



High-Pressure Pump (Stationary and Portable)

Description

The major components of high-pressure pump assembly models 8540-A1 and 8541-5 consist of a(n):

- air-operated motor
- lubricant pressure controller (pressurtrol)
- double-acting reciprocating pump tube
- cover assembly and follower plate
- control valve, z-swivel, hose, & dolly (Model 8541-5)

The pressurtrol minimizes material pressure drop that occurs when the pump cycles. Refer to SER 319800-1 for details.

Pump Assembly

The high-pressure (70:1 ratio) pump assembly included with each model is designed to deliver a range of greases [up to NLGI # 3] and operates directly from an original 120-pound container.

Models 8540-A1 and 8541-5

Model 8540-A1 is stationary. It contains a cover and follower plate. Model 8541-5 is portable and includes a dolly, control valve, z-swivel, and delivery hose.

Specifications

Air Motor

Piston Diameter x Stroke		Air Inlet	Max. Air Pressure *	
Inches	Centimeters		psi	Bars
3 x 1-5/8	7.6 x 4.1	1/4 " NPTF (f)	200	13.8
* With pressurtrol, [100 psi (6.9 Bars) without pressurtrol] For information on the air motor, refer to SER 324400-5				

Pump Tube

Material Outlet	Max. Material Pressure		Max. Delivery/Minute (Approximate)*		Displacement per Cycle	
	psi	Bars	Ounces	Grams	in ³	cm ³
3/8 " NPTF (f)	7500	517	32	909	0.277	4.54
* For detailed information, refer to Service Guide SER 8540-B						

Table 1 Pump Assembly Specifications

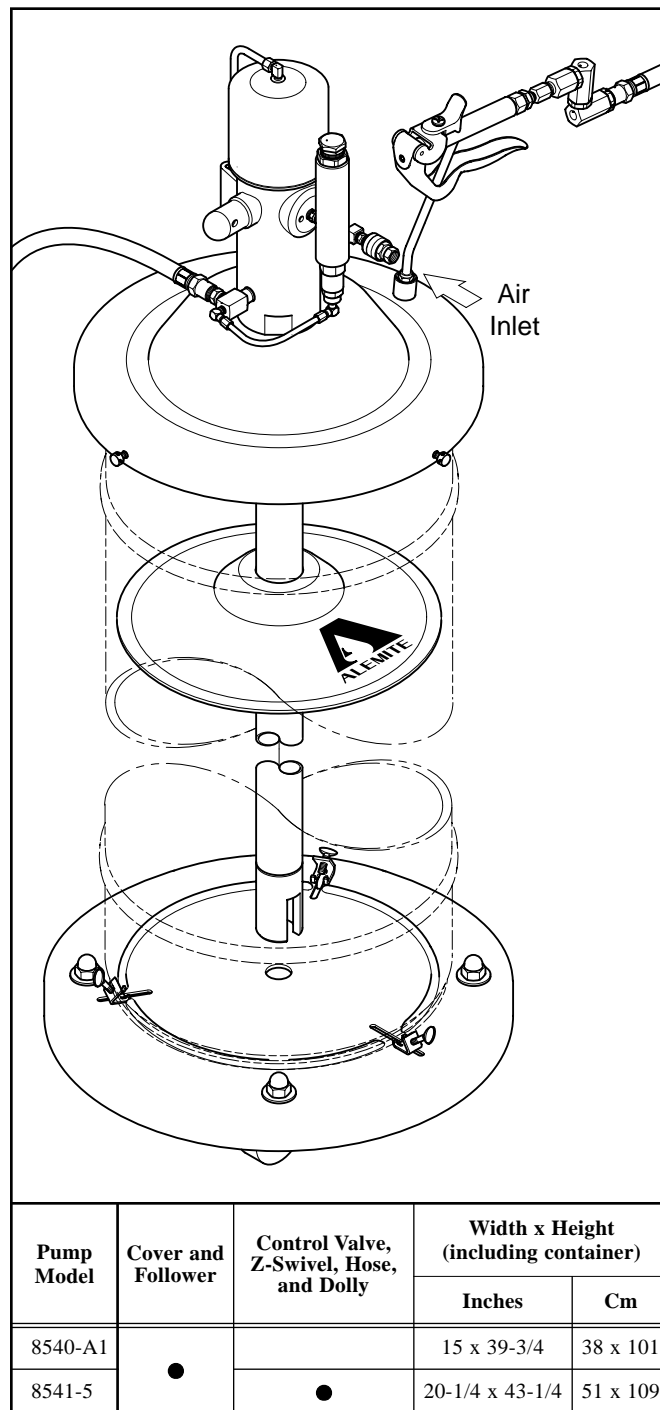


Figure 1 Pump Models 8540-A1 and 8541-5
Model 8541-5 Shown

Pump Model	Cover and Follower	Control Valve, Z-Swivel, Hose, and Dolly	Width x Height (including container)	
			Inches	Cm
8540-A1	●		15 x 39-3/4	38 x 101
8541-5	●	●	20-1/4 x 43-1/4	51 x 109

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SER 8540-A1
Revision (7-98)

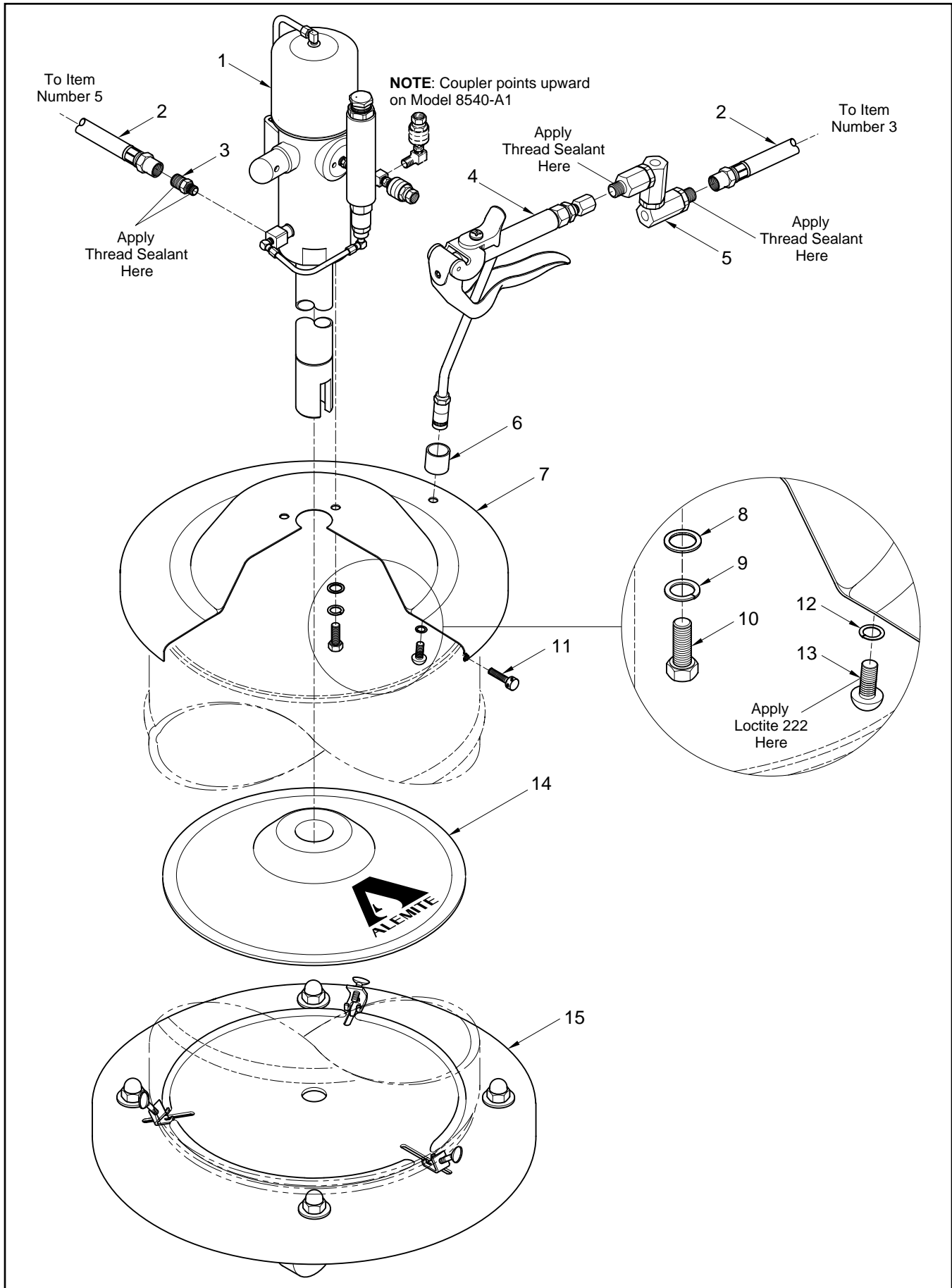


Figure 2 High-Pressure Lubricant Pump (Stationary and Portable) Models 8540-A1 and 8541-5 - Exploded View

Item No.	Part No.	Description	Qty	Notes		Numeric Order Part # (Item #)
1	8540-B	Pump Assembly, High-Pressure	1		See SER 8540-B	6320-3 (4)
2	317875-7	Hose Assembly, Material	1	Model 8541-5		8540-B (1)
3	44734	Adapter, 3/8 " NPTF (m) x 1/2 " -27	1			<i>17804</i> (8)
4	6320-3	Valve Assembly, Control	1		See SER 6320-3	44734 (3)
5	B52752	Z-Swivel Assembly, High-Pressure	1		See Figure 3	48018 (11)
6	315943	Bushing	1			B52752 (5)
7	338371	Cover Assembly	1			<i>77009</i> (12)
8		Washer, 1/4 "	3	Included w/ 338371		<i>77786</i> (10)
9		Washer, Lock, 1/4 "	3			<i>170561</i> (13)
10		Capscrew, 1/4 " -20 x 1/2 "	3			<i>172207-1</i> (9)
11	48018	Screw, Thumb, 1/4 " -28 x 1-1/8 "	3			315953 (6)
12		Washer, Internal Tooth Lock, 1/4 "	1			316315-5 (15)
13		Screw, 1/4 " -20 x 5/16 "	1			317875-7 (2)
14	338802	Plate, Follower	1			320998-B4 (7)
15	316315-5	Dolly Assembly	1	Model 8541-5	See SER 316315-5	338802 (14)
Legend: Part numbers left blank (or in <i>italics</i>) are not available separately						

Assembly

NOTE: Refer to **Figure 2** for component identification on all assembly procedures.

CAUTION

Select a clean environment for all assembly procedures. Prevent contamination from foreign material. Damage to components can occur.

Pump Assembly and Cover

IMPORTANT: Make sure to remove the protective cover from the inlet of Pump Assembly (1).

1. Install Pump Assembly (1) into Cover Assembly (7).
2. Secure the Pump Assembly to the Cover with Washers (8), Lock Washers (9), and Capscrews (10).
 - Tighten the Capscrews securely.

Cover Assembly and Follower Plate

3. Place Follower Plate (14) onto the top of the product.
 - With a wobbling motion, eliminate any air that may be trapped underneath the Follower Plate. Force the product through the hole in the center of the Plate.
4. Guide the pump tube into the Follower Plate and fit the Cover onto the container.
5. Secure the Cover to the container with Thumb Screws (11).

NOTE: On model 8541-5, secure the container to Dolly (15). Refer to SER **316315-5** for details.

Control Valve and Material Hose

NOTE: The following procedures are applicable to pump model 8541-5.

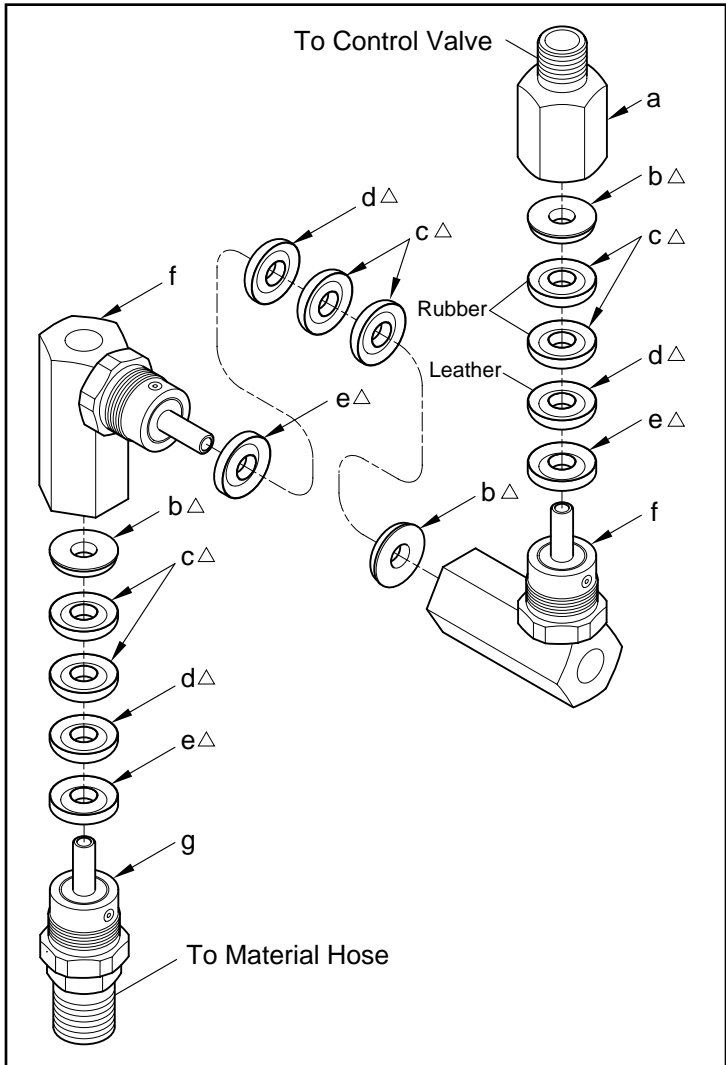
IMPORTANT: Do not apply thread sealant to the first two (2) threads of any connection. Contamination can occur.

WARNING

Do not alter the design of the pump. Never install additional components to the outlet of the pressurtrol.

Personal injury can occur.

6. Screw the 3/8 " NPTF end of Adapter (3) [with thread sealant] into the adapter at the outlet of the air motor.
 - Tighten the Adapter securely.
7. Screw either end of Material Hose (2) into the Adapter [with thread sealant].
 - Tighten securely.
8. Screw the 1/2 " -27 end of Z-Swivel (5) [with thread sealant] into the Material Hose.
 - See **Figure 3**.
 - Tighten securely.
9. Screw the opposite end of the Z-Swivel [with thread sealant] into Control Valve (4).
 - Tighten securely.
10. Test/Prime the Pump assembly.
 - Refer to Service Guide SER **8540-B** for details.



Item No.	Part No.	Description	Notes	Qty
a		Adapter, Swivel, 1/4 " NPTF (m)		1
b		Ring, Support, Male	Δ	3
c		V-Packing (Rubber)	Δ	6
d		V-Packing (Leather)	Δ	3
e		Ring, Support, Female	Δ	3
f		Body and Stud Assembly		2
g		Adapter, Swivel, 1/2 " -27		1
Legend:				
Part numbers left blank are not available separately				
Δ designates a repair kit item				

Repair Kit

Part No.	Kit Symbol	Description
398719-1	Δ	Kit, Repair [Quantity for two (2) Z-Swivels]

Figure 3 High-Pressure Z-Swivel - Exploded View

Changes Since Last Printing

New Format