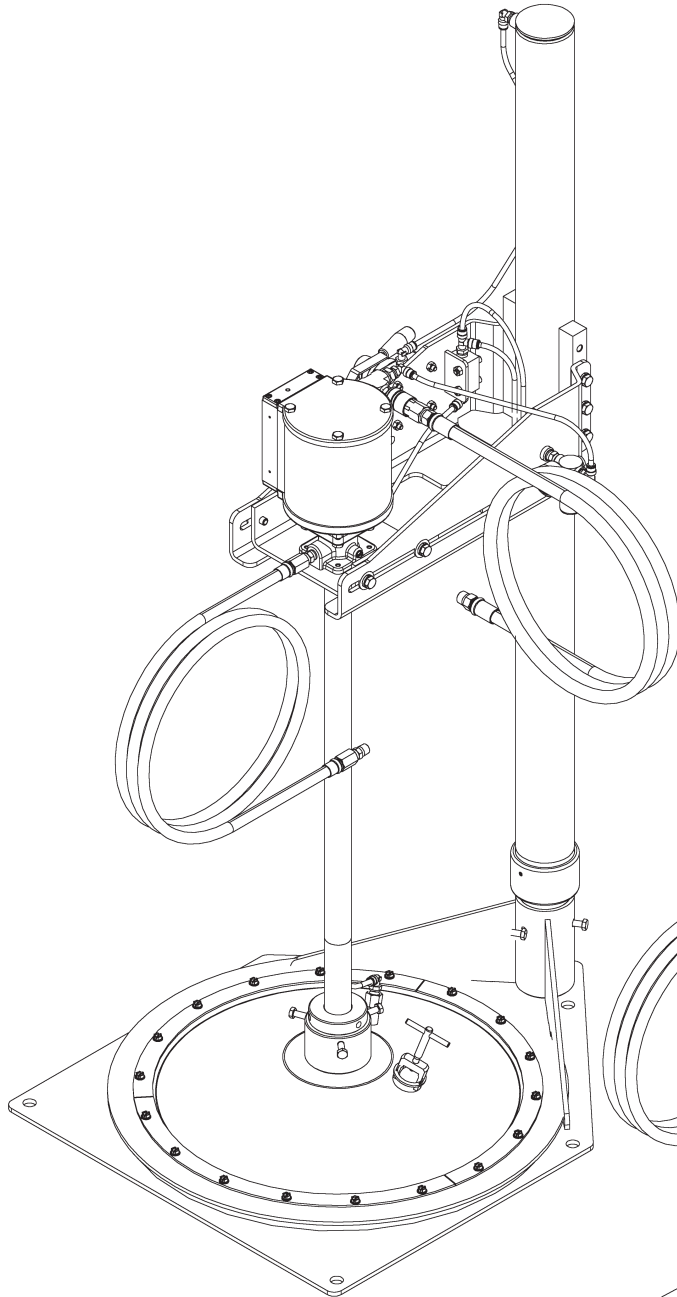
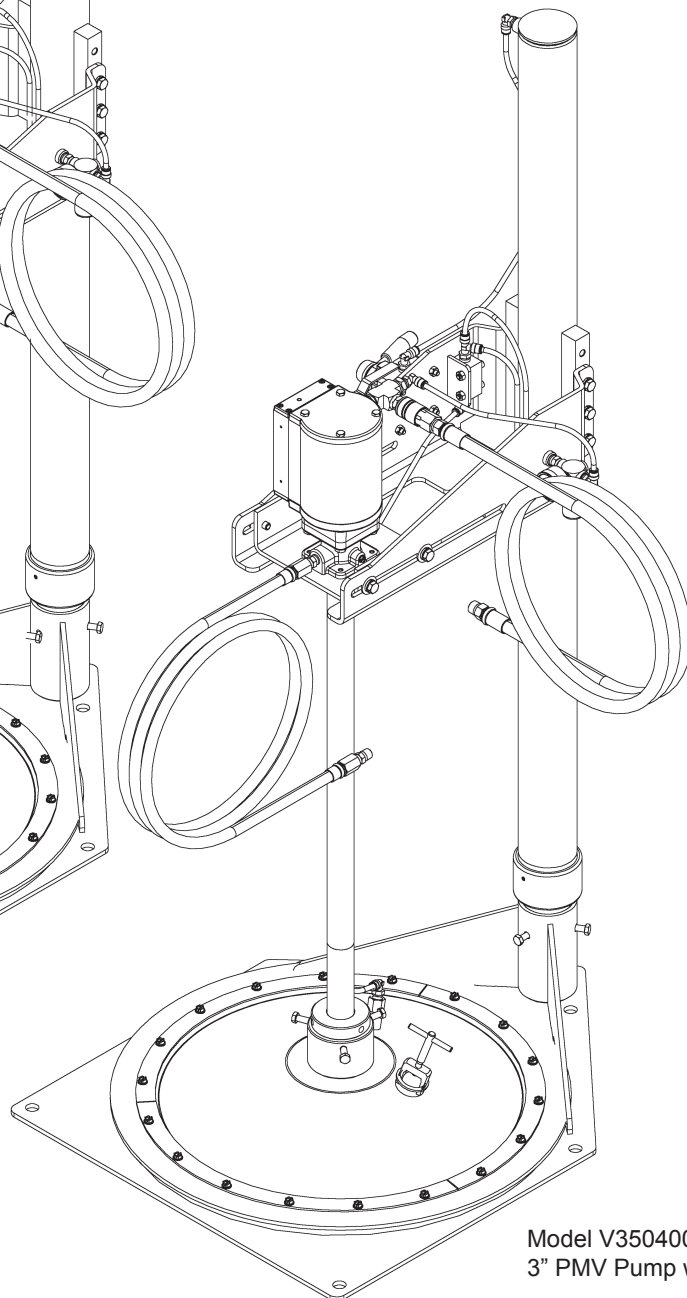




MODEL NOS. V350400HF & V450400HF
PUMP & HOIST ASS'Y
MODEL NO. 275260
400 LB. DRUM SIZE AIR OPERATED, MANUALLY
CONTROLLED
Series "A"



Model V450400HF
4" PMV Pump with Hoist



Model V350400HF
3" PMV Pump with Hoist

**MODEL NOS. V350400HF & V450400HF
PUMP & HOIST ASS'Y
MODEL NO. 275260
400 LB. DRUM SIZE AIR OPERATED, MANUALLY CONTROLLED**



**MODEL V350400HF (275260)
SPECIFICATIONS:**

UNIT HEIGHT, LOWERED POSITION	60.25" [1530]
UNIT HEIGHT, RAISED POSITION	97.00" [2464]
HOIST CAPACITY	200 lbs [90.72 kg]
OPERATING PRESSURE (HOIST)	40-100 PSI [2.8-6.9 bar]
PUMP	V350400000
PUMP RATIO	50:1
PUMP MAX WORKING PRESSURE	5000 PSI [344.7 bar] (LIMITED BY HOSE WORKING PRESSURE)
PUMP MAX AIR PRESSURE	125 PSI [8.6 bar]
AIR INLET	3/8 NPT MALE (3/8" ID HOSE)
LUBE OUTLET	1/4 NPT MALE X 84" (1/4 ID SAE 100R2) HOSE

**MODEL V450400HF
SPECIFICATIONS:**

UNIT HEIGHT, LOWERED POSITION	60.25" [1530]
UNIT HEIGHT, RAISED POSITION	97.00" [2464]
HOIST CAPACITY	200 LBS [90.72 kg]
OPERATING PRESSURE (HOIST)	40-100 PSI [2.8-6.9 bar]
PUMP	V450400000
PUMP RATIO	50:1
PUMP MAX WORKING PRESSURE	5000 PSI [344.7 bar] (LIMITED BY HOSE WORKING PRESSURE)
PUMP MAX AIR PRESSURE	100 PSI [6.9 bar]
AIR INLET	3/8 NPT MALE (3/8" ID HOSE)
LUBE OUTLET	1/4 NPT MALE X 84" (1/4 ID SAE 100R2) HOSE

DESCRIPTION:

Model 275260 is a pump hoist (less pump) for use with 120# and 400# refinery container drums, 400# follower, and the necessary hoses and fittings to perform a basic installation. (See Illustration 1).

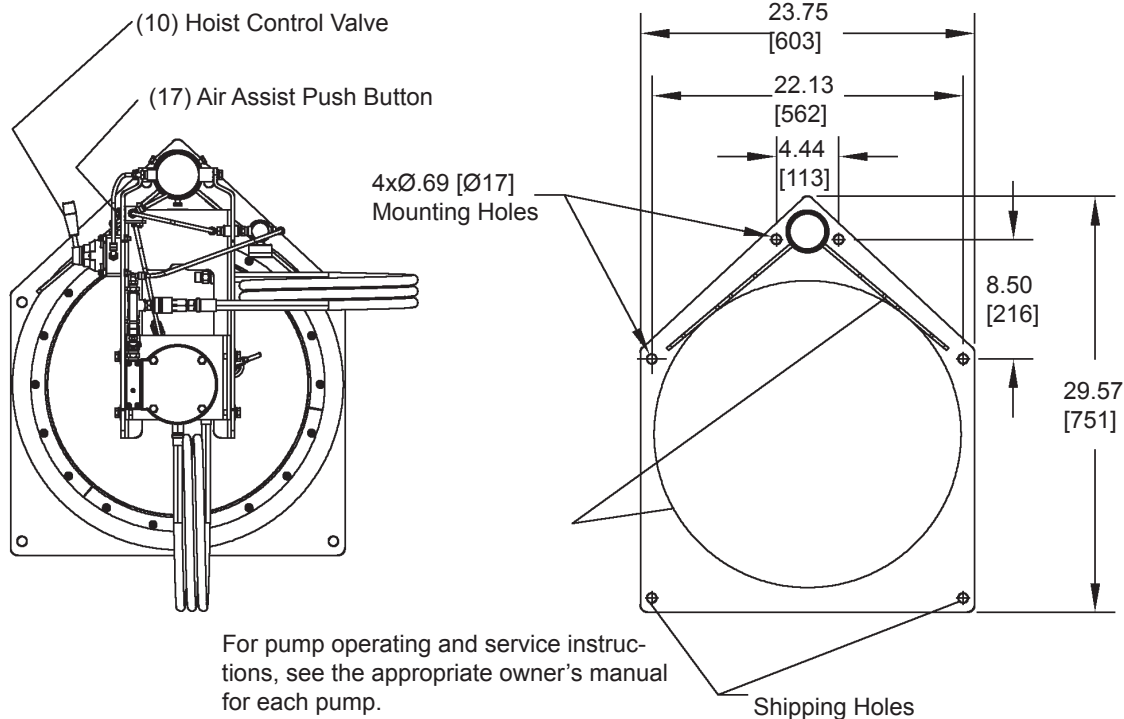
Model V350400HF includes the 275260 pump hoist and follower and a 3" PMV grease pump for use in 400# container drums.

Model V450400HF includes the 275260 pump hoist and follower and a 4" PMV grease pump for use with 400# container drums.

All models will place a pump and follower in position for insertion into a standard 400# refinery container. The priming action of these models is created by gravity and the vacuum created when material is pumped from the drum. The weight of the pump and follower, plus the effects of atmospheric pressure, work with the shape of the follower, to direct the material into the pump inlet. The follower will remain on top of the material until the container is emptied by the pump. When the follower reaches the bottom of the container, very little, if any, material is left in the bottom of the drum. The follower will work well with most drum liners in good condition.



MODEL NOS. V350400HF & V450400HF
PUMP & HOIST ASS'Y
MODEL NO. 275260
400 LB. DRUM SIZE AIR OPERATED, MANUALLY CONTROLLED



**BASE MOUNTING
DETAIL**

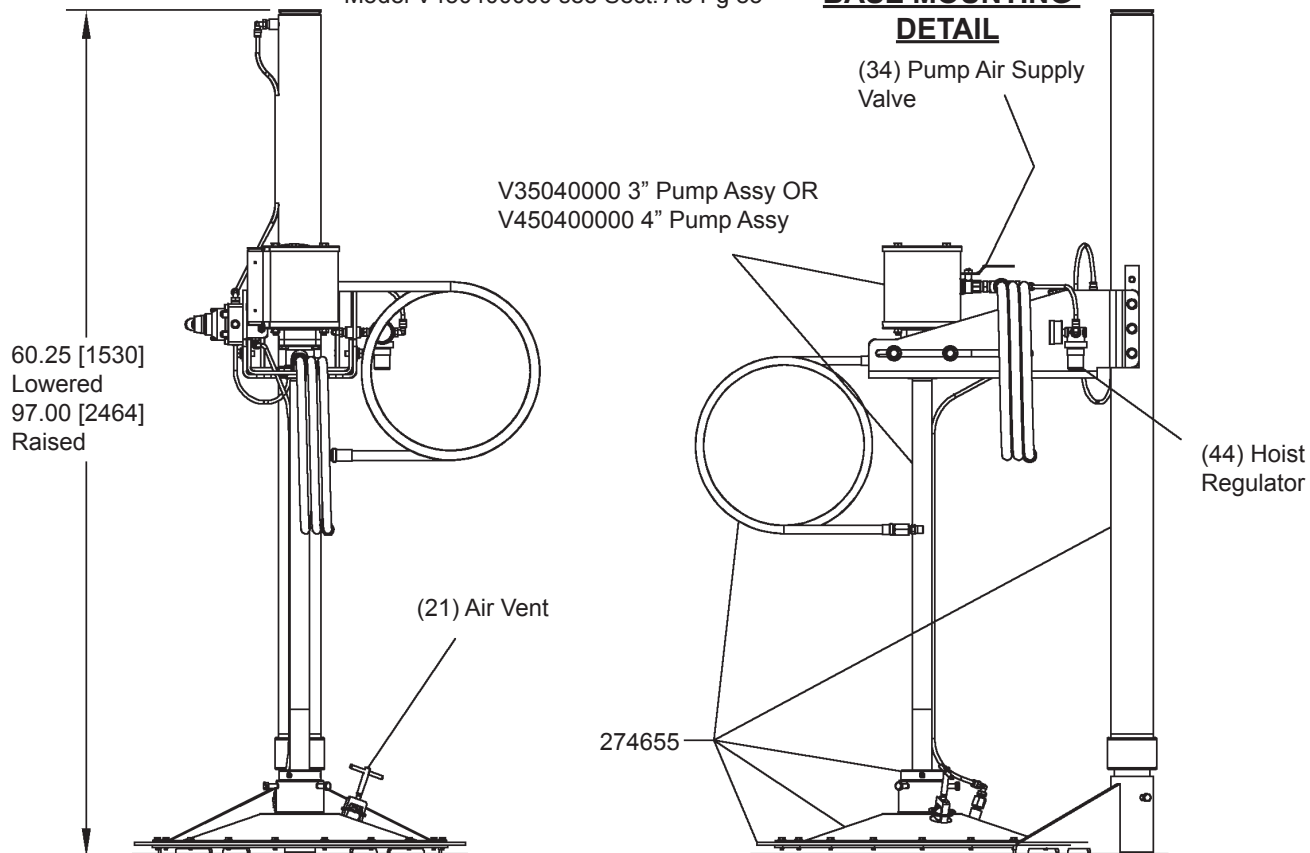


Illustration 1

MODEL NOS. V350400HF & V450400HF
PUMP & HOIST ASS'Y
MODEL NO. 275260
400 LB. DRUM SIZE AIR OPERATED, MANUALLY CONTROLLED

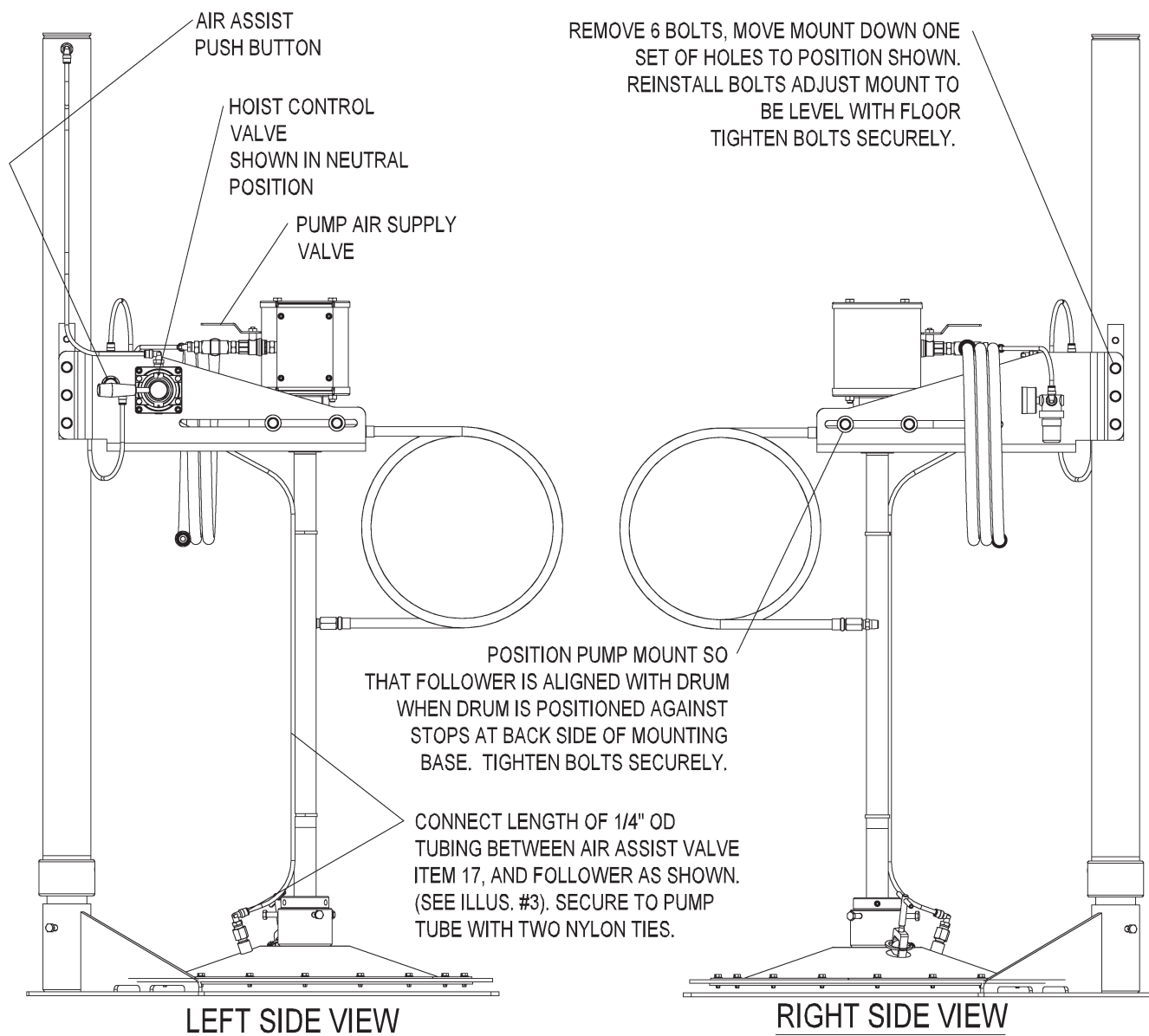


Illustration 2



INSTALLATION:

1. Select a location where there is adequate clearance around the hoist to operate and maneuver around the hoist and pump assembly when installing and removing drums.
2. The mounting base must be securely fastened to the floor before use. Mounting dimensions are provided on Base Mounting Detail in Illustration 1, or the base may be used as a template for drilling and positioning anchors.

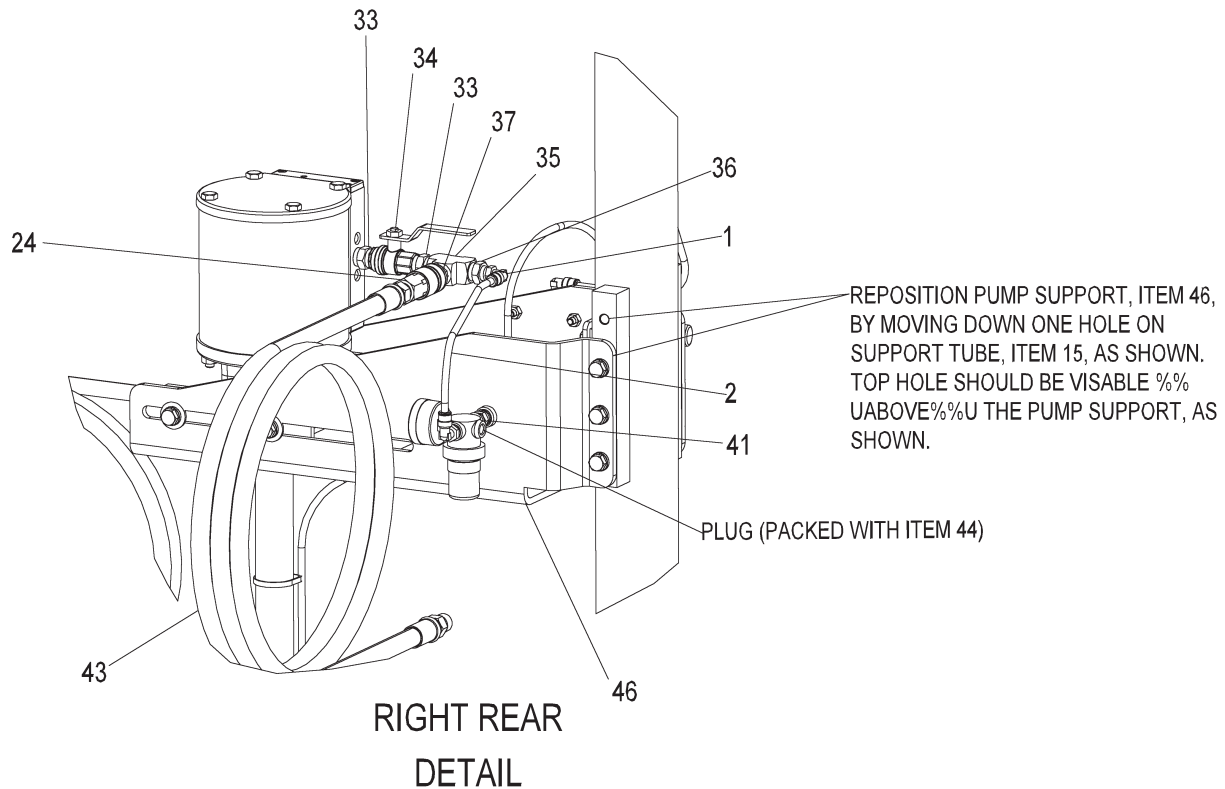


WARNING

Failure to securely fasten the base to the floor may result in severe injury and/or property damage. Pump hoist may topple over if not securely fastened.

3. After hoist has been secured to the floor reposition the pump support, item 46, by moving it down on the support tube, item 15, as shown in Illustration 3. Adjust the pump support so that it is parallel to the floor and secure by tightening the six mounting bolts, item 4. This will keep the pump tube parallel with the support tube.
4. Mount pump to pump mount, item 29. The holes in the pump mount are off center with the pump mount. When the pump mount is placed in the pump support, item 46, the pump mount should be placed with the holes closest to the open end of the pump support. See Illustration 3. When attaching the pump to the mount, (item 29), attach pump outlet body to pump mount with four 1/4-20 x 9/16 hex screw and washer assemblies, item 39. See Illustration 3.
5. Place pump and mount into pump support, item 46, and loosely install hex bolts, lock washers, and flat washers, items 4, 5, & 6, through slots in support. Leave loose until final adjustments are made.
6. Assemble air inlet fittings as shown in Illustration 3. Assemble the air regulator, item 44, to the air inlet of the hoist as shown in the illustration. Note that there is a 1/8 pipe plug packaged with each regulator for plugging the unused gage port in the regulator. Install this plug into the unused port on the regulator, item 44, as shown.
7. After all fittings are assembled and tight measure and cut a length of 1/4 OD black polyurethane tubing, supplied, to connect the air inlet to the regulator inlet as shown in illustration 3. The tubing will simply push fit into the 1/4 fittings included with the model.
8. Assemble the air hose to the air coupler, item 24. Make sure the ball valve, item 34, is closed and the hoist control valve, item 10, is in the down position. Attach air hose to source of filtered, regulated air. The air pressure should be set initially to about 40 PSI.
9. Adjust the hoist air regulator, item 44, for a pressure of around 30-40 PSI. Check for air leaks in all connections. Slowly move the hoist control valve, item 10, to the raised position and raise pump so the end of the pump tube will clear the primer assembly.
10. Attach the primer assembly to the end of the pump tube. When assembling pump to the follower, a reducing adapter is used, item 38. Apply some grease to the outside of the adapter and the O-rings on the inside of the adapter and the inside of the follower. Push the adapter into the follower assembly until it seats against the shoulder. Tighten the three hex bolts on the follower, item 14, securely. Apply some grease to the end of the pump tube and slide into the reducing adapter, item 38, until the pump tube is flush with the bottom of the follower. Tighten the three set screws, item 32, securely.
11. Raise the follower high enough to clear an open 400# container. Place the container under the follower and slide the drum back on the mounting base, item 8, until the bottom is against both gusset plates on the base. Adjust the position of the pump with respect to the drum by sliding the pump mount (item 29) in the pump support, item 46, until the follower is centered over the open drum. Tighten the hex bolts, item 4, through the slots in the pump support to secure the pump mount. **Do not insert the follower into the drum at this time.**
12. Using the remaining polyurethane tubing, attach to the open fitting on the 2-way air valve, item 17, mounted on the pump support, item 46, by pushing one end of the tube into the fitting until secure. (See Illustration 3). Thread the tubing down along the pump tube to the fitting, item 1, in the top of the follower assembly. Secure the tubing to the pump tube with two nylon wire ties, supplied with the assembly. (See Illustration 2)
13. Check for proper air flow by pressing button on 2-way air valve, item 17, making sure that air flows through check valve, item 30, and out under follower assembly.
14. Connect fluid hoses to pump outlet. These models are supplied with a 1/4" ID high pressure hose, item 40, with 33/64 female thread on both ends. Two male adapters, item 45, are supplied to adapt the hose to 1/4 NPT male for the pump outlet, and working end of the hose. Insert the hose adapters, item 45, into each end of the high pressure hose and tighten securely for leak proof seal. Thread one end of the hose into the pump outlet and tighten securely. Attach the other end as required for the application.

MODEL NOS. V350400HF & V450400HF
PUMP & HOIST ASS'Y
MODEL NO. 275260
400 LB. DRUM SIZE AIR OPERATED, MANUALLY CONTROLLED



ATTACH TUBING FROM FOLLOWER TO OPEN
TUBE FITTING ON BOTTOM OF AIR ASSIST
VALVE, ITEM 17, AS SHOWN.

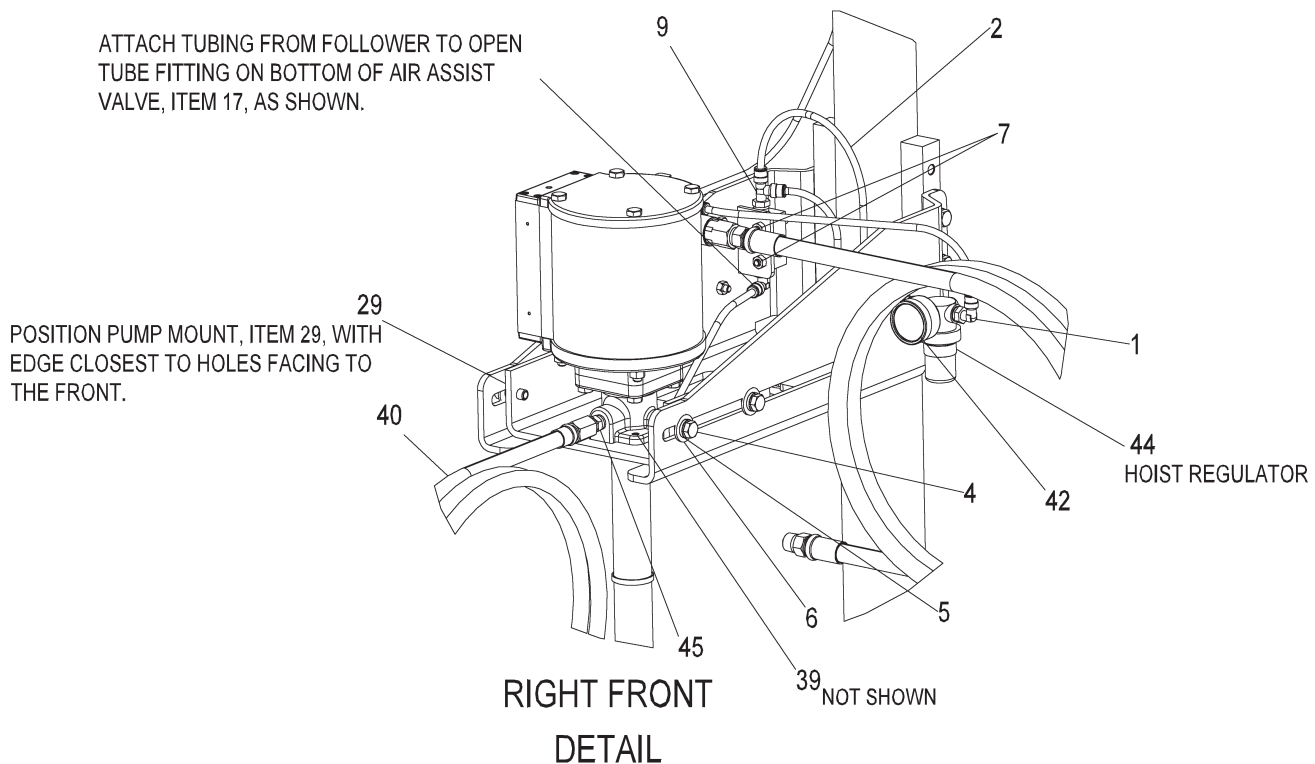


Illustration 3



OPERATING CONTROLS (See Illustration 1)

Hoist Control Valve (item 10): Three position air valve used to raise and lower the pump into and out of the drum. When the handle is moved up, the hoist will raise. When placed in the neutral position, with handle level with floor, hoist will stop and hold position. When the handle is placed in down position, the hoist will lower the pump into the drum.

Air Assist Push Button (item 17): Two-way air valve used to force air under the follower assembly to assist in lifting the pump and follower from the drum. The Air Assist is used in conjunction with the Hoist Control Valve when removing the pump and follower from the drum.

Air Vent (item 21): Used to vent air trapped under the follower plate when the follower and pump is lowered into the drum. This valve should be open when the pump and follower are lowered into the drum. Air will escape from the valve as the follower is lowered into the drum. After the follower rests on top of the lubricant, the valve is closed by turning clockwise to seal the ball against the seat.

Hoist Regulator (item 44): Used to control the air pressure to the hoist only. The air pressure should be set to the necessary pressure required to raise the pump and follower. Too much pressure will cause the hoist to rise very quickly and may damage the hoist.

Pump Air Supply Valve (item 34): Used to control air to the air motor and pump assembly. When the pump is in operation this valve must be open to allow air to flow to the air motor. When servicing, relieving pressure, or operating the hoist, this valve must be closed to stop air motor and pump operation when the pump is removed from the drum.

OPERATION

1. Before operating, insure that the hoist is securely fastened to the floor. All connecting bolts must be tightened securely. Air connections and tube fittings are all tight and leak proof. Fluid connections are tight and leak proof.
2. All fluid and air hoses are to be connected as required.

Installing a material drum:

3. Adjust the hoist regulator, item 44, to about 30 PSIG. Move the Hoist Control Valve (item 10) to the raise position to lift the pump clear of the rim of the drum. Adjust the hoist regulator as required to a pressure high enough to raise the pump clear of the drum with out rapid uncontrolled rising of the pump. Move the Hoist Control Valve to the neutral position to hold the pump in position.
4. Position the drum of lubricant on the mounting base, item 8, so that the drum rests against both gussets on the back side of the base.
5. Adjust, if necessary, the location of the pump support, (item 29) to center the follower assembly over the top of the drum. Tighten the bolts, (item 4) if an adjustment was made.

6. Open the Air Vent (item 21) to allow air to vent from below the follower as the follower is lowered into the drum.
7. Move the Hoist Control Valve (item 10) to the down position and guide the follower into the drum of lubricant. As the follower is lowered into the drum, air will vent from the vent valve. Continue to lower the pump and follower into the drum until it stops. Some lubricant may appear at the vent valve as it is lowered into the drum. This is normal. Close the Air Vent (item 21) after the follower stops moving.
8. **Leave the Hoist Control Valve in the down position at all times** except when removing the drum from the drum. This will allow the follower to drop as the lubricant is depleted from the drum.
9. Turn on the Pump Air Supply Valve (item 34) and adjust the air pressure to the air motor and pump tube assembly to prime the pump as required. See the owner's manual for the air motor and pump tube.
10. While in operation, as the pump removes material from the drum, the pump will continue to drop into the drum, following the level of material down to the bottom of the drum. Note that air pressure is not used to exert force on the pump hoist to force the follower into the drum.

Removing a material drum:

11. When the pump follower reaches the bottom of the drum and drum replacement is necessary the pump may be removed from the drum as follows. Close the Pump Air Supply Valve (item 34) to stop the pump.
12. Move the Hoist Control Valve (item 10) to the raise position, and press the Air Assist Push Button, (item 17), at the same time. Hold the base of the drum into the slots formed in the gussets on the mounting base with one foot while raising the pump from the drum. Modulate the Hoist Control Valve and Air Assist Pushbutton as necessary to work the follower out of the drum. If the follower hangs up at the drum chimes, it may help to allow the drum to rise off the base slightly and allow the Air Assist to force the drum off the follower while guiding the drum by hand.
13. When the follower reaches the top of the drum, release the Air Assist Push Button, and place the Hoist Control Valve in the neutral position to hold the pump in position while the drum is replaced.
14. After removing the drum, remove any grease from the bottom side of the follower in the area of the Air Vent check ball (item 22), so that air will flow freely through the vent and grease is not forced on top of the follower when placing the follower back into the lubricant.

MODEL NOS. V350400HF & V450400HF
PUMP & HOIST ASS'Y
MODEL NO. 275260
400 LB. DRUM SIZE AIR OPERATED, MANUALLY CONTROLLED



SERVICE

When service is required see the appropriate owner's manual for the pump. Service on the hoist is limited to the hoist air cylinder assembly and the follower assembly. All other hoist components are not serviceable items.

WARNING! Before any service is attempted it is important to disconnect the air supply to the pump and hoist unit and bleed off all material pressure from the pump outlet and attached hoses.

Air Cylinder Service

- The pump must be removed from the hoist to service the air cylinder assembly. Disconnect all air lines between the pump and hoist assembly. Disconnect the air line to the follower assembly. The pump and pump mount (item 29) and the follower assembly, can be removed as a unit from the pump support (item 46) by removing the four attachment hex bolts, and washers, (items 4, 5, & 6). Place the pump and follower on large sheet of clean paper or cardboard to keep follower clean.
- Loosen set screw (item 12), and remove tube cap (item 11) from upper support tube (item 15).
- Slide the upper support tube off of the lower support tube (item 18) and set aside.
- The seal, (item 20) is accessible and may be replaced by removing from the piston (item 19) and replacing with a new seal.
- Carefully inspect the condition of the upper support tube (item 15) before reassembly, checking for scratches or damage to the inside surface. Before re-assembly, apply a liberal coating of grease to the inside surface of the upper support tube (item 15), piston (item 19), and seal (item 20).
- Reassemble in the reverse order of disassembly. Check all tubing and connections for leaks.

Follower Service

- The follower must be removed from the bottom of the pump for service. The pump does not need to be removed from the hoist. To remove the follower, remove the pump and follower from the material drum. Remove the drum from the base of the hoist. Lower the pump and follower to the base on top of a piece of clean cardboard or paper. Place hoist control valve in neutral position.
- Disconnect the air line from the follower.
- Loosen the three hex screws, item 24, and slide the follower off the end of the pump tube. The follower may be tight due to the O-ring seals (item 25) around the pump tube.
- Place follower on clean flat surface with air vent and pump tube bushing facing the top side.
- Remove the 18 hex screws (item 26), three segment rings (item 27) and follower wiper ring (item 28)
- Inspect all components for wear or damage, replacing any damaged or worn components.

- Re-assembly is the reverse of the disassembly process. When installing the hex screws, item 26 take care not to tighten too tight. The screws only need to be tight enough to seal the wiper to the follower. There should be no deflection to the segment rings (item 27) when the screws are tightened.
- Check for leaks and test after re-assembly.

Air Vent Service

- The Air Vent, items 21, 22, and 23, may be serviced without removing the pump or follower from the pump. The pump and follower must be removed from the drum. Lower the pump and follower to the base on top of a piece of clean cardboard or paper. Place hoist control valve in neutral position.
- Remove the valve screw assembly (item 21) by turning counterclockwise.
- Remove the retaining ring (item 23).
- The ball can now be removed through the slots on the sides of the valve body.
- Inspect the ball for any signs of wear or damage. Replace as necessary. Clean and inspect the valve body and follower surfaces where the ball is seated. Repair or replace as necessary.
- Reassemble in the reverse order of disassembly. Do not tighten the valve screw too tightly. It should only be tight enough to form a seal. If tightened too tightly, damage to the ball may occur.

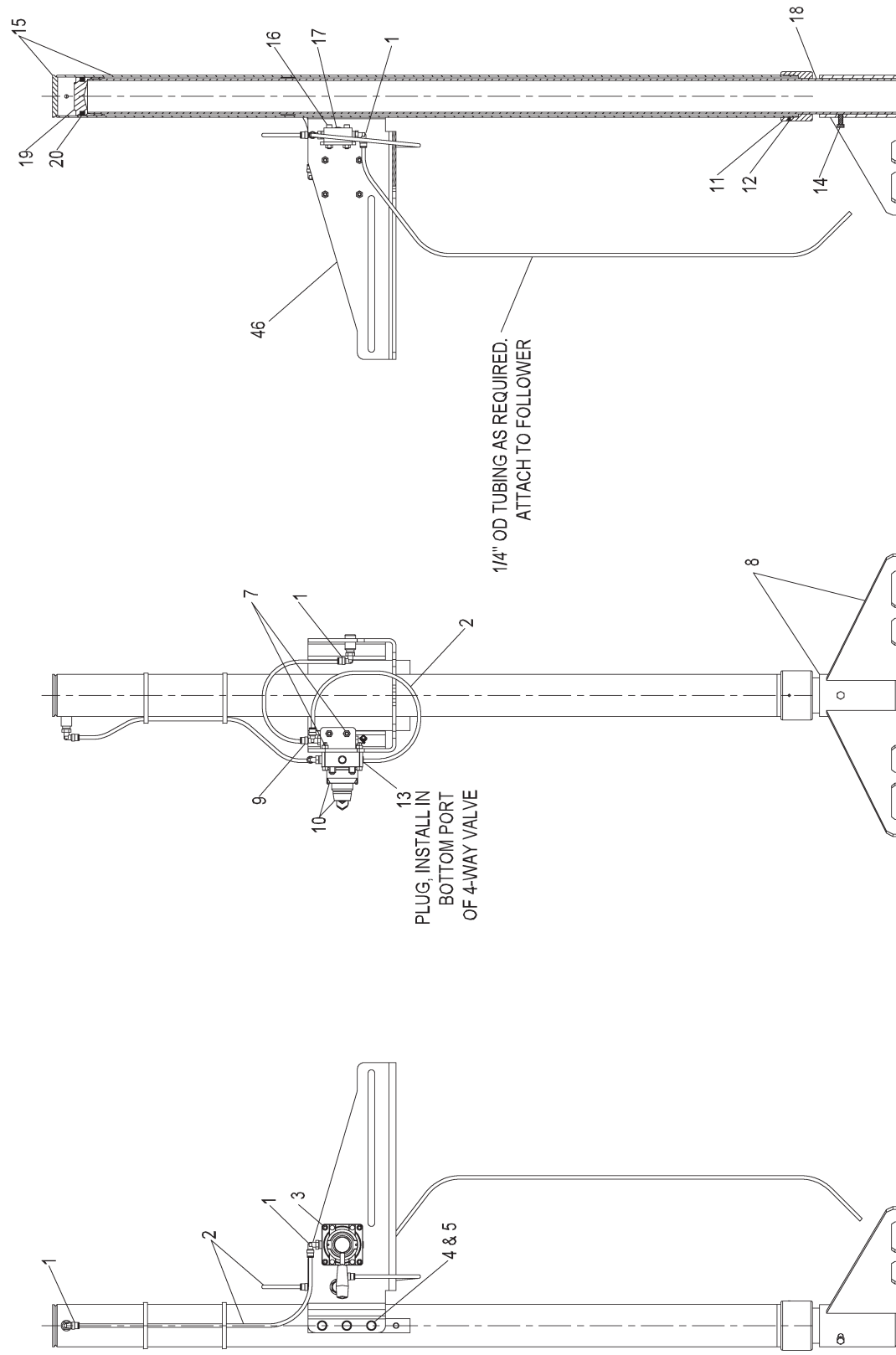


Illustration 4

MODEL NOS. V350400HF & V450400HF
PUMP & HOIST ASS'Y
MODEL NO. 275260
400 LB. DRUM SIZE AIR OPERATED, MANUALLY CONTROLLED



Primer Assembly Detail

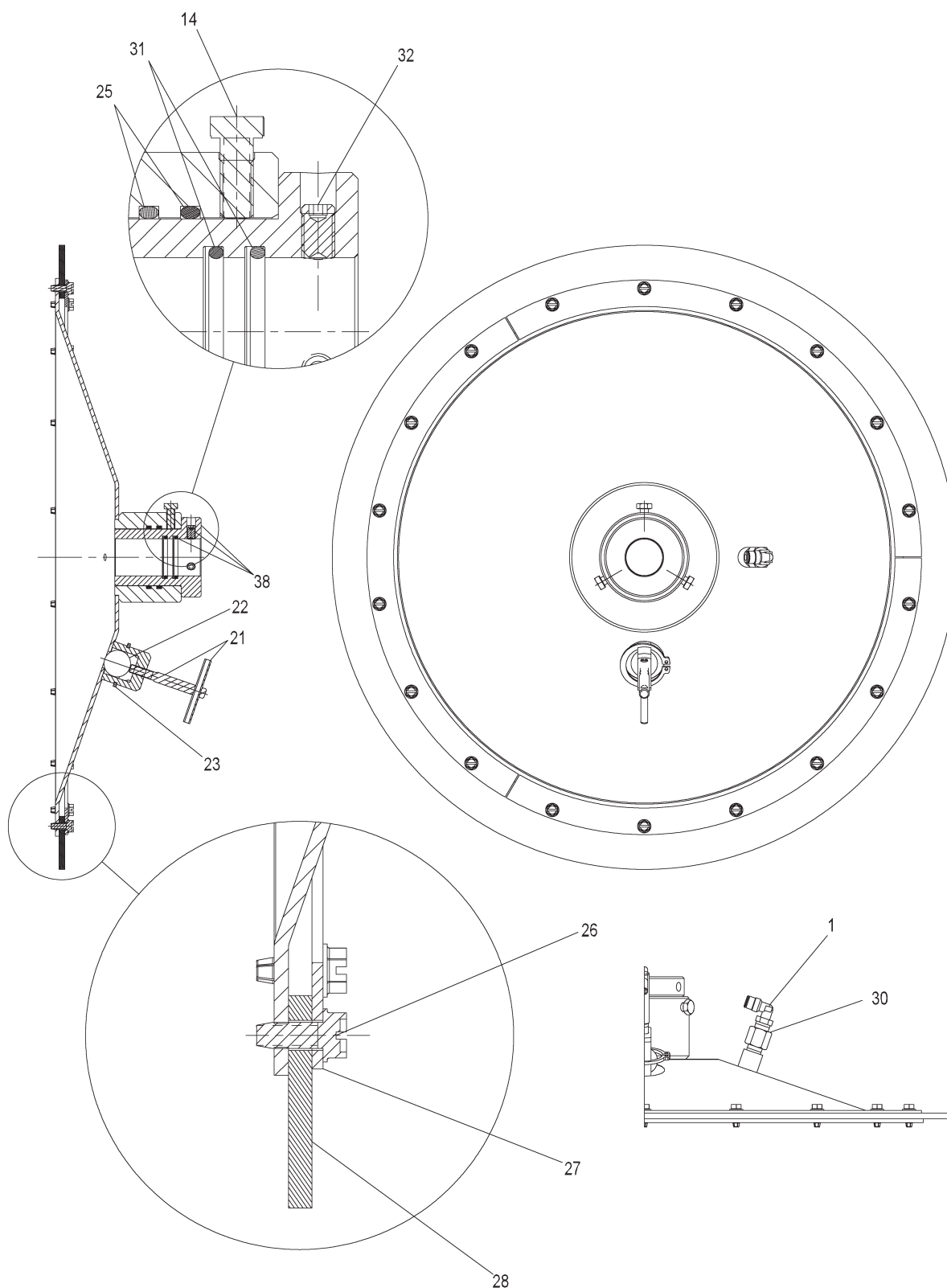


Illustration 7



MODEL NOS. V350400HF & V450400HF
PUMP & HOIST ASS'Y
MODEL NO. 275260
400 LB. DRUM SIZE AIR OPERATED, MANUALLY CONTROLLED

PARTS LIST			
ITEM	DESCRIPTION	PART NO	QUAN
1	1/4 OD X 1/4 NPTF (M) 90° ELL	247761	7
2	1/4 OD X .160 ID POLYURETHANE TUBING		AS REQ'D
3	1/4-20 x 1-3/4" SOC HD CAP SCREW	50779	4
4	3/8-16 X 1 HEX HD CAP SCREW	50044	10
5	3/8 SPLIT LOCK WASHER	66220	10
6	3/8 FLAT WASHER	48268	4
7	1/4-20 HEX NUT	51010	6
8	MOUNTING BASE	274661	1
9	1/4 MALE RUN TEE	274654	1
10	4-WAY AIR VALVE	237588	1
11	TUBE CAP	274719	1
12	#10-32 X 1/4" CUP POINT SET SCREW	50522	1
13	1/4 NPT PIPE PLUG	67359	1
14	5/16-18 X 3/4" HEX HD CAP SCREW	50016	6
15	UPPER SUPPORT TUBE	274666	1
16	1/4-20 X 1-1/2 SOC HD CAP SCREW	50051	2
17	2-WAY AIR VALVE	274682	1
18	LOWER SUPPORT TUBE	274664	1
19	PISTON	274663	1
20	PISTON SEAL	34327	1
21	VALVE SCREW ASSY	274651	1
22	1" BALL	274715	1
23	RETAINING RING	274650	1
24	AIR COUPLER	242563	1
25	O-RING (NITRILE)	34337	2
26	1/4-20 X 5/8" TAPPING SCREW	274648	18
27	FOLLOWER SEGMENT	274644	3
28	WIPER RING (NITRILE)	34371	1
29	PUMP MOUNT	274734	1
30	CHECK VALVE	274653	1
31	O-RING	34262	2
32	5/16-18 X 1/2" CUP POINT SET SCREW	50525	3
33	3/8 HEX NIPPLE	10540	2
34	3/8 BALL VALVE, 1/4 TURN	275291	1
35	3/8 TEE	70159	1
36	3/8 NPT X 1/4 NPT BUSHING	275290	1
37	AIR NIPPLE	640106	1
38	FOLLOWER ADAPTER, (INCL 31 & 32)	275259	1
39	1/4-20 X 9/16 HEX SCREW & WASHER ASSY	50060	4
40	1/4 X 84" HIGH PRESSURE HOSE	75084	1
41	1/4 NPT HEX NIPPLE	10462	1
42	AIR PRESSURE GAGE	247843	1
43	3/8" X 84" AIR HOSE	275289	1
44	MINI AIR REGULATOR	602003	1
45	HOSE CONNECTOR	10198	2
46	PUMP SUPPORT	274669	1

MODEL NOS. V350400HF & V450400HF
PUMP & HOIST ASS'Y
MODEL NO. 275260
400 LB. DRUM SIZE AIR OPERATED, MANUALLY CONTROLLED



Americas:
One Lincoln Way
St. Louis, MO 63120-1578
USA
Phone +1.314.679.4200
Fax +1.800.424.5359

Europe/Africa:
Heinrich-Hertz-Str 2-8
D-69183 Walldorf
Germany
Phone +49.6227.33.0
Fax +49.6227.33.259

Asia/Pacific:
51 Changi Business Park
Central 2
#09-06 The Signature
Singapore 486066
Phone +65.6588.0188
Fax +65.6588.3438

© Copyright 2007
Printed in USA

Web site:
www.lincolnindustrial.com