ENERPAC
POWERFUL SOLUTIONS. GLOBAL FORCE.

Repair Parts Sheet

Turbo II Air Pumps

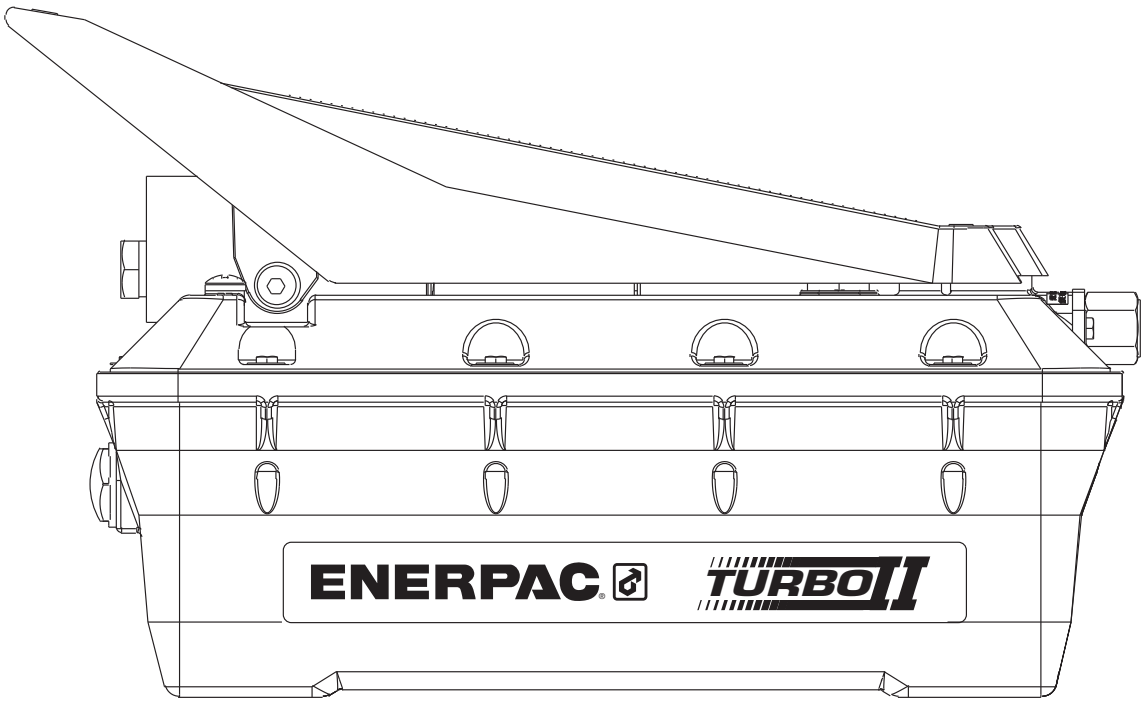
L2533 Rev. K 01/14 **For Date Codes Beginning with the Letters “C”, “D” and “E”**

To Protect Your Warranty, Use Only ENERPAC Hydraulic Oil.

Enerpac recommends that all kit components be installed to insure optimum performance of the repaired product.

Note: Storing the pump in the vertical position may cause it to lose its prime. If pump loses its prime:

1. Remove cover.
2. Remove relief valve.
3. Fill chamber with oil.
4. Apply Loctite 545 to threads and torque to 10-12 ft-lbs. [14-16 Nm].
5. Replace pump cover. See Figure 1 for gasket orientation detail and cover screw torquing sequence.



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*** Turbo II original release starts at Date Code “C”.**

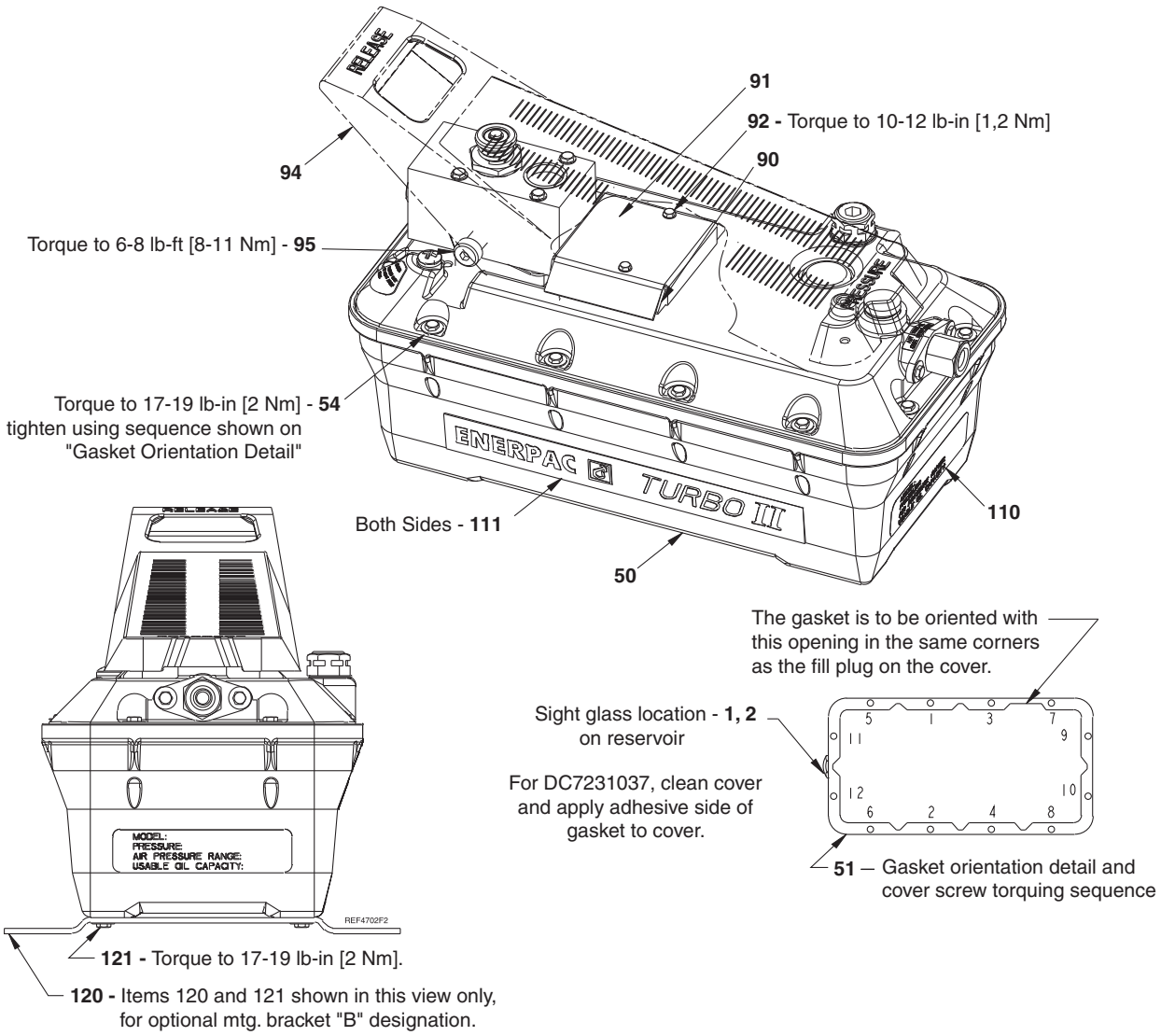


Figure 1, Treadle Assembly, T Version

Repair Parts List for Figure 1							
Item	**Part Number**	**Qty.**	**Description**	**Item**	**Part Number**	**Qty.**	**Description**
1	DA12288022	1	Sight Glass	91	DA5690098	1	Muffler Cover
2	★ B1908503	1	O Ring	92	DC7851028	2	Hi Lo Screw
50	DC4321900SR	1	Reservoir, 2 L, Yellow	94	DA4849218	1	Treadle
	DC4322900SR	1	Reservoir, 2 L, Black	95	DA4236242	2	Shoulder Screw
	DC4323900SR	1	Reservoir, 2 L, Red	110	DA4296026	1	Model No. Decal
	DC4320900SR	1	Reservoir, 5 L, Black	111	DC2262026	2	Decal, Enerpac Turbo II Blk
51	★ DC4027167	1	Reservoir Gasket, 2 L		DC2260026	2	Decal, Enerpac Turbo II Wht
	†★ DC7231037	1	Reservoir Gasket, 5 L (foam)	120	DA5389111	2	Mtg. Bracket
54	DA5938028	12	Hi Lo Screw	121	DA5938028	4	Hi Lo Screw
90	DA8625116	1	Muffler				

★ Items included in Pump Repair Kit, see Table 2 on page 12.
† Replaces DC714517 O-ring gasket.

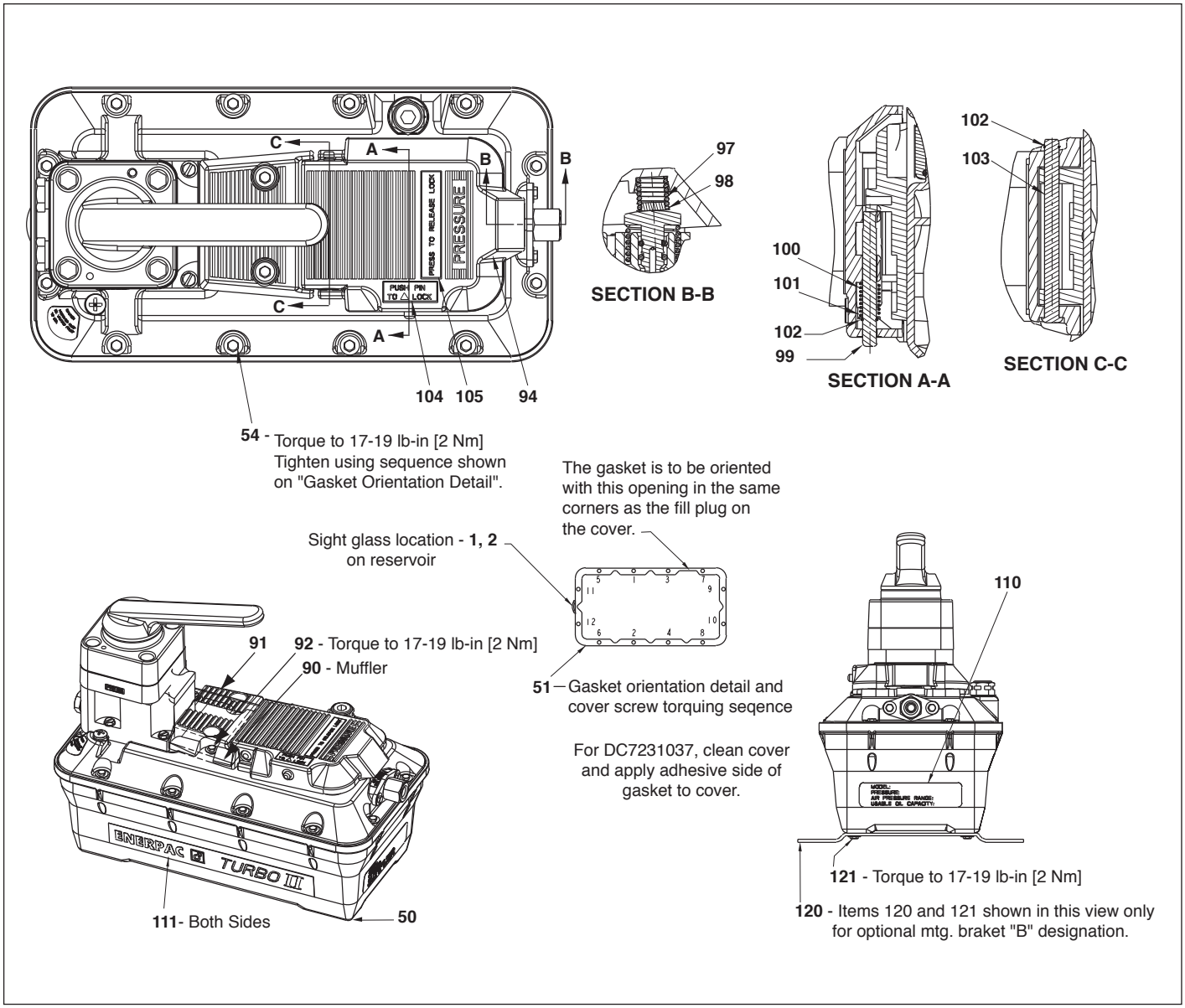


Figure 2, Treadle Assembly, M, C, S Version

Repair Parts List for Figure 2

Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
1	DA12288022	1	Sight Glass	97	DA8506110	1	Spring
2	★ B1908503	1	O Ring	98	DA8670013	1	Spring Guide
50	DC4321900SR	1	Reservoir, 2 L, Yellow	99	DA7940061	1	Latch Pin
	DC4322900SR	1	Reservoir, 2 L, Black	100	DA8508110	1	Spring
	DC4323900SR	1	Reservoir, 2 L, Red	101	DA8505186	1	Spacer
	DC4320900SR	1	Reservoir, 5 L, Black	102	DA5025349	2	Ret. Ring
51	★ DC4027167	1	Reservoir Gasket, 2 L	103	DA7939061	1	Hinge Pin
	†★ DC7231037	1	Reservoir Gasket, 5 L (foam)	104	DA8744026	1	Decal
54	DA5938028	12	Hi Lo Screw	105	DA8743026	1	Decal
90	DA8625116	1	Muffler	110	DA4296026	1	Model No. Decal
91	DA7935111	1	Mtg. Bracket Casting Muffler Cover	111	DC2262026	2	Decal, Enerpac Turbo II Blk
					DC2260026	2	Decal, Enerpac Turbo II Wht
92	DA5938028	4	Hi Lo Screw	120	DA5389111	1	Mtg. Bracket
94	DA7937218	1	Treadle	121	DA5938028	4	Hi Lo Screw

★ Items included in Pump Repair Kit, see Table 2 on page 12.
† Replaces DC714517 O-ring gasket.

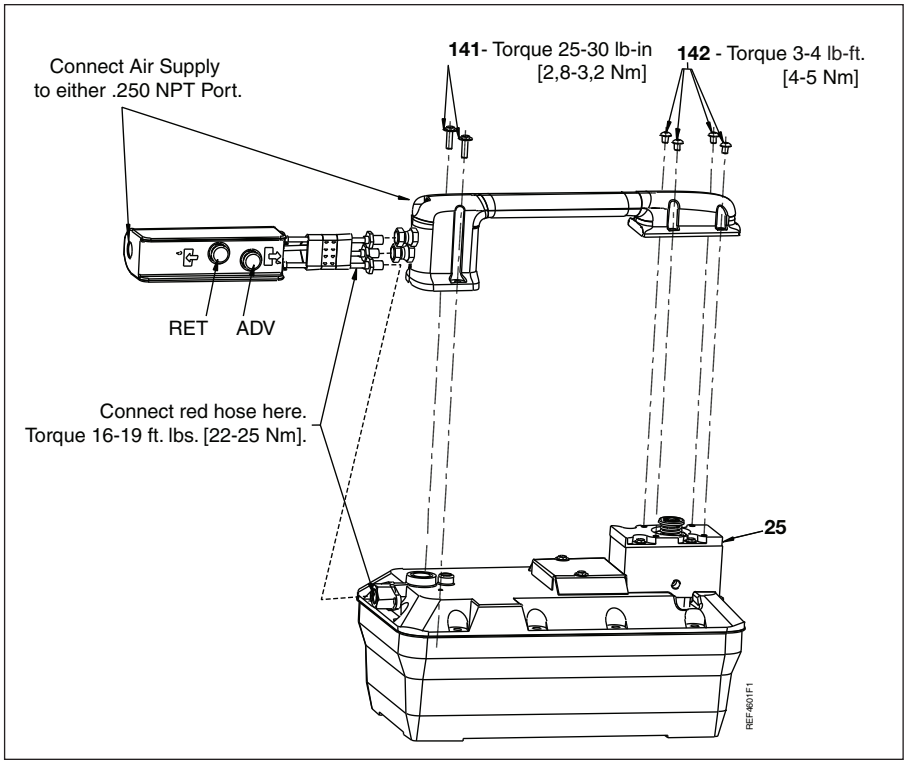


Figure 2a, Remote Pendant Turbo Pump Assembly

Repair Parts List for Figure 2a			
Item	**Part Number**	**Qty.**	**Description**
25	DC2355186	1	Valve Spacer
141	✲ DA5938028	2	Hi Lo Screw
142	✲ B1322028	4	10-32 x .50 Screw
✲ Items included in DD1725070K Handle Retrofit Kit.			

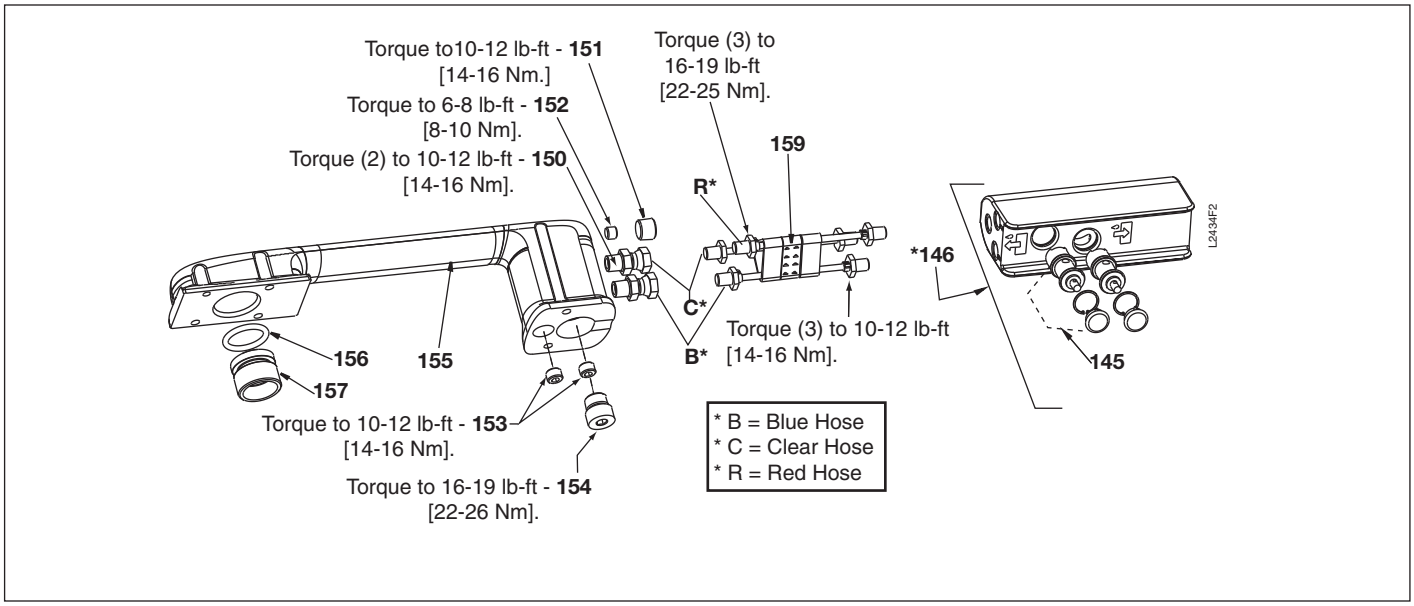


Figure 2b, Pendant Handle Assembly

Repair Parts List for Figure 2b							
Item	**Part Number**	**Qty.**	**Description**	**Item**	**Part Number**	**Qty.**	**Description**
145	DC2363660SR	2	Air Cartridge Valve	154	✲ B1005006	1	#6 SAE Hex Plug
146	DC2354840SR	1	Air Pendant Assy. (includes No. 145)	155	♦✲★ DC2347070	1	Handle Assembly
150	DC2367006	2	1/8" NPT Swivel Fitting	154	✲ B1019503	1	O-ring 70 DUPR-213
151	✲ A1008245	1	Hex Plug	157	♦✲★ DC473051	1	Pneumatic Dump Piston
152	✲ A1006245	1	1/16 Flush Plug w/Sealant	159	DC2365646SR	1	Hose Assembly
153	✲ A1007245	2	1/8 Flush Plug w/Sealant				

★ Items included in Pump Repair Kit, see Table 2 on page 12.
✲ Items included in DD1725070K Handle Retrofit Kit.
♦ Handle (item 155) and piston (item 157) MUST be replaced as a set. Old and new parts are NOT interchangeable.

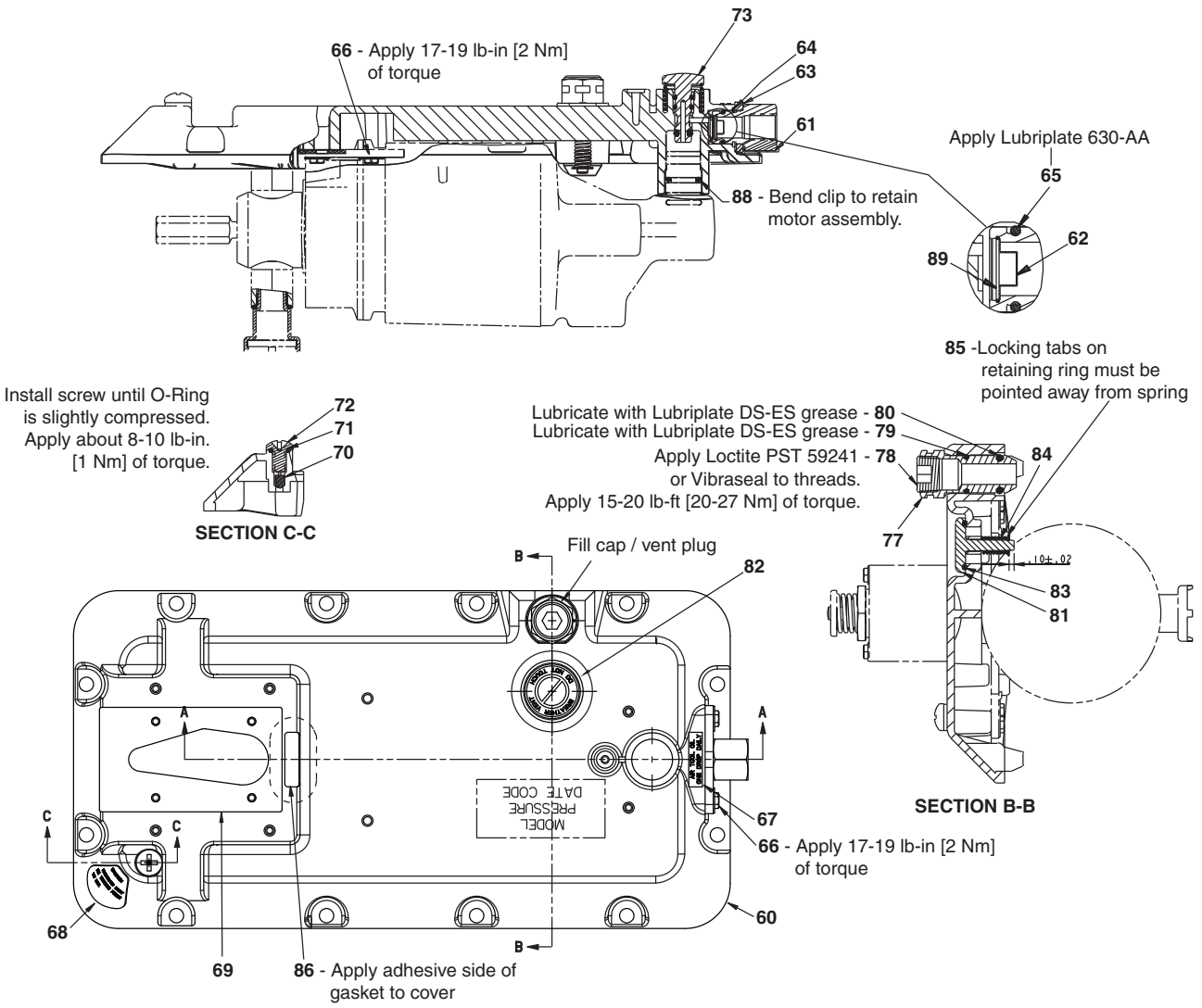
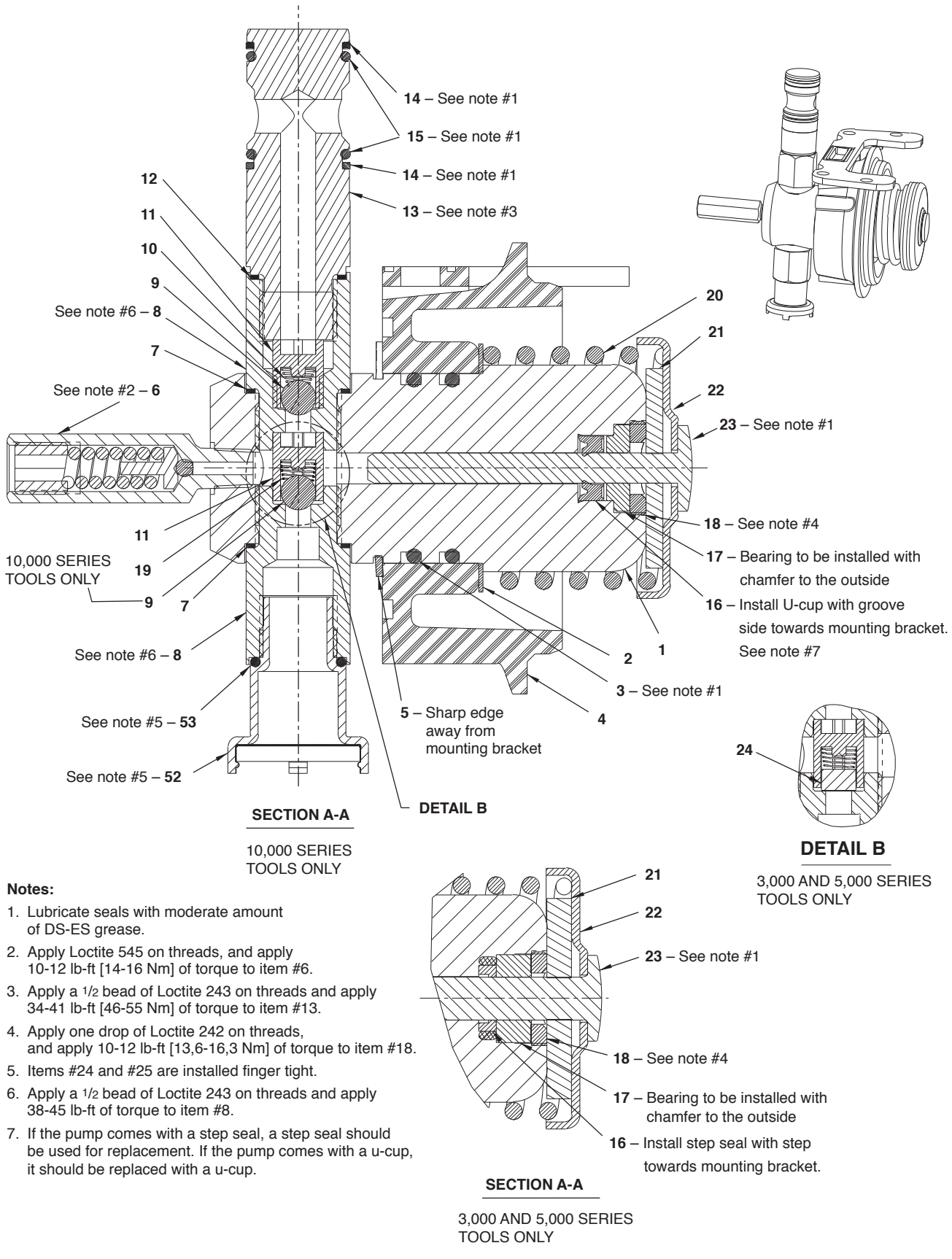


Figure 3, Cover Assembly

Repair Parts List for Figure 3							
Item	**Part Number**	**Qty.**	**Description**	**Item**	**Part Number**	**Qty.**	**Description**
60	DC3913900SR	1	Blk Cover Assy. (incl 61-87)	73	DA4802051SR	1	Air Button
	DC3914900SR	1	Red Cover Assy. (incl 61-87)	77	DA4871118	1	Breather
61	DA5295034	1	Swivel Coupler	78	A1009245	1	3/8 Flush Plug W/Sealant
62	★ A8001018SR	1	Filter	79	★ DA5349503	1	O Ring (Wear Coated)
63	DA4847799	1	Stamped Bracket	80	★ B1010503	1	O Ring
64	DA5026349	1	Ret. Ring	81	DC708440	1	Poppet
65	★ B1220503	1	O Ring Ref B839503	82	U972038026-2	1	Breather Vent Decal
66	DA5938028	6	Hi Lo Screw	83	B1224503	1	O Ring Ref J711041
67	U972038026-3	1	Air Tool Oil Decal	84	DC821110	1	Compression Spring
68	DA7931026	1	Caution Decal	85	DC4077160	1	3/16" Retainer
69	★ DC4997900K	1	Gasket Set	86	†★ DA6956037	1	Gasket
70	★ DA4390118	1	Filter	88	★ DA5521149	1	Retaining Pin
71	★ B1005503	1	O Ring	89	★ DC5217049	1	Retaining Ring
72	★ DC7838028	1	1/4 x 3/8" Hi Lo Screw				

★ Items included in Pump Repair Kit, see Table 2 on page 12.
† Replaces and interchangeable with gasket DC7872037.



Notes:

1. Lubricate seals with moderate amount of DS-ES grease.
2. Apply Loctite 545 on threads, and apply 10-12 lb-ft [14-16 Nm] of torque to item #6.
3. Apply a 1/2 bead of Loctite 243 on threads and apply 34-41 lb-ft [46-55 Nm] of torque to item #13.
4. Apply one drop of Loctite 242 on threads, and apply 10-12 lb-ft [13,6-16,3 Nm] of torque to item #18.
5. Items #24 and #25 are installed finger tight.
6. Apply a 1/2 bead of Loctite 243 on threads and apply 38-45 lb-ft of torque to item #8.
7. If the pump comes with a step seal, a step seal should be used for replacement. If the pump comes with a u-cup, it should be replaced with a u-cup.

Figure 4, Hydraulic Section Detail

Repair Parts List for Figure 4							
Item	**Part Number**	**Qty.**	**Description**	**Item**	**Part Number**	**Qty.**	**Description**
1	DC116030	1	Hyd. Cylinder, Turbo 3 KSI	17	❊★ DA9056108	1	Bearing 3 KSI
	DC115030	1	Hyd. Cylinder, Turbo 5 KSI		✣★ DA5352155	1	Bearing 5 KSI
	DC114030	1	Hyd. Cylinder, Turbo 10 KSI		❖★ CB624108	1	Bearing 10 KSI
2	DA4298108	1	Washer	18	❊★ DA7888044	1	Bearing Retainer 3 KSI
3	❖✣❊★ B1258503	2	O-Ring		✣★ DA1204044	1	Bearing Retainer 5 KSI
4	DA4287111	1	Mtg. Bracket		❖★ DA1204044	1	Bearing Retainer 10 KSI
5	DA4343044	1	Bowed Ret. Ring	19	★ DA6911210	1	Conical Spring
6	DA8802900SR	1	Relief Valve Assy	20	DA4285110	1	Spring
7	❖✣❊★ DA3811167	2	Copper Gasket	21	DA9280108	1	Rubber Washer 3 KSI
8	DC283290SR	2	Seat		DA5976108	1	Rubber Washer 5 KSI
9	❖✣❊★ B1007016	2	1/4" Dia. Ball		DA6600108	1	Rubber Washer 10 KSI
10	❖✣❊★ DA4874110	1	Conical Spring	22	DA9281108	1	Spring Washer, Turbo, 3 KSI
11	❖✣❊★ DA3682013	2	Ball Guide		DA4628108	1	Spring Washer, Turbo, 5 KSI
12	❖✣❊★ DC170167	1	Copper Gasket		DA4284108	1	Spring Washer, Turbo, 10 KSI
13	★ DC5268SR	1	Pressure Tube 10 KSI	23	DC6406040	1	Plunger, 3 KSI
14	★ DA4974367	2	Backup Ring		DC6427040	1	Plunger, 5 KSI
15	★ B1016803	2	O-Ring – Global		DC6428040	1	Plunger, 10 KSI
16	❊★ DA9269476	1	Step Seal 3 KSI	24	✣❊❖★ DC4440	1	Poppet
	❊★ DC6446041	1	U-Cup 3 KSI	52	DC442900SR	1	Intake Tube Assy
	✣★ DDC6447041	1	U-Cup 5 KSI	53	✣❊❖★ B1221503	1	O-Ring Ref. C403503
	✣★ DA5351476	1	Step Seal 5 KSI				
	❖★ CB918041	1	U-Cup 10 KSI				

★ Item included in complete Pump Repair Kit. See Table 2 on page 12.

❊ Item included in Repair Kit DC2220900K for 3,000 Series tools.
✣ Item included in Repair Kit DC2221900K for 5,000 Series tools.
❖ Item included in Repair Kit DC2222900K for 10,000 Series tools.

Note: Items 16, 17 and 18 will vary depending on repair kit ordered. Refer to Figure 4 for installation details.

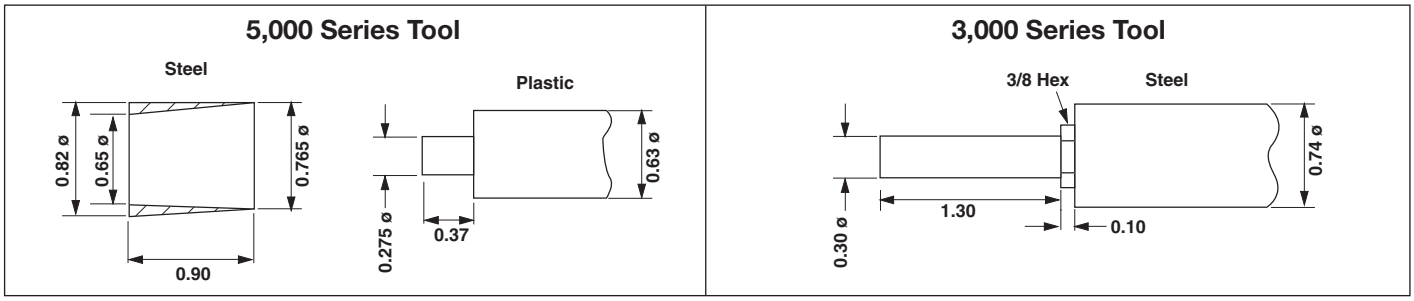


Figure 5, Seal Push Tool

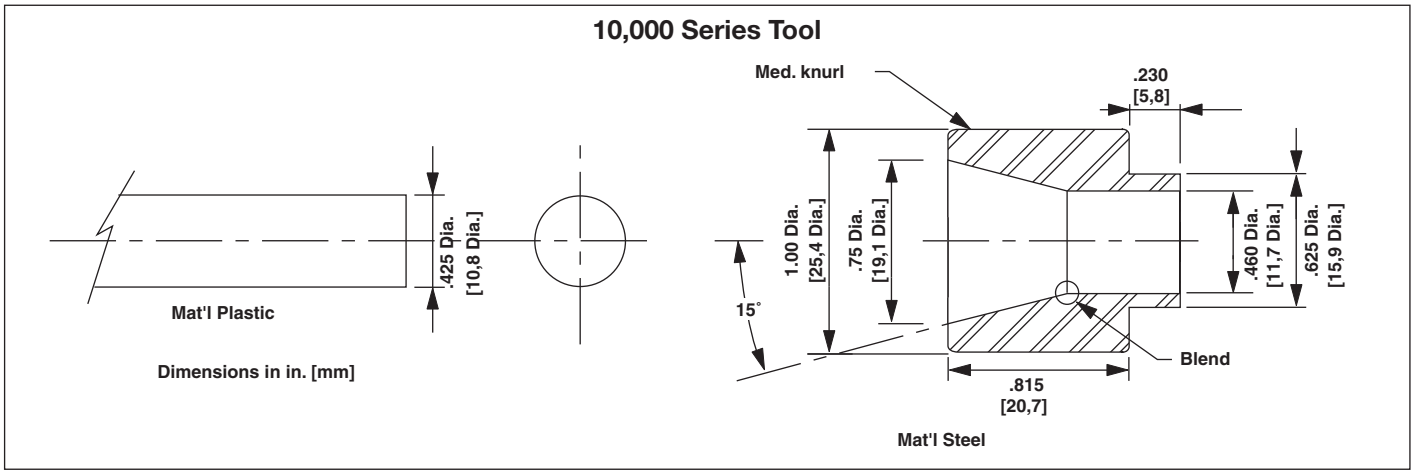
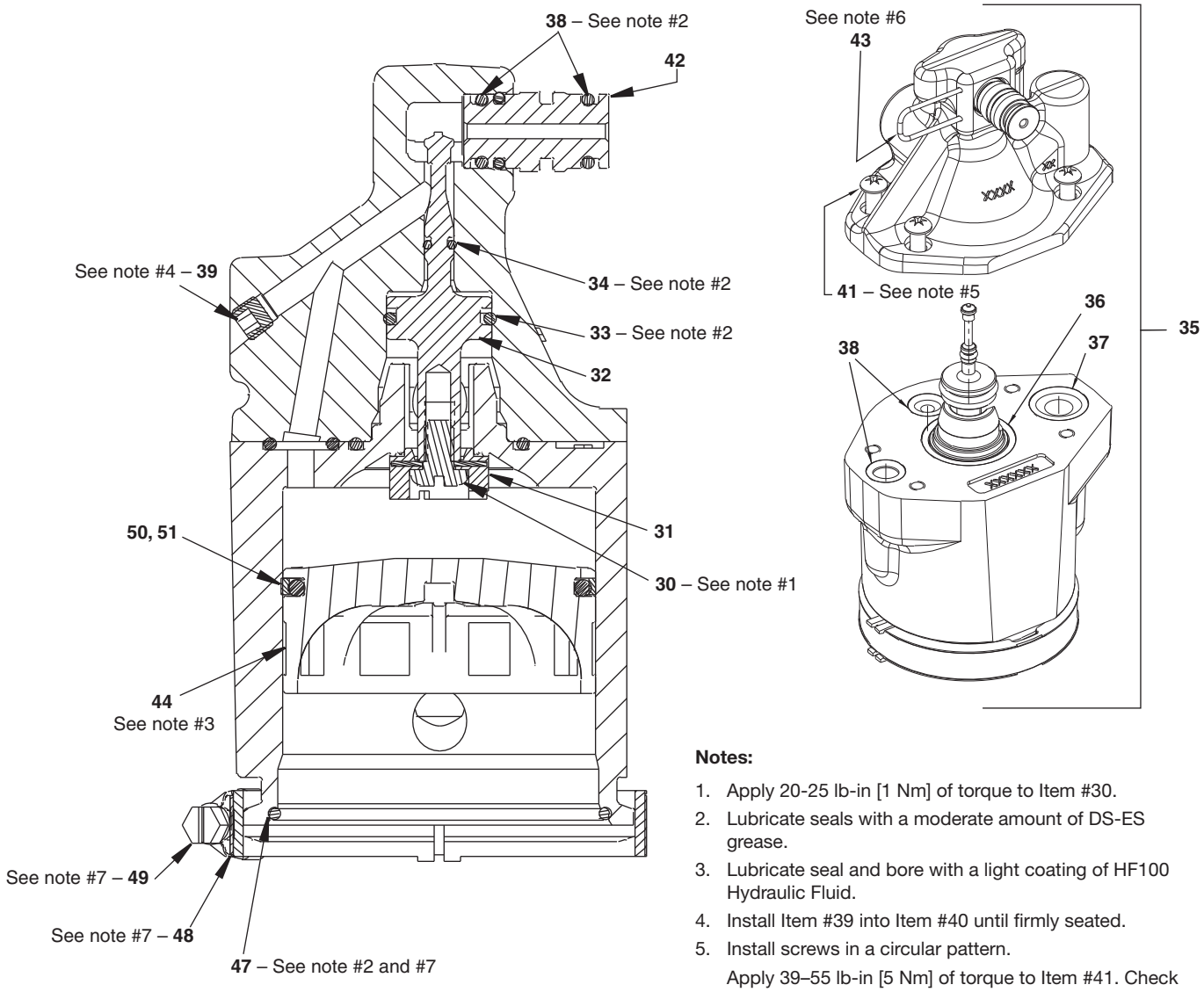


Figure 6, Seal Push Tool



Notes:

1. Apply 20-25 lb-in [1 Nm] of torque to Item #30.
2. Lubricate seals with a moderate amount of DS-ES grease.
3. Lubricate seal and bore with a light coating of HF100 Hydraulic Fluid.
4. Install Item #39 into Item #40 until firmly seated.
5. Install screws in a circular pattern.

   Apply 39–55 lb-in [5 Nm] of torque to Item #41. Check torque of first screw.
6. Bend legs on Item #43 to retain clip after assembly.
7. After installing the air motor and Item #47 on the mounting bracket (not shown), assemble Item #48 and #49 then apply 30–40 lb-in [4 Nm] of torque to Item #49.

Figure 7, Air Motor Assembly

Repair Parts List for Figure 7

Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
30	★ DA7085028	1	Screw – .250-20 Special	41	DC2261628	4	Screw, Torx (.25-20 x .75 lg.)
31	★ DA3706120	1	B/U Washer	42	DC2182099	1	Extension Fitting, Air Motor
32	★ DC2234051	1	Piston	43	★ DA5521149	1	Retaining Pin
33	★ B1013503	1	O-Ring	44	DC4122051SR	1	Air Motor Piston
34	★ B1001503	1	O-Ring (.12 x .25 x .06)	47	★ B1282503	1	O-Ring
35	DC2200900SR	1	Air Motor, Complete	48	DA2687111	2	Clamp Brk.
36	★ B1260503	1	O-Ring	49	DA2686299	1	Hose Clamp
37	★ B1014503	1	O-Ring Ref M760041	50	★ DC4119703	1	O-ring
38	★ B1009503	4	O-Ring Ref K1041	51	★ DC4120141	1	Glyde Ring
39	A1006245	1	1/16 Flush Plug w/Sealant				

★ Items included in and available only as part of Repair Kit DC2234900SR.
Also included in complete Pump Repair Kit, see Table 2 on page 12.

Notes:

1. Torque Item #19 to 72–78 lb-ft [98-105 Nm] with threads lubricated.
2. Torque Item #11 to 17–19 lb-in [2 Nm].
3. Lubricate all seals and mating surfaces w/DS-ES Grease prior to assembly unless otherwise noted.
4. Prior to assembling Item #6 seat, coin seat with a ø .219 ball to a force of 95–105 lbs. [444 N].

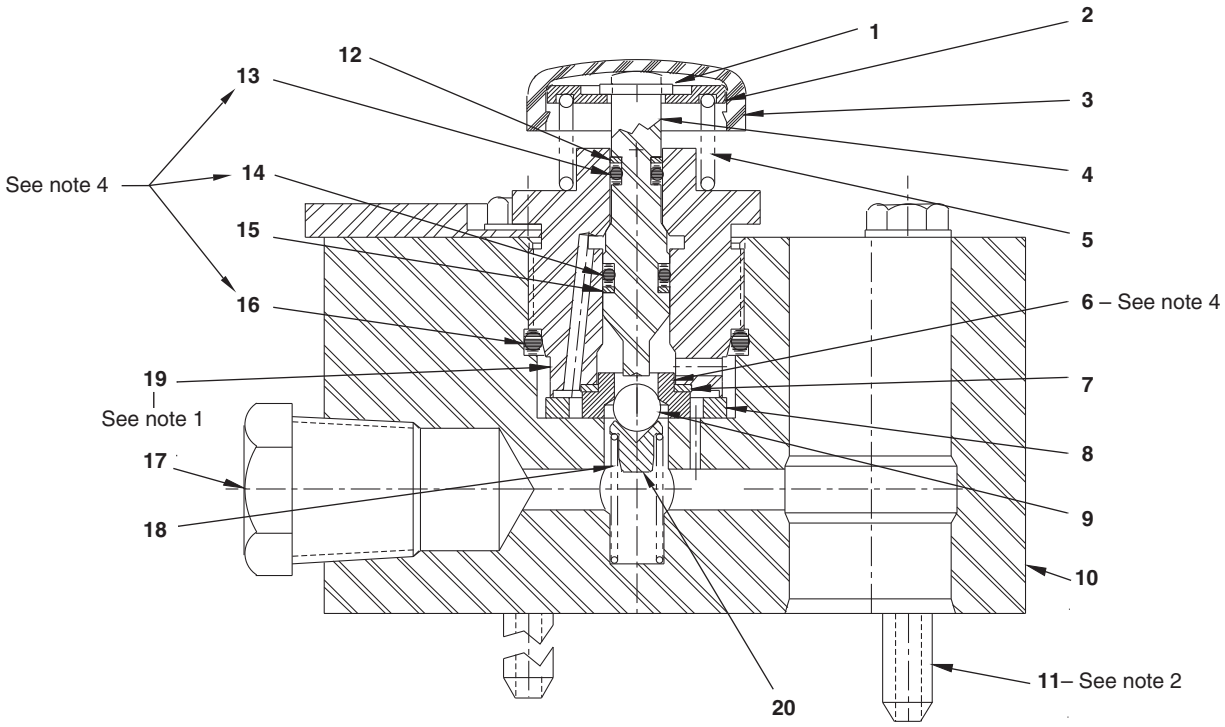


Figure 8, Release Valve

Repair Parts List for Figure 8

Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
1	★ DA5025349	1	Ret. Ring	11	DA4294028	4	Thd. Form Screw
2	DA4848108	1	Spring Washer	12	★ B1006564	1	B/U Washer
3	★ DA4831020	1	Cap	13	★ B1001503	1	O-Ring (.12 x .25 x .06)
4	DA4832040	1	Release Plunger	14	★ B1003503	1	O-Ring (.19 x .31 x .06) BUNA
5	★ DA6971110	1	Spring	15	★ B1008564	1	Back-up Washer
6	★ CB581290	1	Ball Seat	16	★ B1118903	1	O-Ring
7	★ P20037	1	Gasket	17	R515245-2	1	Plug
8	★ CL344167	1	Gasket	18	★ CJ656110	1	Spring
9	★ B1006016	1	7/32" Dia. Ball	19	DA4872013	1	Release Guide
10	DA4833190	1	Manifold	20	★ DA7572013	1	Ball Guide

★ Items included in and available only as part of Repair Kit DA4836900K1.
Also included in complete Pump Repair Kit, see Table 2 on page 12.

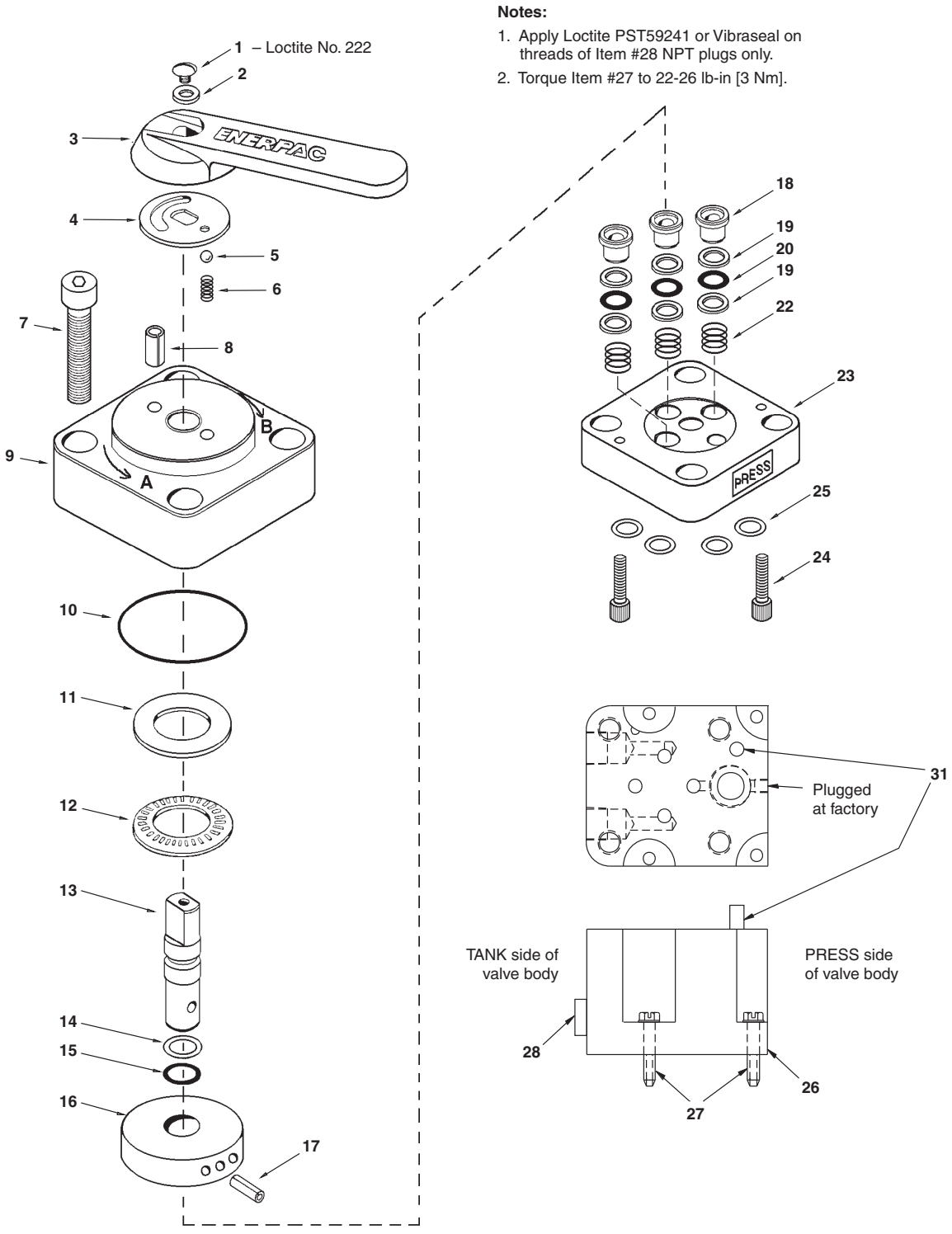


Figure 9, Manual Valve

IMPORTANT

Do not attempt to repair the pump by substituting another valve. The 4-way manual valve used on Turbo II pumps is not interchangeable with a standard Enerpac VM-4 valve. Using a valve that is not designed for this mounting configuration may result in the reservoir becoming pressurized during operation.

For complete replacement valve, order:
DA5118900SR for NPT Ports
DA9744900SR for BSPP Ports

Repair Parts List for Figure 9							
Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
1	A8076048	1	Screw	17	B1109057	1	Roll Pin
2	B1086108	1	Washer	18	DA9560041	3	Seal
3	Y325070	1	Handle	19	★ B1011564	6	Back-Up Washer
4	A8005071	1	Disc	20	★ B1006503	3	O-Ring
5	★ B1006016	1	7/32" Ball	22	★ CB28110	3	Spring
6	★ A8039110	1	Spring	23	CH539190	1	Body
7	B1389028	4	Bolt	24	B1326028	2	Bolt
8	B1126057	1	Roll Pin	25	★ B1111803	4	O-Ring
9	CB324001	1	Valve Cap	26	DA5132840SR	1	Manifold - NPT Ports
10	★ B1269503	1	O-Ring		DA9745840SR	1	Manifold - BSPP Ports
11	CB327101	1	Bearing Plate	27	DC1523028	4	Screw
12	CB328281	1	Bearing	28	CS235006	2	Plug - BSPP Ports
13	CH536104	1	Shaft		R515245-2	2	Plug - NPT Ports
14	★ B1012564	1	Back-Up Washer	30	DA5579026	1	Decal VM4 (not shown)
15	★ B1007503	1	O-Ring	31	B1051057	1	Pin
16	CH542950SR	1	Disc Assembly				

★ Indicates parts included in complete Pump Repair Kit, see Table 2 on page 12.

Pump Manifolds

PASG Models

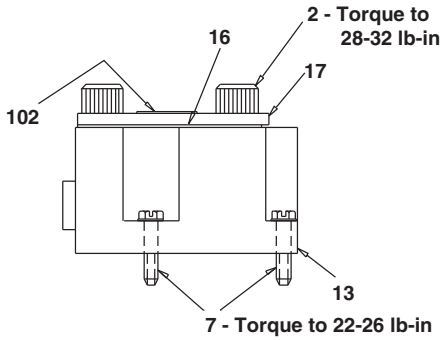


Figure 10, Pump Manifolds, PAS Version

PACG Models

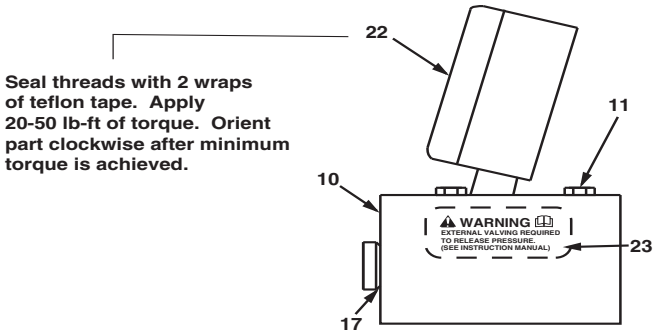


Figure 11, Pump Manifold, PAC Version

Repair Parts List for Figure 10							
Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
2	B1323028	4	SCHS SAE Manifolds	13	DA9259840SR	1	Manifold BSPP
	CBA515028-1A	4	SHCS BSPP Manifolds	16	★ DA9787037	1	Gasket
7	DC1523028	4	Screw	17	DA9788098	1	Cover
13	DC94840SR	1	Manifold SAE	102	DA9884026	1	Warning Decal

Repair Parts List for Figure 11							
Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
10	DA5307190	1	Valve Body - SAE Ports	22	G2517L	1	2.5" Gauge 0-6000 psi
	DA9747190	1	Valve Body - BSPP Ports		A1008245	1	Hex Plug (BSPP only)
11	DA4294028	4	Thread Forming Screw	23	DA9554026	1	Warning Decal
17	B1007503	1	O-Ring (SAE Only)				

★ Indicates parts included in and available only as part of Repair Kit. See Table 2 on page 12 for Repair Kit ordering information.

Table 1 - Relief Valve Settings		
Pump Model	Pressure Rating	Relief Valve Pressure Setting
PA_G1_____	10,000 psi	10,400 to 11,000 psi
PA_G5_____	5,000 psi	5,200 to 5,700 psi
PA_G3_____	5,000 psi	5,200 to 5,700 psi

For standard models with special pressure settings,
the model number will have a “dash” followed by 4 more digits to indicate the pressure setting.

To determine the pressure settings locate the model number stamp. The model number will be in the format PAYYYYYY-XXXX, where XXXX is the maximum pressure rating. The relief valve should be set from (XXXX + 250 psi to (XXXX) + 750 psi).

Table 2 - Repair Kit Application			
Pump Model			Recommended Repair Kit
PATG1_____	PARG1_____		PATG1100K
PATG5_____	PARG5_____		PATG5100K
PATG3_____	PARG3_____		PATG3100K
PAMG1_____			PAMG1400K
PAMG5_____	PACG5_____	PASG5_____	PAMG5400K
PAMG3_____	PACG3_____	PASG3_____	PAMG3400K

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