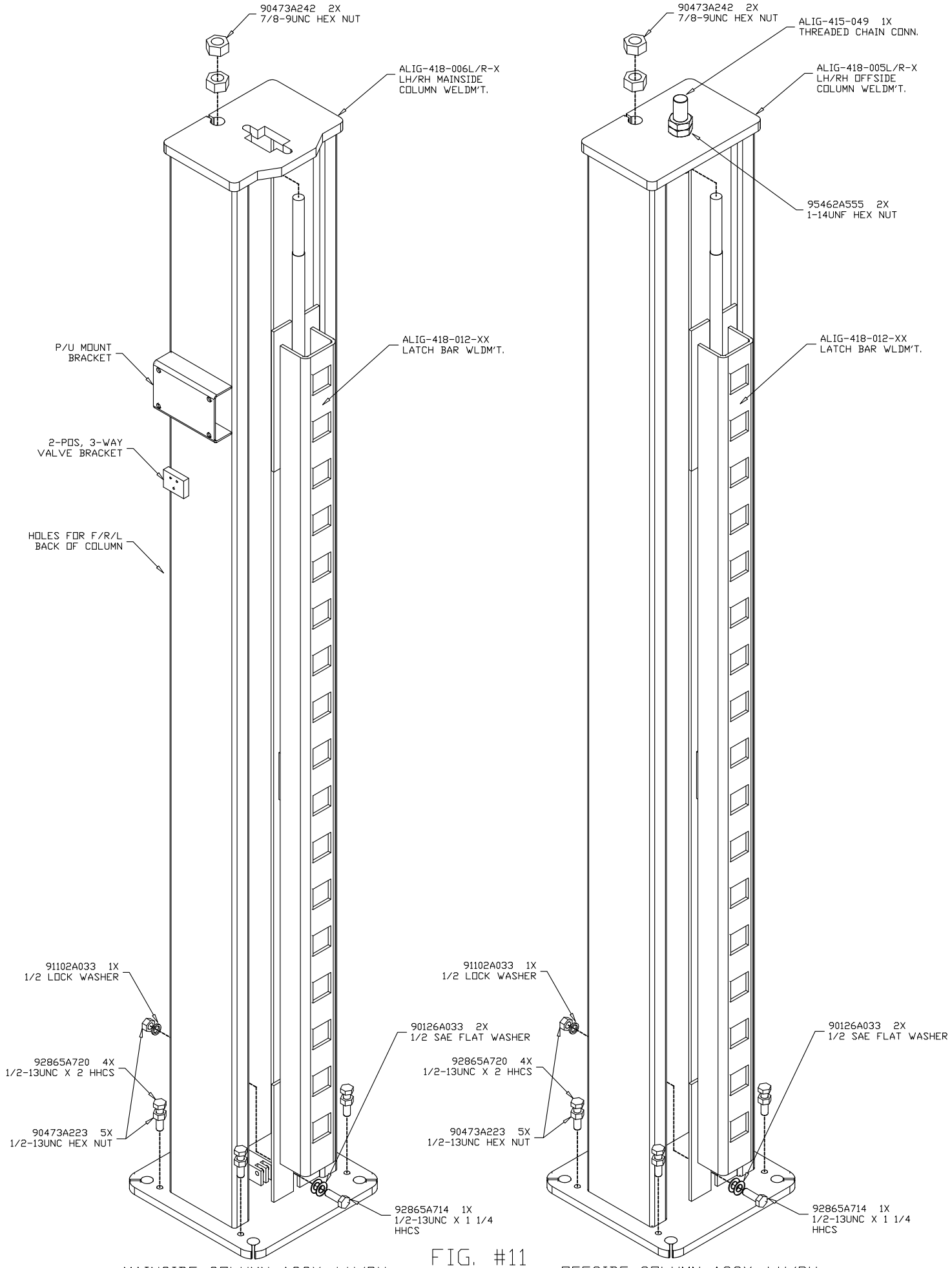


FIG. #11

MAINSIDE COLUMN ASSY. LH/RH
LH MAINSIDE COLUMN ASSY. SHOWN

OFFSIDE COLUMN ASSY. LH/RH
LH OFFSIDE COLUMN ASSY. SHOWN

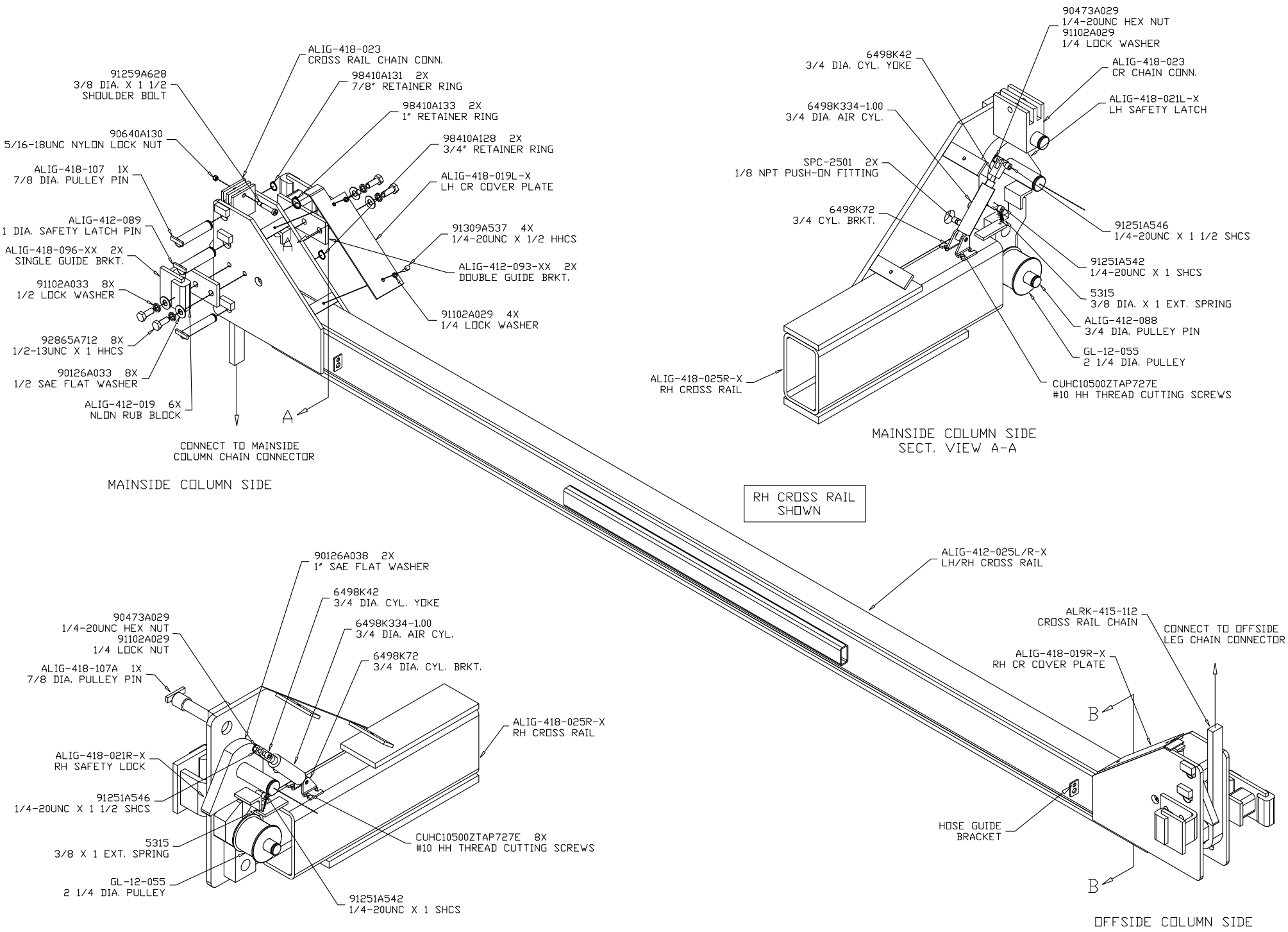


FIG #12
LH/RH CROSS RAIL

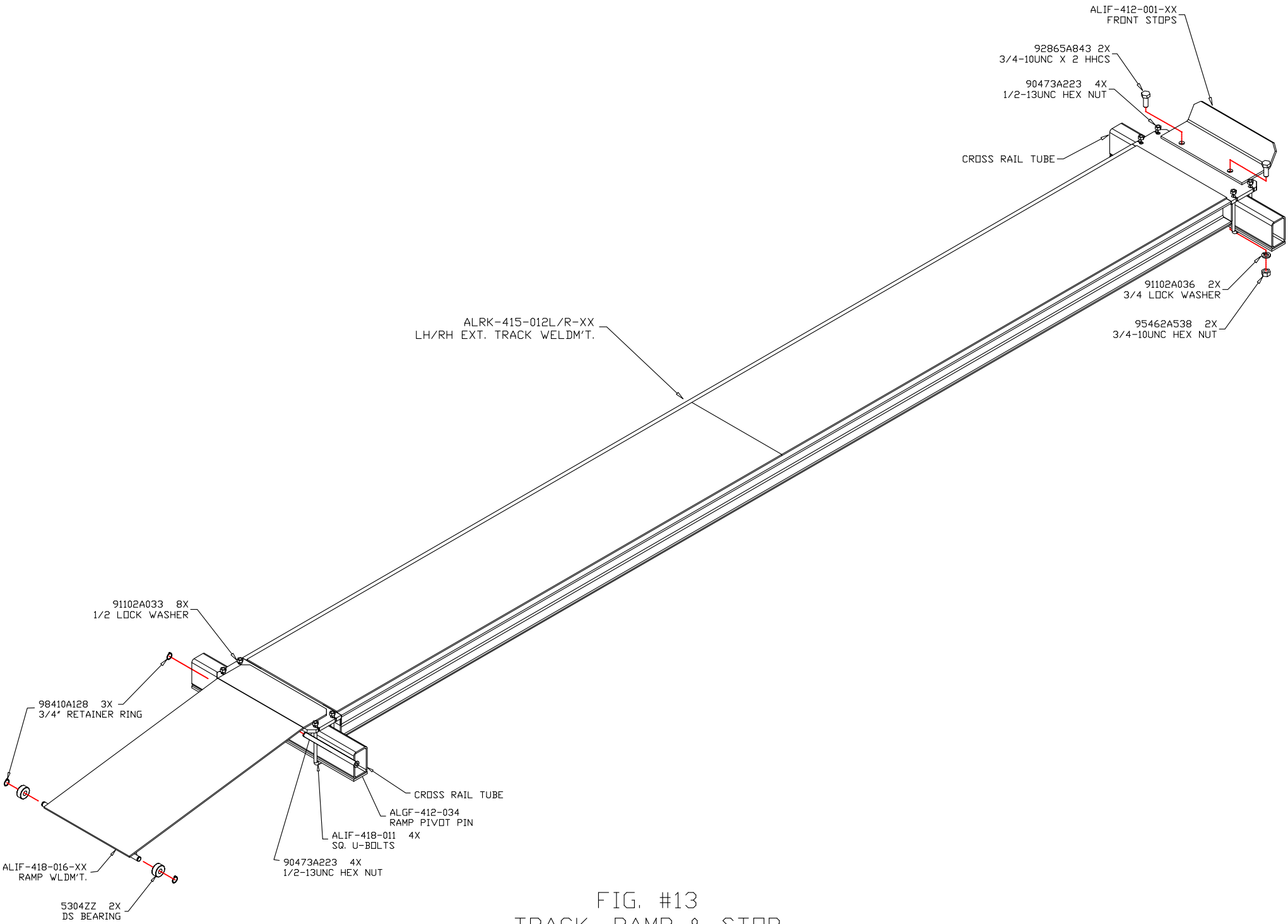


FIG. #13
TRACK, RAMP & STOP
ASSEMBLY

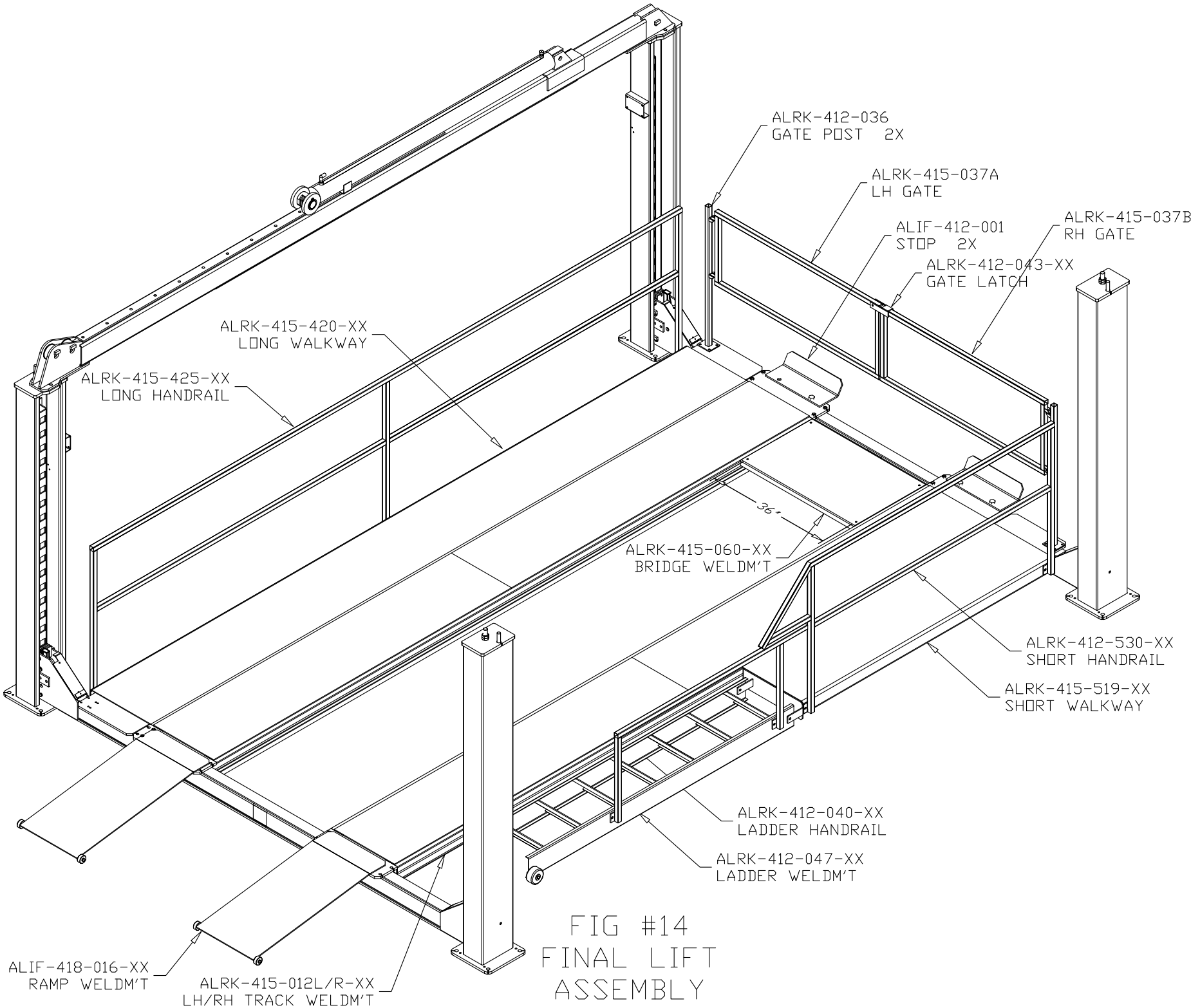


FIG #14
FINAL LIFT
ASSEMBLY

*NOTE:
THIS IS THE RECOMMENDED CONFIGURATION FOR THE AIR AND HYDRAULIC LINES, BUT THE CONFIGURATION COULD VARY DEPENDING ON CUSTOMER PREFERENCE. POWER UNIT CAN BE MOUNTED ON EITHER MAIN SIDE COLUMN.

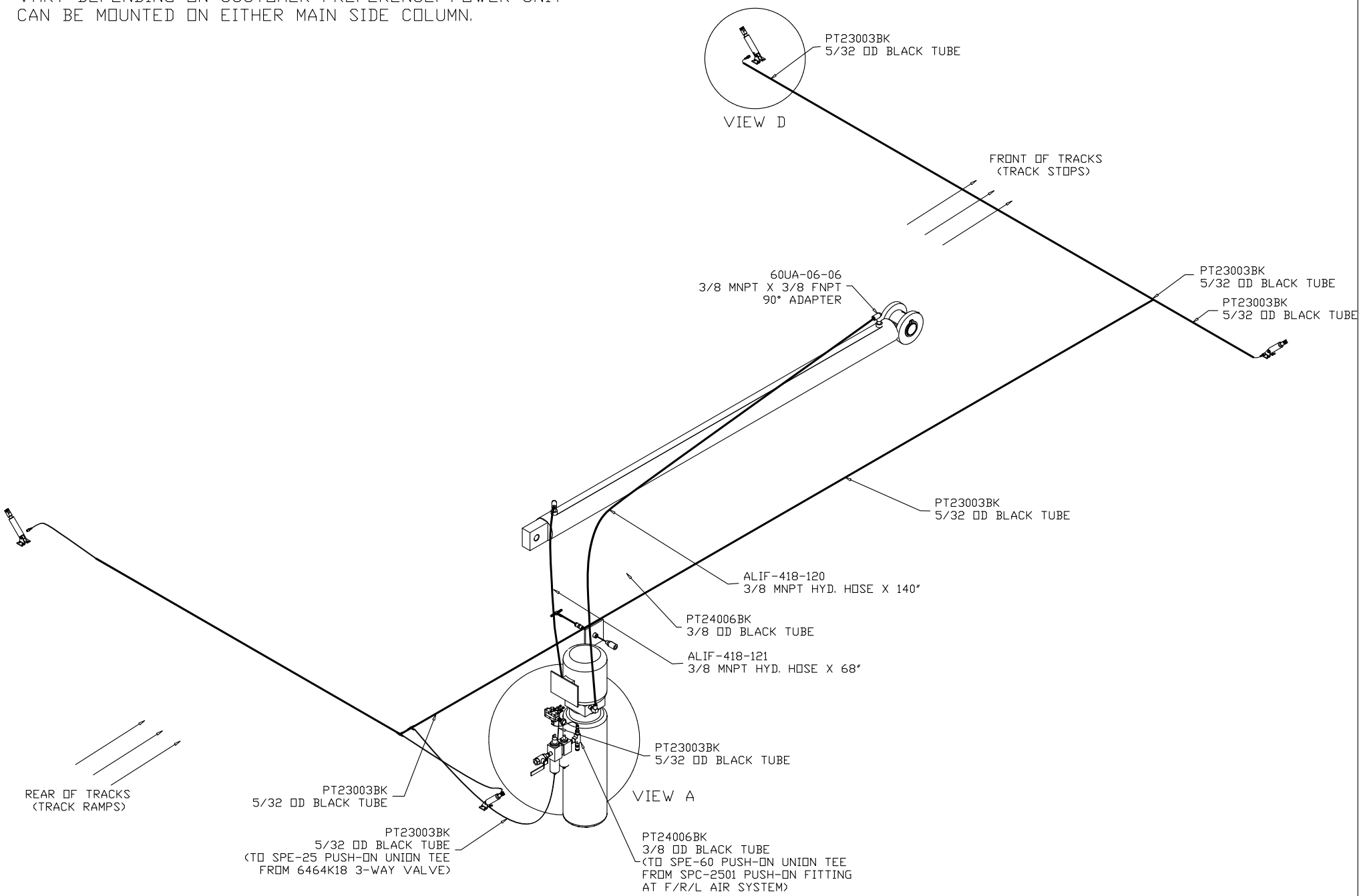
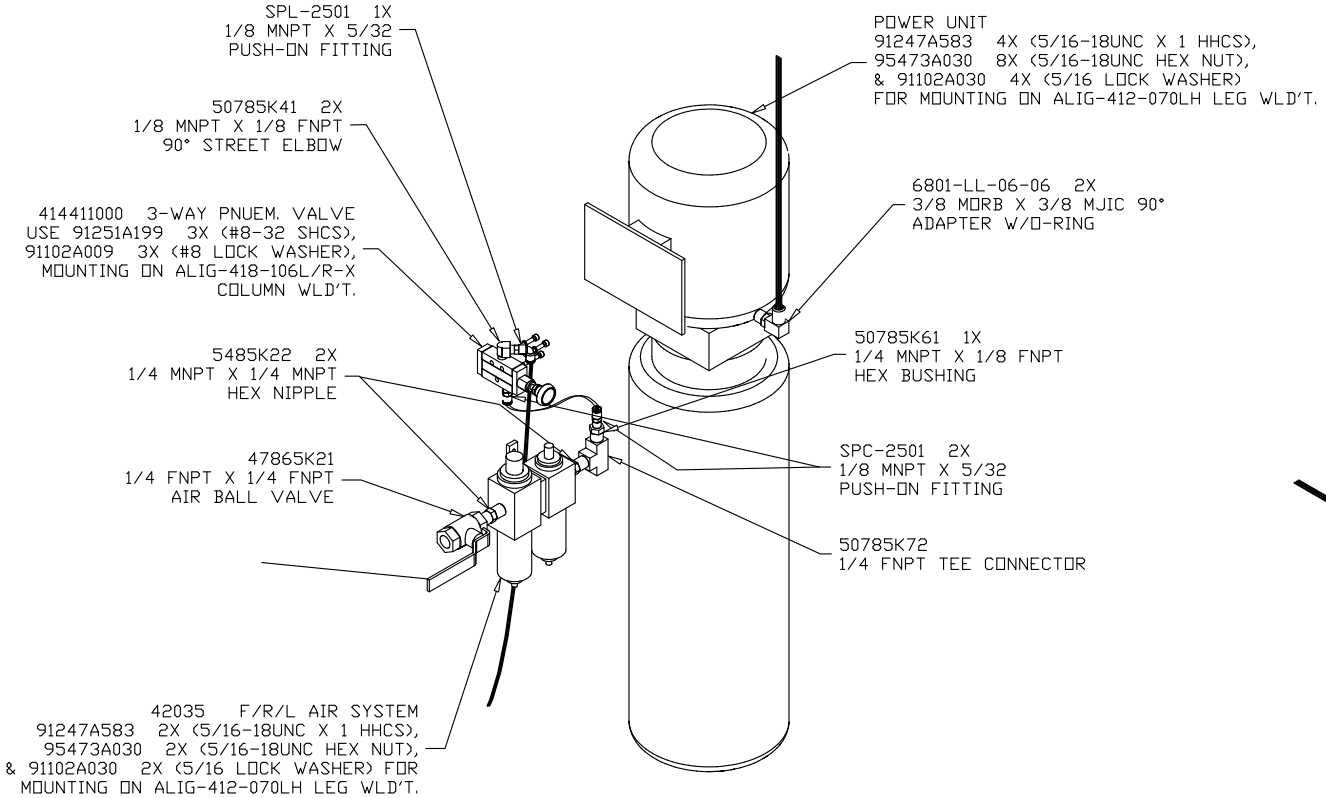
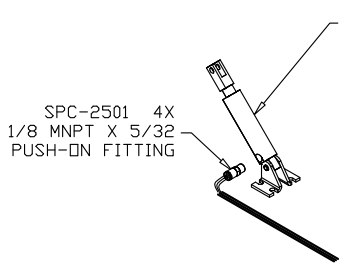


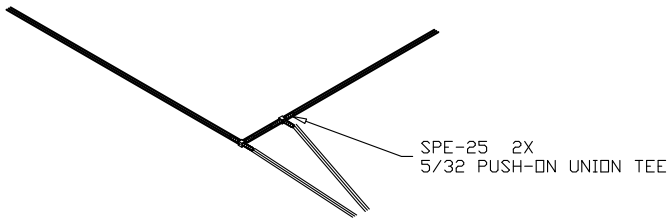
FIG #15A



VIEW A



VIEW D



VIEW B

FIG #15B