



INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

Model SPO84

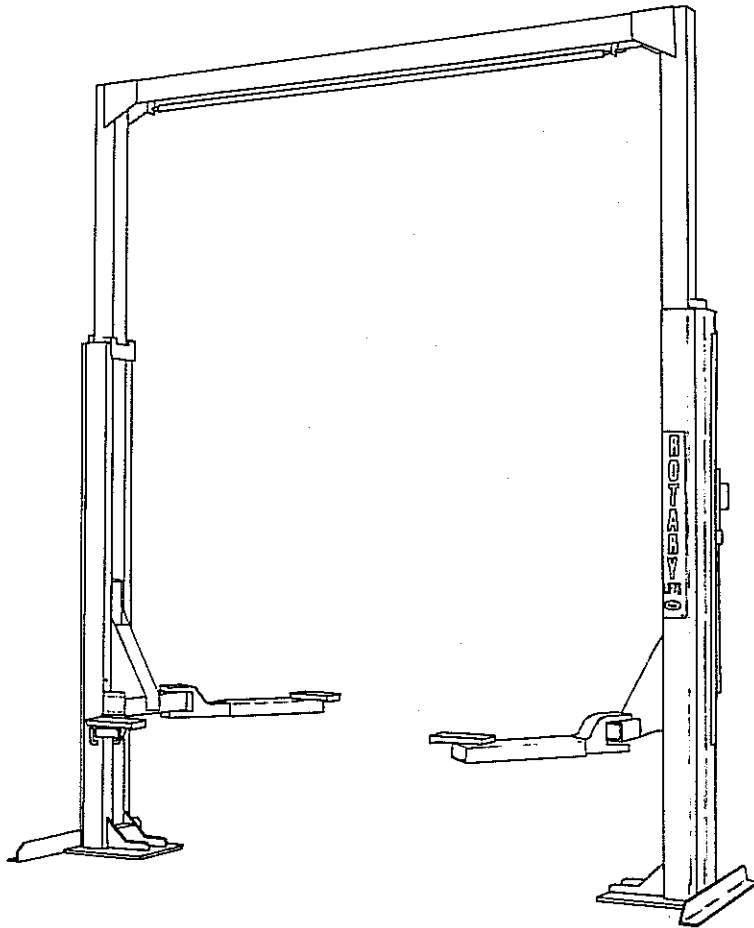
Surface Mounted Lift

Capacity: 7,000 lbs. 1750 lbs./Arm

Model SPO94

Surface Mounted Lift

Capacity: 9,000 lbs. 2250 lbs./Arm



WARNING. Standard electrical controls are not weatherproof. Not recommended for outside installation. Moisture getting into electrical junction box could cause motor failure or personal injury.

CHECK SHIPMENT against Bill of Lading and Material List. Enter all claims for damage or shortage at once with delivering carrier.

MATERIAL LIST

Description of Articles		Parts Box Contents	
1	Bundle (1RH & 1LH Carriage/Column Assembly)	1	Power Unit
1	Bundle (4 Arms and Adapters)	1	Wheel Spotting Dish
1	Parts Box	2	Equalizer Cables
1	Bundle Column Extensions	2	Upper Sheave Ass'y.
1	Crosshead Assembly	1	Overhead Hose
		1	Elbow Adapter
		1	Switch Ass'y.
		1	Blue Touch-up Paint
		1	Bolt Package
		1	Hose
		4	Arm Pins
		1	Rotary Decal



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1. LIFT LOCATION: Use architects plan when available to locate lift. Fig. 1 shows dimensions of a typical bay layout.
2. Either lift requires 12'-3" minimum to lowest obstruction.
3. LIFT SETTING: Position columns in bay using dimensions shown in Fig. 1 & 2. Place column with power unit bracket on right side of vehicle approach. Both columns must be square on center line of lift. Drill (16) $\frac{3}{4}$ " holes x 4" deep using base holes as guide, Fig. 1 & 3. Lift and anchors are designed for use on concrete 5" minimum thickness. Floor shall sustain minimum 2500# anchor load for SPO84 or 3500# anchor load for SPO94.
CAUTION: Do not install on asphalt or other similar unstable surfaces. Columns are supported only by anchors in floor.
4. Using shims provided, shim column base to plumb columns, first front and rear then side to side. Level column bases. Maximum shim thickness is $\frac{1}{2}$ ", Fig. 4. Recheck column for plumb. Reshim if necessary. Torque anchor bolts per Fig. 3. If anchors do not hold concrete must be replaced. Replace 4'-4" x 2'-9" x 6" pad under each column base keyed under existing floor.
5. Remove wooden shipping braces from columns and crosshead.
6. Install junction box (supplied by installer) on power unit side of column extension, Fig. 2. Attach box to column extension at (2) $\frac{1}{4}$ " holes near top of extension.
7. Install grommet in $\frac{7}{8}$ " dia. hole in crosshead assembly, Fig. 7. Install overhead switch using studs, nuts, and lock washers provided. Secure wire from overhead switch box to crosshead assembly using (5) wire ties and run wire out top through the grommet, Fig. 7. Install switch bar assembly with (4) $\frac{1}{4}$ " x $\frac{3}{4}$ " lg. HHCS, lock washers and nuts, Fig. 2.
8. Install column extensions using (8) $\frac{1}{2}$ " x $\frac{3}{4}$ " lg. HHCS, lock washers and (4) $\frac{3}{8}$ " x $1\frac{1}{4}$ " lg. HHCS, lock washers and nuts, Fig. 2. Shim column extensions plumb as required.

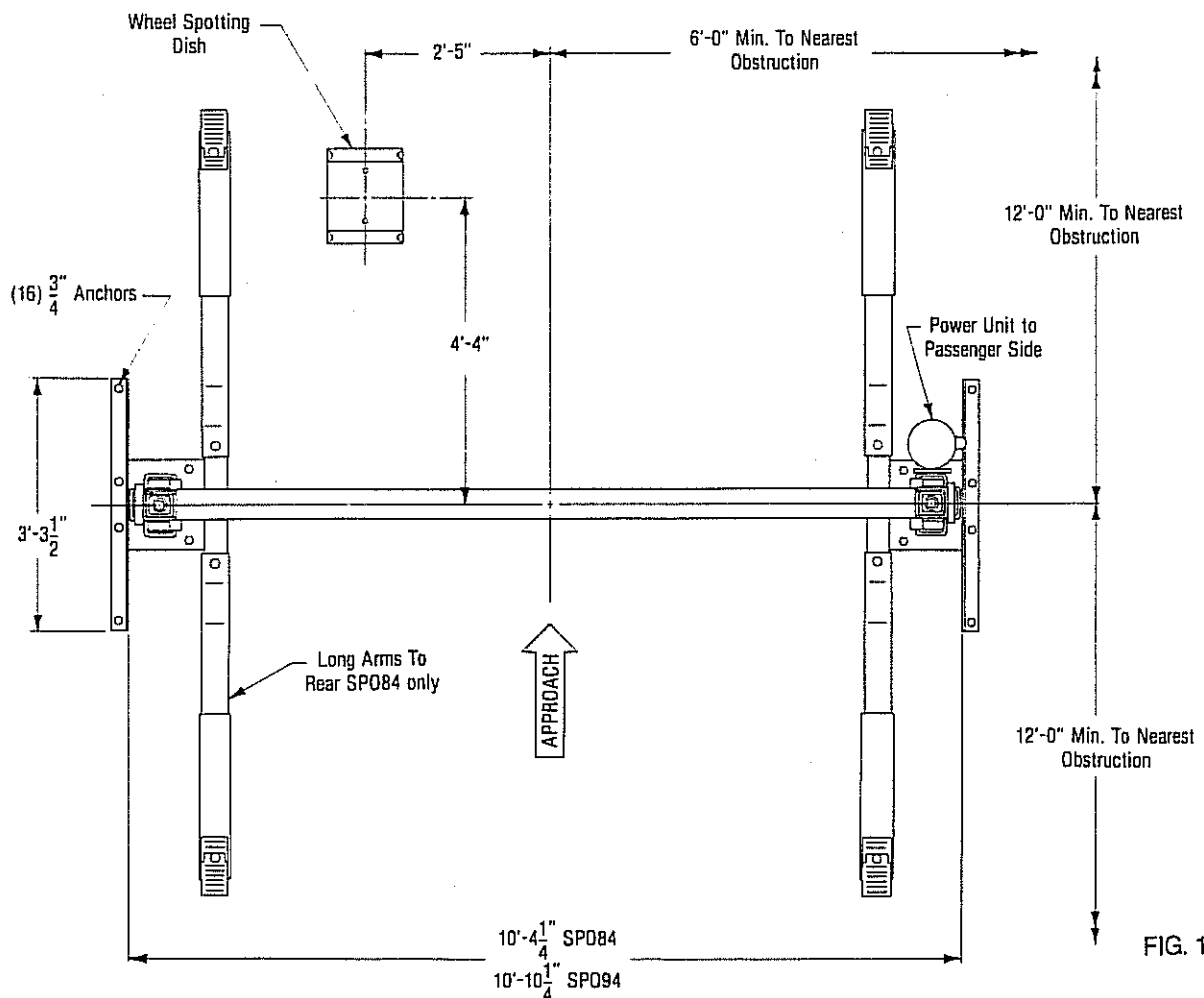


FIG. 1

9. Raise power unit side of crosshead and install (2) $\frac{3}{8}$ " x $\frac{3}{4}$ " lg. HHCS, nuts and lock washers through upper corner of column extension and crosshead. Lift other side of crosshead and install (2) $\frac{3}{8}$ " x $\frac{3}{4}$ " lg. HHCS, nuts, and lock washers through upper corner of column extension and crosshead. Install remaining $\frac{3}{8}$ " x $\frac{3}{4}$ " lg. HHCS, nuts, and lock washers in crosshead and column extension, Fig. 2.
10. Install sheaves in crosshead assembly, Fig. 5.
11. Manually raise carriages until latch locks into first position, about 16".
12. ROPING: Fig. 5 describes general cable arrangement. It's easier to tie off lower studs first. Run nuts onto studs about 1", Fig. 2. Run cable overhead and tie off top studs torquing to about 100 in-lbs. Tighten jam nuts.

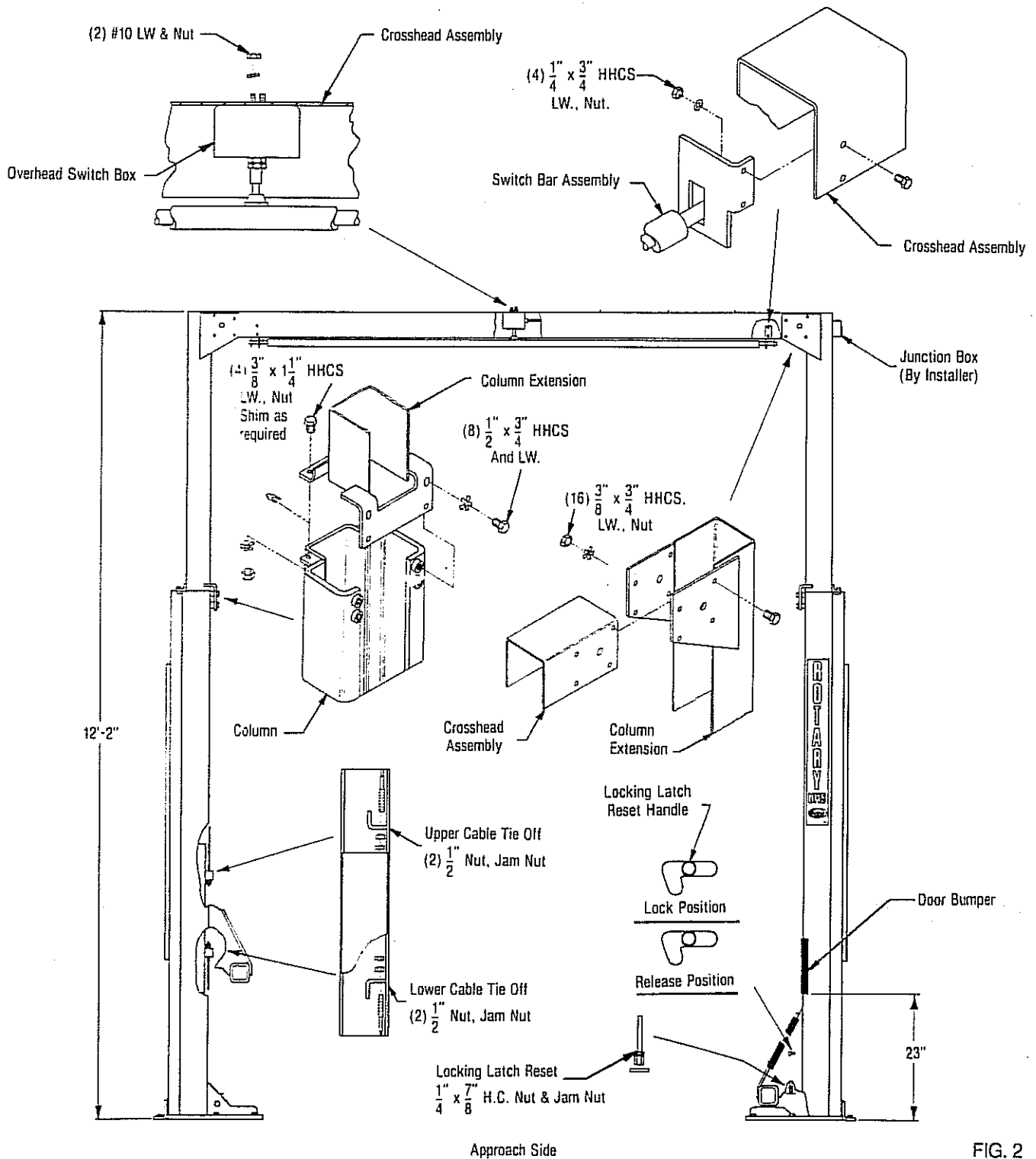


FIG. 2

13. PIPING: Clean piping and hose. Inspect all threads for damage. Use premium oil resistant pipe thread sealant on threads. **DO NOT** use teflon tape as it may clog strainer. Install piping, hose and pipe clamps, Fig. 8.
 14. POWER UNIT: Mount unit to bracket using (4) $\frac{5}{16}$ " x $\frac{3}{4}$ " lg. bolts, lock washers and nuts with motor up. Connect supply hose to pump filter block, Fig. 6.
 15. Check overhead switch, plunger must touch the cover on the switch bar. Switch adjustment:
 - 1) Determine amount of adjustment required.
 - 2) Remove cover from switch box.
 - 3) Loosen mounting nuts and lock nuts; adjust plunger height as required, tighten mounting nuts and lock washers.
 - 4) Check the following:
 - A) Switch is in line with center of cover on switch bar.
 - B) Mounting nuts, lock nuts and all electrical connections are tight.
 - C) Insulation paper is in place inside switch box.
 - D) Switch will not contact back of switch box.
 - 5) Reinstall switch.
 - 6) Recheck switch bar clearance.
 16. ELECTRICAL: Run 230 volt single phase power supply to 2 HP motor, connecting overhead switch assembly through the junction box, Fig. 6. Size wire for 30 amp. circuit. Power unit will run on 208 volts (maintained). Service factor of 10% not applicable when 208 volts is used.
- Motors utilizing 3 phase current available. Refer to drawing in power unit carton for 3 phase wiring diagram.

IMPORTANT: Use separate circuit for each power unit. Protect each circuit with time delay fuse or circuit breaker. Single phase 30 amp and 3 phase 15 amp. Wiring must comply with local electrical codes.

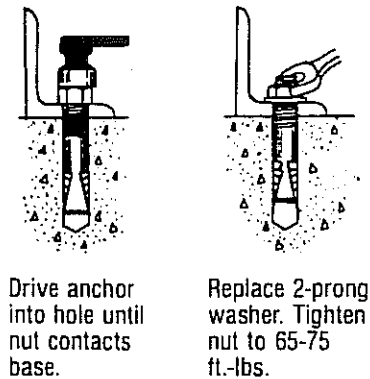
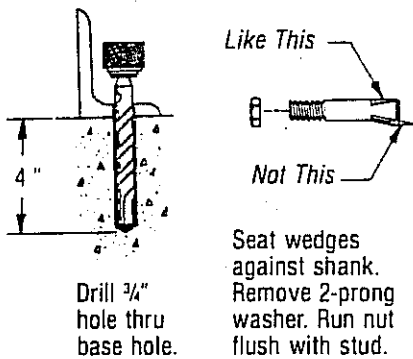


FIG. 3

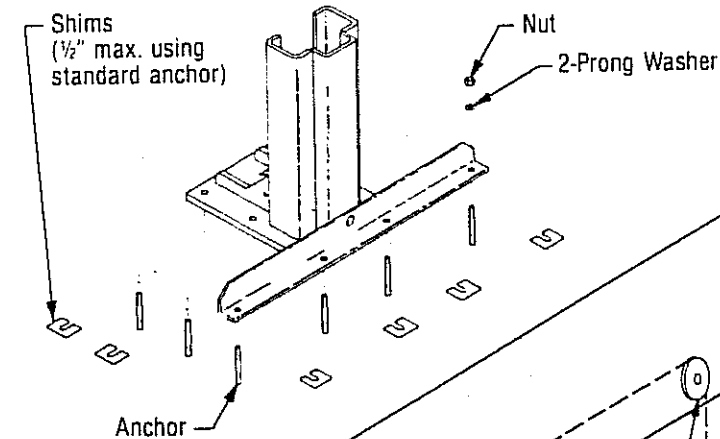


FIG. 4

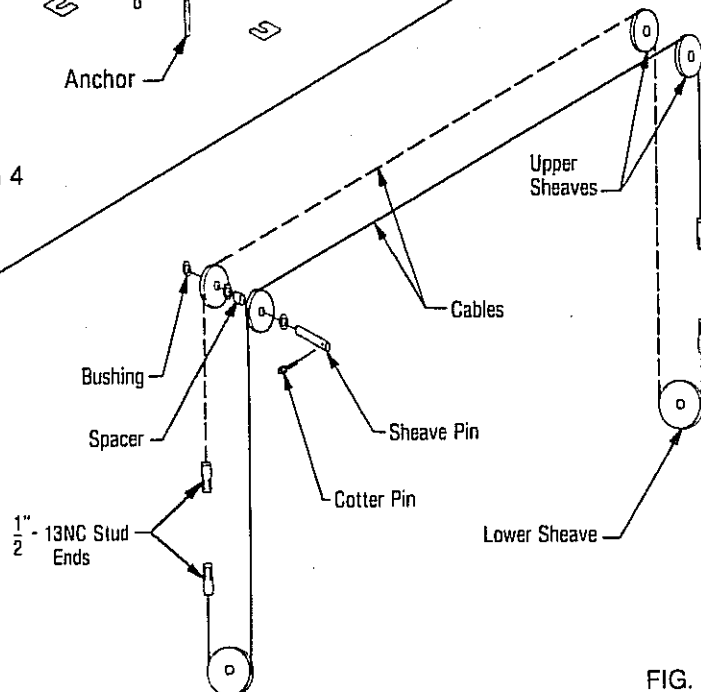


FIG. 5

Standard electrical controls are not weatherproof and therefore not recommended for outside installation. Weatherproof electrical controls are available.

- OIL FILLING & BLEEDING: SPO84 system capacity is (13) quarts and SPO94 capacity is (14) quarts. Use Dexron II ATF. Remove fill-breather and fill vent screw. Reference Fig. 6. SPO84, pour in (8) quarts of fluid and SPO94, pour in (9) quarts of fluid. Start unit, raise lift about 2 feet and reset latches. Open cylinder bleeders approximately 2 turns, Fig. 8. Close when oil streams. Fully lower lift. Add more fluid until it comes out fill vent hole, Fig. 6. Replace fill vent screw.

CAUTION: If fill-breather is lost or broken, order replacement. **DO NOT** substitute solid plug.

- SUPERSTRUCTURE - Grease swivel arm pins and holes. Install arm and adapter assemblies. Note: SPO84 only, (2) long arms go to rear, Fig. 1.

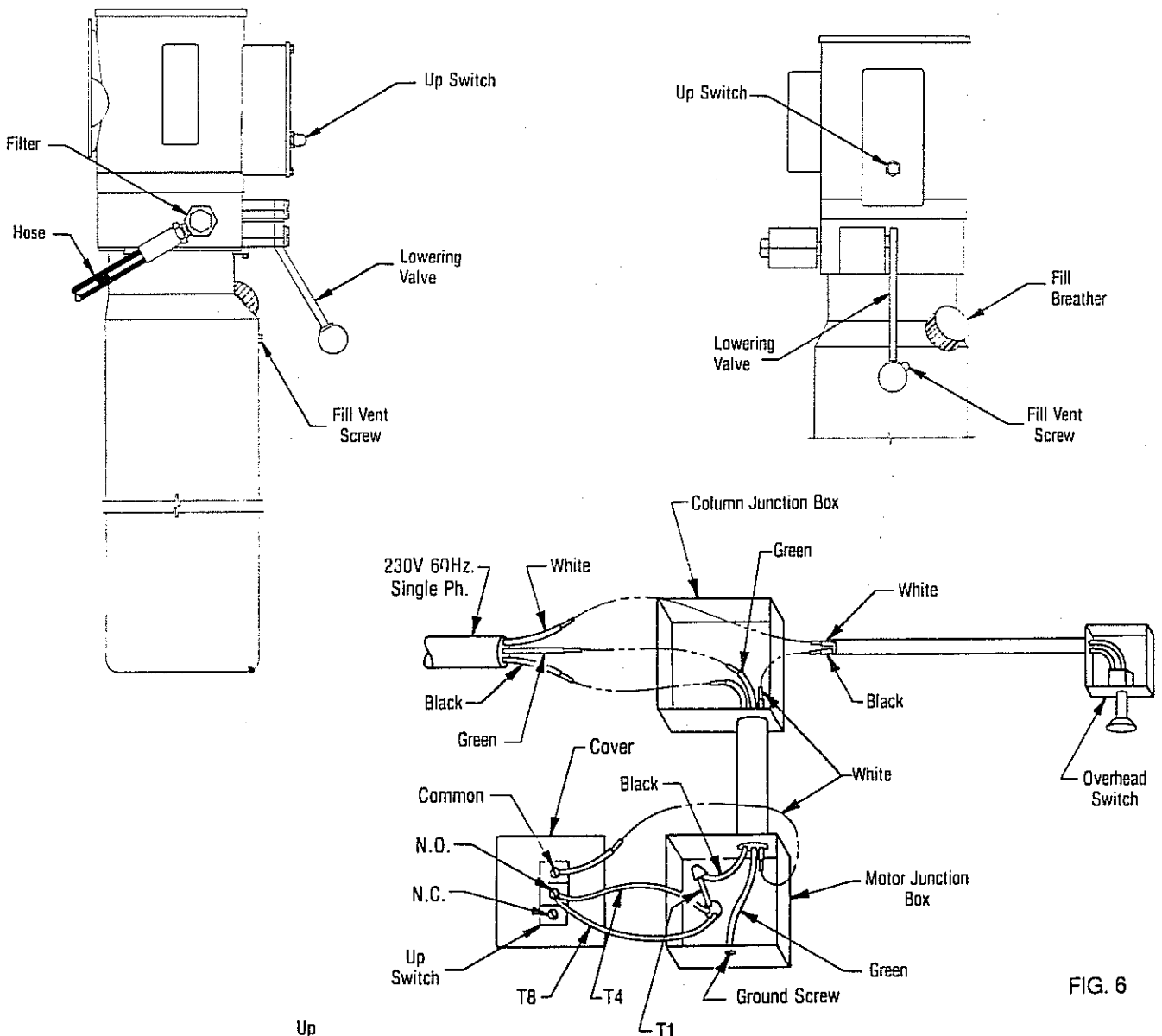


FIG. 6

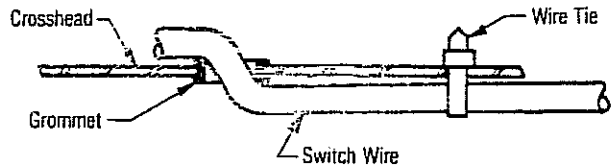
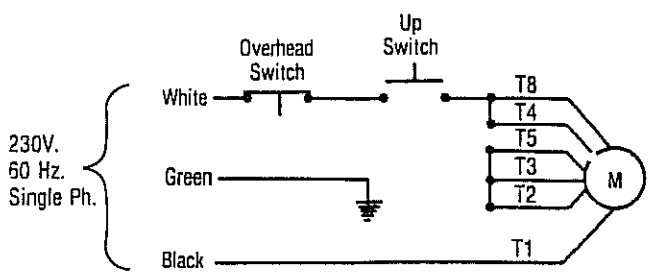
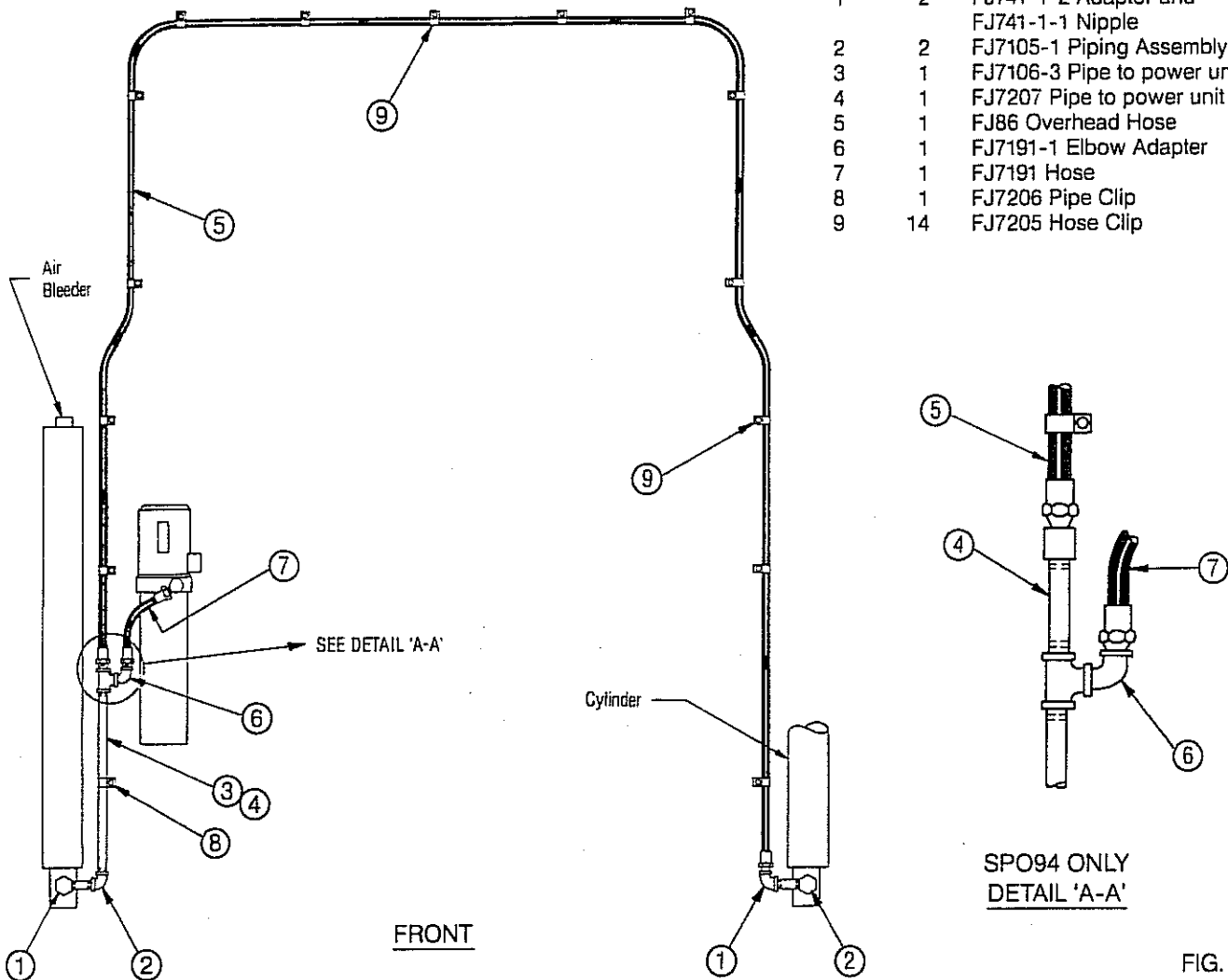


FIG. 7

PIPE AND HOSE INSTALLATION

1. Apply premium oil resistant pipe thread sealant on all pipe threads.
2. SPO84: Install Pc. ③ on power unit column side.
SPO94: Install Pc. ④ on power unit column side.
3. Install Pc. ⑤ with hose clamps starting at one side and working towards the other side. All excess hose should be at bends.
4. Install Pc. ⑤ into pipe tee or coupling in Pc. ③ or ④.
5. Connect power unit to piping with Pc. ⑦.

ITEM	QTY.	DESCRIPTION
1	2	FJ741-1-2 Adaptor and FJ741-1-1 Nipple
2	2	FJ7105-1 Piping Assembly
3	1	FJ7106-3 Pipe to power unit
4	1	FJ7207 Pipe to power unit
5	1	FJ86 Overhead Hose
6	1	FJ7191-1 Elbow Adapter
7	1	FJ7191 Hose
8	1	FJ7206 Pipe Clip
9	14	FJ7205 Hose Clip



19. FINAL ADJUSTMENTS: Raise lift to check 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.
20. Lower lift to check locking latch reset. When fully lowered, reset device should center release handle in horizontal slot, Fig. 2. If required adjust reset with adjusting nut.
21. Door Bumper Installation:
 - 1) Determine direction of vehicle approach.
 - 2) Clean carriages and columns where foam tape is to be installed. Allow to dry.
 - 3) Remove protective backing from foam tape and apply foam tape to approach side of carriages and columns in locations shown. Tape should be applied evenly around corners and pressed down firmly.
22. PRESSURE TEST: Run lift to full rise and keep motor running for 5 seconds. Stop and check all pipe and hose connections. Tighten or reseal if required. Repeat air bleeding of cylinders.
23. Lag wheel dish to floor. See Fig. 1 for location.
24. DECAL LOCATION: Clean area where decal is to be placed. Apply thin film of soapy water to beam. Remove backing from decal. Position and apply on column. Press out all air bubbles and moisture, Fig. 2.

LIFT OPERATING INSTRUCTIONS

1. Swing arms out to full drive-thru position, Fig. 1.
2. Spot vehicle over lift with left front wheel in proper spotting dish position, Fig. 9.
3. **LOADING:** Swing arms under vehicle and position adapters at proper lifting points. Use intermediate or high step adapters for under chassis clearance when required.
CAUTION: Before attempting to lift pick-up trucks or other truck frame vehicles be sure that
 - A. Total vehicle weight does not exceed lift capacity.
 - B. Adapters are in secure contact with frame at vehicle manufacturers recommended pick-up points.
 - C. Vehicle is stable on lift and neither front nor "tail" heavy.
 - D. The overhead switch bar will contact the highest point on the vehicle.
4. To Raise Lift: Actuate push-button and lift raises. Stop at 6" and check adapters for secure contact with vehicle. Continue to raise to desired height.
5. To lower lift: Remove all tools or other objects from lift area. Release both locking latches by moving RELEASE lever to locked position. Push lowering valve to lower. Lift must lower fully to reset locking device. When lift is partially lowered, locking latches must be manually set by resetting both release handles.
6. Remove adapters from under vehicle and swing arms to full drive-thru position before moving vehicle.

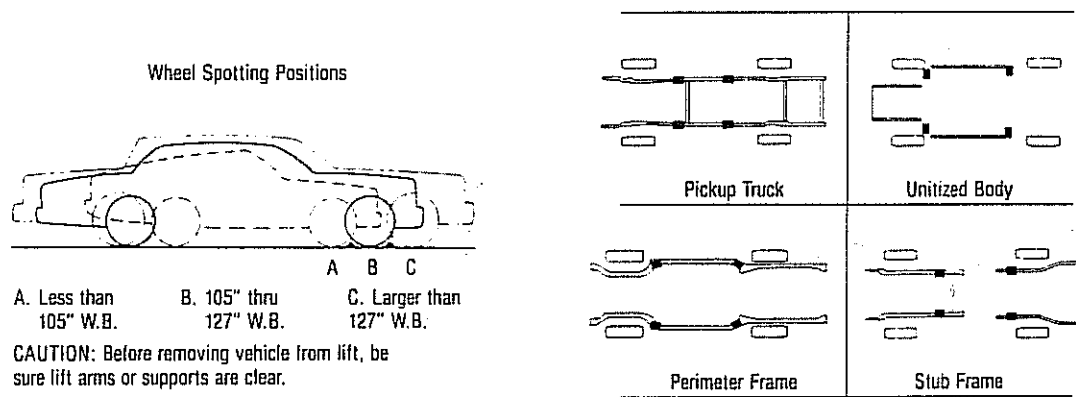


FIG. 9

SAFETY TIPS

1. Never allow unauthorized persons to operate lift.
2. Thoroughly train new employees in the use and care of lift.
3. Remove passengers before raising vehicle.
4. SPO84: Capacity of lift is 7,000 lbs., (1,750 lbs. per adapter capacity should not be exceeded).
5. SPO94: Capacity of lift is 9,000 lbs., (2,250 lbs. per adapter capacity should not be exceeded).
6. Keep area around lift clean of tools, debris, grease and oil.

MAINTENANCE

1. Inspect all bolts monthly. Tighten as required, in installation data.
2. Check anchor bolts monthly. If they continue to loosen, replace concrete per paragraph 4.
3. Check equalizer cable tension monthly, per paragraph 19.
4. Daily inspect adapters for damage or excessive wear. Replace as required with genuine ROTARY parts.
5. If lift stops short of full rise or chatters, check fluid level and bleed both cylinders per instructions. Clean power unit filter, Fig. 6.
6. If fluid is required, inspect all pipes, hoses and seals. Repair as required.
7. Daily check locking latch reset and adjust, if required, per paragraph 20 and Fig. 2.

OPTIONAL FJ696 PICKUP AND VAN ADAPTERS

Installation

Rotate high step casting to raised position. Slip FJ696 over high step, guiding pin into hole in low step until ball detent locks, Fig. 10.

Operation

1. FJ696 adapters are to be used only in their raised position. See warning label on adapter.
2. FJ696 adapters are made to contact the flat areas of the vehicle's frame, spring hanger, or other members that will fit within the retaining ribs atop the adapter. Never on sloped members. Adapter must cradle the vehicle members, Fig. 11.
3. Use care to avoid brake and fuel lines and other under-car devices. Swivel entire adapter to hinge away from center of lift, Fig. 12.

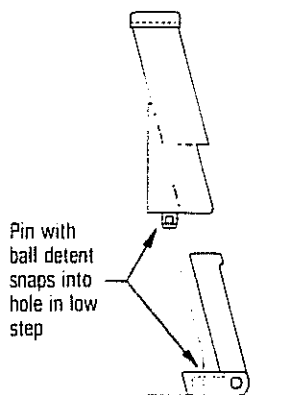


FIG. 10

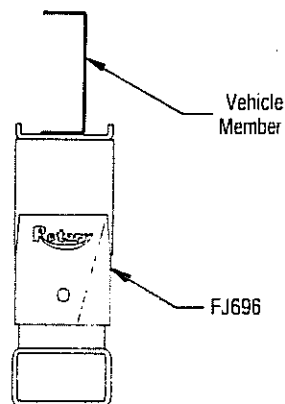


FIG. 11

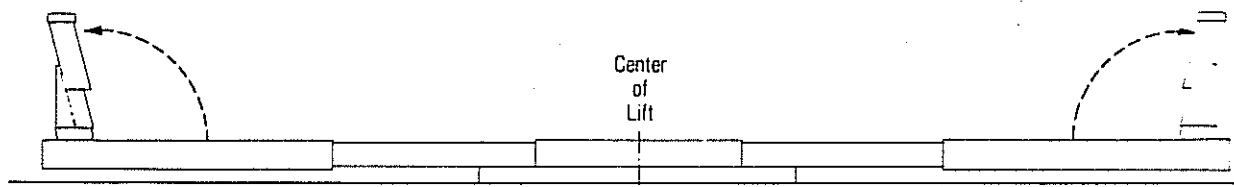


FIG. 12

Mr. Installer: Please return this booklet to installation envelope and give to lift owner/operator.

ROTARY MAINTAINS AUTHORIZED PARTS & SERVICE DEPOTS IN ALL PRINCIPAL CITIES.

USE GENUINE ROTARY REPLACEMENT PARTS

ROTARY LIFT

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