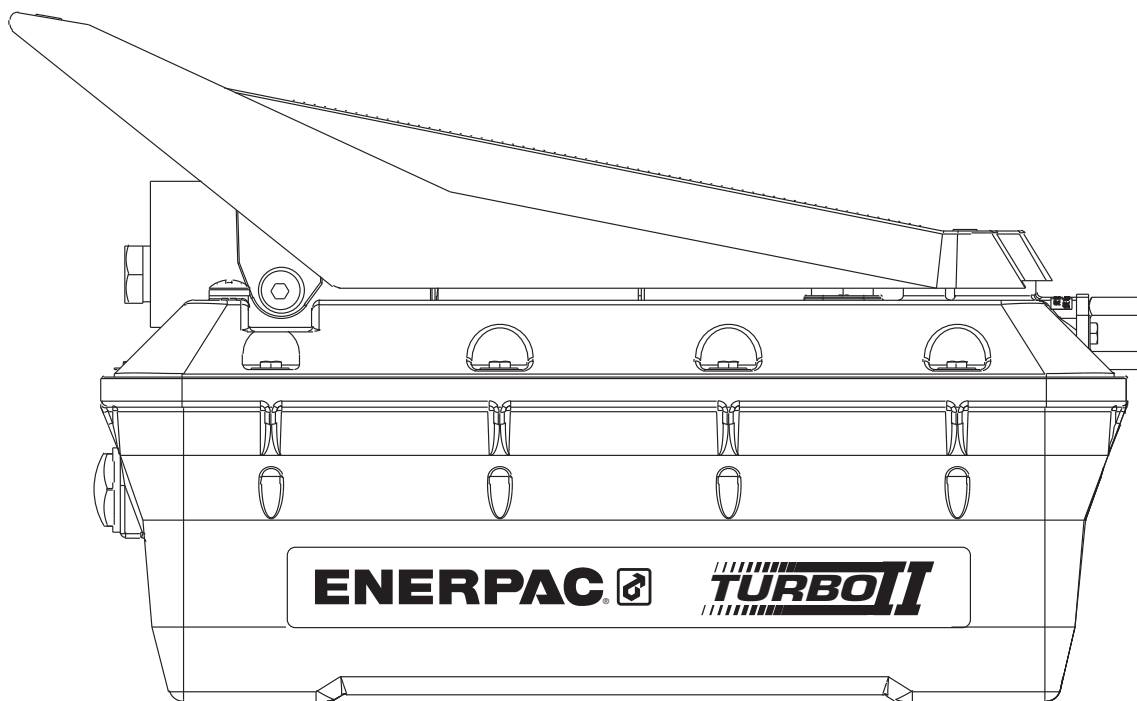


To Protect Your Warranty, Use Only ENERPAC Hydraulic Oil.

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”.

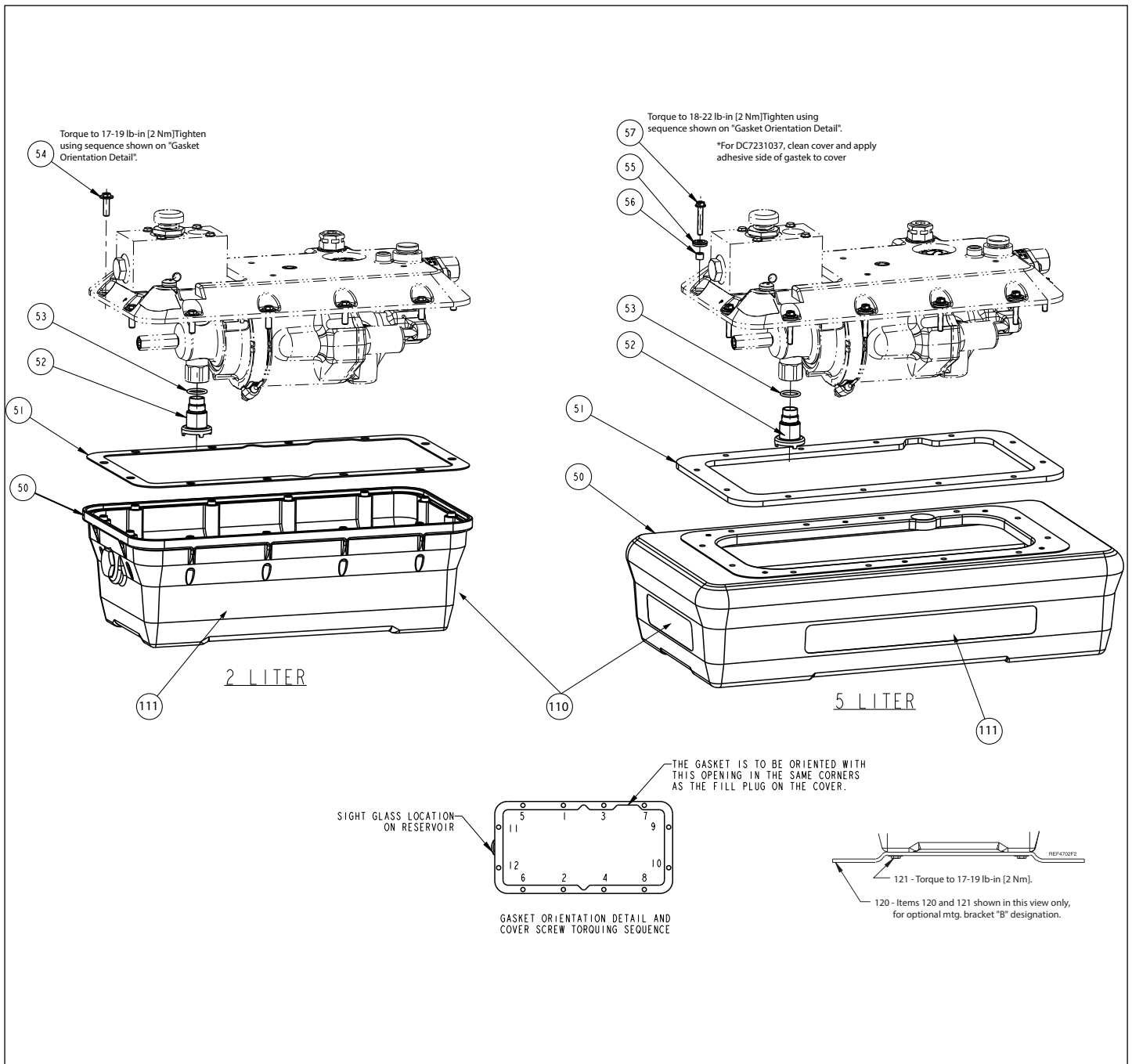


Figure 1, Reservoir Assemblies

Repair Parts List for Figure 1

Item	Part Number	Qty.	Description
50	DC4321900SR ▲	1	Reservoir, 2 L, Yellow
	DC4322900SR ▲	1	Reservoir, 2 L, Black
	DC4323900SR ▲	1	Reservoir, 2 L, Red
	DC4320900SR ▼	1	Reservoir, 5 L, Black
51	DC4027167★	1	Reservoir Gasket, 2L
	DC7231037† ★	1	Reservoir Gasket, 5L (foam)
52	DC442900SR	1	Intake Tube Assy
53	B1221503 ❖ ❖ ❖ ★	1	O-Ring Ref. C403503
54	DA5938028	12	Hi Lo Screw
55	DC1162108	12	Sealing washer
56	DC1160186	12	Nylon Spacer
57	DC41161046	12	Machine Screw Hex Head
110	DA4296026	1	Model No. Decal
111	DC2262026	2	Decal, Enerpac Turbo II Blk
	DC2260026	2	Decal, Enerpac Turbo II Wht
120	DA5389111	2	Mtg. Bracket
121	DA5938028	4	Hi Lo Screw, 2L Res.
	B2503028	4	Screw, 5L Res

- ★ Items included in Pump Repair Kit, see Table 2 on page 14.
† Replaces DC714517 O-ring gasket.
❖ 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.
▲ Reservoirs include item 50, 51, 52, 53, 54, and 111.
▼ Reservoirs include item 50, 51, 52, 53, 55, 56, 57, and 111.

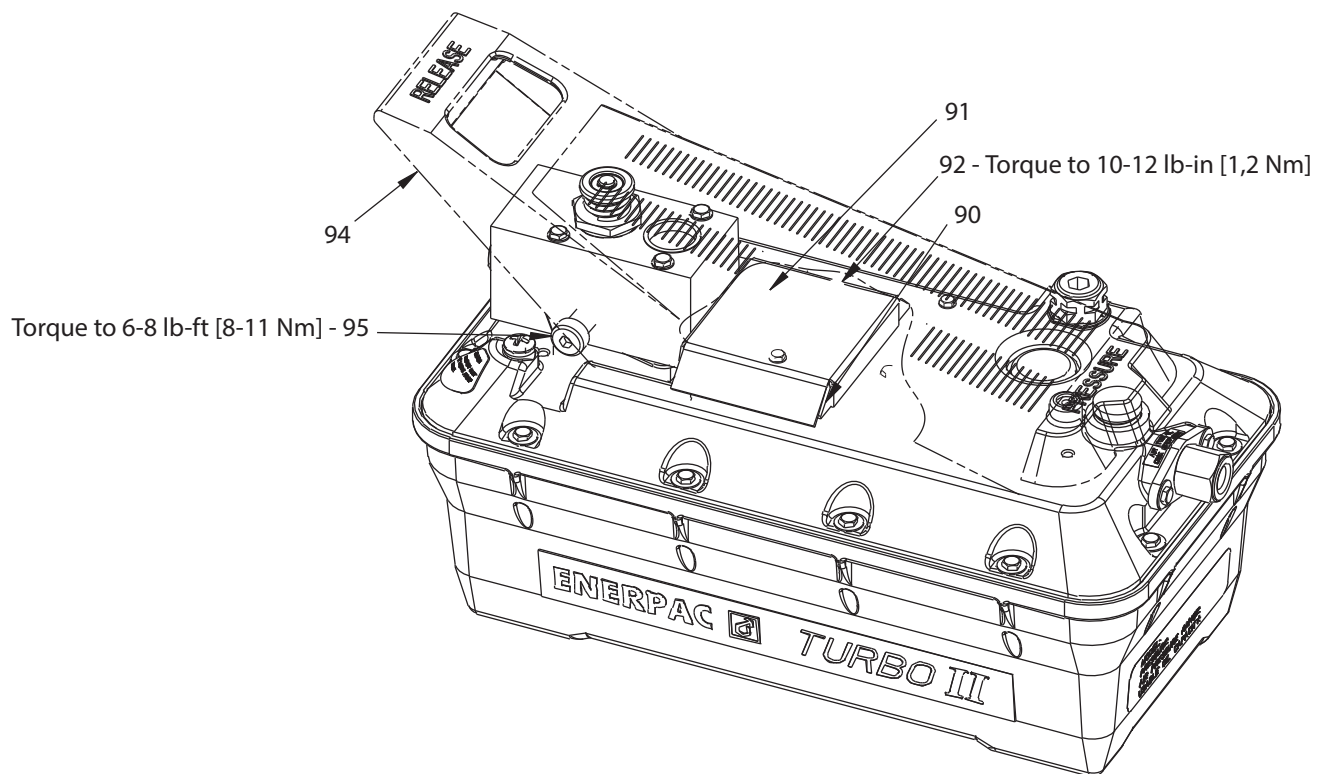


Figure 2, Treadle Assembly, T Version

Item	Part Number	Qty.	Description
90	DA8625116	1	Muffler
91	DA5690098	1	Muffler Cover
92	DC7851028	2	Hi Lo Screw
94	DA4849218	1	Treadle
95	DA4236242	2	Shoulder Screw

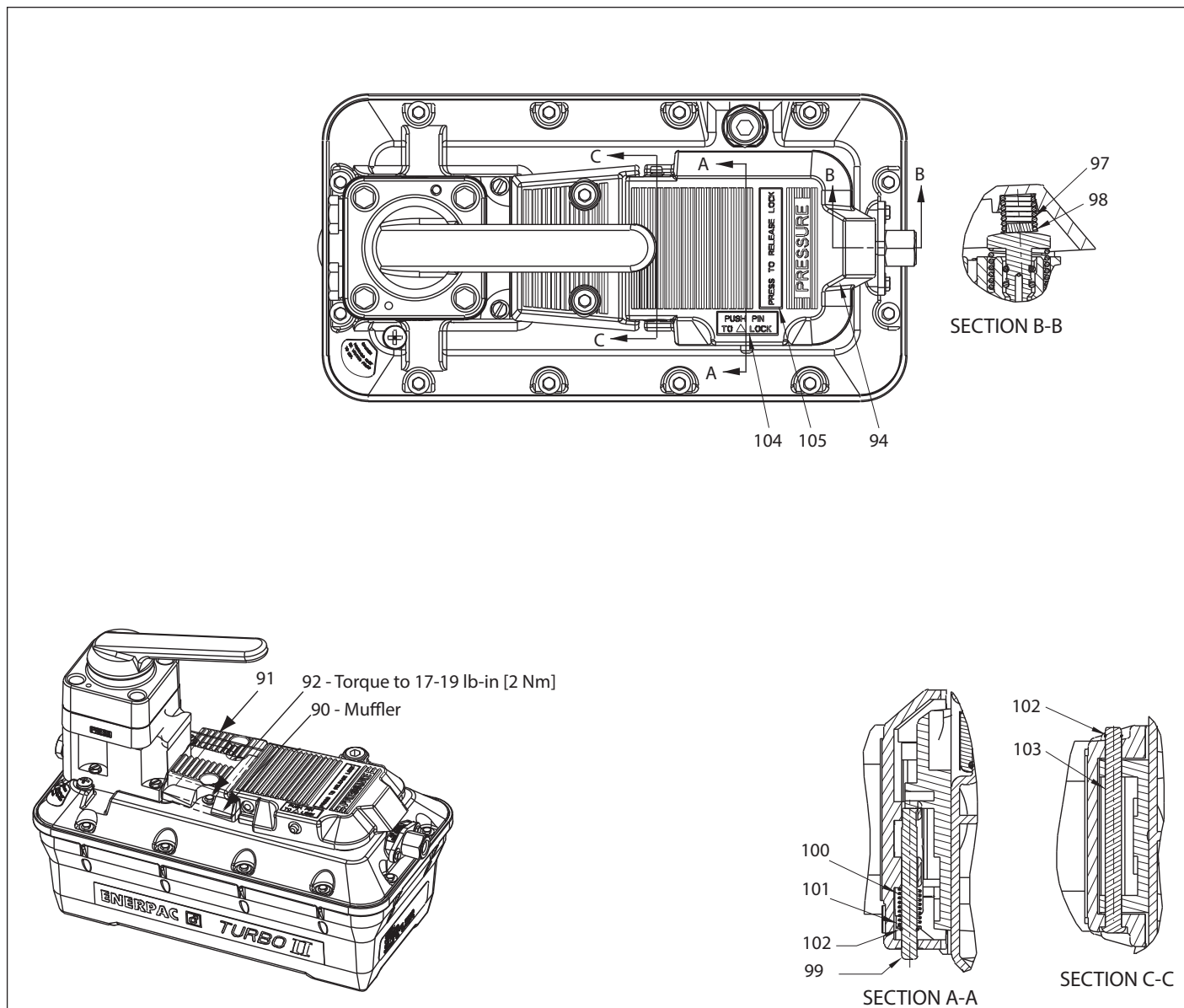


Figure 3, Treadle Assembly, M, C, S Version

Repair Part List for Figure 3			
Item	Part Number	Qty.	Description
90	DA8625116	1	Muffler
91	DA7935111	1	Mtg. Bracket Casting Muffler Cover
92	DA5938028	4	Hi Lo Screw
94	DA7937218	1	Treadle
97	DA8506110	1	Spring
98	DA8670013	1	Spring Guide
99	DA7940061	1	Latch Pin
100	DA8508110	1	Spring
101	DA8505186	1	Spring
102	DA5025349	2	Ret. Ring
103	DA7939061	1	Hinge Pin
104	DA8744026	1	Decal
105	DA8743026	1	Decal
†Replaces DC714517 O-ring gasket.			

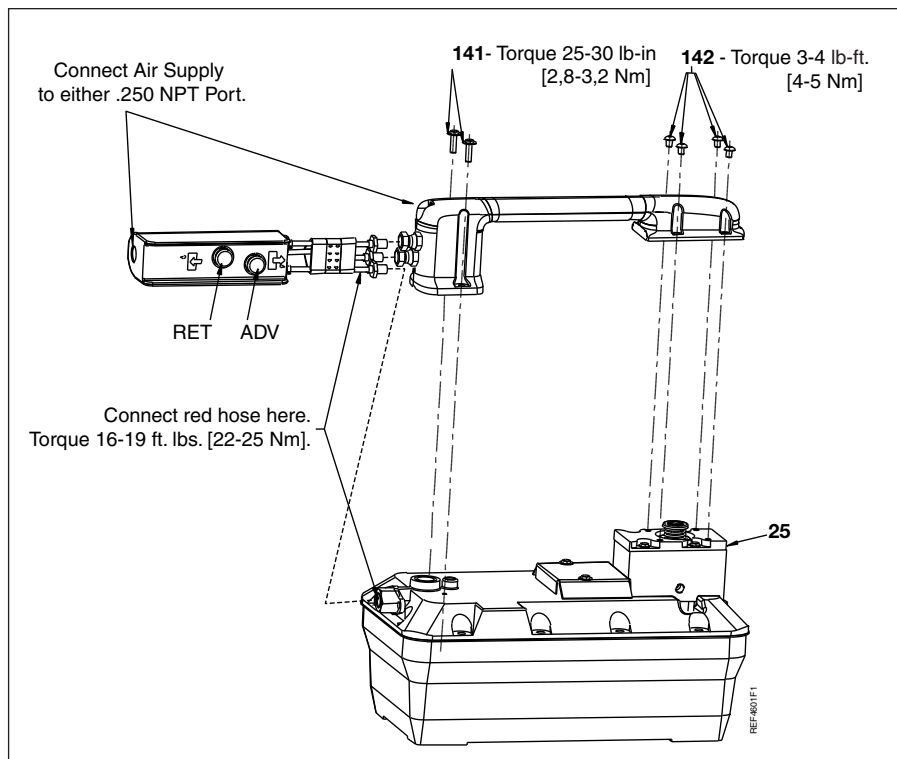


Figure 2a, Remote Pendant Turbo Pump Assembly

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.			

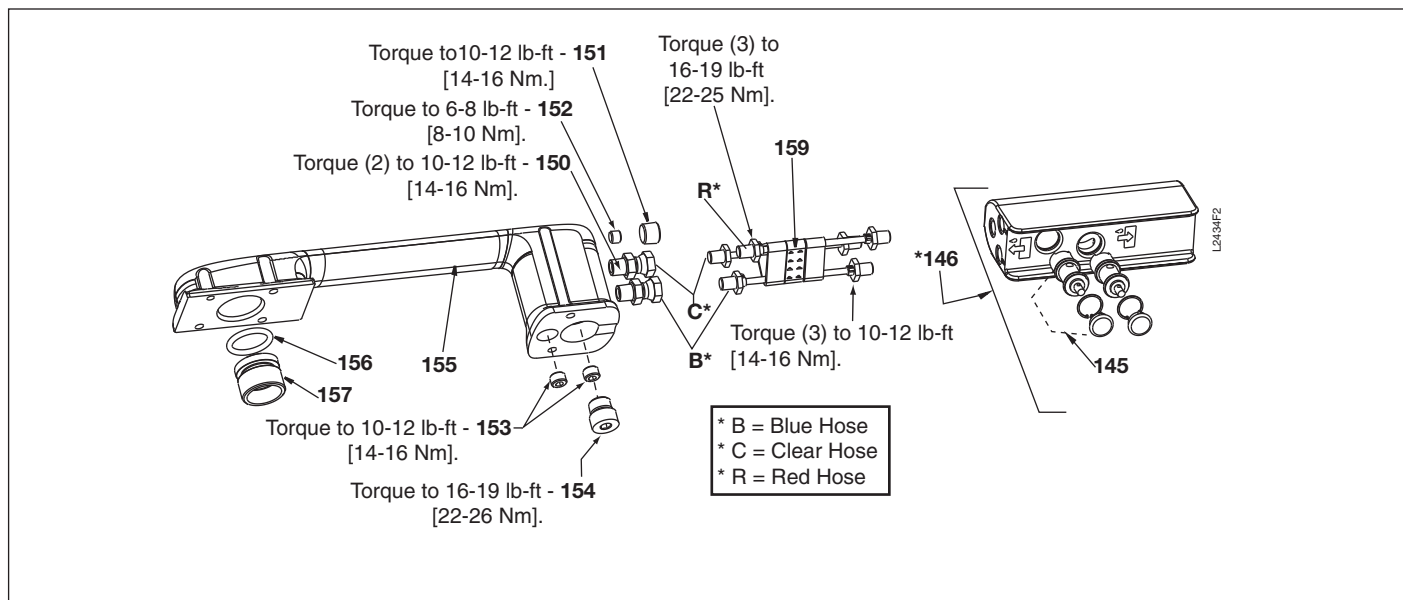


Figure 3b, Pendant Handle Assembly

Repair Parts List for Figure 3b							
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	156	* 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 DD1725070K Handle Retrofit Kit.							
◆ Handle (item 155) and piston (item 157) MUST be replaced as a set. Old and new parts are NOT interchangeable.							

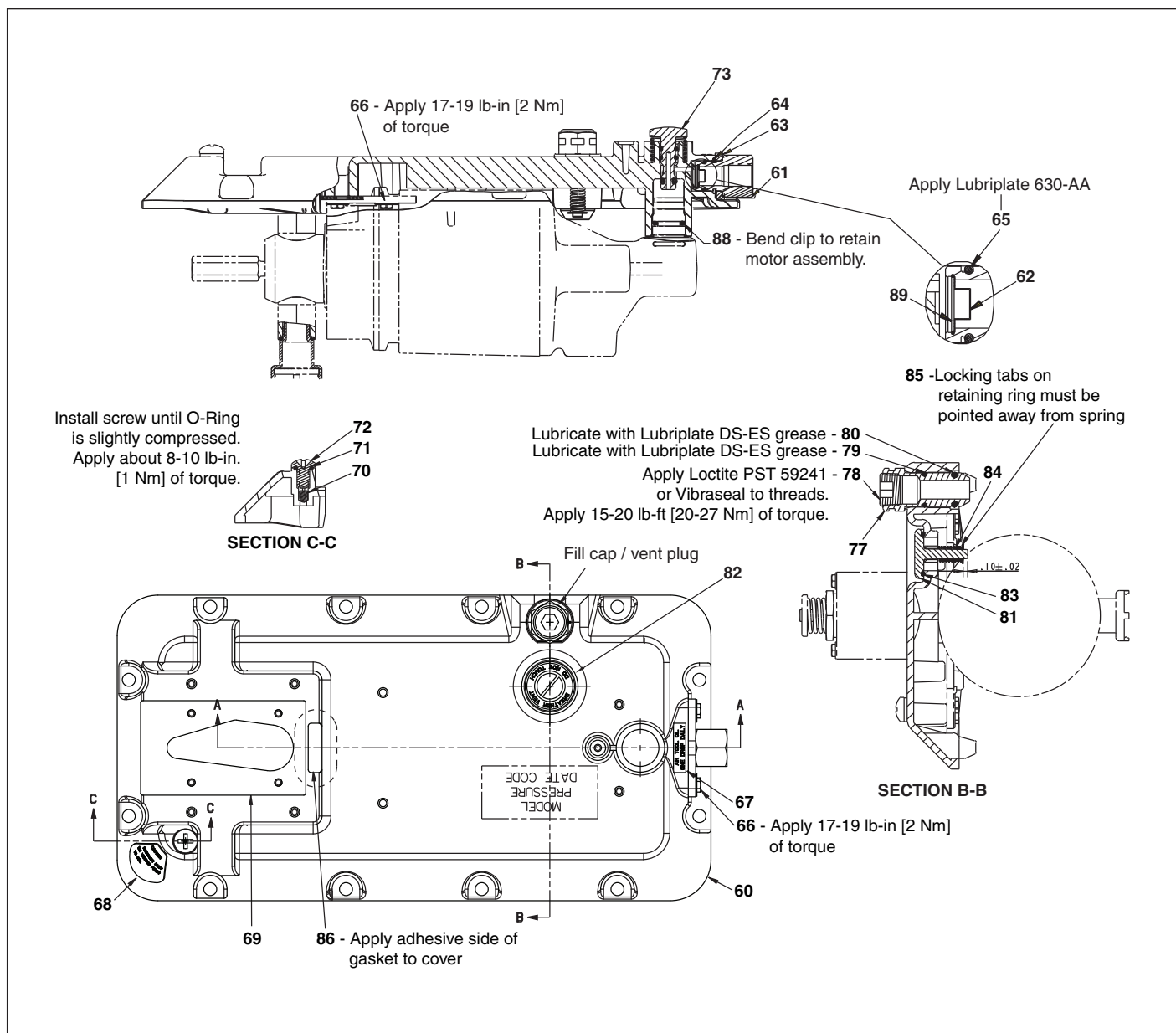


Figure 4, Cover Assembly

Repair Parts List for Figure 4							
Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
60	DC3913900SR	1	Blk Cover Assy.(61-86,88 and 89)	73	DA4802051SR	1	Air Button
	DC3914900SR	1	Red Cover Assy.(61-86,88 and 89)	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 14.
† Replaces and interchangeable with gasket DC7872037.

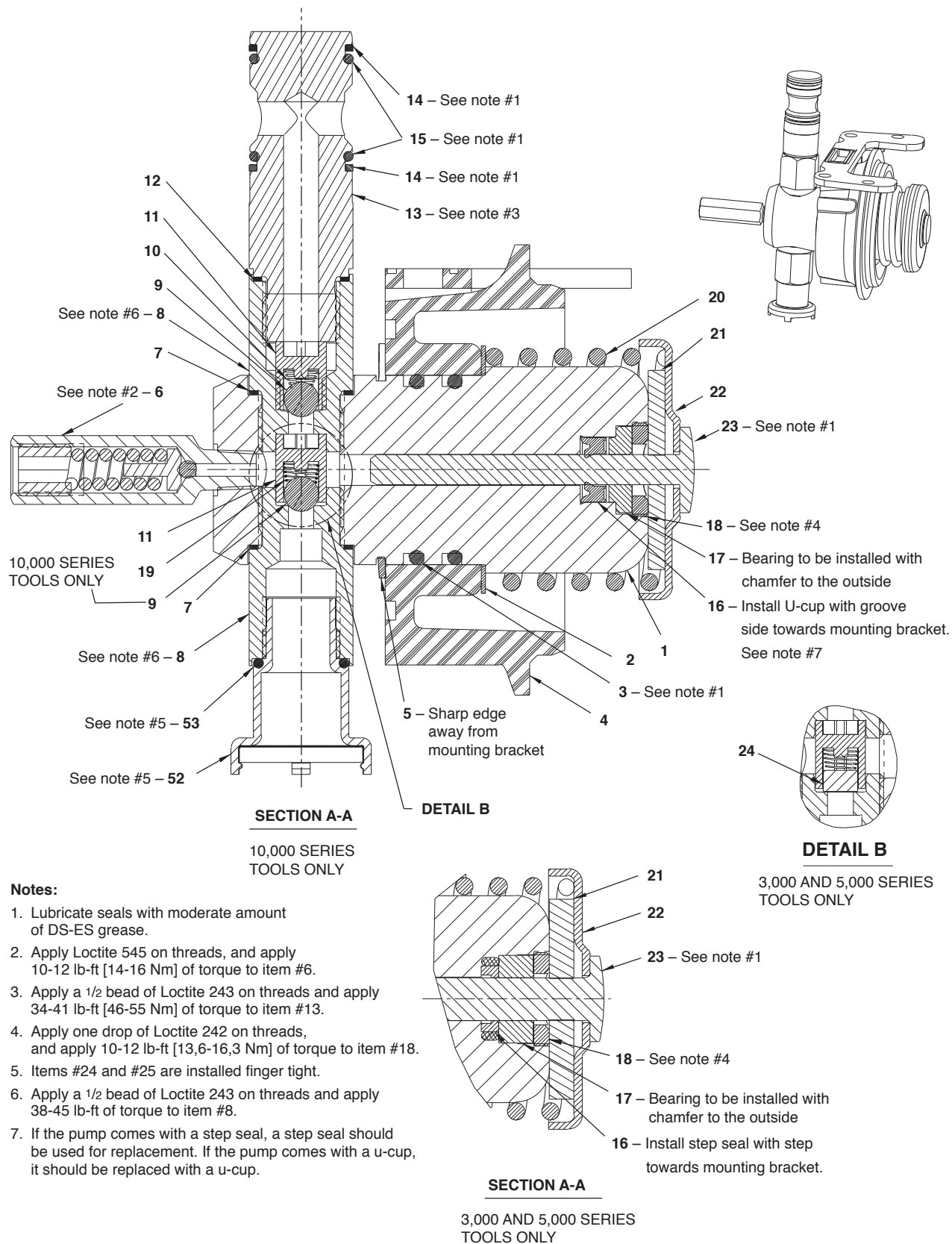


Figure 5, Hydraulic Section Detail

Repair Parts List for Figure 5							
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
	※★ DC64446041	1	U-Cup 3 KSI	52	DC442900SR	1	Intake Tube Assy
	❖★ DC6447041	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 14.

※ 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, 18, 21, 22 and 23 will vary depending on repair kit ordered. Refer to Figure 5 for installation details.

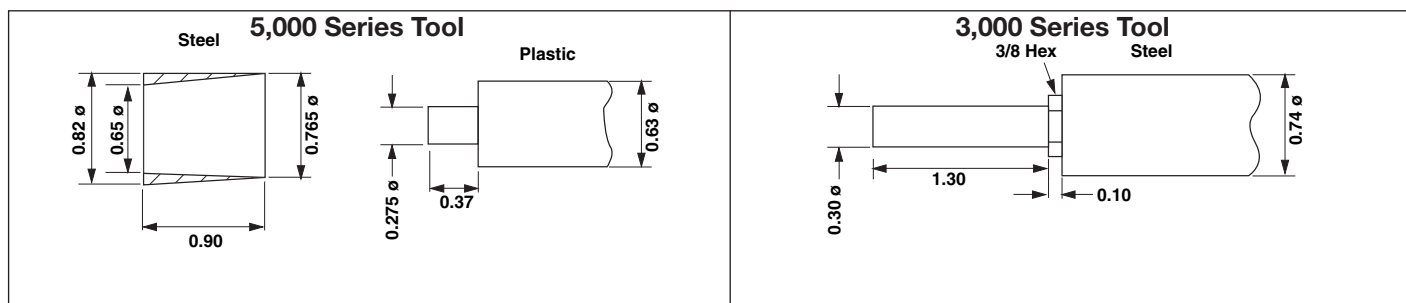


Figure 6, Seal Push Tool

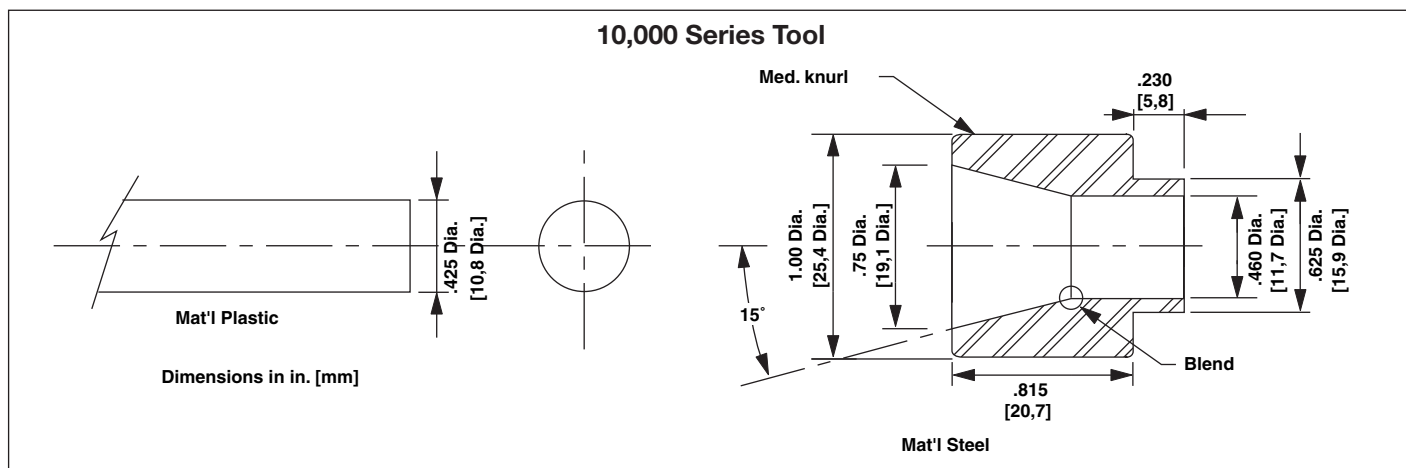


Figure 7, Seal Push Tool

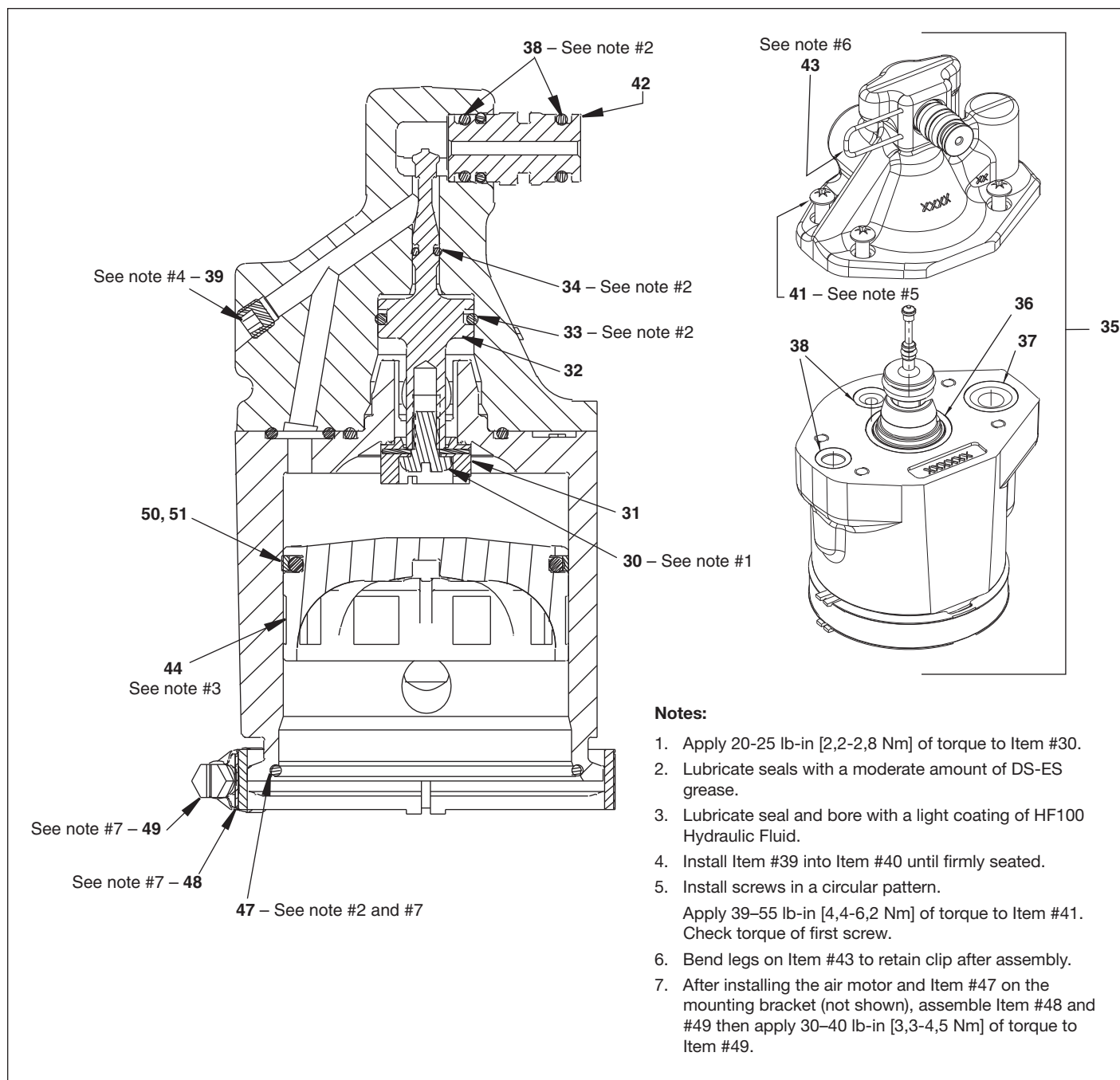


Figure 8, Air Motor Assembly

Repair Parts List for Figure 8							
Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
30	★ DA7085028	1	Screw – .250-20 Special	40	DC2192840	1	Machined Air Motor Manifold
31	★ DA3706120	1	B/U Washer	41	DC2261628	4	Screw, Torx (.25-20 x .75 lg.)
32	★ DC2234051	1	Piston	42	DC2182099	1	Extension Fitting, Air Motor
33	★ B1013503	1	O-Ring	43	★ DA5521149	1	Retaining Pin
34	★ B1001503	1	O-Ring (.12 x .25 x .06)	44	DC4122051SR	1	Air Motor Piston
35	DC2200900SR	1	Air Motor, Complete	47	★ B1282503	1	O-Ring
36	★ B1260503	1	O-Ring	48	DA2687111	2	Clamp Brk.
37	★ B1014503	1	O-Ring Ref M760041	49	DA2686299	1	Hose Clamp
38	★ B1009503	4	O-Ring Ref K1041	50	★ DC4119703	1	O-ring
39	A1006245	1	1/16 Flush Plug w/Sealant	51	★ DC4120141	1	Glyde Ring

★ Items included in and available only as part of Repair Kit DC2234900SR.
Also included in complete Pump Repair Kit, see Table 2 on page 14.

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 [1,9-2,1 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 $\varnothing$.219 ball to a force of 95–105 lbs. [444 N].

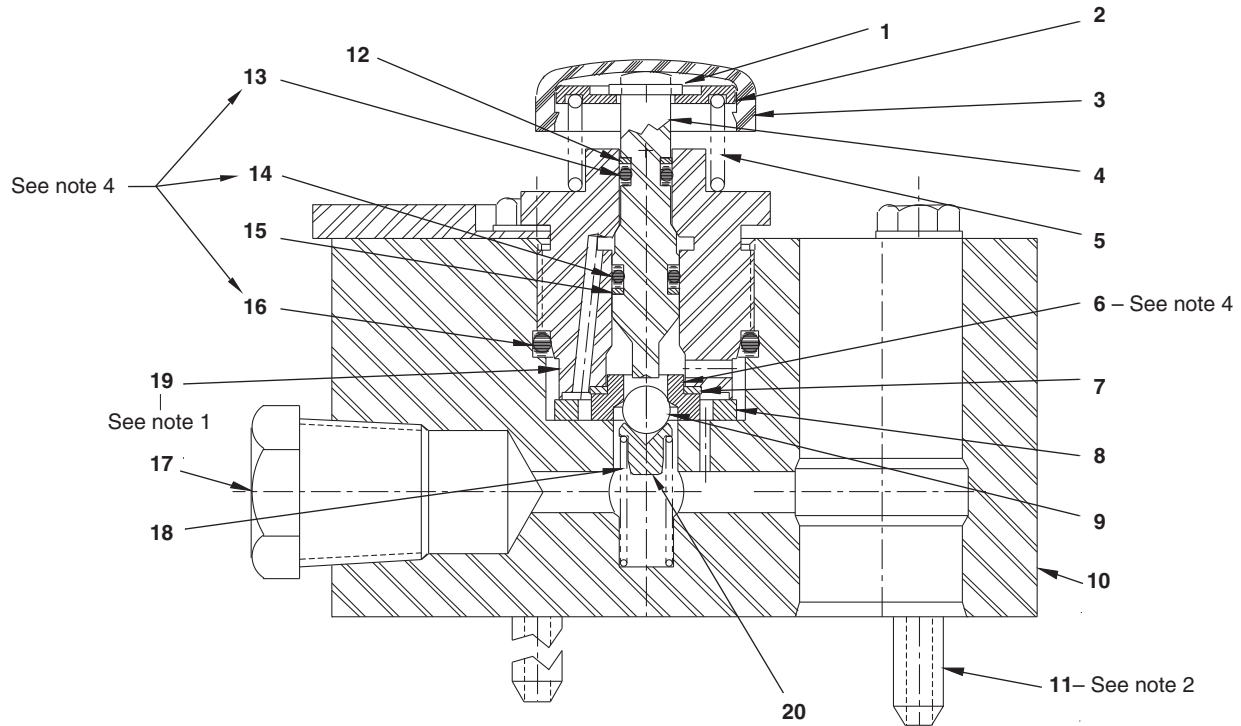


Figure 9, Release Valve

Repair Parts List for Figure 9

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 14.

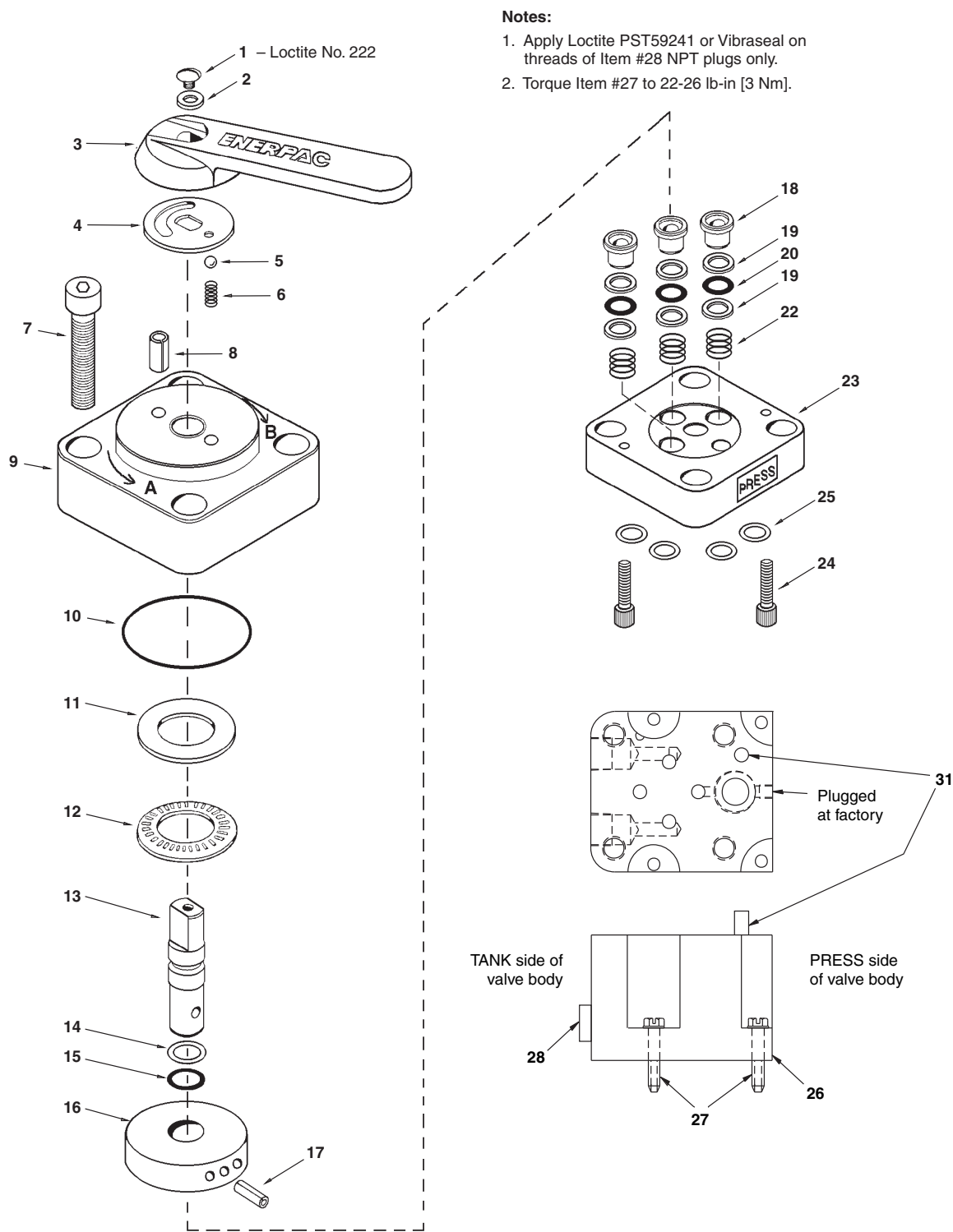


Figure 10, Manual Valve

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 10							
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 14.

Pump Manifolds

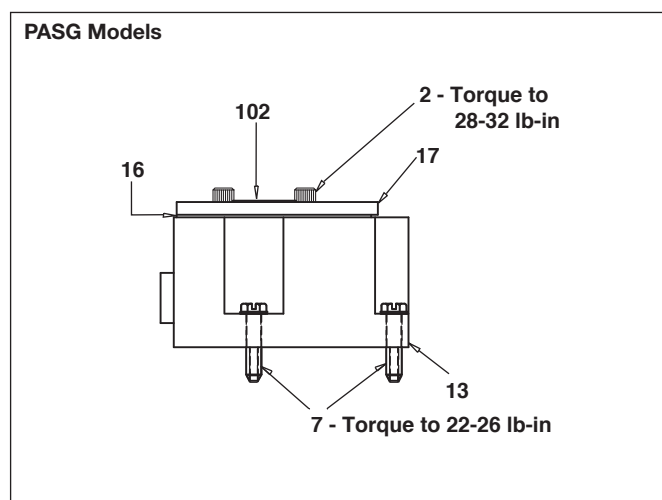


Figure 11, Pump Manifolds, PAS Version

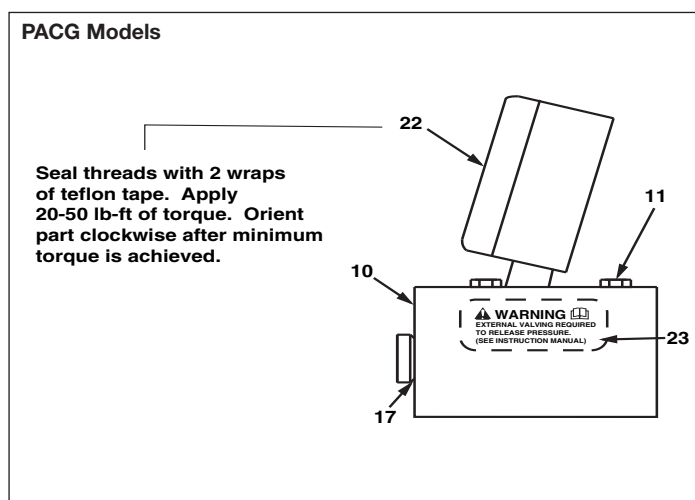


Figure 12, Pump Manifold, PAC Version

Repair Parts List for Figure 11							
Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
2	B1321028	4	SHCS 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 12							
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 14 for Repair Kit ordering information.

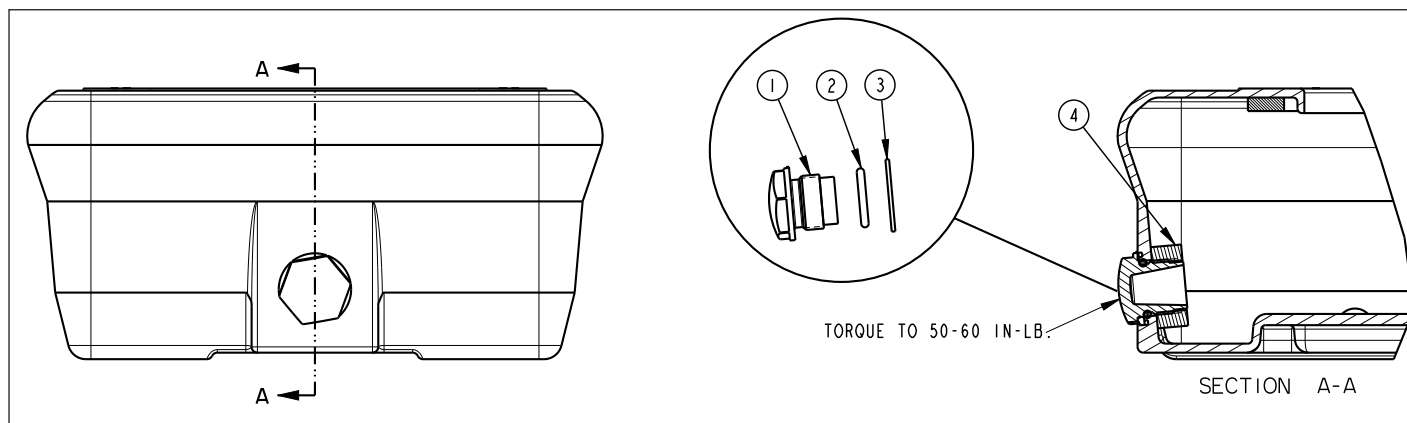


Figure 13, Sight Glass Service Kit

Sight Glass Service Kit Part List (DC85900SR)			
Item N°.	Part Number	Qty	Description
1	DA12288022	1	Sight Glass
2	B1012503	1	O-ring
3	CR355167	1	Copper Gasket
4	B1016123	1	Nut

Table 1 - Relief Valve Settings		
Pump Model	Pressure Rating	Relief Valve Pressure Setting
PA_G1_____	10,000 psi [689,4 bar]	10,400 to 11,000 psi [717 to 758,4 bar]
PA_G5_____	5,000 psi [344,7 bar]	5,200 to 5,700 psi [358,52 to 393,0 bar]
PA_G3_____	5,000 psi [344,7 bar]	5,200 to 5,700 psi [358,52 to 393,0 bar]
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 [17,23 bar] to (XXXX) + 750 psi [51,71bar]).		

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