

# **WHIP INDUSTRIES, INC.**

## **WAS0922 9,000 LBS CAPACITY**

### **INSTALLATION INSTRUCTIONS & MANUAL**

**TWO POST ABOVE GROUND OVERHEAD LIFT**

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Rev. -

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## **IMPORTANT INFORMATION**

- 1. WARNING – Two Post Lifts are designed to pickup vehicles with all four lifting pads engaging the frame of the vehicle or designated lifting point. It is very dangerous to pick up a vehicle using less than the four lifting pads. Lifting a vehicle incorrectly regardless of the weight or the height may cause bodily injury to the operator or damage the lift and vehicle.**
2. 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.
- 3. Read the installation manual before installing the lift.**
4. This lift is an overhead lift which can be adjusted to three different heights. Max. Height = 141 1/4", Intermediate Height = 135 1/4" and Min. Height = 129 1/4".
5. Read anchoring tips information before drilling and installing the anchor bolts.
- 6. Bleed air from hydraulic cylinders before raising vehicle with lift. Air in cylinder may damage seal.**
7. Do not raise a vehicle with the lift until the lift has been correctly installed and adjusted as described in this manual.
8. Do not remove a suspension assembly, transmission or other heavy item from the front of a front wheel drive vehicle unless the vehicle is adequately supported in the rear.

## **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.

**RECOMMENDED OIL: HYDRUALIC MEDIUM OIL SAE-10 OR**  
**EQUIVALENT. MAY USE TRANSMISSION FLUID DEXRON II OR III**  
**ATF.**

**ALL BOLTS PLACED IN THE COLUMN MUST BE PLACED FROM**  
**THE INSIDE FACING OUTWARD.**

## 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 3/4"-10UNC x 5 1/2" anchors to 125 ft-lbs. of torque.

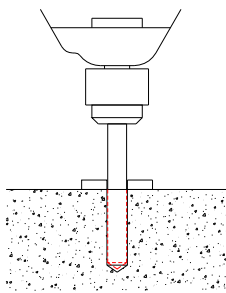


FIG. #1

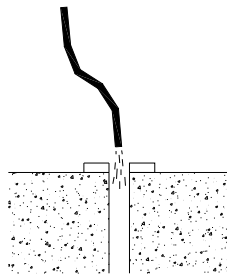


FIG. #2

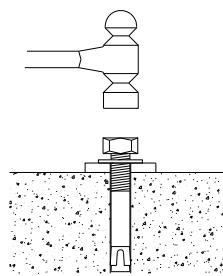


FIG. #3

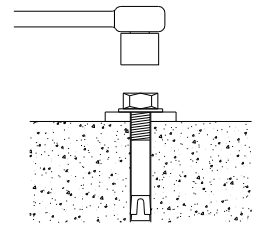


FIG. #4

## **TOOLS REQUIRED**

Concrete rotary hammer drill with 3/4" carbide bit

Open End Wrenches: 7/16", 1/2", 5/8", 11/16", 3/4", & 1 1/8"

Ratchet Driver

Sockets: 11/16", 3/4" X 1/2" deep

12" Crescent Wrench

3/16 Allen Wrench

Hammer

Needle Nose Pliers

Electrical Pliers

Level

Fish Tape

25' Tape Measure

Chalk Line

Small Drift Punch

Step Ladder

3 gallons of hydraulic medium oil SAE-10 or Dextron II or III ATF.

## INSTALLATION REQUIREMENTS

- 1) The standard lift is an overhead lift which can be adjusted to three different heights. Max. Height = 141 1/4", Intermediate Height = 135 1/4" and Min. Height = 129 1/4".
- 2) Minimum distance required beyond either side of the lift to the nearest obstacle is 6"
- 3) Minimum of 8'-0" is required in front of the lift to the nearest obstacle.
- 4) Minimum of 12'-0" is required in the rear of the lift to the nearest obstacle.
- 5) 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 .
- 6) Leg assemblies should be mounted on a maximum slope not to exceed 1/16" per foot.
- 7) Before installing see FIG. #1 for lift specifications.

## INSTALLATION INSTRUCTIONS

- 1) After unpacking lift, inspect and check shipping list.
- 2) Steps #3 thru #5 are pre-assembly before standing and installing lift.
- 3) Assemble the overhead cross bridge assembly with the hardware and parts as shown in FIG. #2. If one person is installing the lift then Shut Off Bar Assy. and Switch Assy. may be installed after bolting Cross Bridge to lift.
- 4) Assemble the Leg Extension (2) ALIF-209-620-XX to the Mainside and Offside Leg ALIF-209-691/-692 using (16) 7/16-14UNC x 1 1/4 bolts, (16) 7/16-14UNC nut, (32) 7/16 flat washer and (16) 7/16 lock washer as shown in FIG. #3A & #3B.
- 5) Assemble the Carriage Stops ALIF-209-019-XX to the Mainside and Offside Leg ALIF-209-690L/R-X using (4) 1/2-13UNC x 1 1/2 bolts and (4) 1/2-13UNC nylon locknut as shown in FIG. #5A & #5B. **\*\*IMPORTANT: NYLON LOCKNUTS MUST BE ON THE OUTSIDE OF LIFT. IF NYLON LOCKNUTS ARE ASSEMBLED TO THE INSIDE OF LIFT THEY WILL INTERFERE WITH CARRIAGE.**
- 6) Locate the (2) 1/4" x 359" for WAS0922. While the legs are laying horizontal install one end of the 1/4" cables in the carriage. Slide the carriage about 36" from the bottom of the leg up towards the top and thread the cable to the appropriate gusset. (The three gussets with holes inside each carriage are adjustment for the cable depending on the

width of the lift. For the maximum width of lift use lower gussets on carriages). Turn the nylon lock nut half way down the threaded stud of the cable and pull the slack. Run the other end of the cable down and under pulley located at the base of the leg. Repeat the same procedure for the other leg assembly.

- 7) Layout lift location using FIG. #1. Maximum width of lift is 11' - 4" and minimum is 10' - 4". Lift moves in at 6" increments.
- 8) Leg assemblies should be mounted on a CONCRETE FLOOR ONLY with a minimum thickness of 4 inches and a maximum slope not to exceed 1/16" per foot.
- 9) Stand leg assemblies up and position as shown in FIG. #1.
- 10) Make sure the 9'-4 1/2" inside measurement leg to leg is maintained. DO NOT ANCHOR AT THIS TIME. Depending on customers preference, lift may be moved in 6" increments to 8'-4 1/2" inside measurement.
- 11) **NOTE:** One leg has a power unit bracket. This is the leg (Mainside) that the pumping unit will mount to and the electrical service will be wired to. **FACTORY RECOMMENDED LOCATION IS TO THE REAR PASSENGER SIDE OF VEHICLE.**
- 12) Check leg (with pump mount bracket) for plumpness using a good spirit level in both directions. Use shims (1/16" x 1 x 2 1/2" and 1/4" x 1" x 2 1/2") provided as necessary for proper leveling. (Do not exceed 1/2" total shim height). DO NOT ANCHOR NON-POWER COLUMN AT THIS TIME.
- 13) Drill and set 3/4" anchor bolts. (Ref. Anchoring Tips) Use washers when final tightening is done. Make sure all bolts are properly set and meet 125 ft. lbs of torque. DO NOT USE AN IMPACT.
- 14) Check inside measurements between both columns at top and bottom to insure they are parallel.
- 15) Lift Cross Bridge Assembly as shown in FIG. #2 to the top of the leg assemblies with Switch Box assembly on the side of the power unit. Secure assembly as shown in FIG.#3 using the (4) 7/16-14UNC x 1 1/2" bolts, (8) 7/16 flat washers, (4) lock washers and (4) 7/16-14UNC hex nuts. Bolts heads are to be placed on the outside with the nuts on the inside.
- 16) Next assemble and install the Single Point Release Pulley Bracket as shown in FIG.#3A with the LH/RH Single Point Rel. Weldm't., (4) 1/4 flat washer, (2) Pulley Sheave, (2) 1/16" Cotter Pin, (2) 7/16-14UNC x 1 1/2" bolts, (4) 7/16 flat washers, (2) lock washers and (2) 7/16-14UNC hex nuts.
- 17) Attach the power unit to the main side leg using the (4) 5/16-18UNC x 1" bolts, (8) 5/16-18UNC hex nuts, and (4) 5/16 lock washers.

- 18) Next locate lock release handle, 7/8" retainer rings, 1/16" wire rope (25'-0"), 1/16" wire rope clip and (1) 1/16" oval sleeves. Switch out shipping pin with handle on safety latch bracket, which is located on the back of the main side leg. Secure in place with 7/8" retainer ring see FIG. #5D. Install 1/16" wire rope on the offside legs single point release by looping wire rope through one of the holes in the 3/8" clevis pin, which ever holes lines up best and securing it with oval sleeve see FIG. #4. Crimp oval sleeve. Run wire rope to other side, connect it to lock release handle (hole farthest away from the leg) and clamp using 1/16" wire rope clip see FIG. #4. Wire rope should not have any slack but locks on both legs should also touch leg backsides in their normal position. If cable is loose, adjust wire rope using wire rope clip.
- 19) Locate and install the 53", 348" and 13 1/2" hydraulic hoses see FIG. #6. Manually raise both carriage assembly about 18" for hose installation. The 53" hydraulic hose connect the 90 deg. adapter at the bottom of the mainside leg to the bulk head tee. Next attach the Hose Bracket (ALIF-209-275-XX) with the Grommet (2772-BLK) to the MS & OS Leg assemblies as shown in Fig. #3. Now thread hose through pipe loops in leg assembly. The 348" hydraulic hose connects the 90 deg. adapters at the bottom offside leg to the bulk head tee on the mainside leg. Thread the hydraulic hose through pipe loops of offside leg, hose brackets, cross bridge and mainside leg. Leave the hose bracket loose and adjust the bracket to take up the slack of the hydraulic hose. Use 3/8 JIC nut to secure bulk head tee to main side leg. The 13 1/2" hydraulic hose connects the straight adapter of the power unit to the bulk head tee. Do not lower carriage assemblies. Leave carriage raised to install equalizer cables.
- 20) Next route the two 1/4" equalizing cables x 359" for WAS0922 as shown in FIG. #4. (The three gussets with holes inside each carriage are adjustment for the cable depending on the width of the lift. For the maximum width of lift use lower gussets on carriages.) Run the cable down and under pulley located at the base of the leg. Next run cable back up through the carriage to the top of leg over the pulley (at the top of leg) and across to the other leg, over pulley and down through the bracket located at the top left side of carriage see FIG. #4. Secure in place with nylon lock nut.
- 21) Repeat step 19 for installing cable on the other leg.
- 22) Adjust nuts evenly until cables are tight.
- 23) Next installing swing arm, rotate & slide swing arms to the center of lift to see if lift pads are at the same height. If pads are not at the same height then shim lift forward, backward or sideways to level lift pads. Leg of lift may become out of plumb. If lift pads are more than 1" from being level call manufacture for further instructions.
- 24) Fill pumping unit with hydraulic medium oil SAE-10 or equivalent. It will take approximately 3 US gallons. Automatic transmission fluid may be substituted.
- 25) Use plastic ties to secure slack in hydraulic hose and electrical cable. Slack of the hydraulic hose is where the cross bridge and legs are connected.



- 26) 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. Install electricity to lift coming from snap action switch to power unit. Use FIG. #11 for wiring diagram.
- 27) Before operating lift visually inspect lift to make sure the cable and hoses are not rubbing or in the way of hardware or lift parts. Especially in cross bridge or legs.
- 28) Next purge air from hydraulic lines. Raise lift until carriages rise off of safety locks. Crack bleeder plug located at the top of cylinder. Listen for air to escape and tighten when hydraulic fluid starts coming out. Now raise lift to the top and lower. Repeat cycle until no air is in the hydraulic system..
- 29) The above procedure may have to be repeated several times to ensure all the air has been bled from the system.
- 30) Refill tank with hydraulic oil.
- 31) Raise lift and make sure that safety locks are synchronized as lift goes up. If locks re not synchronized then tighten the cable on the side that is lagging.

### **30 DAY MAINTENANCE**

- 1) Inspect the (6) cable pulleys and shaft for wear.
- 2) Grease bearing surfaces in leg assembly minimum every 30 days or as required depending use of lift.
- 3) Check equalizer cables regularly for proper tension and adjustment. Locks must be synchronizes as lift goes up.
- 4) Inspect adapters and pads for damage or wear. Replace if necessary.
- 5) Grease swivel arm pins to insure ease of operation.
- 6) Inspect all hydraulic lines and fittings for leaks and tighten if necessary.
- 7) Check locking latches and releases for proper operation.
- 8) Check arm lock device for proper operation.
- 9) Check hydraulic fluid level in power unit.
- 10) Torque anchor bolts to 125 ft. lbs.

## TROUBLE SHOOTING GUIDE

### POSSIBLE PROBLEM

### POSSIBLE CAUSE & SOLUTIONS

1. MOTOR DOES NOT RUN

- A) Breaker tripped or fuse blown
- B) Check micro-switch on shut off bar.
- C) Check thermal overload in starter.
- D) Defective control switch, replace
- E) Faulty wiring connections. Call electrician.

2. MOTOR RUNS BUT THE LIFT WILL NOT RAISE OR HOLD A LOAD

- A) A foreign object under check valve. Push handle down and push “raise” switch. Foreign matter should release under pressure.
- B) Remove check valve. Clean and replace.
- B) Oil level low: check oil reservoir. With carriage in the down position, pump reservoir should be full.

3. MOTOR RUNS BUT THE LIFT PICKS UP PARTIAL LOAD ONLY.

- A) Relief valve setting is too low. Remove back hexcap on pump and adjust valve clockwise.
- B) Hydraulic seals damaged (call factory for instructions)
- C) Check voltage must have a minimum of 208 volts.

4. OIL BLOWS OUT BREATHER

- A) Oil reservoir overfilled
- B) Lift lowered too quickly while under heavy load.

5. LIFT MAKES A GROANING SOUNDING WHEN RAISING OR LOWERING.

- A) Bleed cylinder manually.
- B) Add an ounce of oil to the air side of the piston.

6. LIFT RAISES UNEVENLY

- A) Cables are not properly adjusted or tightened.
- B) Use lighter weight oil in the pump.

**PARTS LIST for**  
**WAS0922**

PART NUMBER	DESCRIPTION	QTY.
ALIF-209-692	Mainside Leg Final Assy.	1
2502-06-06	#6MJIC X #6FP Adapter Fitting	1
4550K156	1/4 x 2.75 Nipple Sch 80	1
5315	7/16" Dia. x 1 1/4" Ext. Spring	1
5933	1/2 " Dia. x 2 1/8" Ext. Spring	1
7130K55	11 x .18 Nylon Cable Ties	1
90126A037	7/8" SAE Flat Washer	2
91102A029	1/4" Lock Washer	1
91253A578	5/16-18 x 1/2 FSHCS	1
91309A537	1/4-20UNC x 1/2 Hex Head Bolt	1
92865A716	1/2-13UNC x 1 1/2 Hex Head Bolt Grd5	2
98330A185	5/16" Dia. x 3" Adj. Clevis Pin	1
98330A245	3/8" Dia. x 2 1/2" Adj. Clevis Pin	1
98338A140	3/32" x 1 Cotter Pin	3
98410A128	3/4 Ext. Retainer Ring	1
98410A131	7/8" Ext. Retainer Ring	2
AA2515021	2.5" Bore x 36" Stroke Hyd. Cyl.	1
ALIF-209-615	Carriage Assy.	1
90177A225	2 1/4 Dia Split Ring	2
98555A213-1.0	1 Dia. C-Retainer Ring	6
ALIF-209-608-XX	Carriage Weldm't.	1
ALIF-209-057	1 Dia. Arm Lock Pin	2
ALIF-209-107	Upper Arm Lock	2
ALIF-209-158	1 1/4 x 1/8 Comp. Spring x 7 1/4	2
ALIF-209-088	4" Pulley Assy.	1
ALIF-209-601-XX	Lower Pulley Pin	1
ALIF-209-690R-XX	Main side Leg Weldm't.	1
ALIF-209-125-XX	Safety Latch (Mat'l. A514)	1
ALIF-209-126-XX	Single Point Release Cover	1
ALIF-209-162	7 3/4 Lg. Rubber Edging	2
GL-09-057	Nylon Rub Blocks	8
GL-09-079	Safety/Caution/ Warning Decals	1 Set
GL-09-143	Lift Capacity Sticker	1
GL-09-144	Lift Instruction Sticker	1
ALIF-209-691	Offside Leg Final Assy.	1
2502-06-06	#6MJIC X #6FP Adapter Fitting	1

4550K156	1/4 x 2.75 Nipple Sch 80	1
5315	7/16" Dia. x 1 1/4" Ext. Spring	1
5933	1/2 " Dia. x 2 1/8" Ext. Spring	1
7130K55	11 x .18 Nylon Cable Ties	1
90126A037	7/8" SAE Flat Washer	2
91102A029	1/4" Lock Washer	1
91253A578	5/16-18 x 1/2 FSHCS	1
91309A537	1/4-20UNC x 1/2 Hex Head Bolt	1
92865A716	1/2-13UNC x 1 1/2 Hex Head Bolt Grd5	2
98330A185	5/16" Dia. x 3" Adj. Clevis Pin	1
98330A245	3/8" Dia. x 2 1/2" Adj. Clevis Pin	1
98338A140	3/32" x 1 Cotter Pin	3
98410A128	3/4 Ext. Retainer Ring	1
98410A131	7/8" Ext. Retainer Ring	2
AA2515021	2.5" Bore x 36" Stroke Hyd. Cyl.	1
ALIF-209-615	Carriage Assy.	1
90177A225	2 1/4 Dia Split Ring	2
98555A213-1.0	1 Dia. C-Retainer Ring	6
ALIF-209-608-XX	Carriage Weldm't.	1
ALIF-209-057	1 Dia. Arm Lock Pin	2
ALIF-209-107	Upper Arm Lock	2
ALIF-209-158	1 1/4 x 1/8 Comp. Spring x 7 1/4	2
ALIF-209-088	4" Pulley Assy.	1
ALIF-209-601-XX	Lower Pulley Pin	1
ALIF-209-690L-XX	Offside Leg Weldm't.	1
ALIF-209-125-XX	Safety Latch (Mat'l. A514)	1
ALIF-209-126-XX	Single Point Release Cover	1
ALIF-209-162	7 3/4 Lg. Rubber Edging	2
GL-09-057	Nylon Rub Blocks	8
ALIF-209-644	Two-Piece Cross Bridge Assy.	1
90126A036	3/4 SAE Flat Washer	6
98410A128	3/4 Ext. Retainer Ring	2
ALIF-209-016-XX	3/4 Spacer	2
ALIF-209-088	4" Pulley Assy.	2
ALIF-209-159	Upper Pin	1
ALIF-209-159A	Upper Pin	1
ALIF-209-641-XX	Inner Cross Bridge Weldm't.	1
ALIF-209-643-XX	Outer Cross Bridge Weldm't.	1
ALIF-209-636	Sym. Swing Arm Assy.	2
91251A626	3/8-16UNC Socket Head Screw	6
ALIF-209-638-XX	Sym. Swing Arm Wldm't.	2

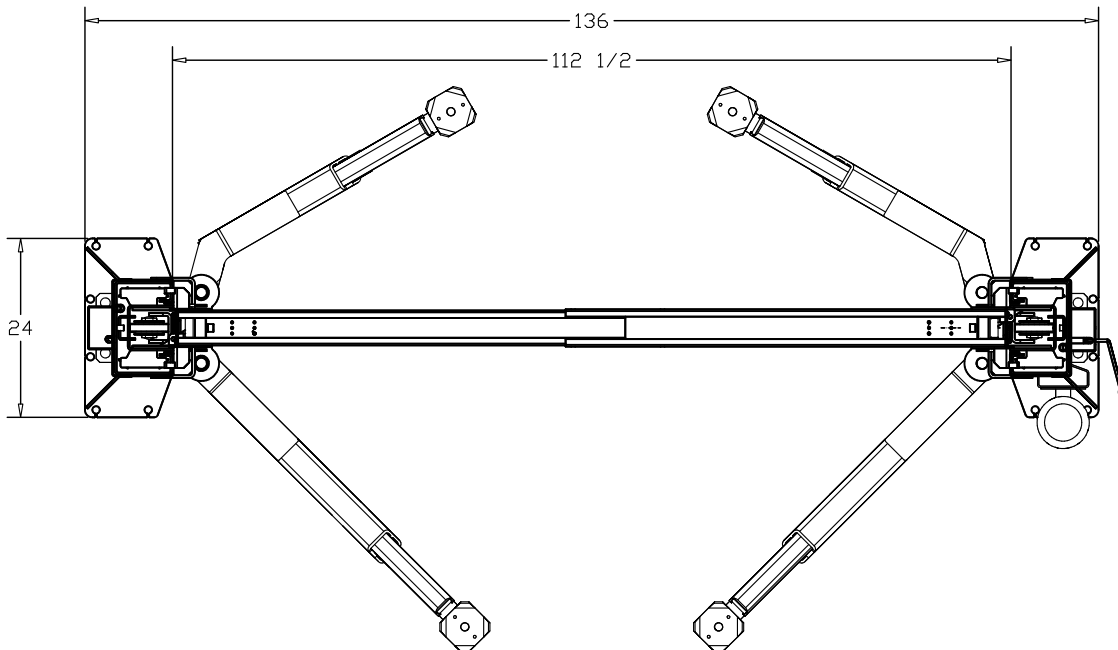
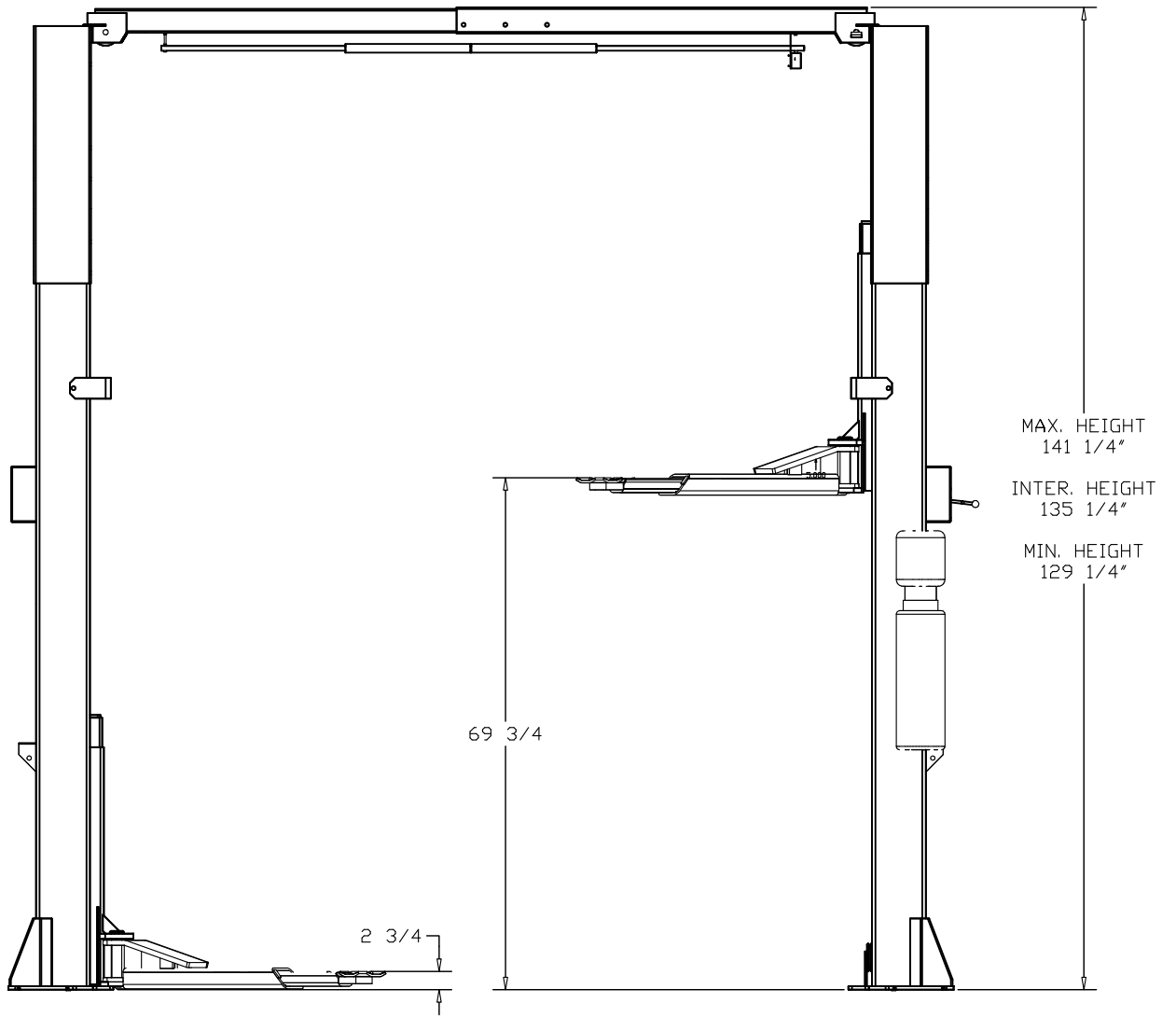
ALIF-209-082A	Lower Swing Arm Lock	2
ALIF-209-637L/R	All-sym. Swing Arm Assy.	2
91251A626	3/8-16UNC Socket Head Screw	6
ALIF-209-634L/R-XX	Asym. Swing Arm Wldm't.	2
ALIF-209-082A	Lower Swing Arm Lock	2

### LOOSE PARTS & HARDWARE

ALIF-209-BOX-1A/-2	Hardware Box Kit	1
0306-06	3/8 JIC Lock Nut	1
2703-06-06-06	Bulk Head Tee	1
2772-BLK	1 3/16" Grommet	2
30325T23	1/16 Wire Rope Clip	1
3434T36	Pulley Sheave	2
3896T1	1/16 Oval Sleeve Ferrule	2
6046K33	1" Dia. Ball Handle Knob	1
6400-06-06	3/8 O-ring x 3/8 JIC Straight Adapter	1
6921-0036	SPDT, 25 AMP, A/C Limit Switch	1
7130K55	11" x 3/16 Nylon Cable Ties	3
90126A029	1/4 SAE Flat Washer	4
90126A032	7/16 SAE Flat Washer	48
90190A144	#6 x 1/4 Phillip Head Pan Screw	4
90473A029	1/4-20UNC Hex Nut	4
90473A030	5/16-18UNC Hex Nut	8
90473A217	7/16-14UNC Hex Nut	24
90640A129	1/4-20UNC Nylon Lock Hex Nut	1
90640A133	1/2-13UNC Nylon Lock Hex Nut	8
91102A029	1/4 Lock Washer	5
91102A030	5/16 Lock Washer	4
91102A032	7/16 Lock Washer	24
91247A583	5/16-18UNC x 1 Hex Head Bolt	8
92865A537	1/4-20UNC x 1/2 Hex Head Bolt Grd 5	2
91309A540	1/4-20UNC x 3/4 Hex Head Bolt	2
91309A554	1/4-20UNC x 3 TAP Hex Head Bolt	1
91578A501	3/4-10UNC x 5 1/2 Wedge Anchor Sets	12
92865A671	7/16-14UNC x 1 1/4 Hex Head Bolt	24
92865A716	1/2-13UNC x 1 1/2 Hex Head Bolt	4
98355A010	1/16 Dia. x 1/2 Cotter Pin	2
AT527M	M12 x 1mm Thin Nut	2
ALIF-209-019-XX	Carriage Stop Weldm't.	2
ALAJ-995550	6" Swing Arm Pad Extension	4

ALAJ-995560	3" Swing Arm Pad Extension	4
ALIF-209-086	Swing Arm Pad Assy.	4
90126A029	1/4 SAE Flat Washer	8
90473A029	1/4-20UNC Hex Nut	8
92670A744	1/4-20UNC Elevator Bolts	8
WSPD-IC10-100	Pad Wldm't.	4
GL-09-013	Rubber Pad	4
ALIF-209-648	1/4 Dia. x 359" Lg. Steel Cable	2
ALIF-209-098	1/16 Dia. x 300"Lg. Wire Rope	1
ALIF-209-137-XX	Handle Wldm't.	1
ALIF-209-101	3/8 Hyd. Hose x 348" 6FJIC E/E	1
ALIF-209-102	3/8 Hyd. Hose x 53" 6FJIC E/E	1
ALIF-209-104	Silicone Foam Pad	1
ALIF-209-184-XX	Switch Box Cover	1
ALIF-209-185-XX	Switch Box Bracket	1
ALIF-209-186-XX	Shut Off Bar	1
ALIF-209-190L/R	Single Point Rel. Weldm't.	1/1
ALIF-209-191	3/8 Hyd. Hose x 13 1/2" 6FJIC90 E/E	1
ALIF-209-620-XX	Formed Extension Weldm't.	2
ALIF-209-275-XX	Hose Bracket	2
AH-1002	3 1/2 Gal., 2 HP, 3940psi Power Unit	1
GL-09-094	Swing Arm Pins	4
GL-09-056	1/16 Shims, 1 1/16 x 2 3/4	16
GI-09-112	1/4 Shims, 1 1/16 x 2 3/4	8

\*\*\* Note: All hardware unless specified is grade 2.  
All hardware is zinc coated unless specified.



WAS0922  
FIG. #1 LIFT SPECIFICATION

# TWO-PEICE CROSS BRIDGE ASSEMBLY

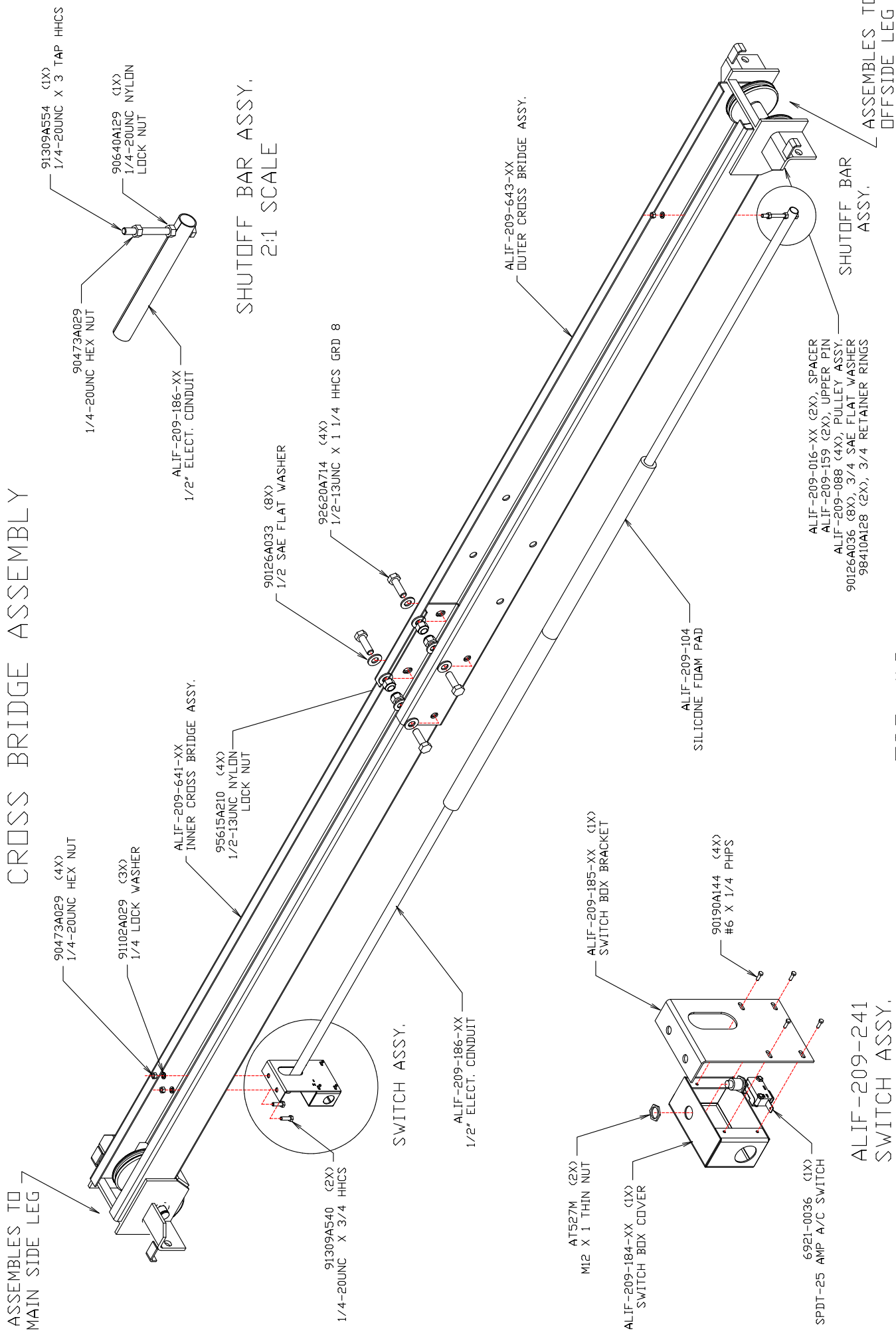
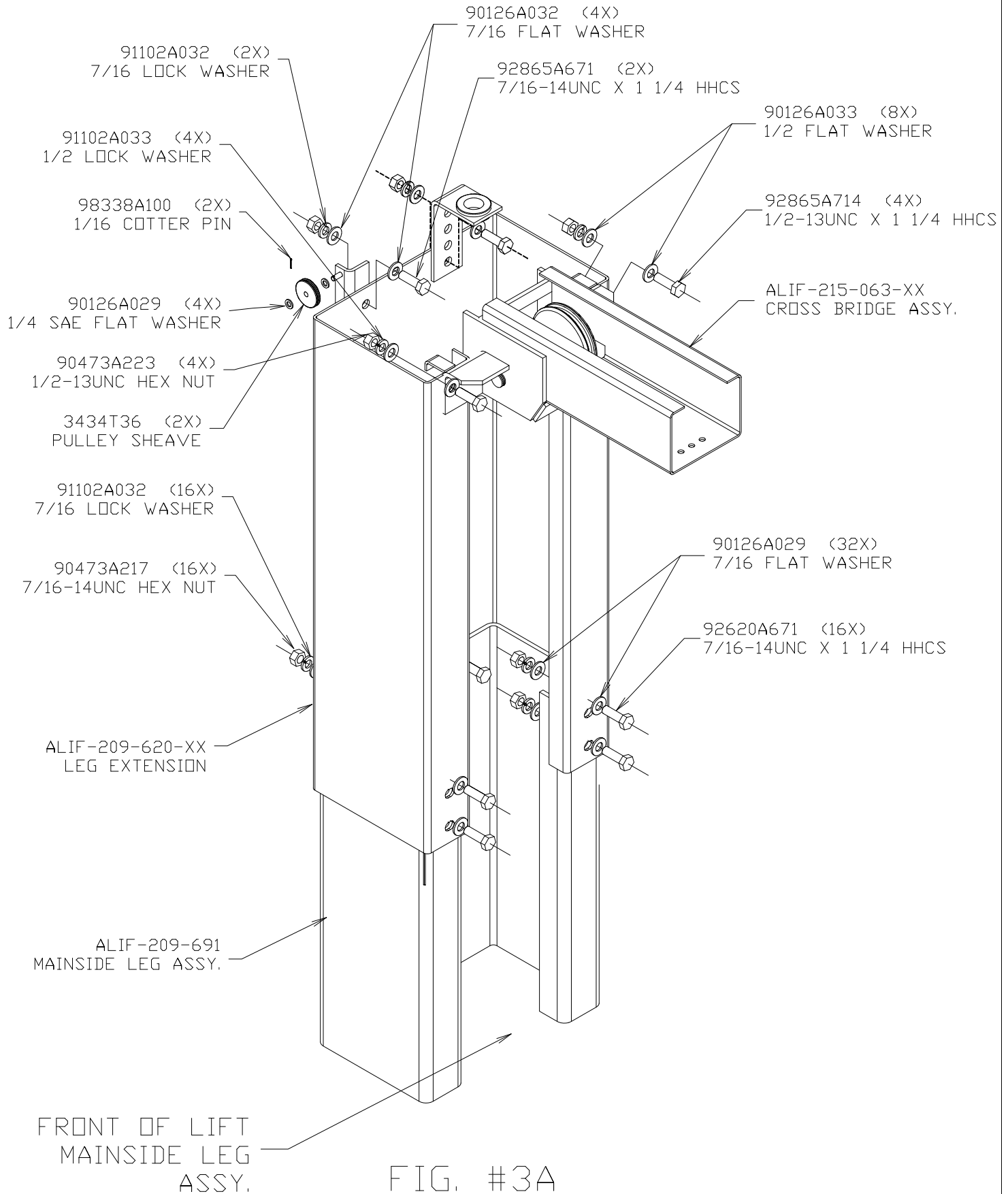


FIG. #2

ALIF-209-241  
SWITCH ASSY.  
2:1 SCALE



# CROSS BRIDGE ASSY. & EXTENSION TO LEG ASSY. DRAWING



# CROSS BRIDGE ASSY. & EXTENSION TO LEG ASSY. DRAWING

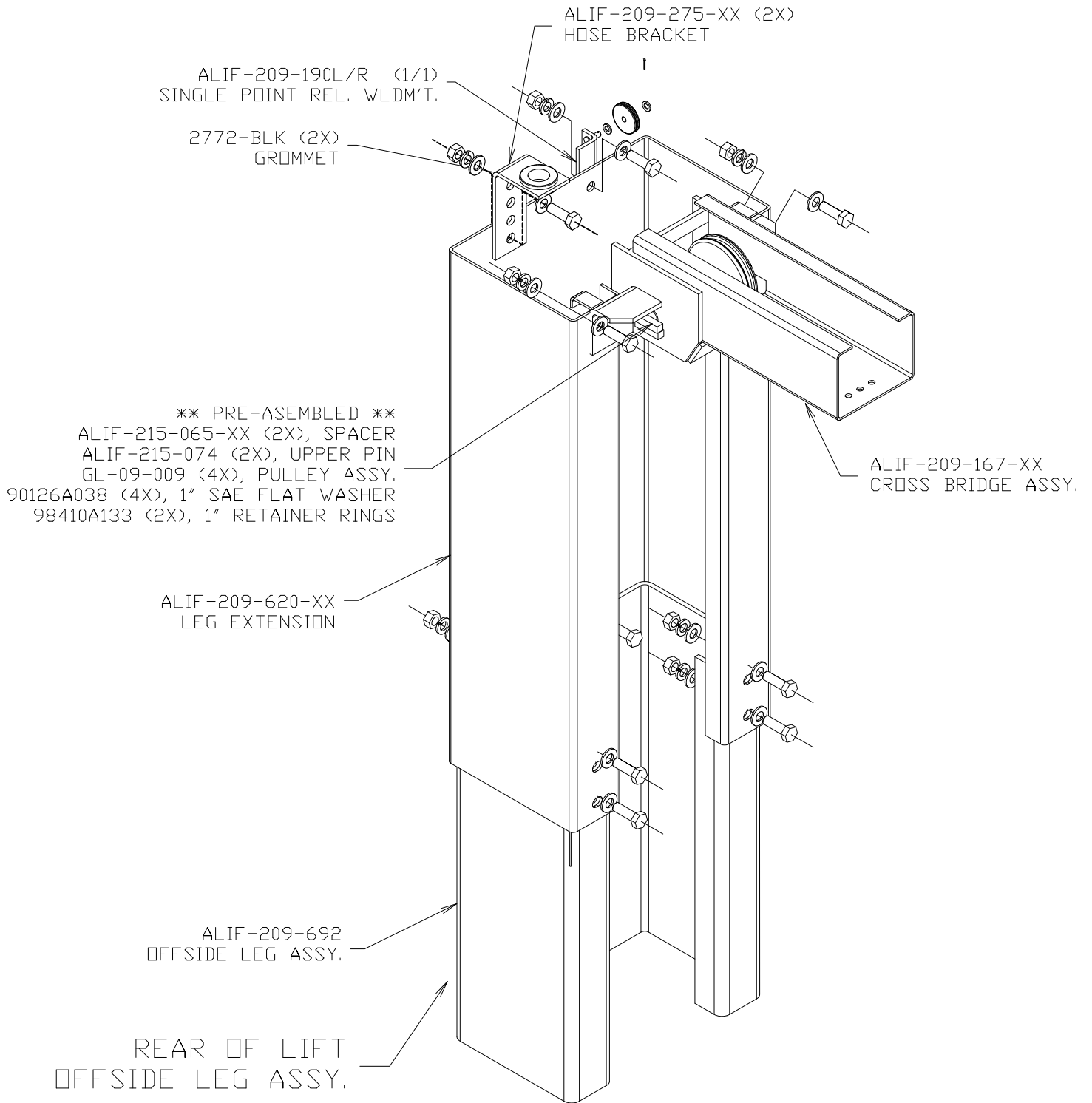


FIG. #3B

CABLE ROUTING, WAS0922

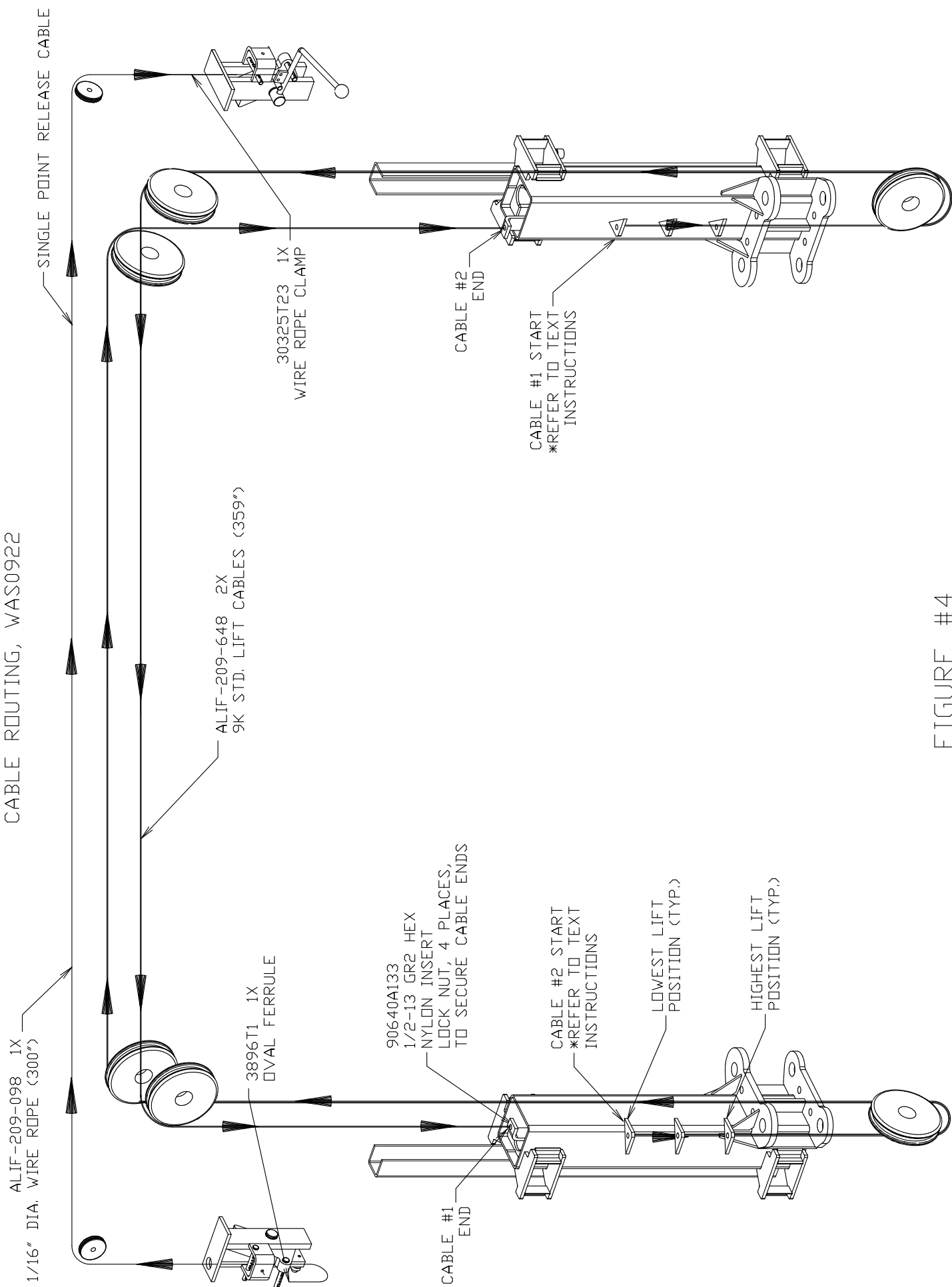


FIGURE #4

# ALIF-209-692 - MAINSIDE LEG ASSY.

\*\*\* IMPORTANT: SCREWS TO GO FROM THE INSIDE TO OUTSIDE  
 92865A716 (2X)  
 1/2-13UNC X 1 1/2 HHCS

\*\*\* IMPORTANT: LOCKNUT MUST GO TO THE OUTSIDE  
 90640A133 (2X)  
 1/2-13UNC HEX NYLON LOCKNUT

ALIF-209-019-XX  
 CARRIAGE STOP WLDM'T.

HANDLE ASSY.  
 6046K33 - 1 DIA. BALL KNOB  
 ALIF-209-137-XX - HANDLE WLDM'T.  
 (ONLY ON MAINSIDE LEG)

98410A131 2X  
 7/8 EXT. RETAINER RING

5315  
 7/16 DIA. X 1.25 EXT. SPRING

POWER UNIT BRACKET  
 ONLY ON MAINSIDE LEG

ALIF-DECL-SERIAL S.N. DECAL  
 ALIF-DECL-UL UL DECAL  
 (MAINSIDE LEG ONLY)

ALIF-DECL-CAUT CAUTION DECAL  
 ALIF-DECL-SAFE SAFETY DECAL  
 ALIF-DECL-WARN WARNING DECAL  
 (MAINSIDE LEG ONLY)

ALIF-209-690R-XX  
 MAINSIDE LEG

ALIF-DECL-XXCAP  
 LIFT CAPACITY STICKER

GL-09-144  
 LIFT INSTRUCTION STICKER

98330A185  
 5/16 DIA. X 3.0 ADJ. CLEVIS PIN

98338A140 3X  
 3/32 X 1 COTTER PIN

90126A037 2X  
 7/8 SAE FLAT WASHER

98330A245  
 3/8 DIA. X 2.5 ADJ. CLEVIS PIN

ALIF-209-162 (2X)  
 RUBBER EDGING

92865A537  
 1/4-20UNC X 1/2 HHCS

91102A029  
 1/4 LOCK WASHER

ALIF-209-126-XX  
 MAINSIDE COVER

ALIF-209-125-XX  
 SAFETY LATCH

5933  
 1/2 DIA. X 2.13 EXT. SPRING

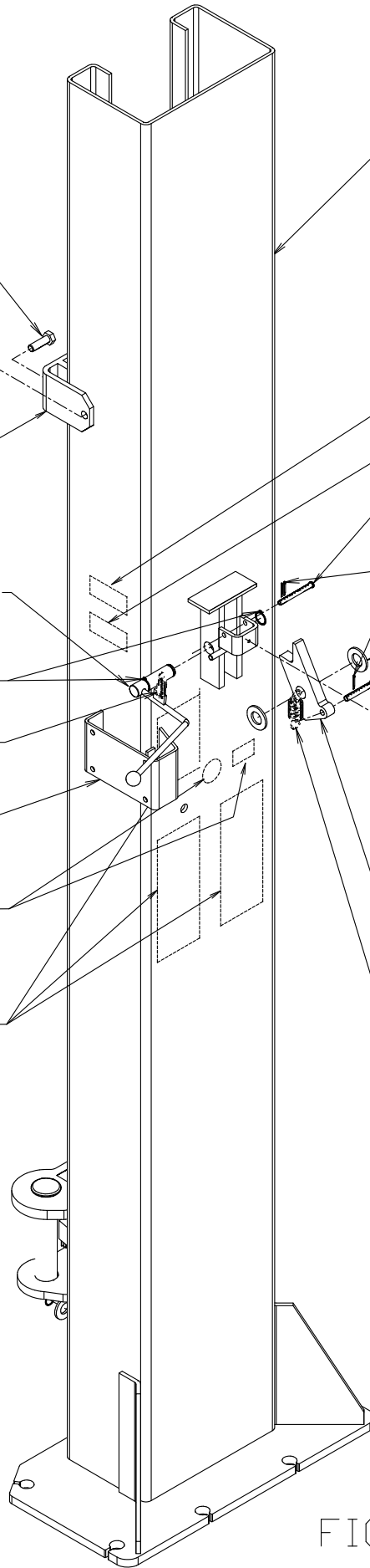


FIG. #5A

ALIF-209-691 - OFFSIDE LEG ASSY.

\*\*\* IMPORTANT: SCREWS TO GO FROM THE INSIDE TO OUTSIDE  
 92865A716 (2X)  
 1/2-13UNC X 1 1/2 HHCS

\*\*\* IMPORTANT: LOCKNUT MUST GO TO THE OUTSIDE  
 90640A133 (2X)  
 1/2-13UNC HEX NYLON LOCKNUT

ALIF-209-019-XX  
 CARRIAGE STOP WLDM'T.

ALIF-209-134  
 SAFETY LATCH PIN  
 (ONLY ON OFFSIDE LEG)

98410A131 2X  
 7/8 EXT. RETAINER RING

91259A580  
 5/16 X 5/8 SHOULDER SCREW

91090A111 2X  
 5/16 X 1 1/4 FENDER WASHER

8901T11  
 3/4 DELRIN SHEAVE

91145A180  
 5/16 X 1/4 NYLON SPACER

ALIF-209-690L-XX  
 OFFSIDE LEG

98330A185  
 5/16 DIA. X 3.0  
 ADJ. CLEVIS PIN

98338A140 3X  
 3/32 X 1 COTTER PIN

90126A037 2X  
 7/8 SAE FLAT WASHER

98330A245  
 3/8 DIA. X 2.5 ADJ. CLEVIS PIN

ALIF-209-162 (2X)  
 RUBBER EDGING

92865A537  
 1/4-20UNC X 1/2 HHCS

91102A029  
 1/4 LOCK WASHER

ALIF-209-127-XX  
 OFFSIDE COVER

ALIF-209-125-XX  
 SAFETY LATCH

5933  
 1/2 DIA. X 2.13 EXT. SPRING

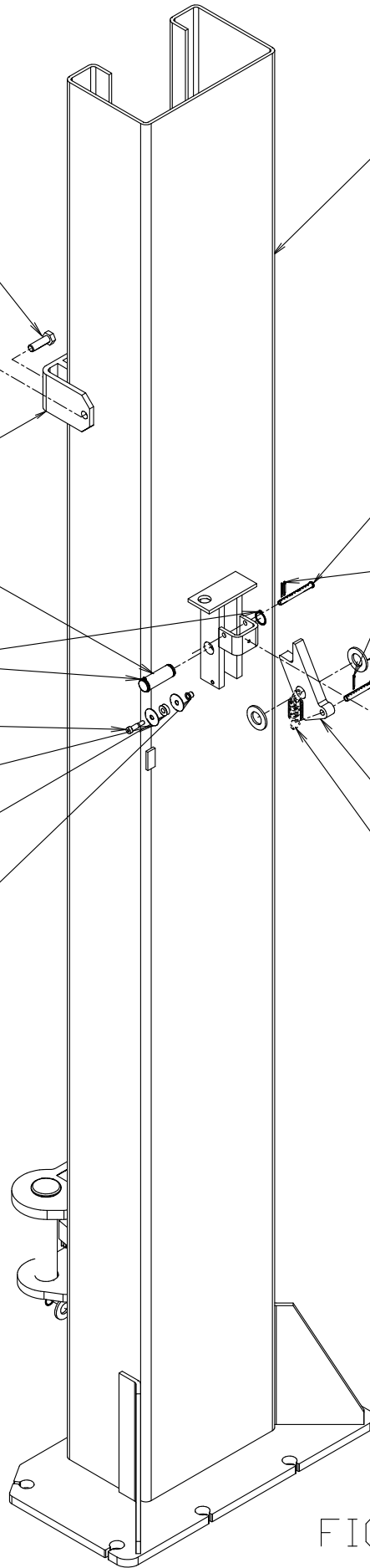


FIG. #5B

ALIF-209-692 - MAINSIDE LEG ASSY.  
ALIF-209-691 - OFFSIDE LEG ASSY.

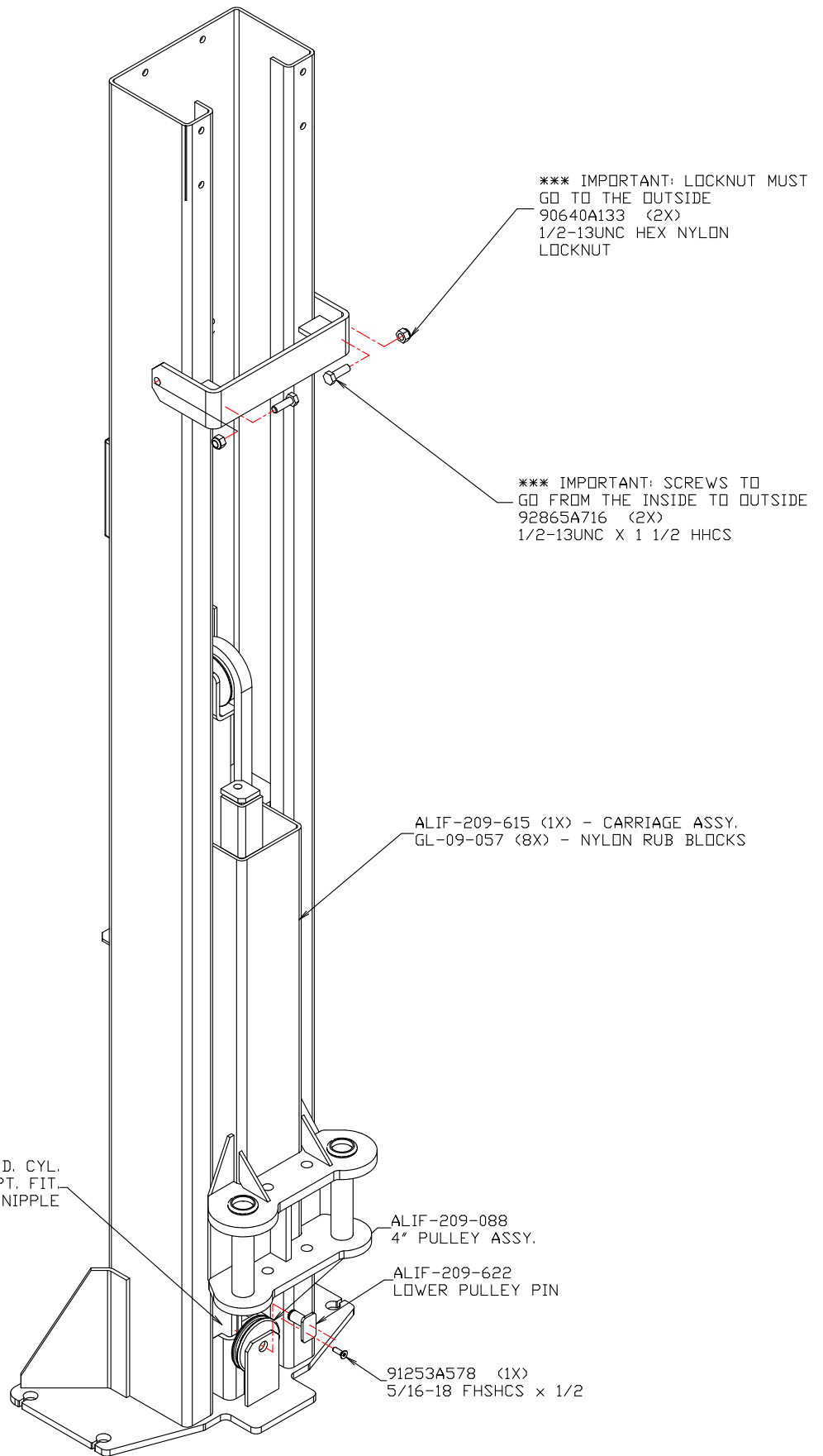


FIG. #5C

SINGLE POINT RELEASE ASSY.  
ALIF-209-692 - MAINSIDE LEG ASSY.

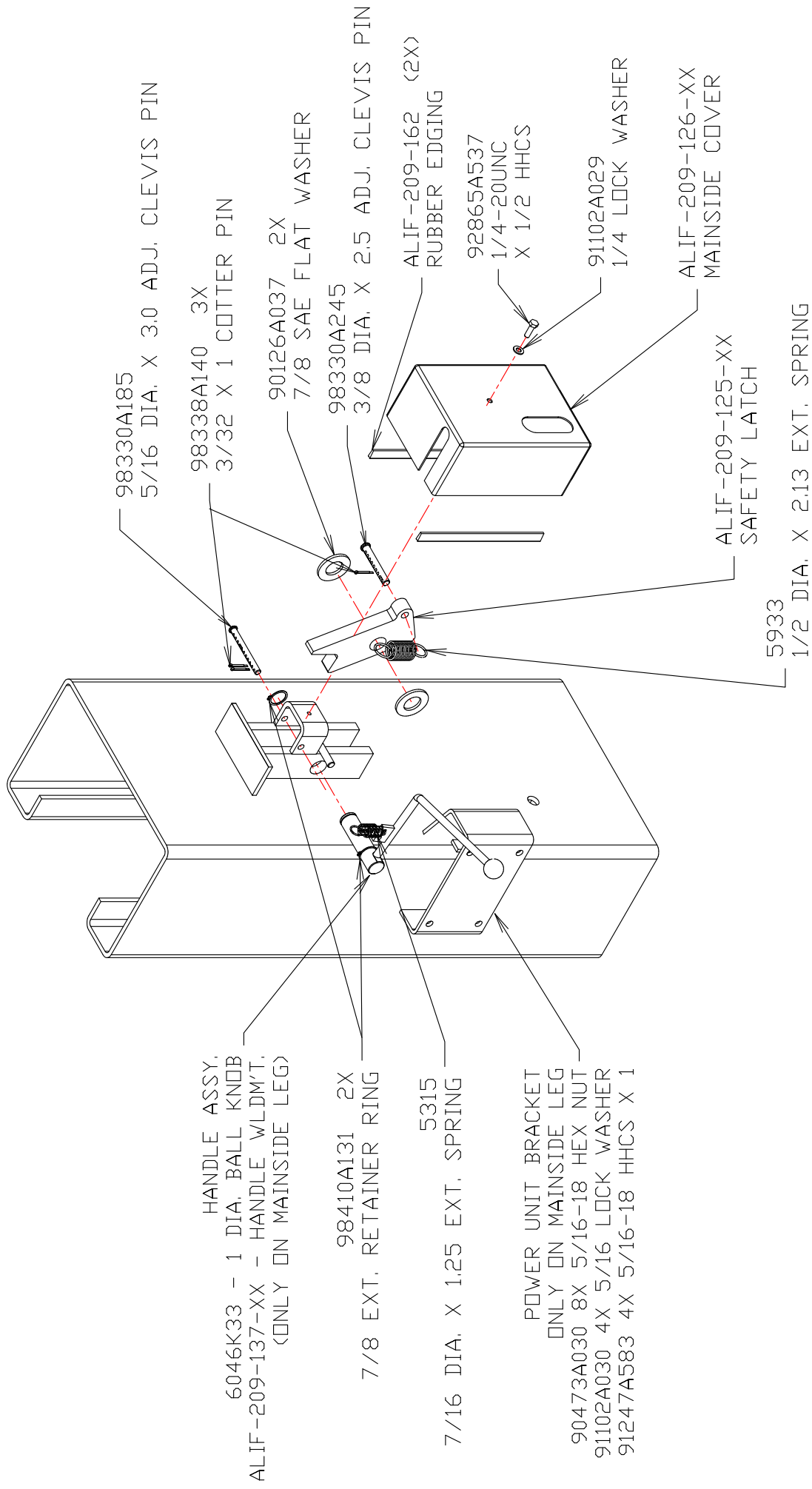


FIG. #5D

SINGLE POINT RELEASE ASSY.  
ALIF-209-691 - OFFSIDE LEG ASSY.

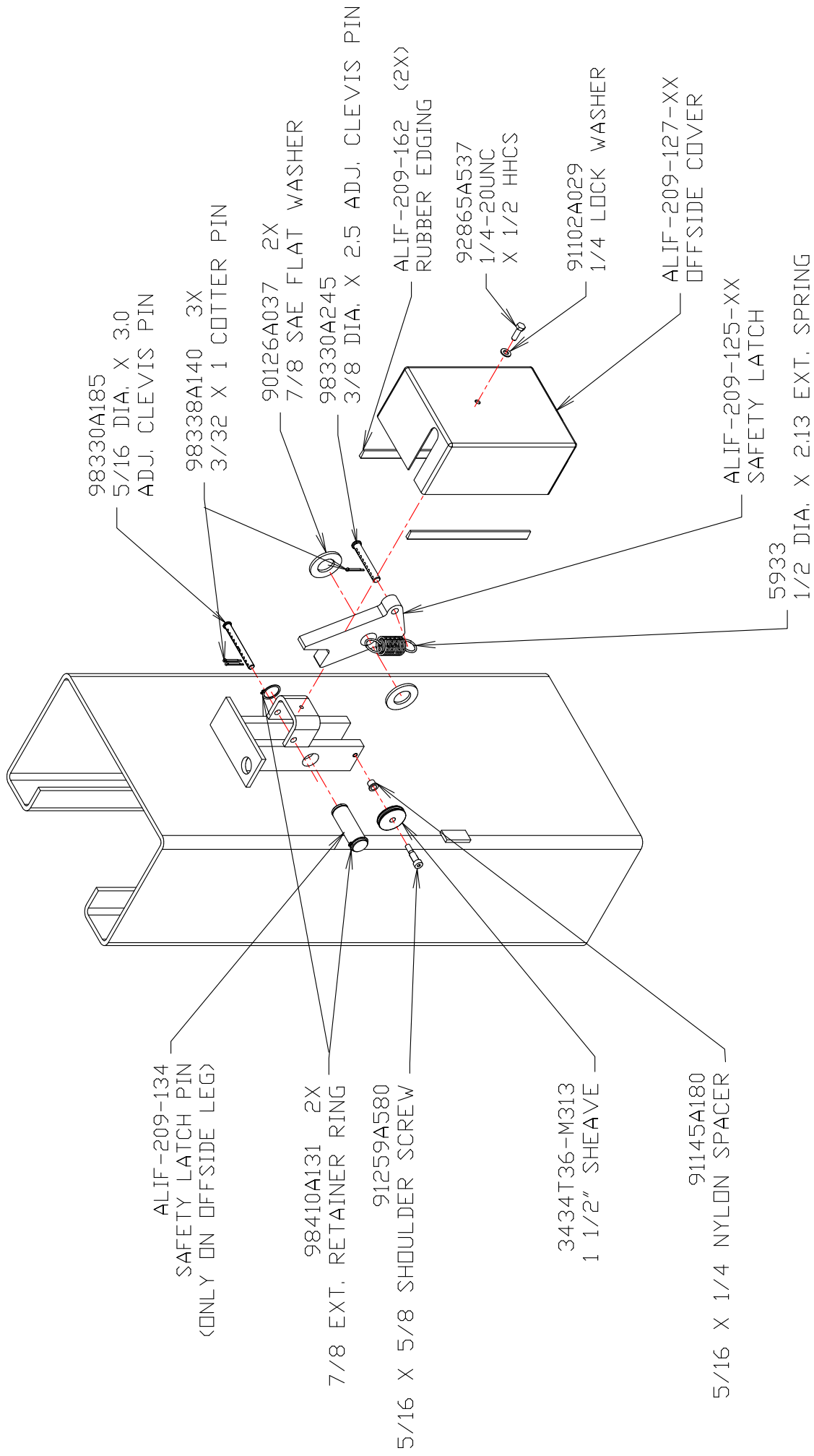


FIG. #5E



# HYDRUALIC DRAWING & PARTS

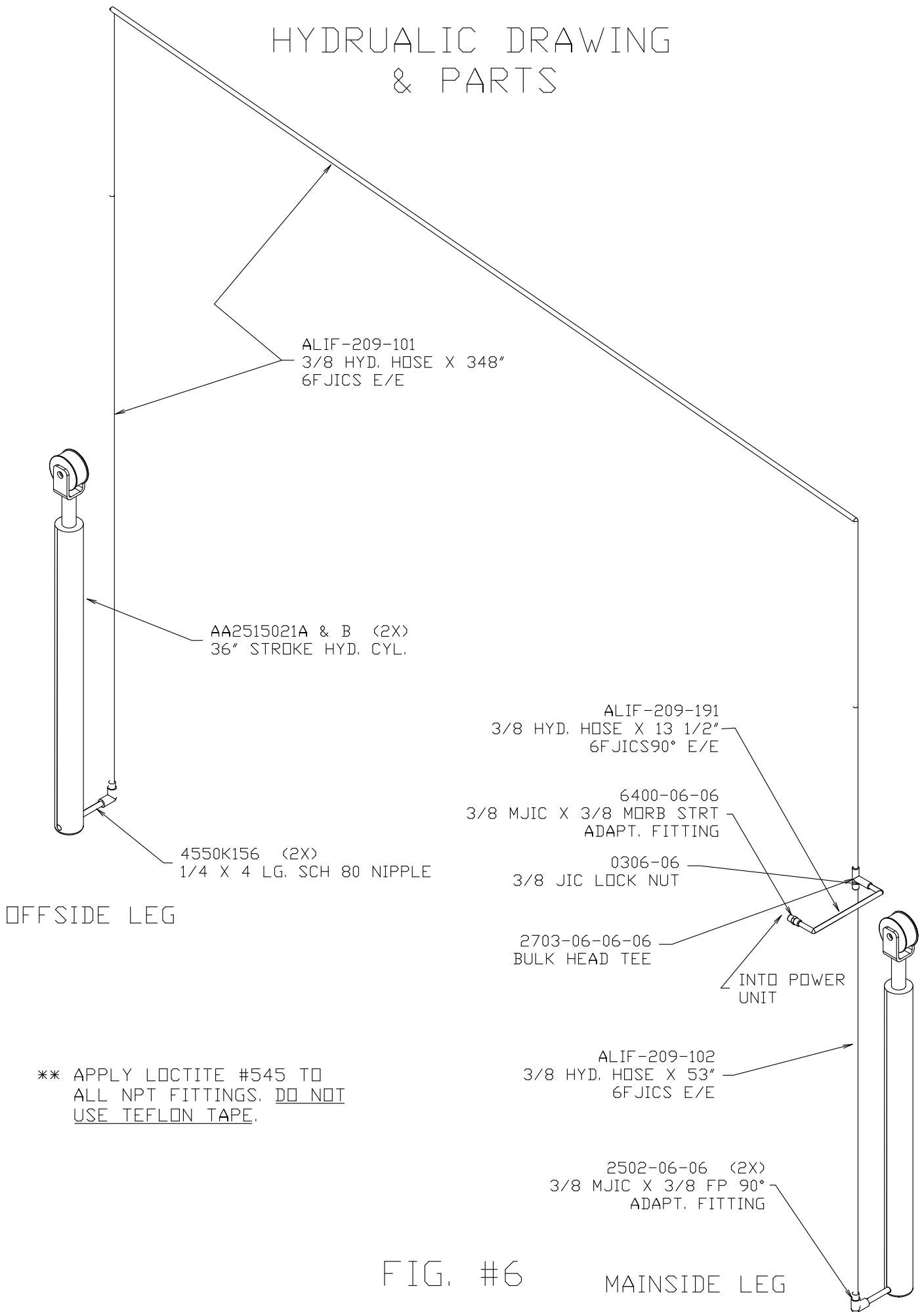


FIG. #6

MAINSIDE LEG

FINAL CARRIAGE ASSEMBLY  
9K ALIF-209-615

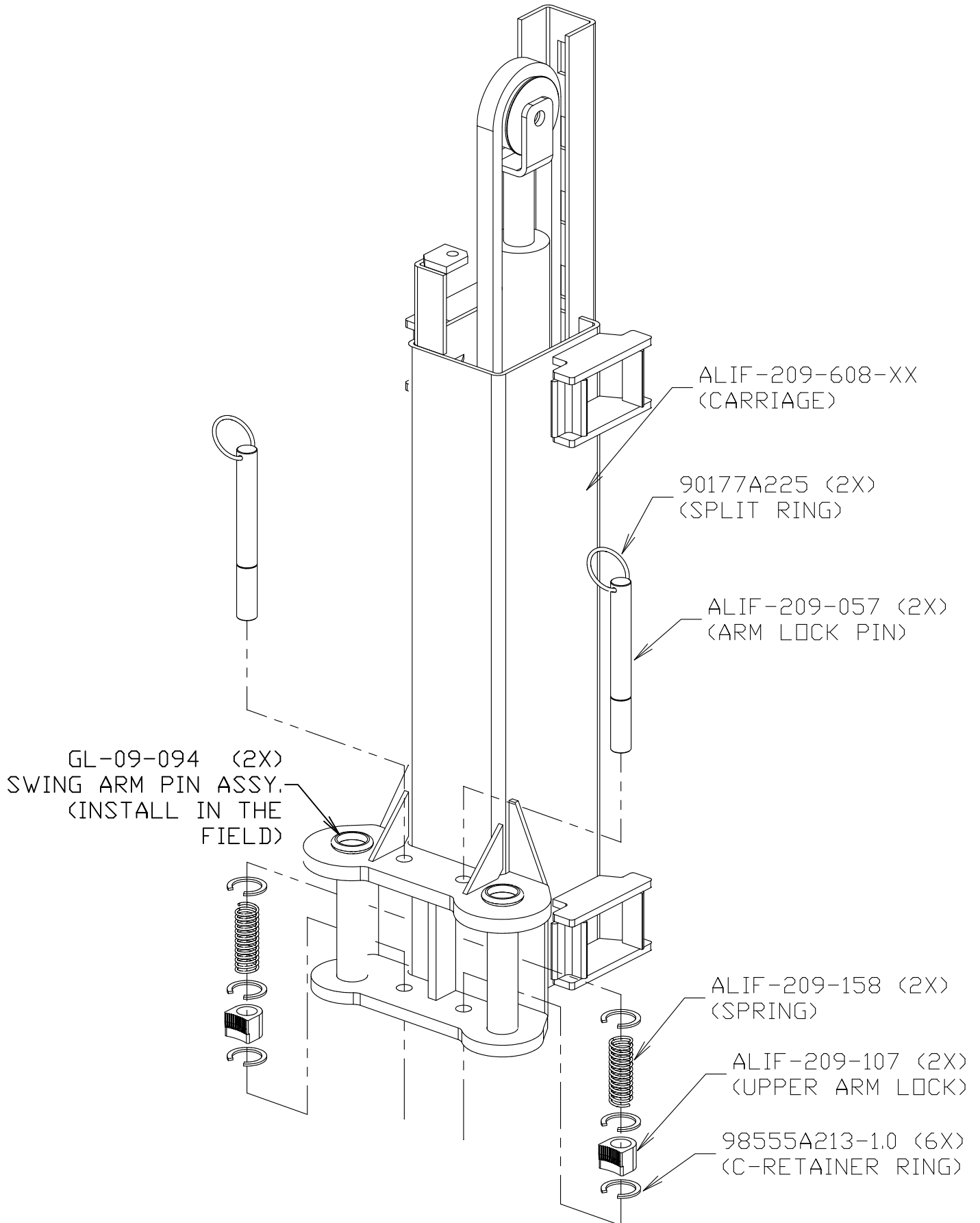
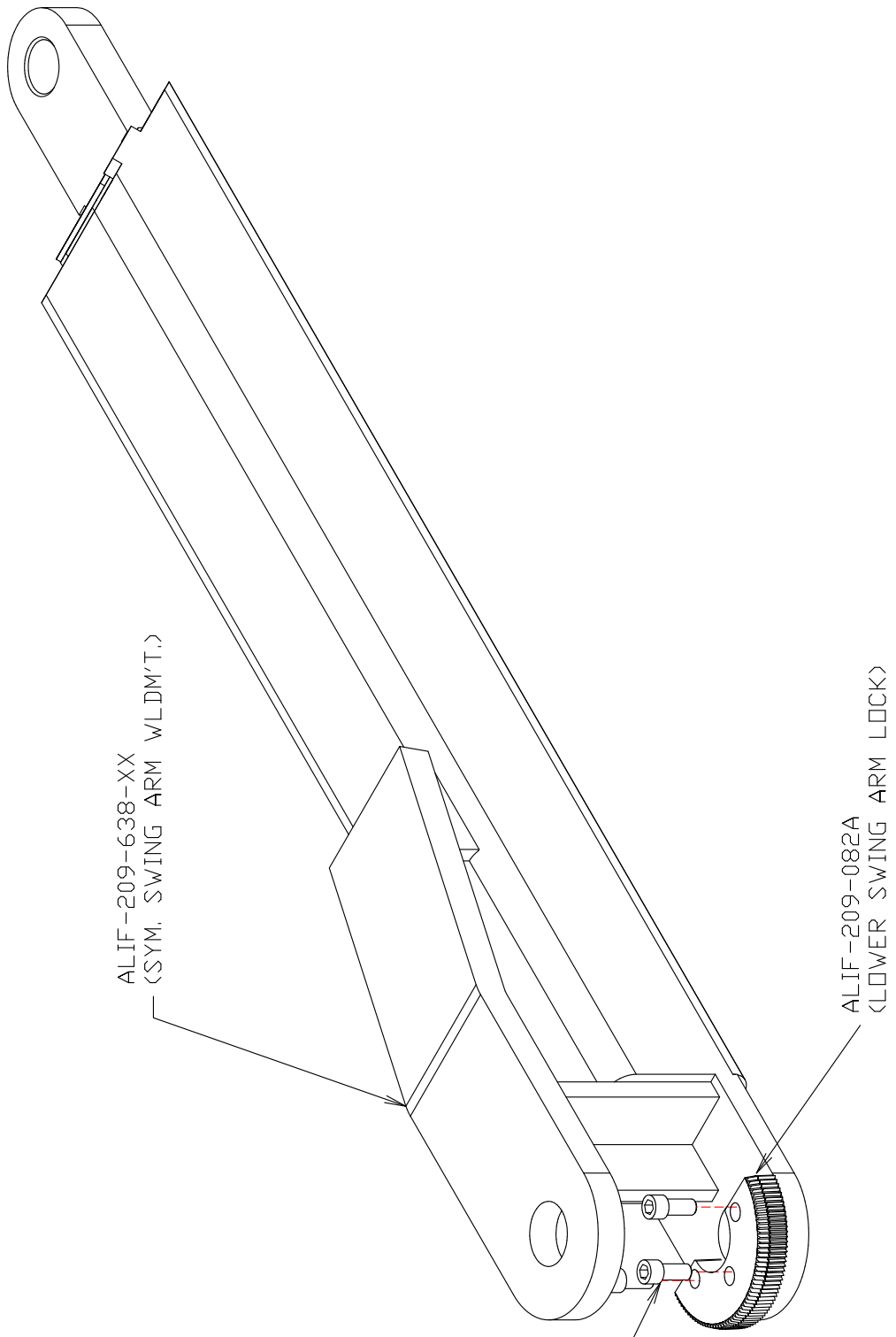


FIG. #7

ALIF-209-636  
FINAL SYM. SWING ARM ASSY.



91251A626 (3X)  
(3/8-16UNC X 1 1/4 SHCS)  
\*\* APPLY LOCTITE #262 TO  
BOLT PRIOR TO INSTALLATION

FIG. #8

ALIF-209-637L/R  
ALL-SYM. SWING ARM ASSY.

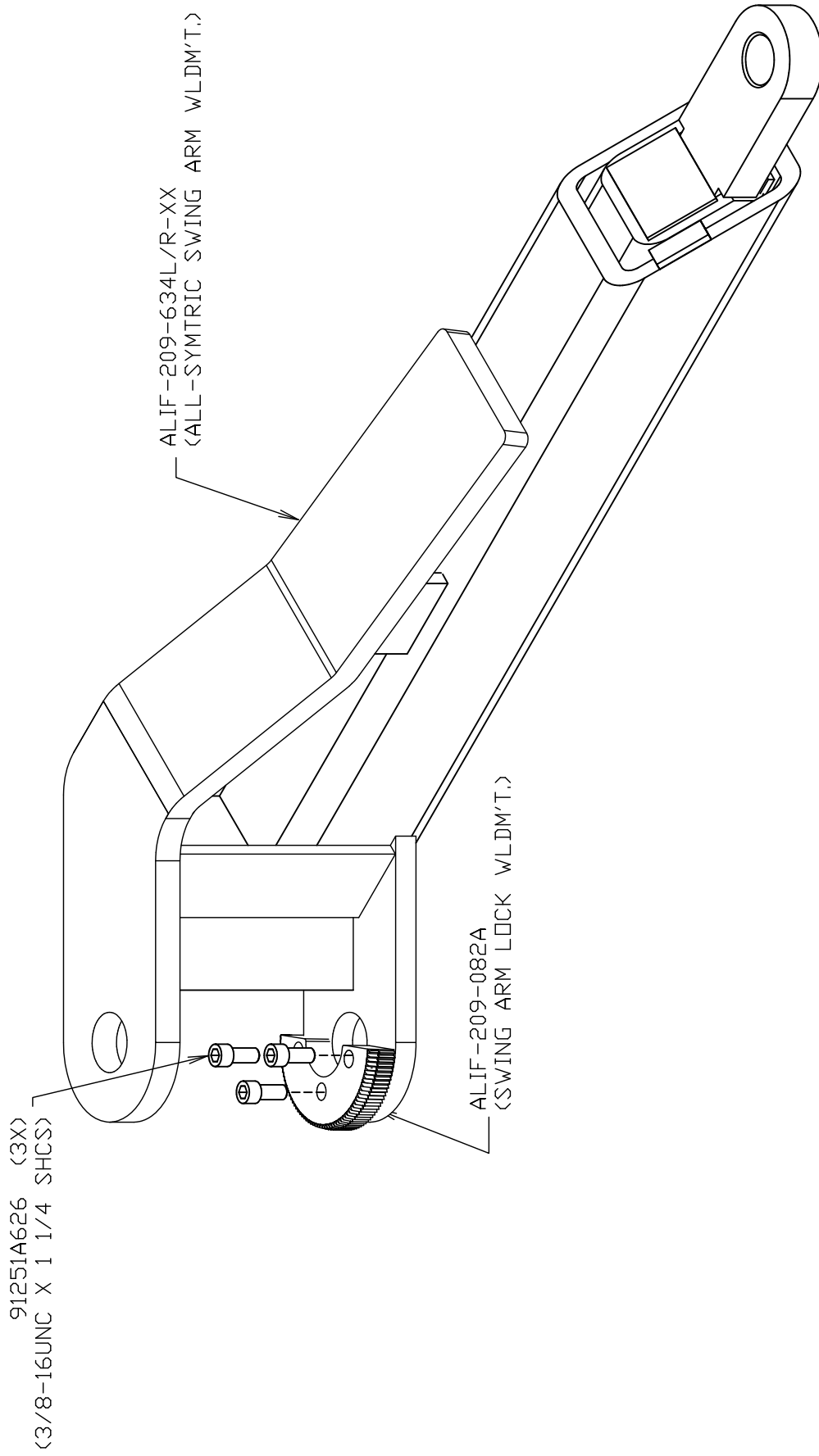
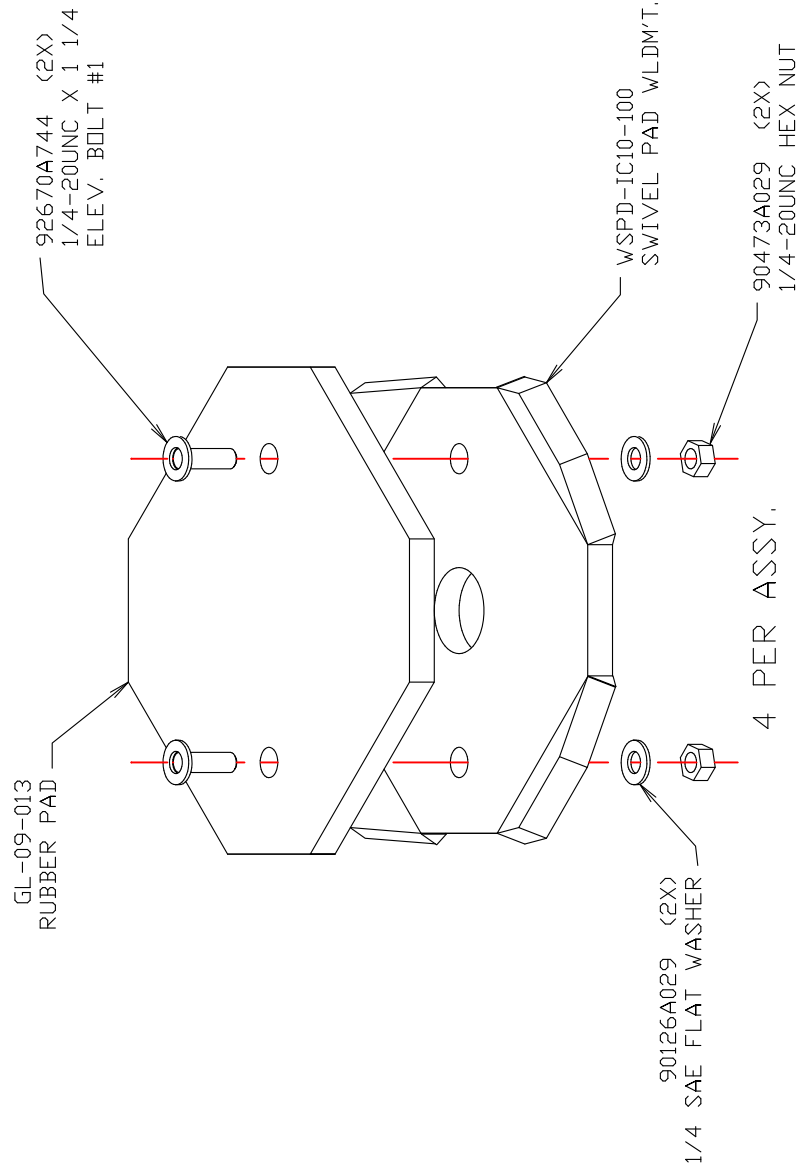
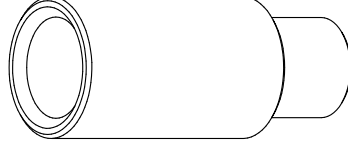


FIG. #9

# LIFT PAD ASSY, & EXTENSIONS



ALAJ-995550  
 6" EXTENSION  
 4 PER ASSY.



ALAJ-995560  
 3" EXTENSION  
 4 PER ASSY.

STANDARD PARTS  
WITH EACH LIFT

FIG. #10

# Snap Action Switch Wiring Diagram

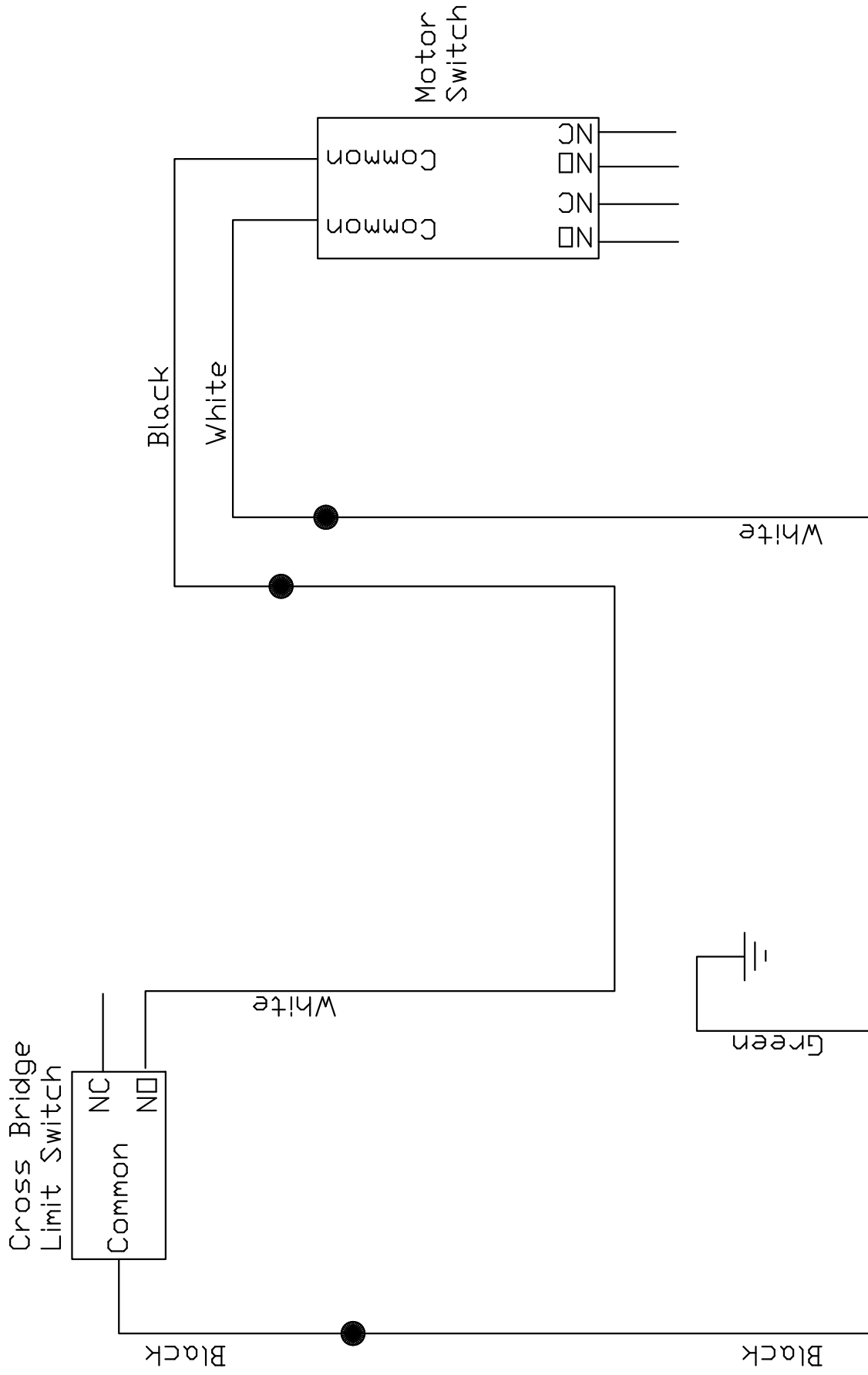


FIG. #11