



Service Guide

2741-4
2742-4
2743-4
322550-A4

Pump Hoist and Mount

Description

Pump hoist and mount model 2740 series are single-post hoists designed to accommodate Alemite industrial lubricant and material pumps (see **Table 2**, page 14).

These air-operated hoists:

- raise and lower the pump assembly (not included) to ease container changeover
- are designed to rotate 360 °

Hoist Control Valve

Each model hoist is controlled by a push-pull 2-position 3-way air valve. The valve contains a restrictor that controls the flow of air.

Models 2741-4, 2742-4, and 2743-4

The difference between these models is the pump mount arrangement included with the stripped hoist (model 322550-A4). See **Figure 1**.

Pump Assemblies

The Cover and Bracket included in hoist and mount models 2741-4 and 2742-4 respectively are designed to accommodate Alemite industrial lubricant pumps.

These models can be equipped with an adapter plate assembly [(322593) purchased separately] that contains a 2-inch PT (f) bung fitting. This bung fitting accepts the bung adapter included on Alemite industrial material pumps.

The hanger equipped with model 2743-4 accommodates Alemite industrial lubricant and material pumps utilizing the pump's eye bolt. These pumps can also hang from a stud that is furnished with the hoist. See **Figure 4**.

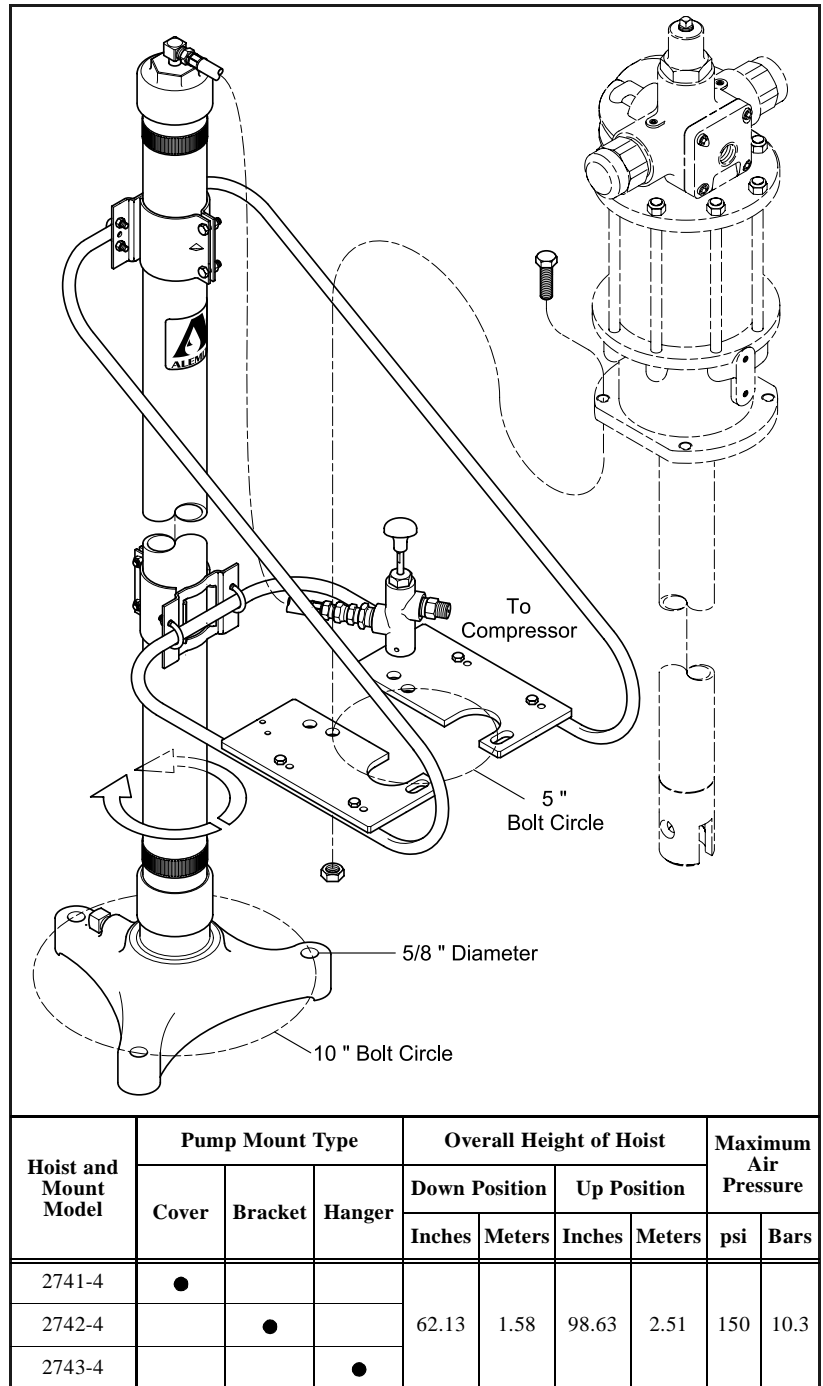


Figure 1 Pump Hoist and Mount Model 2741-4, 2742-4, and 2743-4
Model 2742-4 Shown

Hoist and Mount Model	Pump Mount Type			Overall Height of Hoist				Maximum Air Pressure	
	Cover	Bracket	Hanger	Down Position		Up Position		psi	Bars
				Inches	Meters	Inches	Meters		
2741-4	●								
2742-4		●		62.13	1.58	98.63	2.51	150	10.3
2743-4			●						

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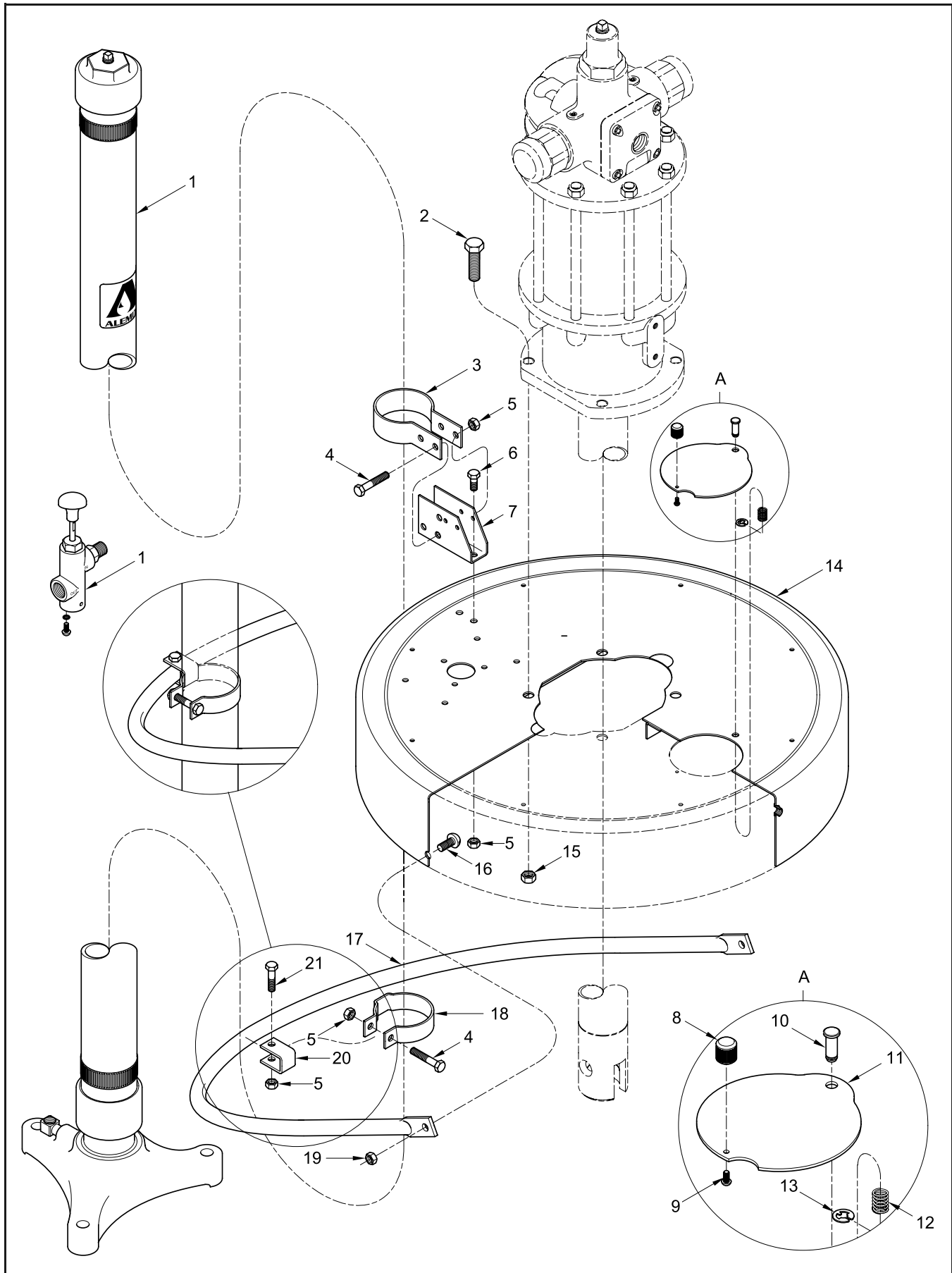


Figure 2 Hoist and Cover Assembly Model 2741-4 - Exploded View

Item No.	Part No.	Description	Qty	Notes	Numeric Order Part # (Item #)
1	322550-A4	Hoist Assembly, Stripped (w/ Valve)	1	See Figure 5	11551 (4)
	324243-4	Cover Assembly	1	Includes items 2 - 21	11824 (2)
2		Screw, 1/2 " -20 x 1-1/2 "	4		17070 (5)
3		Clamp	1		17914 (9)
4		Screw, 5/16 " -18 x 2 "	3		77661 (6)
5		Nut, 5/6 " -18	6		79080 (21)
6		Screw, 5/16 " -18 x 3/4 "	2		170405 (16)
7		Bracket	1		170707 (13)
8		Knob	1		171074 (19)
9		Screw, Drive, 6 x 5/16 "	1		171130 (15)
10		Pin, 0.312 " Dia. x 11/16 " Long	1		300596 (12)
11		Cover, Inspection	1		322550-A4 (1)
12	300596	Spring	1		322551 (3)
13		Ring, Retaining (E-Type)	1		322552 (18)
14		Cover Assembly	1		322553 (20)
15	171130	Nut, Elastic Stop, 1/2 " -20	4		322559 (17)
16		Screw, 3/8 " -16 x 3/4 "	2		322561-3 (11)
17		Arm, Support	1		322584 (8)
18		Clamp	1		322627-D1 (14)
19		Nut, Elastic Stop, 3/8 " -16	2		324243-4
20		Clamp	1		326566-2 (7)
21		Screw, 5/16 " -18 x 1-1/2 "	1		327623 (10)
Legend: Part numbers left blank (or in <i>italics</i>) are not available separately					

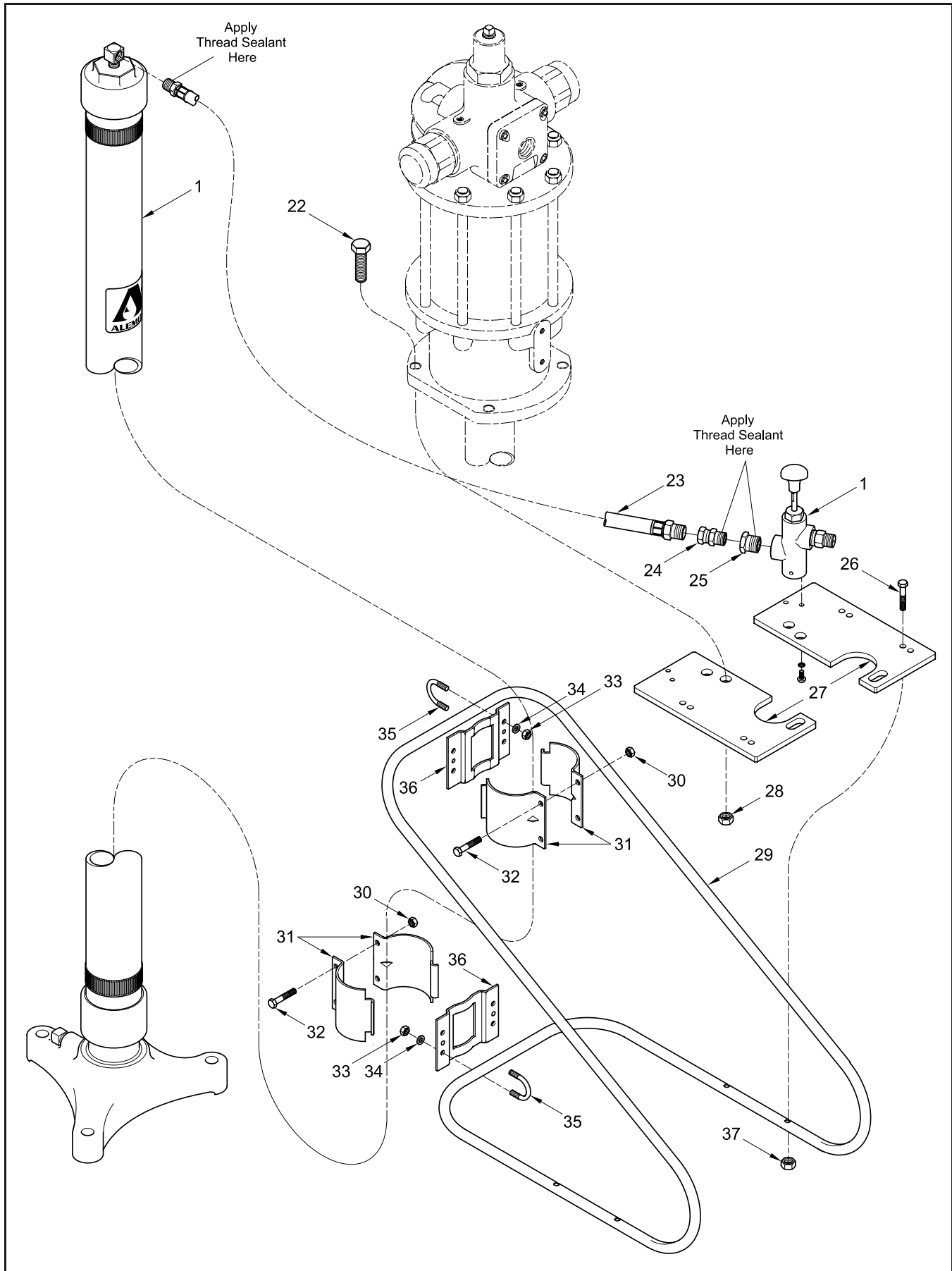
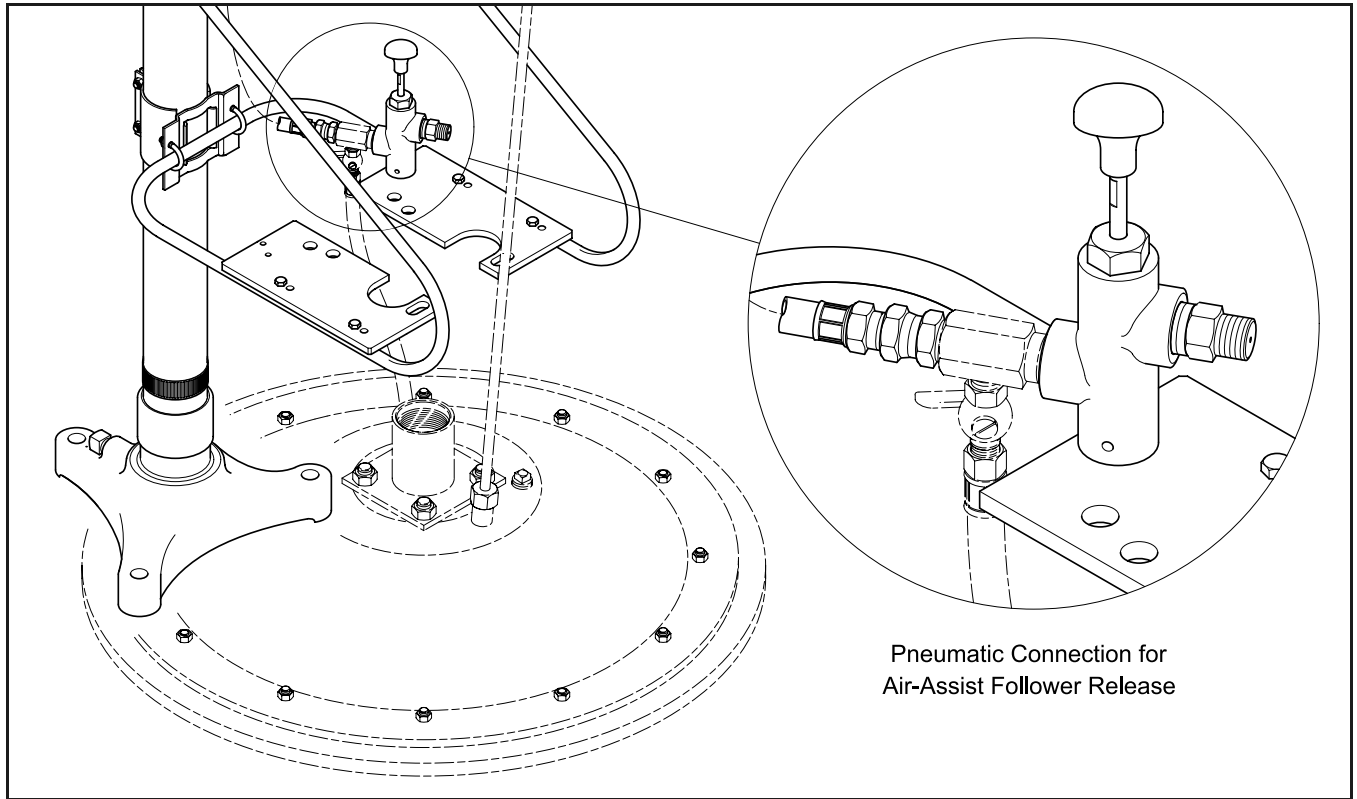


Figure 3 Hoist and Bracket Assembly Model 2742-4 - Exploded View



Pneumatic Connection for Air-Assist Follower Release

Item No.	Part No.	Description	Qty	Notes	Numeric Order Part # (Item #)
1	322550-A4	Hoist Assembly, Stripped (w/ Valve)	1	See Figure 5	1000-44 (24)
	330855	Bracket Assembly	1	Includes items 22 - 37	11826 (22)
22		Screw, 1/2 " -20 x 1-3/4 "	4		14534 (34)
23	317803-3	Hose Assembly (3 ' Long)	1		40996 (25)
24	1000-44	Adapter, 1/4 " NPTF (m) x 1/4 " NPSM (f)	1		77650 (30)
25		Bushing, 3/8 " NPTF (m) x 1/4 " NPTF (f)	1		77787 (32)
26		Screw, 1/4 " -20 x 1-1/4 "	4		79079 (26)
27		Plate	2		171055 (37)
28	171130	Nut, Elastic Stop, 1/2 " -20	4		171130 (28)
29		Bracket	1		171415 (33)
30		Nut, 1/4 " -20	4		317803-3 (23)
31	330852	Clamp	4		322550-A4 (1)
32	77787	Screw, 1/4 " -20 x 5/8 "	4		324692 (29)
33		Nut, Elastic Stop, 1/4 " -20	8		330852 (31)
34		Washer, 5/16 "	8		330853 (36)
35	339219	U-Bolt, 1/4 " -20	4		330855
36	330853	Plate	2		330856 (27)
37		Nut, Elastic Stop, 1/4 " -20	4		339219 (35)

Legend:

Part numbers left blank (or in *italics*) are not available separately

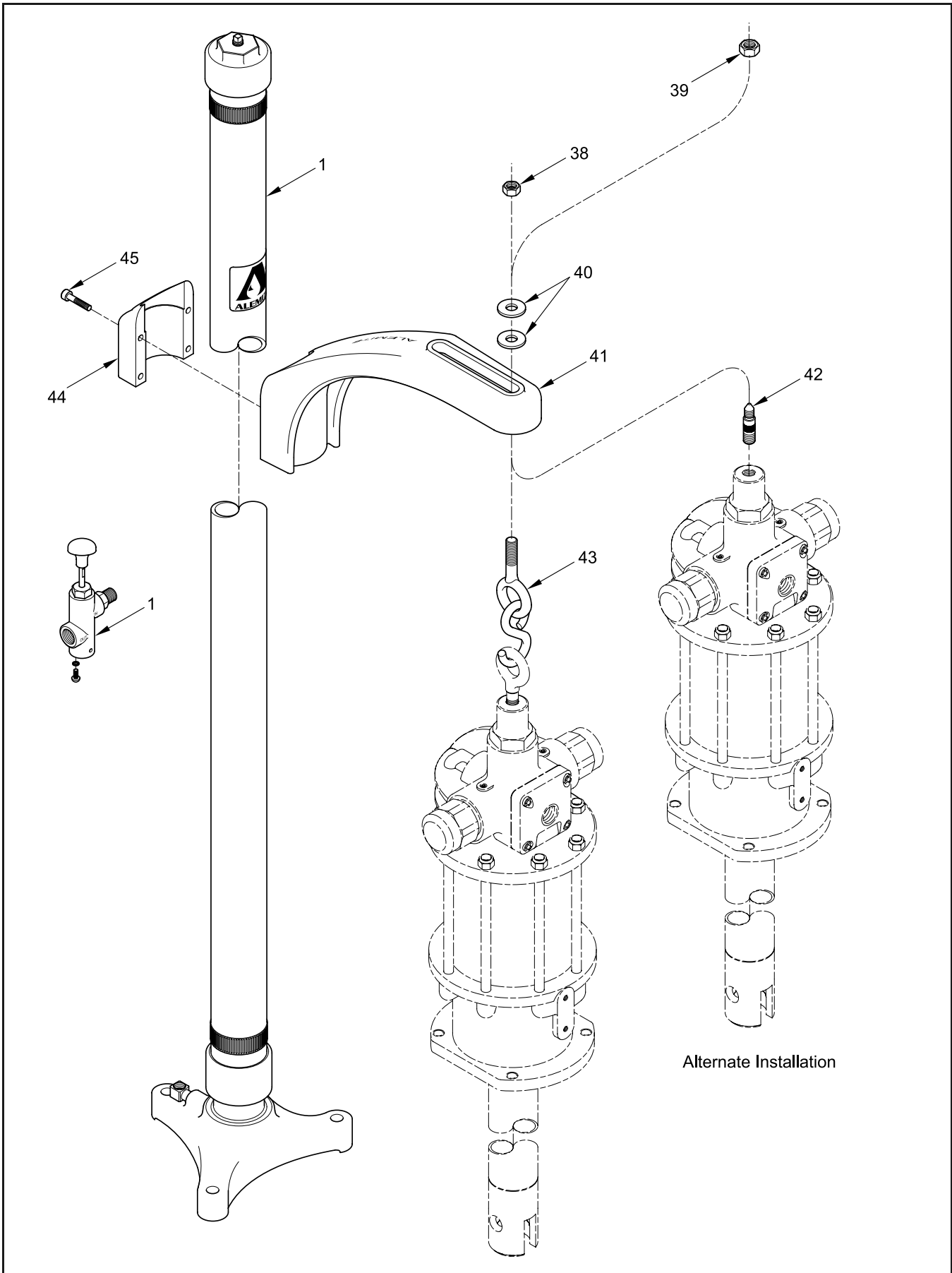
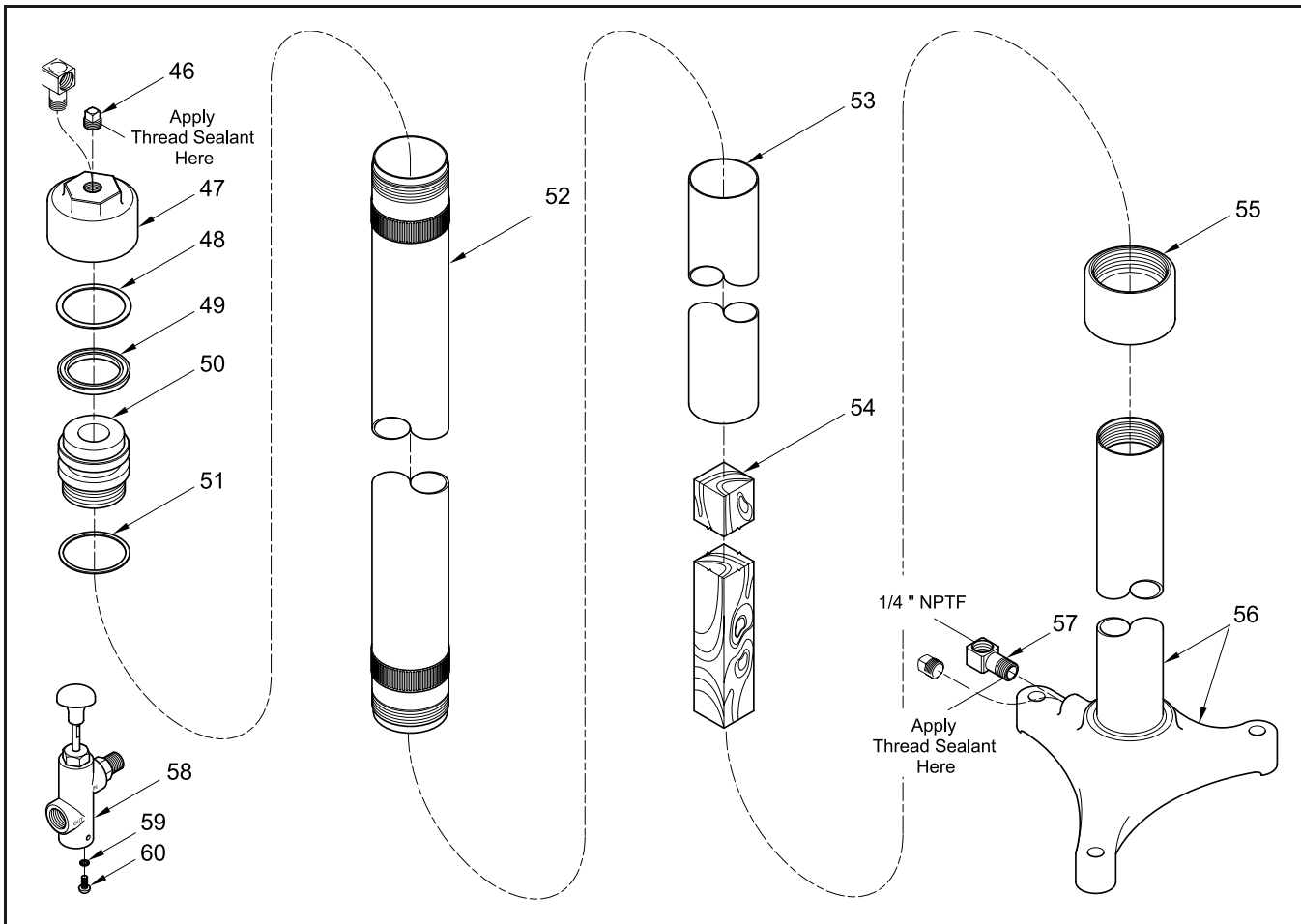


Figure 4 Hoist and Hanger Assembly Model 2743-4 - Exploded View

Item No.	Part No.	Description	Qty	Notes	Numeric Order Part # (Item #)
1	322550-A4	Hoist Assembly, Stripped (w/ Valve)	1	See Figure 5	<i>14546</i> (40)
	324613-4	Hanger Assembly	1	Includes items 38 - 45	<i>79783</i> (39)
38	321227	Nut, Elastic Stop, 1/2 " -13	1		321227 (38)
39		Nut, 5/8 " -11	1		322550-A4 (1)
40		Washer, 9/16 "	2		324613-4
41		Hanger	1		<i>324615-3</i> (41)
42		Stud, 3/8 " NPTF (m) x 5/8 " -11	1		<i>324615-4</i> (44)
43		Bolt and Hook Assembly, 1/2 " -13	1		<i>324616</i> (42)
44		Clamp	1		<i>327006</i> (43)
45		Screw, 5/16 " -24 x 1-3/4 "	4		<i>381556</i> (45)

Legend:Part numbers left blank (or in *italics*) are not available separately

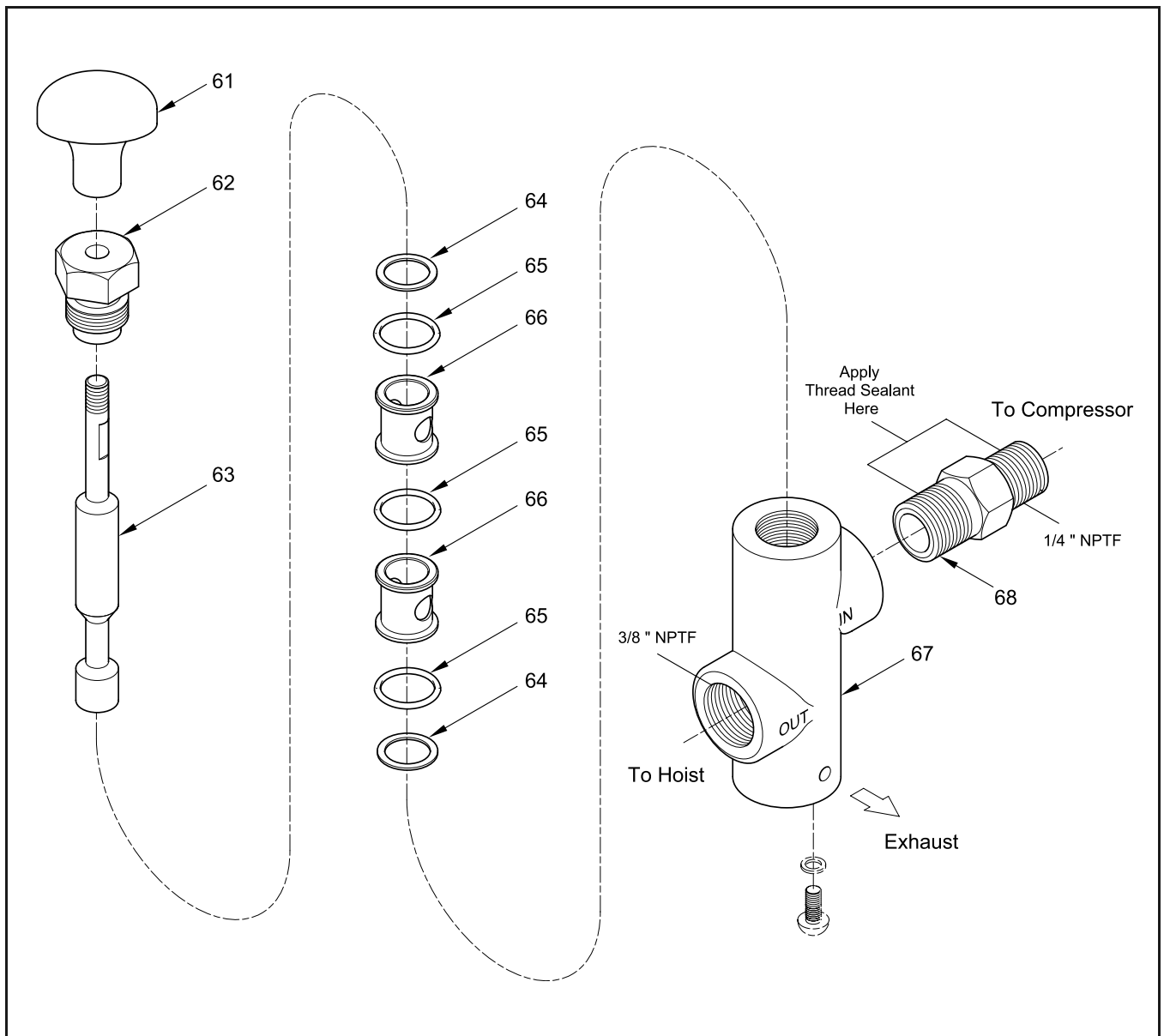


Item No.	Part No.	Description	Qty	Notes	Numeric Order Part # (Item #)
46	10522	Plug, 1/4 " NPT (m)	1		10522 (46)
47		Head	1		43748 (57)
48	322565	Gasket, 2.67 " OD (Aluminum)	1		<i>61463</i> (59)
49	322568	Packing, Block-V	1		170313 (60)
50	322572	Bearing, Upper	1		322560-4 (56)
51	322571	Gasket, 2.53 " OD (Aluminum)	1		322563-3 (55)
52	322566	Tube, Outer	1	w/o Decal	<i>322564-3</i> (47)
53	322567	Sleeve, Stop	1		322565 (48)
54		Insert (Wood)	1		322566 (52)
55	322563-3	Bearing, Lower	1		322567 (53)
56	322560-4	Tube and Base Assembly	1		322568 (49)
57	43748	Body, Angle, 1/4 " NPTF (f) x 1/4 " NPTF (m)	1		322571 (51)
58	322585	Hoist Control Valve Assembly	1	See Figure 6	322572 (50)
59		Washer, Lock, 10	2		<i>322574</i> (54)
60	170313	Screw, 10 -32 x 1/2 "	2		322585 (58)

Legend:

Part numbers left blank (or in *italics*) are not available separately

Figure 5 Stripped Hoist Assembly Model 322550-A4 - Exploded View



Item No.	Part No.	Description	Qty	Notes	Numeric Order Part # (Item #)
61	321887	Knob	1		X171001-9 (65)
62		Screw, 3/4 " -20 x 3/8 "	1		317475 (64)
63		Stem, Valve	1		317476 (66)
64		Washer (Brass)	2		318502 (62)
65	X171001-9	O-Ring, 7/16 " ID x 5/8 " OD	3	Pack of Ten (10)	321846 (67)
66		Spacer (Brass)	2		321847 (63)
67		Body	1		321887 (61)
68		Restrictor, 1/4 " NPTF (m) x 3/8 " NPTF (f)	1		322575 (68)

Legend:

Part numbers left blank (or in *italics*) are not available separately

Figure 6 Hoist Control Valve Assembly Model 322585 - Exploded View

Installation

NOTE: Refer to **Figures 2** through **7** for component identification on the installation and operational procedures.



WARNING

Do not exceed the lowest pressure rating of any component in the system.

Read each step of the instructions carefully. Make sure a proper understanding is achieved before proceeding.

Hoist Attachment to Floor

To secure the hoist and mount assembly to a level surface:

1. Prepare the surface with three customer-supplied anchors at the required locations.
 - See **Figure 1**.
 - Use Tube and Base Assembly (**56**) as a template.
2. Position the hoist and mount assembly over the anchors.
 - Fasten the hoist securely to the anchors with customer-supplied hardware.

Pump Mount to Hoist

3. Attach the shipped loose pump mount components to the stripped hoist.
 - Make sure to adjust the height of the pump mount to coincide with the height of the container.

EXAMPLE: Tighten the Bracket mount on model 2742-4 at a height that allows the follower to just clear the top of the container when the Hoist is at the full up position.

Hoist Components

Hoist Control Valve Assembly

NOTE: Procedural steps 4 - 7 are specific to models 2741-4 and 2743-4.

4. Mount Hoist Control Valve Assembly (**58**) to a wall bracket or other secure location with Lock Washers (**58**) and Screws (**59**).
 - Tighten the Screws securely.
5. Install an adapter union (w/thread sealant) to the "OUT" port in the Hoist Control Valve Assembly.
 - Tighten the connection securely.

HINT: Use adapter union 1000-64 [3/8 " NPTF (m) x 1/4 " NPTF (f)].

Customer-Supplied Connection Hose

NOTE: The hoist's design allows the connection line to attach at the column's:

- top [at Head (**47**)] or
- bottom [at Tube and Base Assembly (**56**)]

The factory installs Plug (**46**) into the Head, and Angle Body (**57**) into the Hoist's Tube and Base Assembly. Reverse these components as required.

IMPORTANT: Apply thread sealant to each component prior to installation.

6. Attach a 1/4 " NPTF (m) air hose [w/thread sealant] to the Angle Body.
 - Tighten the connection securely.
7. Attach the opposite end of the air hose to the adapter union on the Hoist Control Valve Assembly.
 - Tighten the connection securely.

Customer-Supplied Supply Hose

8. Connect a supply line to Restrictor (**68**) [w/thread sealant].
 - Tighten the connection securely.

Pump Assembly

Attachment to Hoist

NOTE: How the pump assembly attaches to the hoist is dependent on the chosen model of hoist and pump.

EXAMPLE: Material pumps equipped with a bung adapter require an adapter plate that attaches to the hoist's mount. See **Figure 8** and **Table 2**.

9. Attach the pump assembly to the hoist with the appropriate hardware.
 - The hardware is supplied with each hoist model.

Material Followers (Optional)

NOTE: Please refer to **SER 324610** for complete details on material followers.

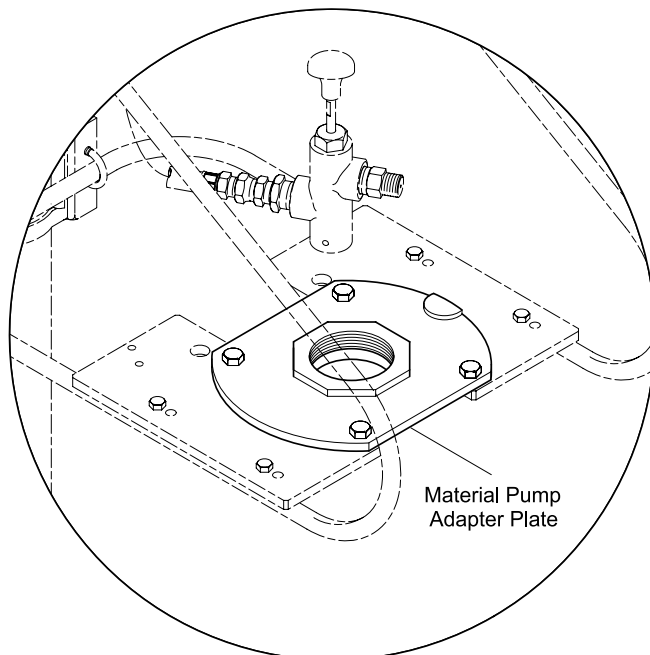


Figure 8 Adapter Plate Model 322593

Operation

WARNING



Never point a control valve at any portion of your body or another person. Lubricant discharged at high velocity can penetrate the skin and cause severe injury. Should product appear to puncture the skin, get medical care immediately.

Ensure all components are in operable condition. Replace any suspect parts prior to operation. Personal injury can occur.

Getting Started

Optional Material Follower

1. Make sure the shut-off valve for the air-assist follower release is closed.
2. Unscrew the Nut and Handle Assembly (or Vent Plug) on the material follower.
 - This allows air trapped underneath the follower to bleed.

Hoist Valve

3. Pull the **Hoist's Control Valve** knob out.

The Hoist will raise to the full up position.
4. Center the container underneath the pump assembly.
5. Push the **Hoist's Control Valve** knob in.
 - Allow the follower to enter the container.

WARNING



Do not attempt to move the container when the Hoist is descending. Personal injury can occur.

Once the follower enters the container, the hoist will stall.

Check to ensure material appears at the follower's bleed valve. Apply downward force on the pump assembly as required.

6. Screw the Nut and Handle Assembly (or Vent Plug) securely on the material follower.

Once the Container is Empty

NOTE: The following section is applicable to a Pump Assembly with an air-assist material follower.

7. Place the follower's valve handle to the Open position.
8. Pull the **Hoist's Control Valve** knob out.

Air enters beneath the follower to assist the Hoist. Once the follower is free of the container:

9. Place the follower's valve handle to the Closed position.

Allow the Hoist to raise to the full up position.

Overhaul

NOTE: The following procedures pertain to the hoist's cylinder.

Prior to performing any maintenance procedure, the following safety precautions must be observed. Personal injury may occur.

WARNING



Release all pressure within the system prior to performing any overhaul procedure.

- **Disconnect the air supply line from the valve.**
- **Into an appropriate container, operate the pump's control valve to discharge remaining pressure within the system.**

Never point a control valve at any portion of your body or another person. Accidental discharge of pressure and/or material can result in injury.

Read each step of the instructions carefully. Make sure a proper understanding is achieved before proceeding.

NOTE: Refer to **Figures 5** and **9** for component identification on the overhaul procedures.

Hoist Cylinder

Disassembly

NOTE: Procedural steps 1 and 2 apply to a hoist with Angle Body (**57**) mounted at the top.

1. Remove the air connection hose from Hoist Control Valve Assembly (**58**).
2. Remove the air connection hose from Angle Body (**57**).
3. Unscrew head (**47**) from Outer Tube (**52**).
4. Remove Gasket (**48**) from the Outer Tube.
5. Unscrew Upper Bearing (**50**) from Tube and Base Assembly (**56**).
 - Use a pipe wrench.
6. Remove Block-V Packing (**49**) from the Upper Bearing.
7. Remove Gasket (**51**) from the Tube and Base Assembly.
8. Remove Insert (**54**) from the Tube and Base Assembly as required.
9. Remove Lower Bearing (**55**) and the Outer Tube with Stop Sleeve (**53**) as an assembly from the Tube and Base Assembly as required.
10. Remove the Stop Sleeve from the Outer Tube as required.

Clean and Inspect

1. Clean all metal parts in a modified petroleum-based solvent. The solvent should be environmentally safe.
2. Be sure to remove any contaminants from the bore of Tube and Base Assembly (**56**).

Assembly

NOTE: Prior to assembly certain components require lubrication. Refer to **Table 1** for details.

Item No.	Description	Type of Lubricant
49	Block V-Packing	Gear Oil
52	Bore of Outer Tube	Multi-Purpose Grease

Table 1 Lubricated Components

1. Screw Outer Tube (52) into Lower Bearing (55).
 - Tighten the connection securely.
2. Install the Outer Tube and Lower Bearing assembly onto Tube and Base Assembly (56).
3. Install Stop Sleeve (53) into the Outer Tube.
4. Install Insert (54) into the Tube and Base Assembly.
5. Install Gasket (51) onto the Tube and Base Assembly.
6. Install Block-V Packing (49) onto Upper Bearing (50).
7. Screw the Upper Bearing into the Tube and Base Assembly.
 - Tighten the Upper Bearing securely with a pipe wrench.
8. Install Gasket (48) onto the Outer Tube.
 - Use a spot of grease to ensure the Gasket does not move.
9. Install Head (47) onto the Outer Tube.
 - Tighten the Head securely.
10. Attach the air hose [w/ thread sealant] to the Angle Body.
 - Tighten the connection securely.
11. Attach the opposite end of the air hose to the adapter union on the Hoist Control Valve Assembly.
 - Tighten the connection securely.

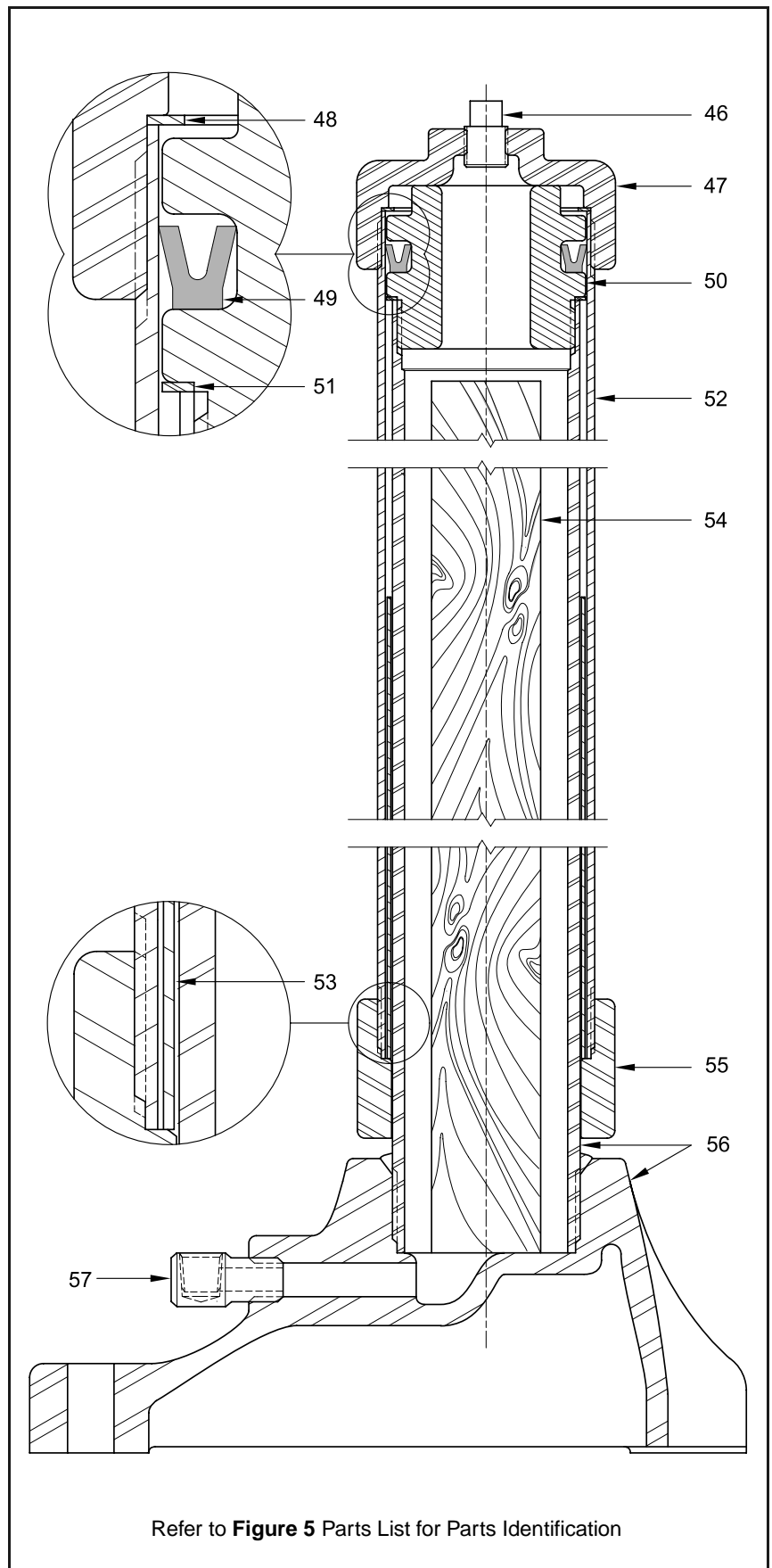


Figure 9 Stripped Hoist Column Assembly - Section View

Industrial Pump Model					Hoist Model			Follower							
Lubricant	Material	Ratio	Fits Container Size			2741-4	2742-4	2743-4	Material			Grease			
			35-lb	120-lb	400-lb				Plate*		Adapter	120-lb	400-lb		
									35-lb	400-lb					
7784-A4		25:1			●	Yes	Yes						338912		
7785-A5		40:1				No					327242**	327247		338804	
7785-B5				●					Yes		327242**			338912	
7786-A5		75:1			●	No								338804	
7786-C				●					Yes		327242**			338912	
7795-A5		80:1			●	No								338804	
7795-B5				●											
	7886-A5	11:1			●	Requires Adapter Plate 322593	Requires Adapter Plate 322593	Yes	324610***	327242**	330976				
	7886-B			●		No									
	7886-S5					Requires Adapter Plate 322593									
	7889-6	40:1			●	No							327247		
	7889-C			●								327242**			
	7896-A5	22:1			●	Requires Adapter Plate 322593								330976	
	7896-B5			●		No									
	7896-S5					Requires Adapter Plate 322593			327242**						

* Requires Adapter (Attaches the Plate to the Inlet of the Pump)
 ** Use with Hoist Model 2742-4 Only
 *** Use with Hoist Models 2742-4 and 2743-4 Only

Table 2 Pump Usage Comparison with Hoist Models

Changes Since Last Printing
 Combined Models