



Installation, Operation & Maintenance Manual

***HEAVY DUTY
FOUR POST LIFT***

30,000 lbs Capacity

Model 44030-AR

Model 44030E-AR

Model 44030X-AR

200 Cabel Street, P.O. Box 3944 Louisville, Kentucky 40201-3944
Email: sales@challengerlifts.com Web site: www.challengerlifts.com
Office 800-648-5438 / 502-625-0700 Fax 502-587-1933

**IMPORTANT: READ THIS MANUAL COMPLETELY
BEFORE INSTALLING or OPERATING LIFT**

IMPORTANT INFORMATION

1. The floor where the lift is to be installed must be a minimum of 4" thickness of concrete. Concrete must be reinforced with steel rebar with a minimum compressive strength of 3,000 psi. Failure by the purchaser to provide the recommended mounting surfaces could result in personal injury, property damage and/or unsatisfactory lift performance.
2. Read the installation manual before installing the lift.
3. This lift is a four post lift which requires a minimum (44030-AR) 15'-6" x 30'-0" / (44030E-AR) 15'-6" x 35'-0" / (44030X-AR) 15'-6" x 40'-0" bay area. If 3 feet track extensions are purchased then increase the length in increments of the 3'-0" depending on the number of extensions purchased. If only one set is purchased, the preference of the manufacture is to install them at the ramp end of the lift.
4. Read anchoring tips information before drilling and installing the anchor bolts.
5. Do not raise a vehicle with the lift until the lift has been correctly installed and adjusted as described in this manual.
6. Maximum floor variation between any two posts is 2 inches.

CAUTIONS AND WARNINGS

MOTORS AND ELECTRIC CONTROLS ARE NOT SEALED
against weather or moisture. Damage or Electrical shock may occur if installed unprotected outdoors.

FACTORY MUST BE NOTIFIED WITHIN 30 DAYS OF DELIVERY
If there are any parts missing from shipment

ALL BOLTS PLACED IN COLUMNS MUST BE PLACED FROM
OUTSIDE FACING INWARD. UNLESS NOTED IN THE
INSTALLATION INSTRUCTIONS

TOOLS REQUIRED

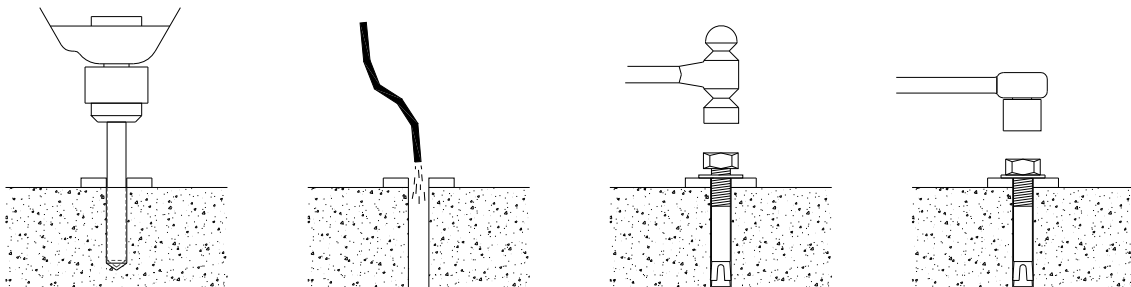
Concrete rotary hammer drill with $\frac{3}{4}$ " carbide bit
Open End Wrenches: $\frac{7}{16}$ ", $\frac{1}{2}$ ", $\frac{9}{16}$ ", $\frac{11}{16}$ ", $\frac{3}{4}$ " & $1 \frac{1}{8}$ "
Ratchet Driver
Sockets: $\frac{1}{4}$ ", $\frac{1}{2}$ ", $\frac{3}{4}$ " X $\frac{1}{2}$ " deep
Allen Wrenches: $\frac{3}{16}$ ", $\frac{1}{4}$ " & $\frac{5}{16}$ "
12" Crescent Wrench
Hammer
Needle Nose Pliers
Retainer Ring Pliers
Electrical Pliers
Level
Fish Tape
25' Tape Measure
Chalk Line
Small Drift Punch
Step Ladder
6 gallons of hydraulic medium oil SAE-10 or equivalent
 $\frac{1}{4}$ " Pneumatic Hose
4 x 4 Wood Blocks
#19 Steel Drill (0.166 Dia.)

ANCHORING TIPS

1. Anchor must be at least $7 \frac{1}{2}$ " from the edge of the slab or any seam.
2. Use a concrete hammer drill with a $\frac{3}{4}$ " 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. Blow all dust / residue from the hole before driving anchor into hole.

Place a flat washer over threaded end of anchor. Spin nut $\frac{1}{2}$ " 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.



INSTALLATION INSTRUCTIONS

1. Standard area required for four post lift is a minimum of (44030-AR) 15'-6" x 30'-0" or (44030E-AR) 15'-6" x 35'-0" or (44030X-AR) 15'-6" x 40'-0" area. If 3 feet track extensions are purchased then increase the length in increments of the 3'-0" depending on the number of extensions purchased. If only one set is purchased, the preference of the manufacture is to install them at the ramp end of the lift.
2. Using the chalk line layout a rectangle (44030-AR) 12'-5 1/2" x 21'-5 1/4" or (44030E-AR) 12'-5 1/2" x 26'-5 1/4" or (44030X-AR) 15'-6" x 40'-0" at least 3'-2" from the ramp location and 1'-6 1/4" from either side of the lift (**see *Layout & Installation Specification sheet***). This should give the lift 4" clearance in front of the ramps and 1'-6 1/2" from the side of the any leg.
3. Unpacking lift, inspect lift for any damages due to transportation and check shipping list for missing parts.
4. Determine the location for the lift. Keep in mind overhead clearances. Sixteen feet is the minimum recommended ceiling height. A higher ceiling may be required depending the height of the vehicles.
5. Determine which side of the lift the Top Rail and power unit is to be installed. This is called the MAIN SIDE. The other side is referred to as the OFFSIDE. Ease of entry and exit from vehicles, type of work being done, and required placement of the power unit on the Top Rail side are all considerations.
6. After determining the Main side (the side the Top Rail is to be placed on), stand the two Main side Legs upright inside the chalk lines, with each leg facing inside. One of the two legs comes with factory installed power unit mounts. This leg is to be placed as follows: If Top Rail/Main side is to be on the right as you approach, this post must be at the right front corner. (See Installation Specs & Layout Drawing.) If Top Rail/Main side is to be on the left as you approach, this post must be the left rear corner. (Optional Main side Leg Location) This manual will show the Top Rail/Main side being on the right side.
7. With both Main side Legs on the chalk lines, Step #1 (**see Fig. 5A**) is to drill holes using a 3/4" diameter carbide drill bit. Keep in mind the anchoring tips mentioned previously in the manual. After drilling all 8 hole on the Main side Legs, anchor them down with 3/4-10UNC 5 1/2 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.
8. Locate Top Rail assembly as shown in Fig. #1. Step #2 is to mount Top Rail assembly on top of Main side Legs (**see Fig. 5A & 5B**). Secure Top Rail to Main side Legs using 1/2-13UNC x 2 HHCS (8 pcs-91247A720), 1/2 flat washers top and bottom (16 pcs-90126A033), 1/2 lock washers (8 pcs-91102A033) & 1/2-13UNC hex nut (8 pcs-90473A223).
9. Locate a Cross Rail assembly. Use a fish tape to pull the Cross Rail chain through the Cross Rail tube. The chain runs under the roller on the offside and over the roller on the Main side. Repeat with the other Cross Rail. Feed the fish tape through the Cross Rail starting from the Main side by going over the Main side roller and through the Cross Rail tube, then under the Offside roller and straight up. (**See Fig. 3**)
10. Step #3 is to set Cross Rails on two 4 x 4 blocks at each end in front of Main side Legs, with the machined Cross Rail connector towards the Main side Leg as shown in Fig. #3 & #5A.

11. Next using the 3/8 x 1 ½ shoulder screw provided, connect the Cross Rail chain to the chain anchor welded to the base plate of the Main side Leg (*see Fig. 5C*). Next move the Cross Rail over the chain connector. IMPORTANT – The chain must be in a vertical position. It cannot be cocked towards the front or rear of the chain anchor (*See Fig. 5C*)
12. Step #4, repeat steps #3 on the other Main side Leg and Cross Rail.
13. Step #5, position each Offside Leg about 6” from the end of each Cross Rail, and put a 4 x 4 board under each Cross Rail.
14. Step #6, connect threaded chain connector to free end of chain using the 3/8 x 1 ¼ shoulder screw provided (*see Fig. 5D*). Run threaded chain connector into the hole from the inside to the top of Offside Leg. Run 2–1 1/8-12UNF hex nut all the way down until connector is flush with the top of the hex nut. Repeat step #5 & #6 on other Cross Rail.
15. Step #7, Move Offside Legs inside chalk line hold 20’-5 ½” from center to center of legs. You can go ahead and drill the holes for the anchor bolts on the Offside Leg per the Anchoring Tip Sheet. Leave the bolts loose until the legs are plumbed and the lift is operating without getting in a bind.
16. Step #8, extend hydraulic cylinder, which lower both Top Rail chain to connect them to the chain connectors on Cross Rail (*see Fig. 5E*). This is done by removing the breather from rear of the cylinder as shown in see Fig. #1. Pull on the chain to extend the cylinder rod. Use the 3/8 shoulder screw (2 pcs–91259A640) and 5/16-18UNC nylon lock nut (2 pcs–90640A130) to secure the chain. Do not substitute this bolt! Repeat on other Cross Rail. Then place breather back on cylinder.
17. Step #9 is to mount the power unit to the Main side Leg with the mounting brackets using 5/16-18UNC x 1” bolts, 5/16-18UNC hex nuts and 5/16 lock washers respectively. Then connect power unit to the hydraulic cylinder using a 3/8 hydraulic hose (ALIF-412-029). Next connect the electricity to the power unit. Power requirements: 230 Volt, single-phase power, and 29 amps. Requires a minimum of 10-gage wire (prefer 8-gage wire). Use separate circuit for each unit and protect each circuit with 30-amp time delay fuse or circuit breaker.
18. Fill pumping unit with 10wt anti-foam, anti-rust hydraulic oil or ATF Dexron III.
Do Not Use oils with Detergents.
19. Step #10 is to connect the 3/8 hydraulic hose from the power unit to the cylinder. Next secure the 3/8 hydraulic hose using the ¾ rubber cushion steel loop (4 pcs–3225T6) and #10 x ½ self-threading screws (4 pcs-90096A242) (*see Fig. 6B*). A #19 drill is used to drill the holes for the #10 self-threading screws.
20. Step #11 is to locate the Alignment Track Weldm’t. (44030-AR, 2 pcs, ALIG-430-020 L/R-X) or (44030E-AR, 2 pcs, ALIG-430-220L/R-X) or (44030X-AR, 2 pcs, ALIG-430-320L/R-X) and position them on top of the Cross Rails as shown in Fig. #5F. Hold 62” inside Alignment Track Weldm’t. and centered on the Cross Rails side to side. Position tracks on the Cross Rails about 6 1/2” from the safety latches. Raise the lift up about 12”. Place a level on the Cross Rail and level the Cross Rail by adjusting the nut on the Offside Leg threaded chain connector. Optional alignment track assemblies are shown in Fig. #4C & #4D. They are configured with slip plates. If this track is purchased, use Fig. #4C & #4D to assemble slip plates in this track.

21. Step #12 is to connect the pneumatic control valve to the 1 1/16 diameter cylinders using the 5/32 tube and to connect the pneumatic control valve with the 1/4 NPT weld coupling using the 3/8 tube. The components used are shown in Fig. #6A & #6B. Secure the 5/32 and 3/8 black tube from the control valve using the 3/8 heli tube.
22. Before operating lift visually inspect lift to make sure the chains and hoses are not rubbing on hardware or lift parts. Also make sure long chain is not twisted inside Top Rail tube. **DO NOT TIGHTEN THE ANCHORS ON THE OFFSIDE LEGS YET.**
23. After leveling Cross Rails, adjust and plumb the Offside legs so that the Cross Rail chains in the Offside legs hang straight. Use a level. Cycle the lift all the way up and down making sure that each corner is running freely. The Offside legs may vary from being plumb slightly. It is more important that the lift moves up and down freely. Adjust and plumb Cross Rails and legs as necessary by shimming the base plate. When you are positive the lift is moving freely, you may finally tighten the anchor bolts in the Offside Legs. After tightening the anchor bolts cycle the lift to make sure the lift is still moving freely.
24. Step #13, finish the track assembly (*see Fig. 4A*). Locate and install track clamps front stops, ramp bracket and pin ramp assembly. If 3 feet track extensions are purchased with lift then see Fig. #4B. Track extensions may be purchased for both ends or just one end of the lift. If only one set is purchased, the preference of the manufacture is to install them at the ramp end of the lift.
25. 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.
26. In the lowered position refill tank with hydraulic oil and lift is ready to operate.
27. Cycle the lift fully three times to bleed the air from the hydraulic system.
28. After completing the general installation, and confirming that all columns are plumb and square. The anti-sway devices can be installed (*see Fig. 3*).
30. Raise the lift to a comfortable working height. Install each assembly at the outside corner of each cross rail with the hardware supplied. The cross rails are pre-drilled and tapped. Only hand tighten the assemblies at this time.
31. With the lift in the completely lowered position set each assembly so that contact is made between the slide block and the column. Cycle the lift to full stroke to insure that the slide blocks are set to the widest point encountered during travel. Finish the installation by tightening all the hardware.
32. **Demonstrate the operation of the lift to the owner and review correct and safe lifting procedure, using the “Lifting It Right “ booklet as a guide.**
33. **Complete the installation Checklist/Warranty Validation Questionnaire with the owner. Review the terms of the warranty with the owner. Complete the warranty registration card, and return the card and a copy of the questionnaire to Challenger Lifts Inc.**

Owner/Operator Checklist

SAVE THESE INSTRUCTIONS deliver them to owner/user/employee along with other materials furnished with this lift.

Demonstrate the operation of the lift to the owner/operator and review correct and safe lifting procedures using the **Lifting It Right** booklet as a guide.

Complete the Installation Checklist/Warranty Validation questionnaire with the owner. Review the terms of the warranty registration card, and return the card and a copy of the questionnaires to:

Challenger Lifts, Inc.
200 Cabel Street
Louisville, KY. 40206

Safety Notices and Decals

This product is furnished with graphic safety warning labels, which are reproduced on page 3 of these instructions. Do not remove or deface these warning labels, or allow them to be removed or defaced. For your safety, and the safety of others, read and understand all of the safety notices and decals included.

Owner/Employer Responsibilities

The owner/employer's responsibilities as prescribed by ANSI/ALI ALOIM-2000, are summarized below. For exact wording refer to the actual standard provided with this manual in the literature pack.

The Owner/Employer shall insure 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/SM 93 -1, ALI Lifting it Right safety manual; ALI/ST-90 ALI Safety Tips card; ANSI/ALI ALOIM-2000, American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance; ALI/WL Series, ALI Uniform Warning Label Decals/Placards; and in case of frame engaging lifts, ALI/LP-GUIDE, Vehicle Lifting Points/Quick Reference Guide for Frame Engaging Lifts.

The Owner/Employer shall establish procedures to periodically inspect the lift in accordance with the lift manufacturer's instructions or ANSI/ALI ALOIM-2000, American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance; and the employer shall insure that the lift inspectors are qualified and that they are adequately trained in the inspection of the lift.

The Owner/Employer shall establish procedures to periodically maintain the lift in accordance with the lift manufacturer's instructions or ANSI/ALIOIM-2000, American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance; and the employer shall insure that the lift maintenance personnel are qualified and that they are adequately trained in the maintenance of the lift.

The Owner/Employer shall maintain the periodic inspection and maintenance records recommended by the manufacturer or ANSI/ALI ALOIM-2000, American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance.

The Owner/Employer 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-2000, American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance; and in the case of frame engaging lift, 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. Demonstrate the operation of the lift to the owner and review correct and safe lifting procedure, using the "Lifting It Right " booklet as a guide.

Important Safety Instructions

When using your garage equipment, basic safety precautions should always be followed, including the following:

- 1 Read all instructions.
- 2 Care must be taken as burns can occur from touching hot parts.
- 3 To reduce the risk of fire, do not operate equipment in the vicinity of open containers of flammable liquids (gasoline).
- 4 Adequate ventilation should be provided when working on operating internal combustion engines.
- 5 Keep hair, loose clothing, fingers, and all parts of body away from moving parts.
- 6 To reduce the risk of electric shock, do not use on wet surfaces or expose to rain.
- 7 Use only as described in this manual. Use only manufacturer's recommended attachments.

Save These Instructions

LIFTING A VEHICLE

Drive vehicle onto lift. Set parking brake and/or use wheel chocks that are provided with lift.

When the vehicle has reached the desired working height, release the power pack button, and lower the vehicle until the safety locks are engaged. The vehicle should remain level when all locks are engaged. If one side engages and the other continues to descend, stop lowering the vehicle, raise it several inches, and try again to engage locks.

IMPORTANT, Before walking under the lift insure that all locks are properly engaged.

It is not safe to work under the vehicle unless all locks are engaged, and the vehicle is level.

LOWERING A VEHICLE

Insure that the area under the vehicle is clear of personnel and tools.

Raise the vehicle until locks are free.

Disengage the locks by depressing the palm button and holding it.

Lower the vehicle by depressing the lowering valve handle. Watch lift to insure that the lift is lowering evenly. If not, raise lift and check all locks to insure they are disengaged before trying to lower lift again.

Continue to lower the vehicle until the crossbeams stop against the base plate. It is important to fully lower the lift to release hydraulic pressure on the system.

MAINTENANCE

To avoid personal injury, permit only qualified personnel to perform maintenance on this equipment. The following maintenance points are suggested as the basis of a preventive maintenance program. The actual maintenance program should be tailored to the installation. See ANSI/ALI ALOIM booklet for periodic inspection checklist and maintenance log sheet.

- If lift stops short of full rise or chatters, check fluid level in power unit per Installation Instructions.
- Replace all Safety, Warning or Caution Labels if missing or damaged.

Daily

- Keep lift components clean. **To keep alignment lifts with rear slip plates working properly use compressed air to blow out any debris from the bearing area.**
- Check for loose or broken parts.
- Check hydraulic system for fluid leaks.
- Check lock release activation.

Weekly

- Check chains and sheaves for wear or damage. Replace as required with genuine Challenger Lifts parts.
- Inspect lock mechanism for proper function.

Monthly

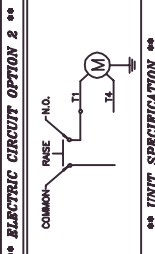
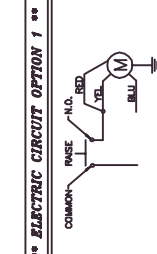
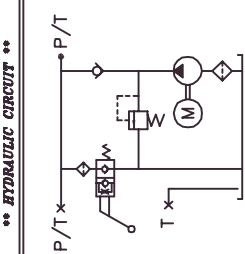
- Torque concrete anchor bolts to 80 ft-lbs.
- Clean and inspect chains and sheaves for wear or damage. Lubricate chain and sheaves with light oil.

IMPORTANT ! Failure to keep lift free of corrosive agents and solvents will lead to reduced service life, which could result in property damage and/or personal injury. If any problems are encountered, contact your local service representative.

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SPX FLUID POWER. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SPX FLUID POWER IS PROHIBITED.

**** NAMEPLATE INFORMATION ****

CHALLENGER LISTS	12087
REV. DATE	AB-1346
REV. DATE	2762
REV. DATE	2762
REV. DATE	2762



**** UNIT SPECIFICATION ****

MOTOR	200-250VAC, 1/2-1/7 AMP, 3/400RPM
PUMP	17.5 GPM, 11.2-11.7 AMP, 3/400RPM
RELIEF	2.5 GPM, 11.2-11.7 AMP, 3/400RPM
DOWHEAD	(2) 9/16 S.A.E. PRESSURE-RETURN PORTS
TANK	0.3 GAL (1200 CU. IN.) DIM. MOUNT WITH 3/8 N.P.T.F. AUXILIARY RETURN PORT
WARNING	250V N.C. MANUAL RELEASE VALVE
WARNING	230 VOLTS A.C. TO MOTOR & HANDHELD "ON" SWITCH
ASSEMBLY	Wipe Unit Clean of Oil
ASSEMBLY	Apply Lubricant to Motor
Packing	UNIT MANUALLY PACKED ONE PER CARTON
Shipping	CARTONS ON PALLET

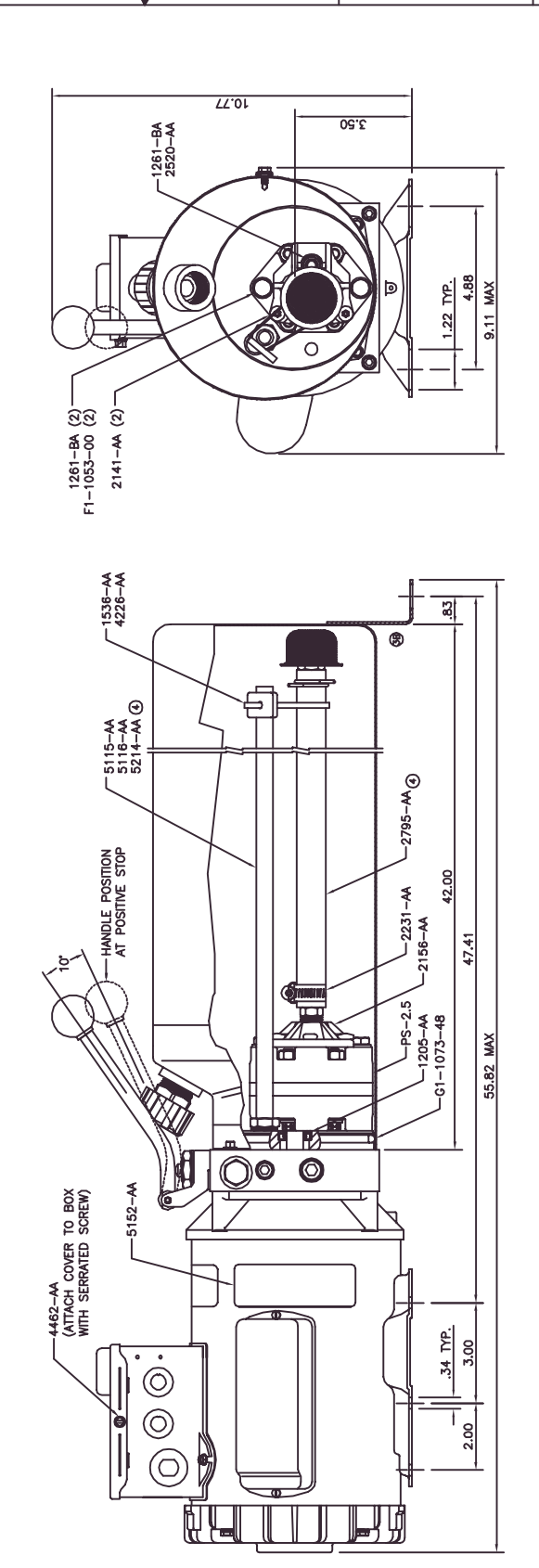
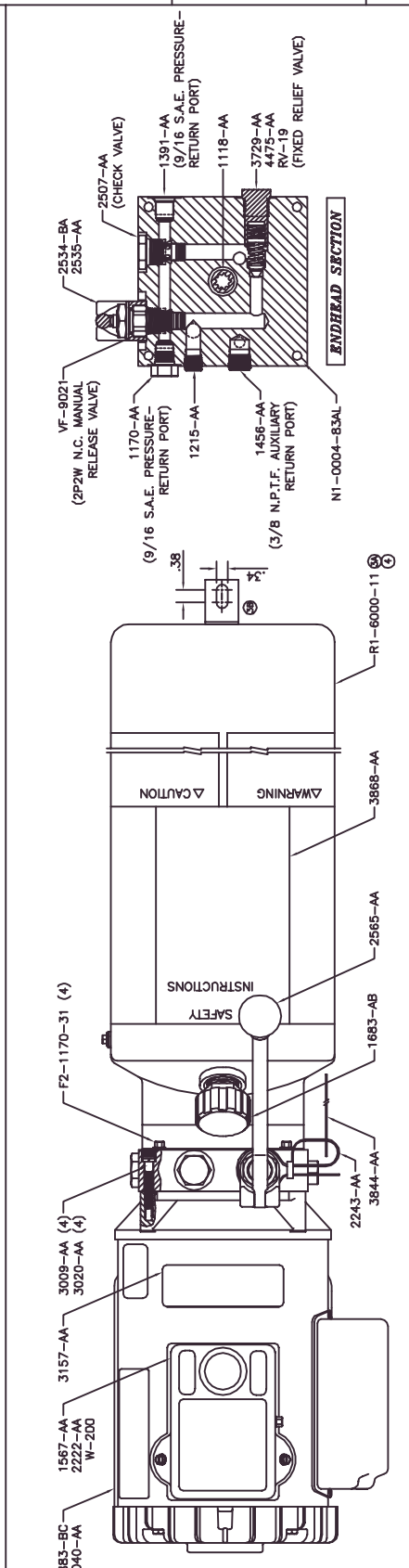
**** UNIT PERFORMANCE ****

1.0 GPM AT 2400 P.S.I.	2.16.14
AT 230 VOLTS A.C. @ 16 AMP.	2.16.15
2500 P.S.I. MINIMUM AT NO FLOW	2.16.16

**** SPX MANUFACTURING STANDARDS ****

AUTOSHIFT TECHNIQUES	2.16.14
ASSEMBLY	2.16.15
FINISHING	2.16.16
PACKAGING	2.16.17

THIS POWER UNIT DOES NOT CONTAIN DEVICES WHICH PRODUCE EMISSIONS FROM THE EFFECTS OF WHICH THERE IS A RISK TO HUMAN HEALTH OR THE ENVIRONMENT.



SPX FLUID POWER
Rev. 11th Sheet
Revised, L 91108 USA

**AC UNIT
(CHALLENGER #12087)**

REPORT ERRORS TO ENGINEERING
DRAWN BY MKJ 07-DEC-98
CHECKED BY JLH 14-JAN-99

EXP. SERVICE PARTS LIST: NONE

THIRD ANGLE ISO PROJECTION
UNISOLETE UNIT
N1-0004-84; (3) N1-0004-73

DO NOT SCALE ALL DIMENSIONS IN INCHES DRAWING

REV. SIZE
AB-1346 6
AB-1346 D

DATE	ECO	CHK'D	LEVEL	CHANGE	DATE	ECO	CHK'D	LEVEL	CHANGE
04-MAR-06	08010B	OWR	MDP	6	ADDED SUPPLIER NOTE AND MAX DIMENSIONS				
22-NOV-05	051101A	NJS	PEA	5	CHANGED TANK AND ASSO. COMP.				
19-MAR-03	030228F	MKJ	PEA	2A	UNISOLETE UNIT				
08-NOV-04	041103C	BAP	MDP	3C	UPD. TO CURRENT ENG. FORMAT				
03-SEP-05	050718G	TVA	HLM	4	ADD: 1000169 BOX LABEL 3C UPDATED VIEW OF RESERVOIR 3B ADDED MTG. BRACKET VIEW 3A ADDED STD 2.16.59 REDRAWN FOR CLARITY				

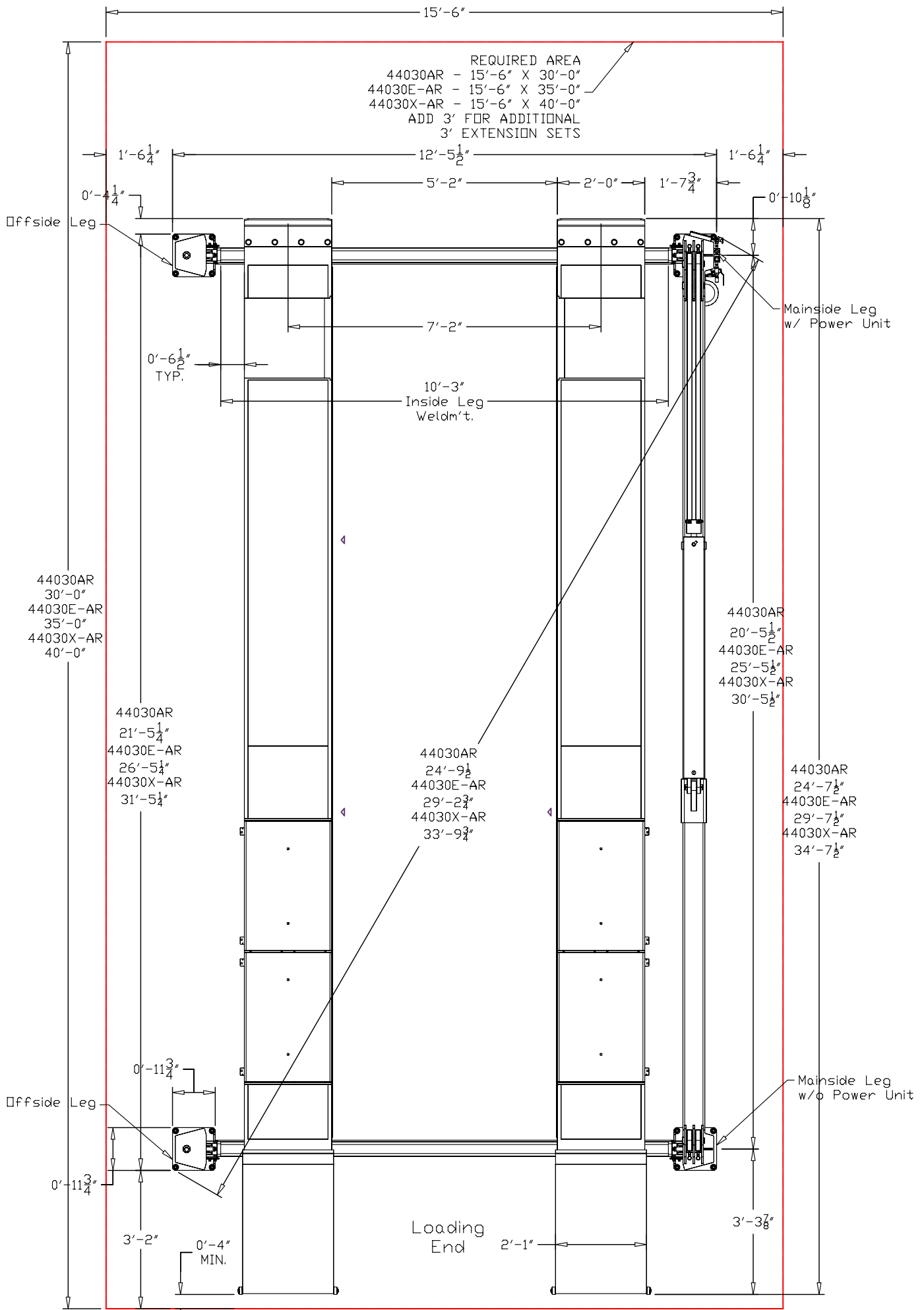
SPX USES A NUMBER OF QUALIFIED SUPPLIERS, SO WIRING DIAGRAMS MAY VARY. CONSULT MOTOR NAMEPLATE.

<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>	
Ramp Assy.		2	
5304ZZ	52 O.D. x 20 I.D. x 22W DS Bearing	4	
90126A036	3/4 SAE Flat Washer	4	
90126A037	7/8 SAE Flat Washer	2	HK
98410A128	3/4 Dia. Retainer Ring	4	
98410A131	7/8 Dia. Retainer Ring	2	HK
ALIF-430-062-XX	Ramp Weldm't.	2	PKG
ALIF-430-065-XX	Ramp Bracket	2	PKG
ALIF-430-067-XX	7/8 Dia. Ramp Pivot Pins	2	PKG
Top Rail Assy.		1	
1U571	0.375 Alum. Breather Plug	1	
2501-06-06	0.375MJIC x 0.375MNPT 90 Deg. Adapter	1	
90640A130	5/16-18UNC Nylon Lock Nut	2	
91259A640	3/8 Dia. x 4 Lg. Shoulder Screw	2	
98410A242	1 3/8 Dia. Ext. Retainer Ring	4	
98296A377	1/4 x 2 Spring Pin	2	
AA5015001	5.00 Dia. 60" Stroke Hyd. Cylinder	1	
ALIG-430-044-XX	44030-AR, Top Rail Weldm't.	1	
ALIG-430-244-XX	44030E-AR, Top Rail Weldm't.	1	
ALIG-430-344-XX	44030X-AR, Top Rail Weldm't.	1	
ALIF-430-080	Top Rail Pin	4	
ALIF-430-081	Cylinder Pin	1	
ALIF-430-083	Cylinder Chain Connector	1	
ALIF-430-085	BL834, 91 Pitch Male Ends, Short Top Rail Chain	2	
ALIF-430-086	44030-AR, BL834, 325 Pitch Male Ends, Long Top Rail Chain	2	
ALIF-430-286	44030E-AR, BL834, 385 Pitch Male Ends, Long Top Rail Chain	2	
ALIF-430-386	44030X-AR, BL834, 445 Pitch Male Ends, Long Top Rail Chain	2	
GL-12-056	4" Dia. Chain Sheave	8	
3225T6	3/4 Rubber Cushion Steel Loop	4	HK
90096A242	#10-24 x 0.50 Self Threading Screw	4	HK
90126A033	1/2 SAE Flat Washer	16	HK
90473A223	1/2-13UNC Hex Nut Grd. 2	8	HK
91102A033	1/2 Lock Washer	8	HK
91247A720	1/2-13UNC x 2 Lg. HHCS Grd. 5	8	HK
Cross Rail Assy.		2	
ALIF-412-026	Anti-Sway Rub Block	4	PKG
ALIF-430-026L-XX	LH Cross Rail Weldm't.	1	
ALIF-430-026R-XX	RH Cross Rail Weldm't.	1	
ALIF-430-054-XX	Safety Latch Weldm't.	4	
ALIF-430-071-XX	Anti-Sway Bracket	4	PKG
ALIF-430-074	Cylinder Bosses	8	PKG
ALIF-430-076	Safety Latch Pin	4	
ALIF-430-078	Cross Rail Bearing Pin	4	
ALIF-430-084	Cross Rail Chain Connector	2	
ALIF-430-087	BL834, 216 Pitch M & F Ends, Cross Rail Chain	2	PKG

<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>	
GL-12-056	4" Dia. Chain Sheave	4	
SPC-2501	5/32 Straight Push-On Fitting	4	
6498K43	Clevis, Pin & Ext. Retainer Ring	4	
6498K337-2.00	1 1/16 Dia. x 2" Stroke Cylinder	4	
90126A031	3/8 SAE Flat Washer	8	HK
90640A130	5/16-18UNC Nylon Lock Nut	6	HK
91102A030	5/16 Lock Washer	8	
91102A031	3/8 Lock Washer	8	HK
91251A583	5/16-18UNC x 1 Lg. SHCS	8	
91251A623	3/8-16UNC x 7/8 Lg. SHCS	8	HK
91259A626	3/8 x 1 1/4 Lg. Shoulder Screw	2	HK
91259A628	3/8 x 1 1/2 Lg. Shoulder Screw	2	HK
91259A640	3/8 x 4 Lg. Shoulder Screw	2	HK
98410A133	1 Dia. Retainer Ring	4	
98410A249	1 3/8 Dia. Retainer Ring	4	
<i>LH/RH Main & Offside Leg Assy.</i>			
90126A033	1/2 Flat Washer	8	
90473A237	3/4-10UNC Hex Nut Grd. 2	8	
90473A223	1/2-13UNC Hex Nut Grd. 2	4	
91078A238	3/4-10UNC Jam Nut Grd. 2	8	
91102A030	5/16 Lock Washer	4	HK
91102A033	1/2 Lock Washer	4	
91247A583	5/16-18UNC x 1.0 Lg. HHCS Grd. 5	4	HK
91247A716	1/2-13UNC x 1 1/2 Lg. HHCS Grd. 5	4	
91578A501	3/4-10UNC x 5 1/2 Wedge Anchor w/Nut & Washer	16	HK
94846A558	1 1/8-12UNF Jam Nut Grd. 5	4	HK
95473A030	5/16-18UNC Hex Nut Grd. 2	8	HK
ALIF-430-082	Threaded Chain Connector	2	PKG
ALIG-430-030-XX	Main Side Leg Weldm't. w/ PU Mounts	1	
ALIG-430-032-XX	Main Side Leg Weldm't. w/o PU Mount	1	
ALIG-430-036-XX	Offside Leg Weldm't.	2	
ALIG-430-038-XX	Latch Ladder Weldm't.	4	
<i>Alignment Track Assy.</i>		2	
ALIF-430-038-XX	Track Stop	2	PKG
ALIF-430-039-XX	Track Clamp	2	PKG
ALIG-412-046	Roller Flat Bar	8	
ALIG-430-020L/R-X	44030-AR, Track Weldm't.	2	
ALIG-430-220L/R-X	44030E-AR, Track Weldm't.	2	
ALIG-430-320L/R-X	44030X-AR, Track Weldm't.	2	
90126A036	3/4 Flat Washer	40	HK
90473A237	3/4-10UNC Hex Nut	24	HK
91102A036	3/4 Lock Washer	24	HK
91247A846	3/4-10UNC x 2 3/4 Lg. HHCS Grd. 5	16	HK
92865A841	3/4-10UNC x 1 3/4 Lg.. HHCS Grd. 5	8	HK

<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>	
Misc. Parts			
3225T6	¾ Rubber-Cushion Steel Loop	4	HK
414411000	Pneumatic Control 3-Way Valve	1	HK
50785K41	1/8MNPT x 1/8FNPT 90 Deg Street Elbow	1	HK
50785K72	¼ FNPT Brass Tee Connector	1	HK
5402-02-04	1/8MNPT x 1/4FNPT Straight Expander	1	HK
5485K22	¼ MNPT Hex Nipple	1	HK
6534K46	¼ MNPT Pneumatic Hose Coupling	1	HK
6801-LL-06-06	3/8 MJIC x 3/8 MORB 90 Deg. Fitting	1	HK
8876T13	¼ Nylon Loop Strap	1	HK
90096A242	#10-24 x ½ Lg. Self Threading Screw	6	HK
90126A011	#10 SAE Flat Washer	16	
91102A002	#8 Lock Washer	3	HK
91102A011	#10 Lock Washer	16	HK
91251A199	#8-32UNC x 1 Lg. SHCS	3	HK
91251A249	#10-24UNC x 1 ¼ Lg. SHCS	16	HK
AH-1009	Power Unit	1	PKG
ALIF-412-029	0.375FJIC Hose x 108"	1	PKG
ALIG-415-119	3/8 Heli Tube x 6' Lg.	1	K
ALIG-430-029-XX	Turn Table Stops	4	PKG
GL-09-056	1/16" Steel Shims	16	HK
GL-09-112	¼" Steel Shims	12	HK
PT23003BK	5/32 O.D. Black Tube x 56' Lg.	1	PKG
PT24006BK	3/8 O.D. Black Tube x 70' Lg.	1	PKG
SPC-6002	3/8 x ¼ NPT Straight Fitting	8	HK
SPE-25	3/32 Push-On Union Tee	3	HK
SPE-60	3/8 Push-On Union Tee	6	HK
SPL-2501	1/8MNPT x 5/32 90 Deg. Push-On Fitting	1	HK
SPL-6002	1/4MNPT x 3/8 90 Deg. Push-On Fitting	1	HK
Optional Parts			
ALIF-430-EXTKIT	3 Ft. Track Extension Kit	1	
ALIF-430-048-XX	3 Ft. Track Ext.	2	PKG
90126A036	3/4 Flat Washer	24	HK
90473A237	3/4-10UNC Hex Nut	12	HK
91102A036	3/4 Lock Washer	12	HK
91247A846	3/4-10UNC x 2 ¾ Lg. HHCS Grd. 5	4	HK
91257A844	3/4-10UNC x 2 ¾ Lg. HHCS Grd. 8	8	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.



INSTALLATION SPECIFICATION & LAYOUT DRAWING

TOP RAIL ASSY.

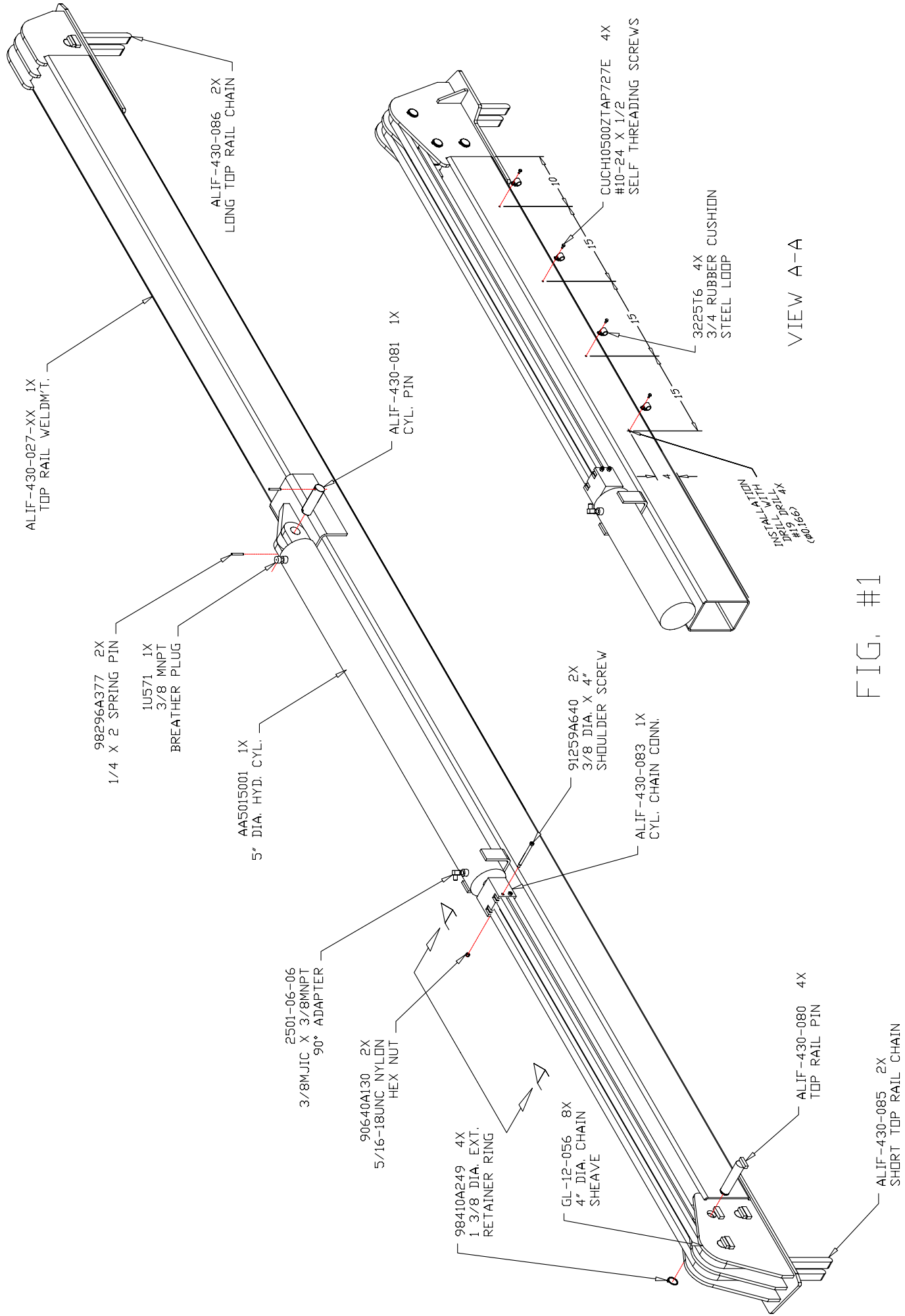


FIG. #1

LEG ASSEMBLY

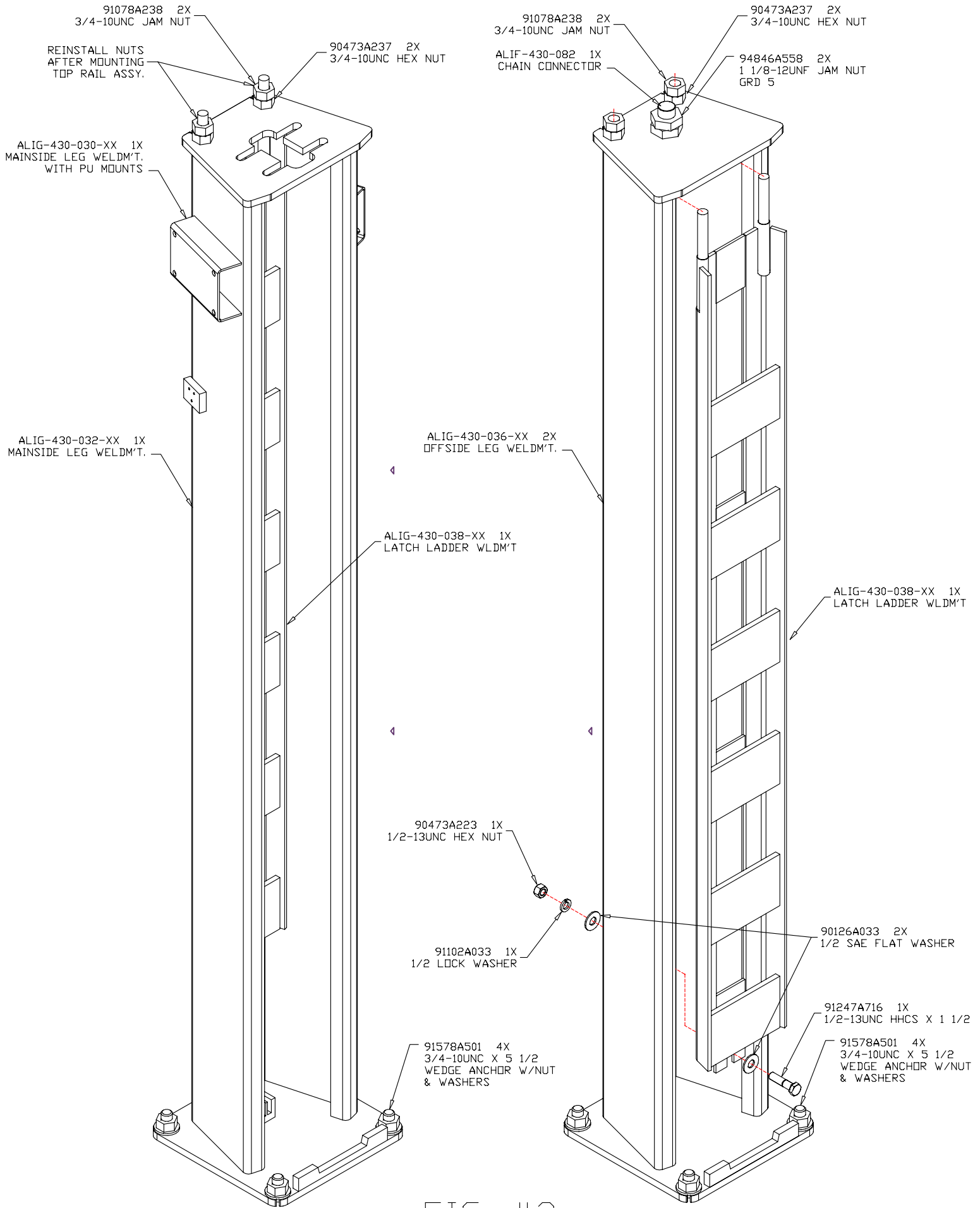


FIG. #2

CROSS RAIL ASSEMBLY

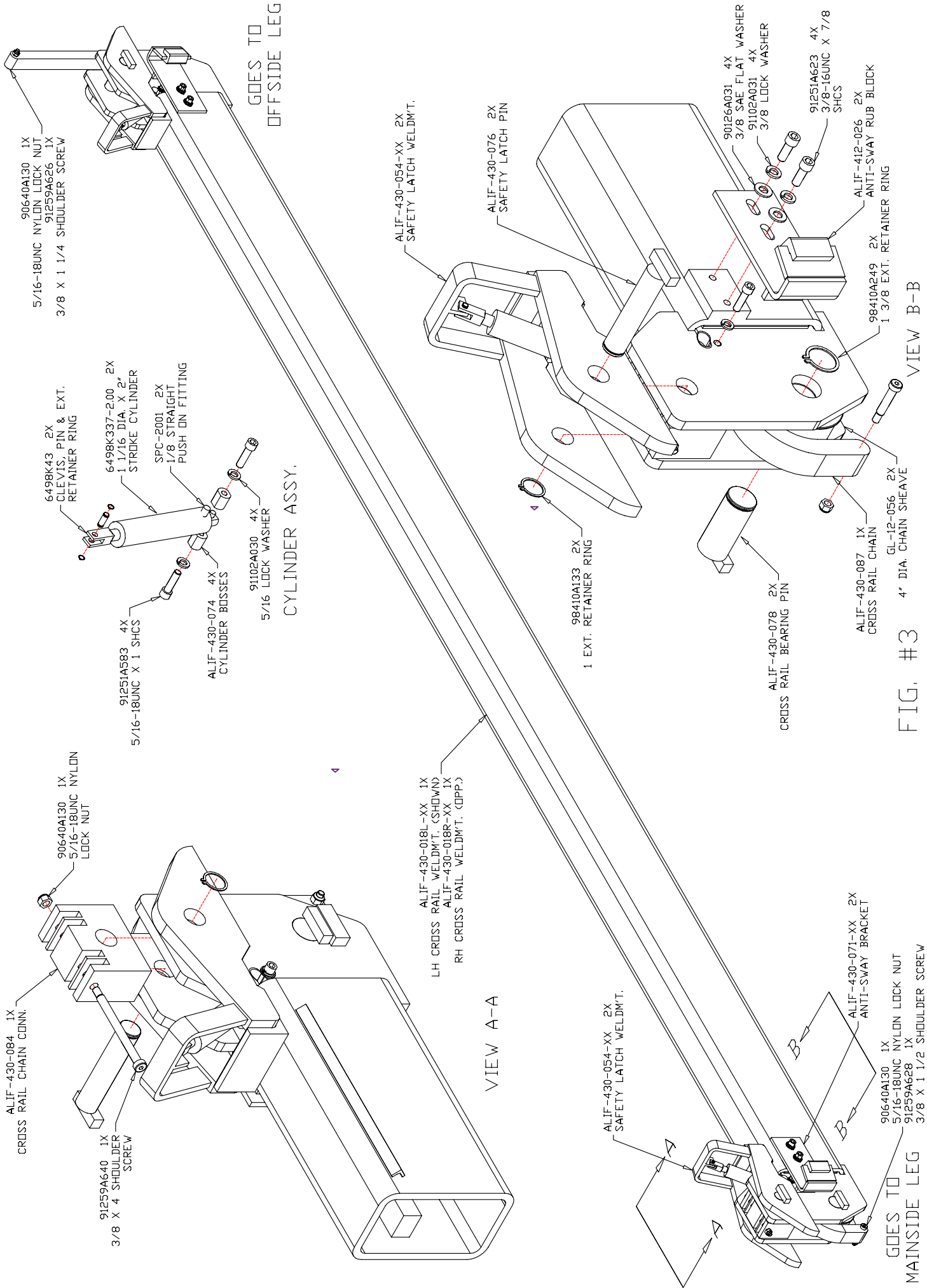


FIG. #3

TRACK, RAMP & STOP ASSEMBLY

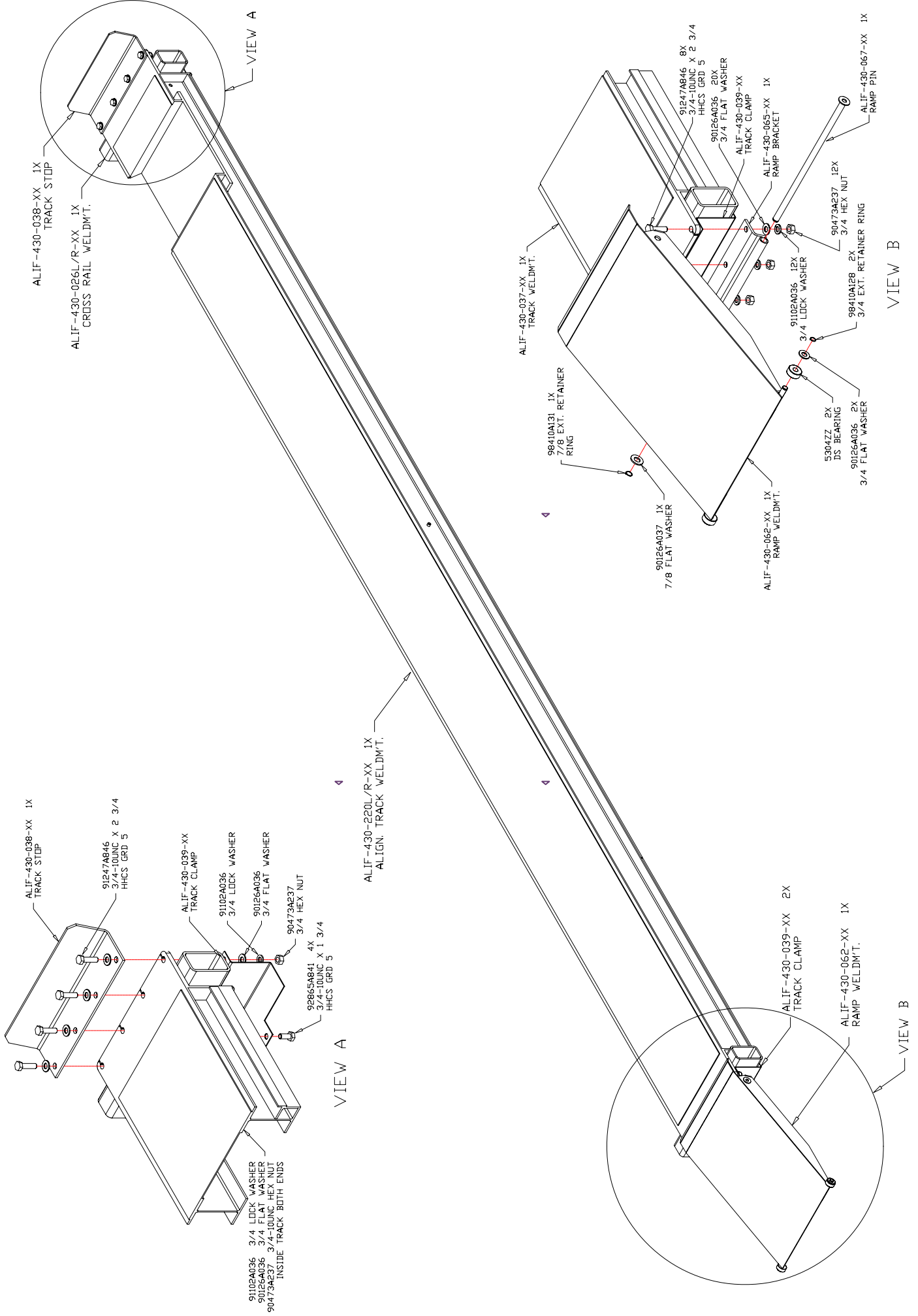
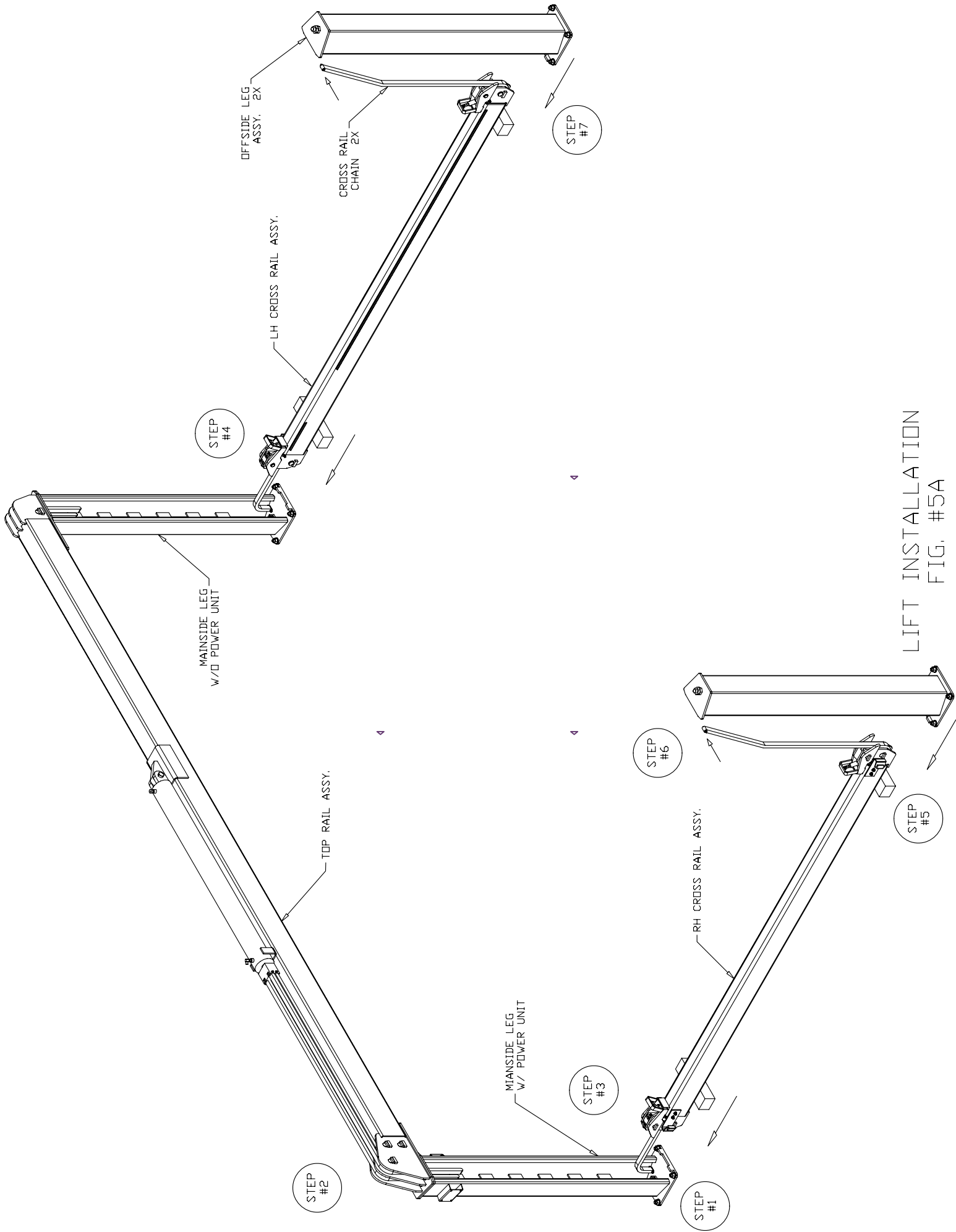


FIG. #4A



LIFT INSTALLATION
FIG. #5A

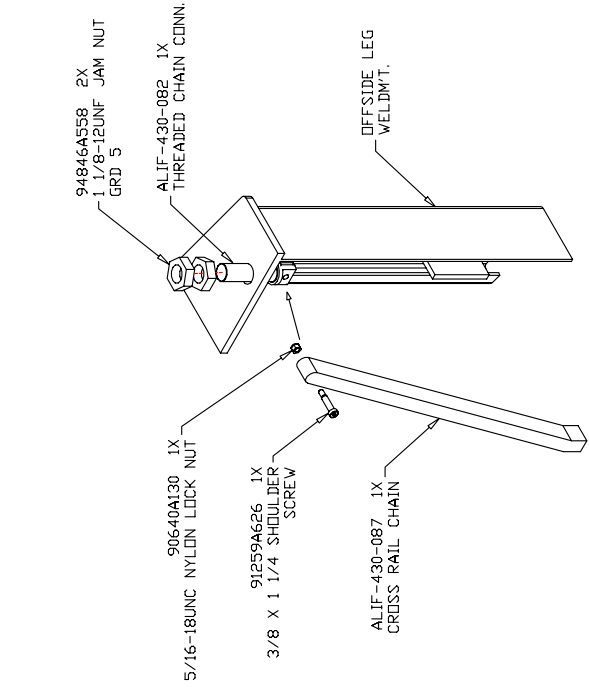


FIG. #5D

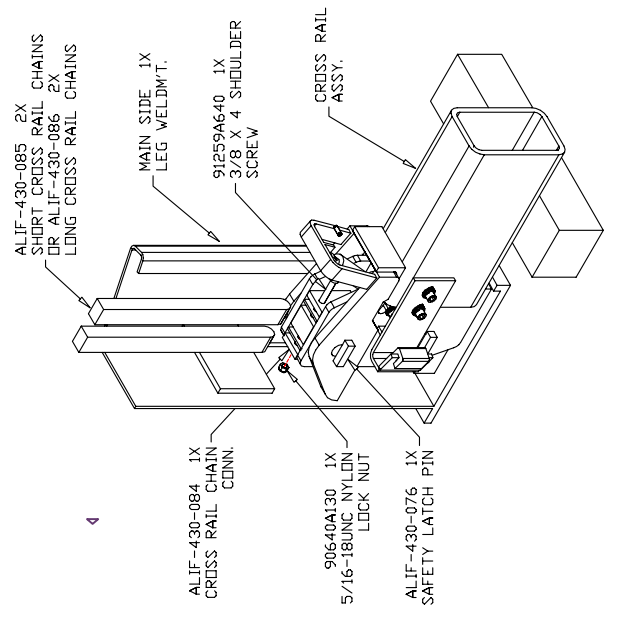


FIG. #5E

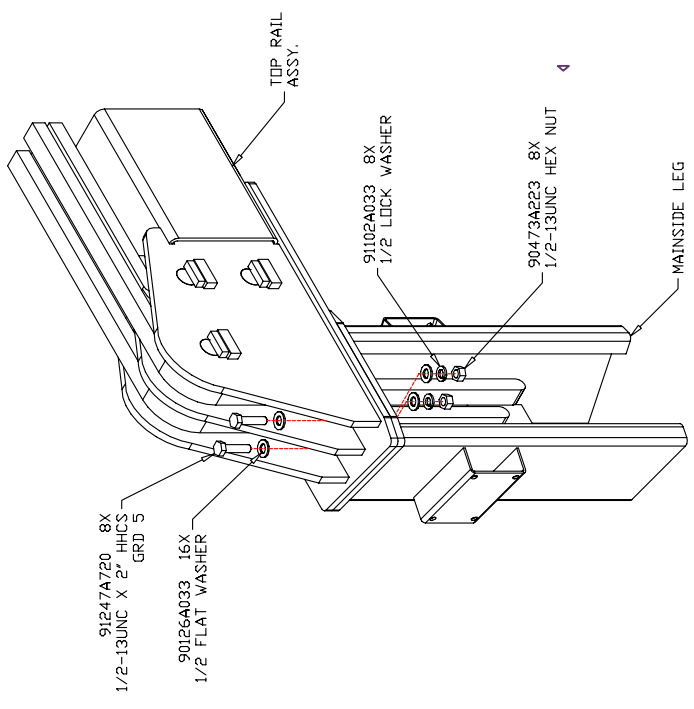


FIG. #5B

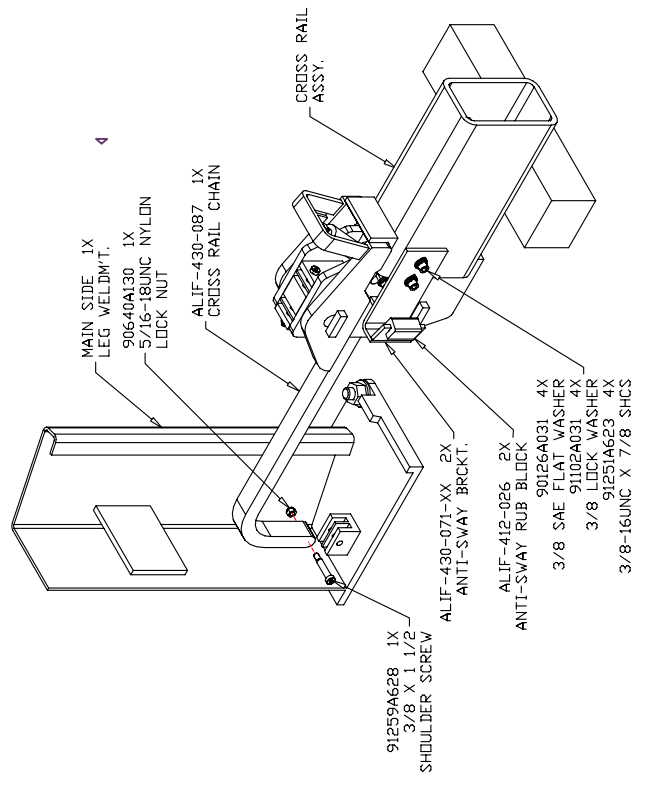


FIG. #5C

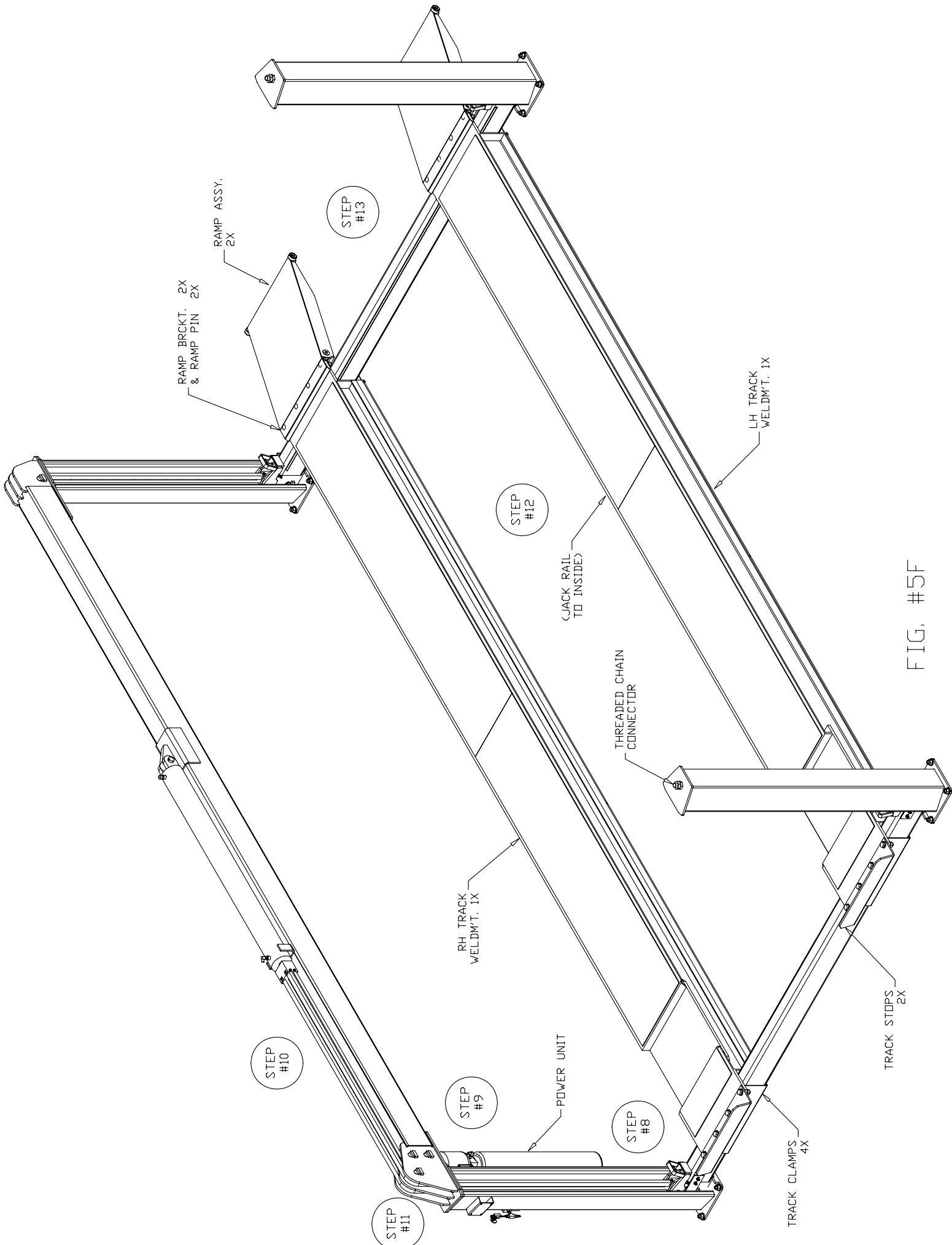


FIG. #5F

HYDRUALIC & PNUEMATIC ASSEMBLY

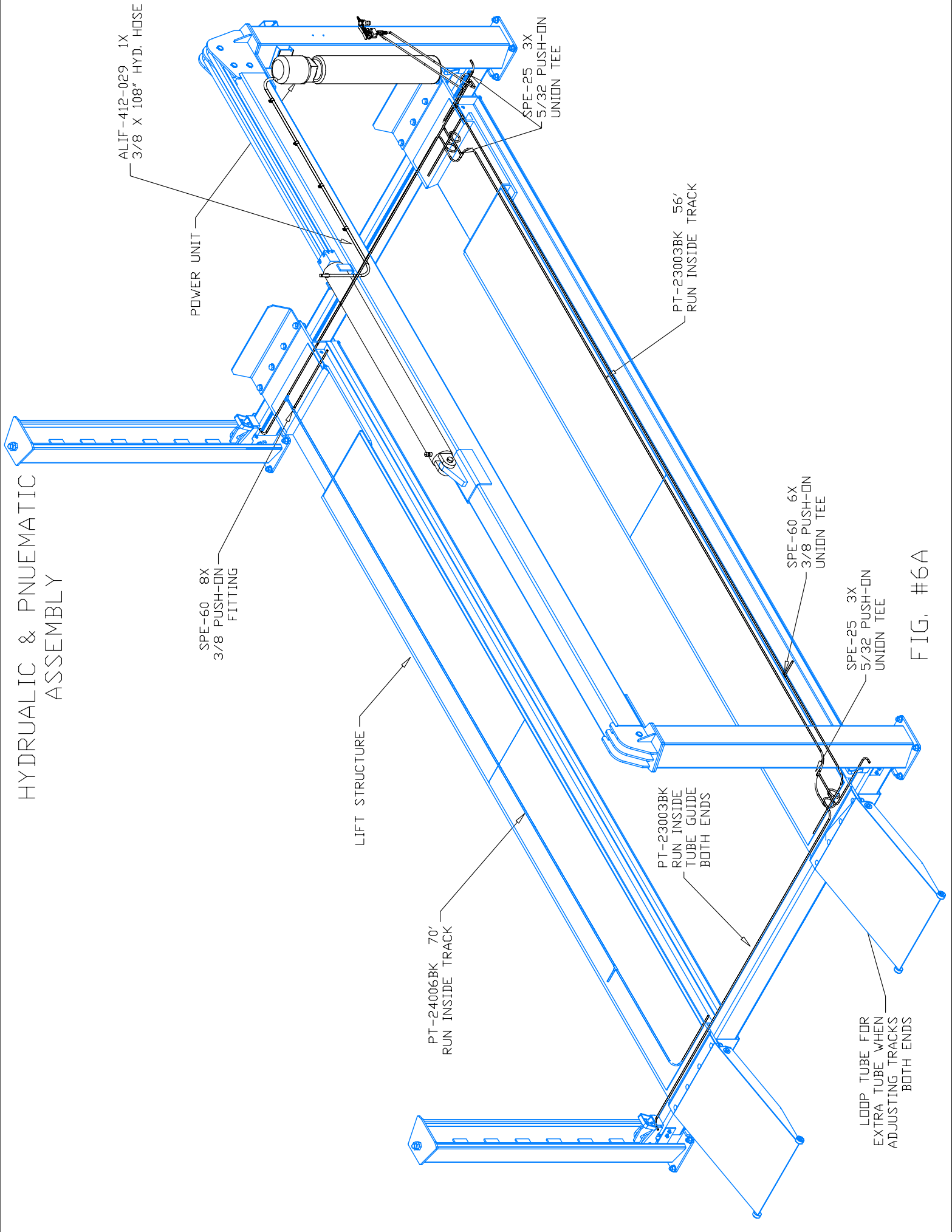


FIG. #6A

HYDRUALIC & PNUEMATIC ASSEMBLY

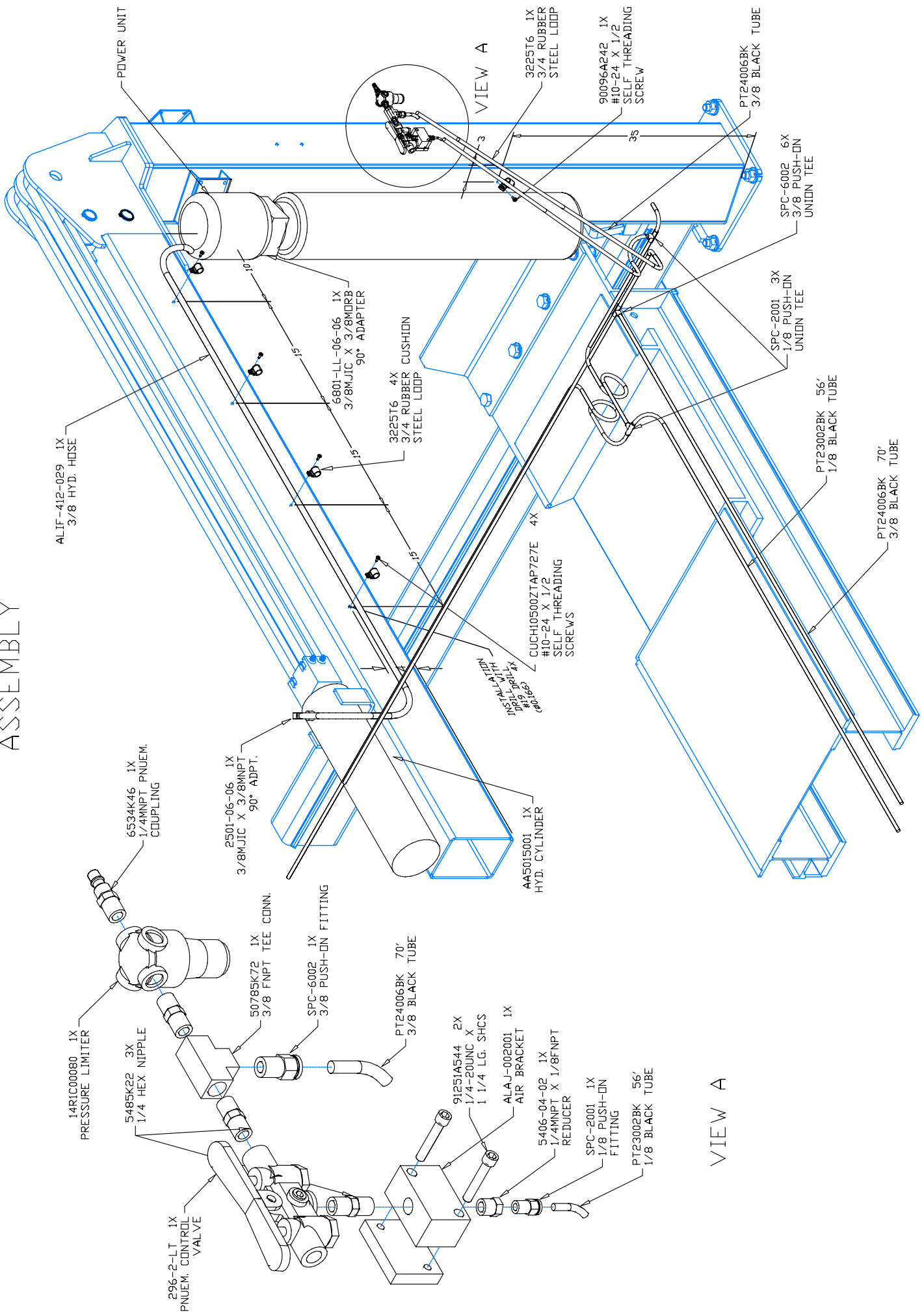


FIG. #6B