



Repair Parts Sheet

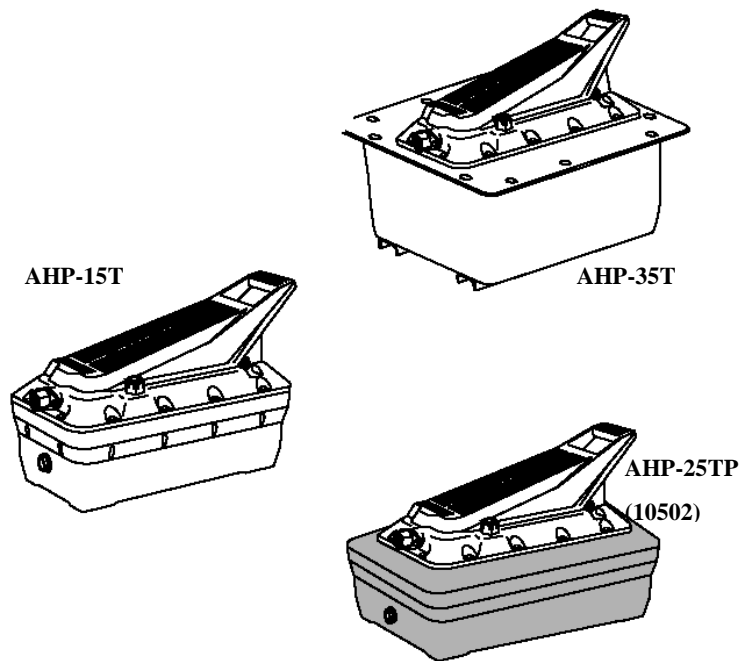
Turbo II Air Hydraulic Pump

Model 10500, 10502, 10504
(AHP-15T, AHP-25TP, AHP-35T))

Install all kit components to insure optimum performance of the repaired unit.

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. Replace relief valve. Apply Loctite 545 to threads and torque to 10–12 ft-lbs. [14–16 Nm].
5. Replace pump cover. Tighten fasteners according to torquing sequence on Figure 1, page 2.



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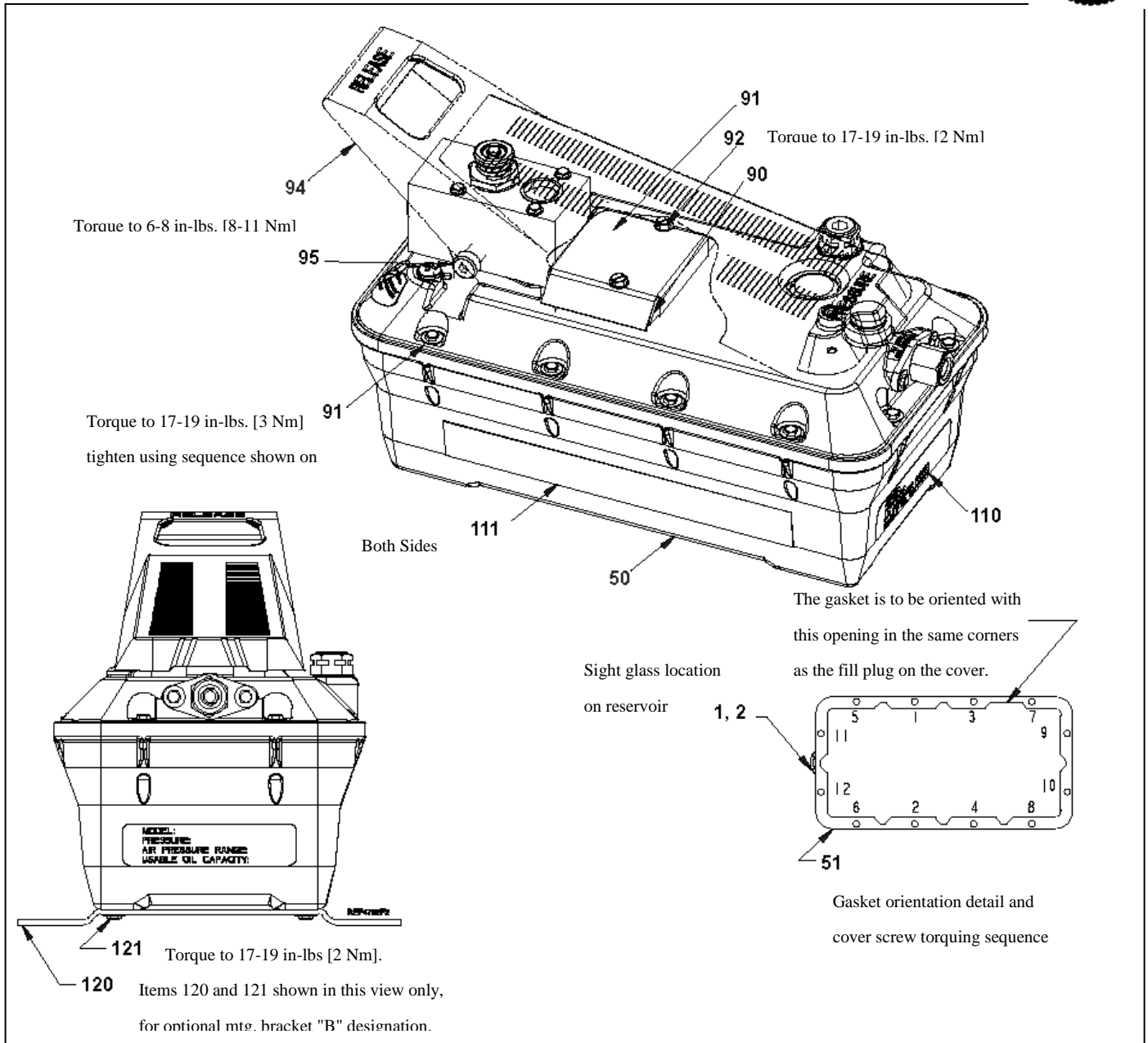


Figure 1

Repair Parts List for Figure 1

Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
1	DA12288022	1	Sight Glass	92	DC1523028	2	Slotted Hex Washer Head Scr.
2	★B1908503	1	O Ring	94	DA4849218	1	Treadle
50	DC4321900SR	1	Reservoir, 2 L, Yellow	95	DA4236242	2	Shoulder Screw
	DC4320900SR	1	Reservoir, 5 L, Black	111	DC1146026	2	Decal, Esco (AHP-15T, AHP-35T)
51	★DC4027167	1	Reservoir Gasket, 2 L		DC825026	2	Decal, Esco (AHP-25TP)
	DC714517	1	O-ring Gasket Cover, 5 L	110	DA4296026	1	Model No. Decal
54	DA5938028	12	Hi Lo Screw	120	DA5389111	1	Mounting Bracket
90	DA8625116	1	Muffler	121	DA5938028	4	Hi Lo Screw
91	DA5690098	1	Muffler Cover				

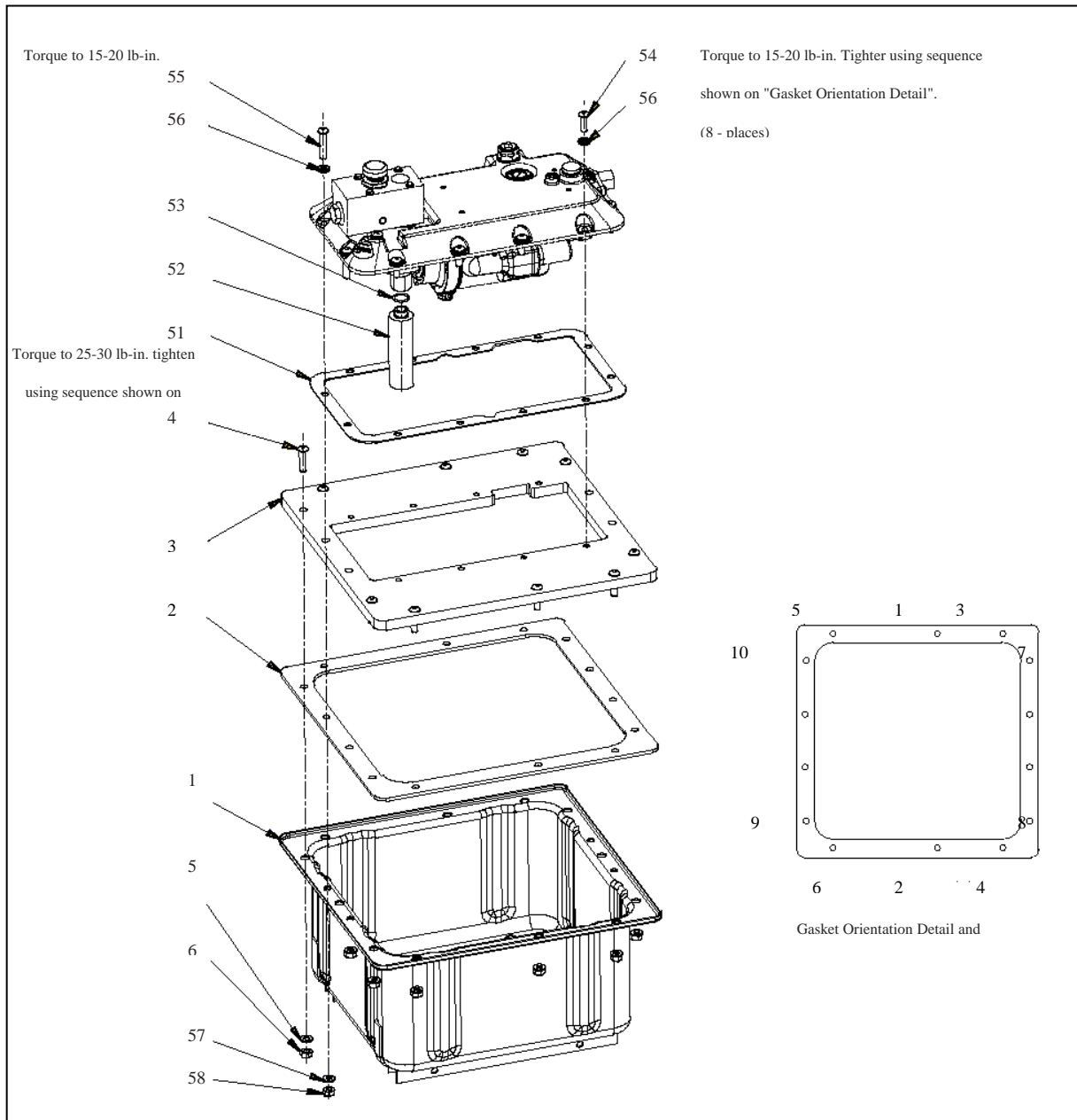
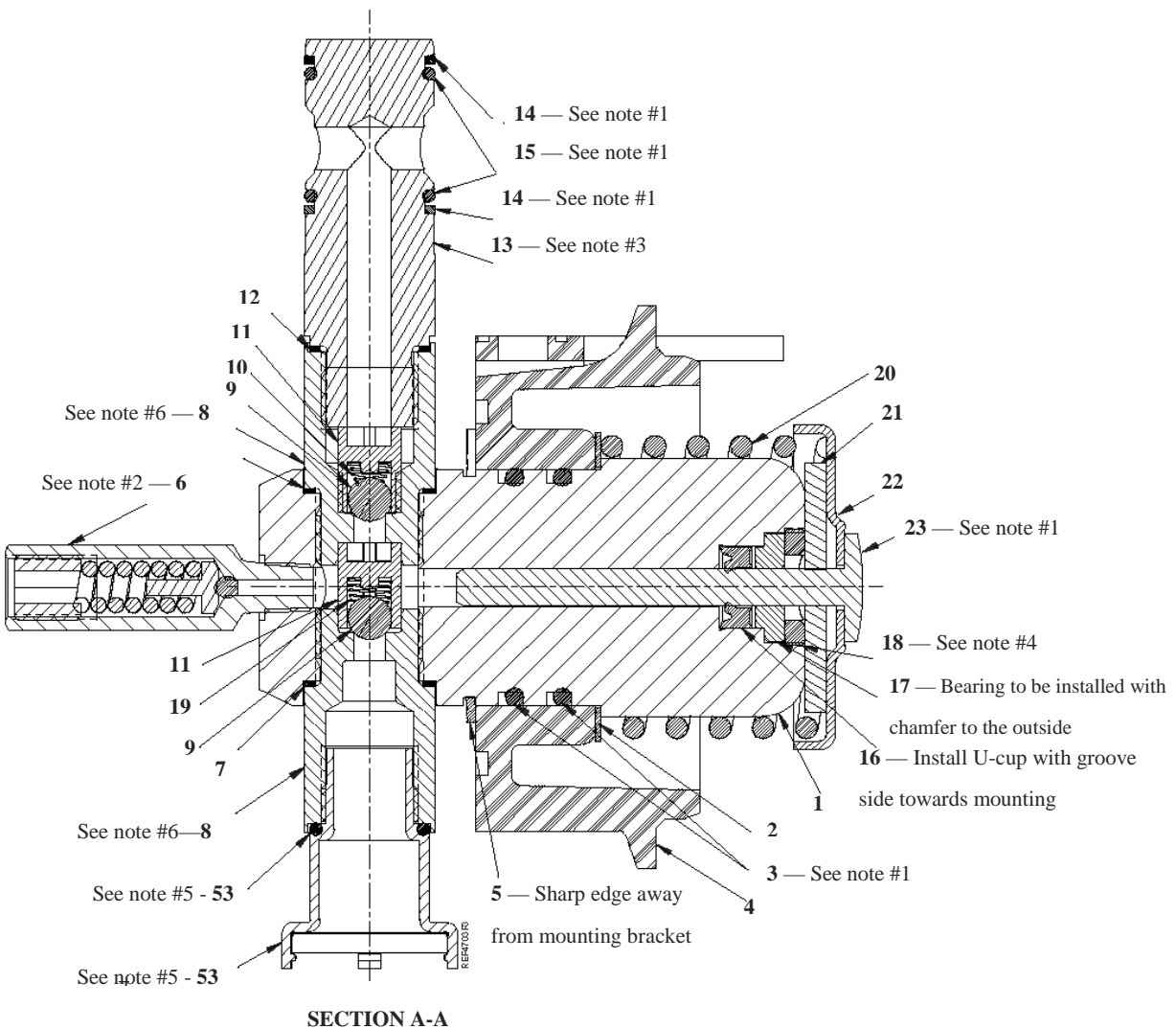
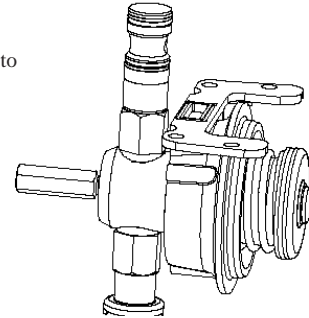


Figure 2

Repair Parts List for Figure 2			
Item	Part Number	Qty.	Description
1	DA11741025	1	2 Gallon reservoir
2	DA11720037	1	Reservoir Gasket Top Plate
3	DA11730101	1	Plate
4	B2525028	10	BHC Screw
5	B1015066	14	Washer, Lock, .250
6	B1001122	14	Hex Nut (.250-20)
51	DA7933167	1	Gasket
52	DC460900SR	1	Intake Tube
53	B1221503	1	O-Ring
54	B2521028	8	BHC Screw- .250-20x. 75 lg.
55	DC4487028	4	Cap screw
56	DC1063108	12	Sealing Washer
57	B1015066	4	Lock Washer .250
58	B1001122	4	Hex Nut (.250-20)
110	DA6197028	4	Screw

**Notes:**

1. Lubricate seals with moderate amount of DS-ES grease.
2. Apply Loctite 545 on threads, and apply 10–12 ft-lbs. [14–16 Nm] of torque to item #6. Set at 10,400 to 11,000 psi.
3. Apply Loctite 243 on threads and apply 34–41 ft-lbs. [46–55 Nm] of torque to item #8 and #13
4. Apply one drop of Loctite 242 on threads, and apply 16–18 ft-lbs. [22–24 Nm] of torque to item #18
5. Items #24 and #25 are installed finger tight.
6. Apply a $\frac{1}{2}$ bead of Loctite 243 on threads and apply 38–45 ft-lbs. of torque to item #8.

**Figure 3**

Repair Parts List for Figure 3

Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
1	DC114030	1	Hydraulic Cylinder, Turbo 10 KSI	14	*DA4974367	2	Backup Ring
2	DA4298108	1	Washer	15	*B1016803	2	O-Ring – Glok
3	*B1258503	2	O-Ring	16	*CB918041	1	U-Cup 10 KSI
4	DA4287111	1	Mtg. Bracket	17	*CB624108	1	Bearing 10 KSI
5	DA4343044	1	Bowed Ret. Ring	18	*DA1204044	1	Bearing Retainer 10 KSI
6	DA8802900SR	1	Relief Valve Assembly	19	*DA6911210	1	Conical Spring
7	*DA3811167	2	Copper Gasket	20	DA4285110	1	Spring
8	DC2832900SR	2	Seat	21	DA6600108	1	Rubber Washer 10 KSI
9	*B1007016	2	1/4" Dia. Ball	22	DA4284108	1	Spring Washer, Turbo, 10 KSI
10	*DA4874110	1	Conical Spring	23	CB180040	1	Plunger, 10 KSI
11	*DA3682013	2	Ball Guide	24	*DC4440	1	Poppet
12	*DC170167	1	Copper Gasket	52	DC442900SR	1	Intake Tube Assembly
13	DC5268SR	1	Pressure Tube 10 KSI	53	*B1221503	1	O-Ring Ref. C403503



*Items included as part of Repair Kit: (DC2222900K) Also included in complete Pump Repair Kit PATG1100K.

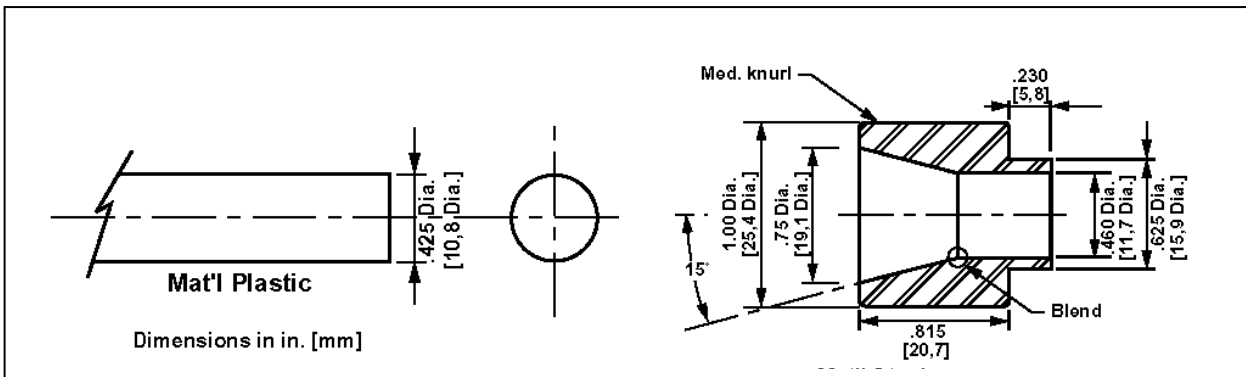
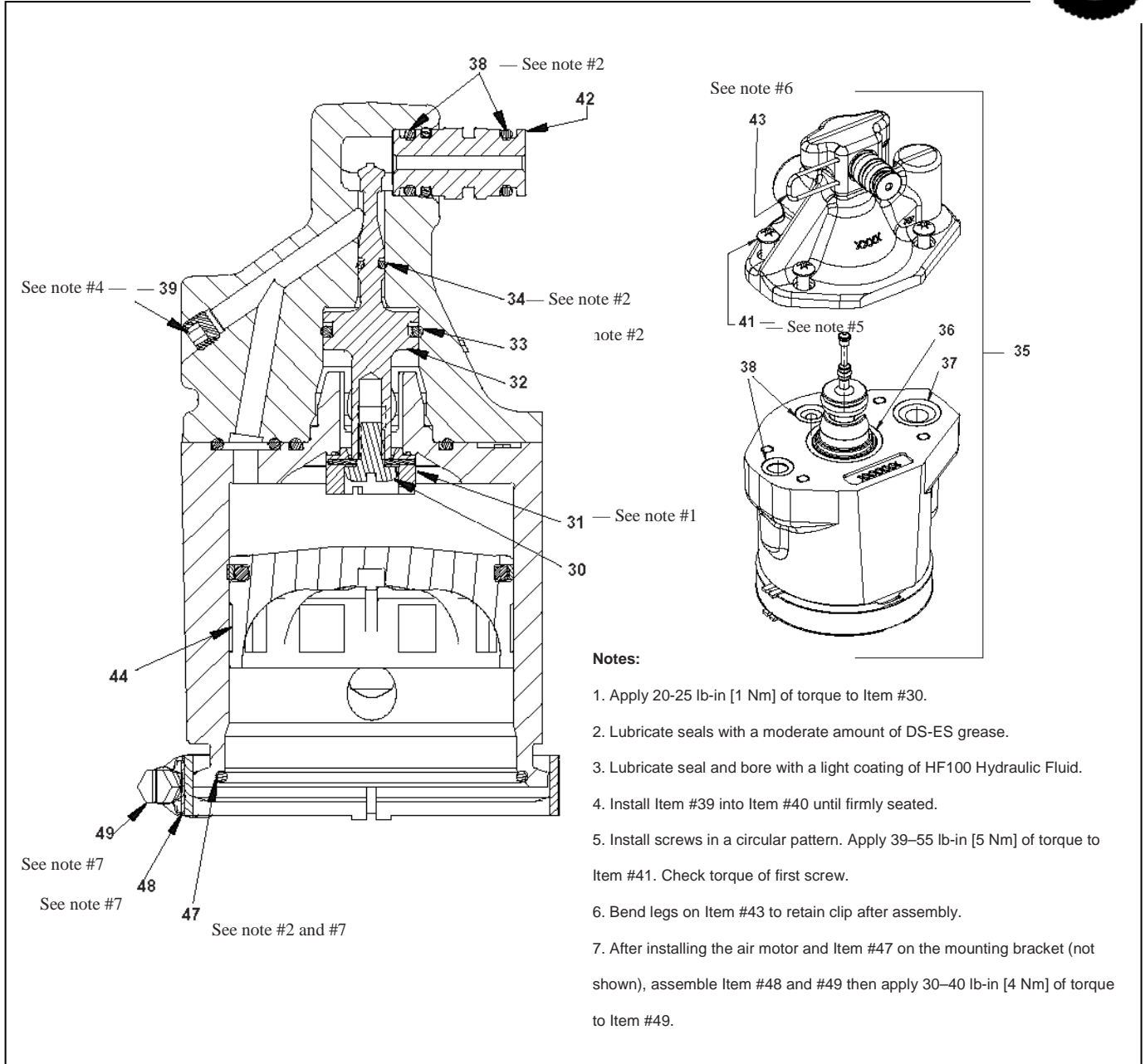


Figure 4, U-cup Installation Tools



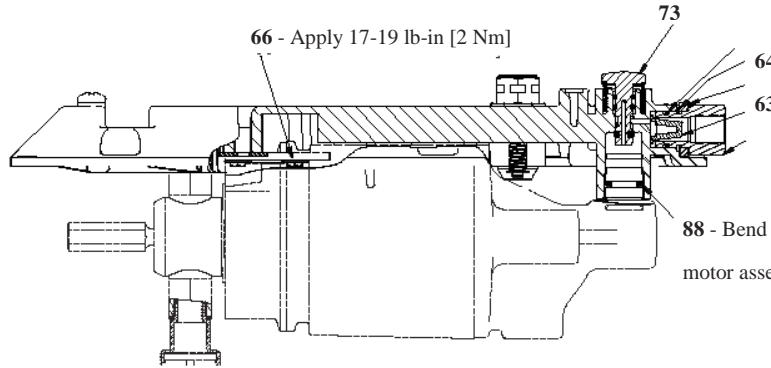
- Notes:**
1. Apply 20-25 lb-in [1 Nm] of torque to Item #30.
 2. Lubricate seals with a moderate amount of DS-ES grease.
 3. Lubricate seal and bore with a light coating of HF100 Hydraulic Fluid.
 4. Install Item #39 into Item #40 until firmly seated.
 5. Install screws in a circular pattern. Apply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

Repair Parts List for Figure 5			
Item	Part Number	Qty.	Description
30	★DA7085028	1	Screw – .250-20 Special
31	★DA3706120	1	B/U Washer
32	★DC2234051	1	Piston
33	★B1013503	1	O-Ring
34	★B1001503	1	O-Ring(.12 x .25 x .06)
35	DC2200900SR	1	Air Motor, Complete
36	★B1260503	1	O-Ring
39	A1006245	1	1/16 Flush Plug w/Sealant
41	DC2261628	4	Screw, Torx (.25-20 x .75 lg.)
42	DC2182099	1	Extension Fitting, Air Motor
43	★DA5521149	1	Retaining Pin
44	DA4122051SR	1	Air Motor Piston Assembly
47	★B1282503	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				

*Items included in and available only as part of Repair Kit DC2234900SR.
Also included in complete Pump Repair Kit PATG1100K.

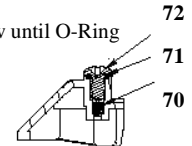


CAUTION: Do not attempt to remove or otherwise damage the air-switch button (item 73). Removal will damage the sealing surfaces molded in the reservoir cover.

Apply Lubriplate 630-AA

Install screw until O-Ring

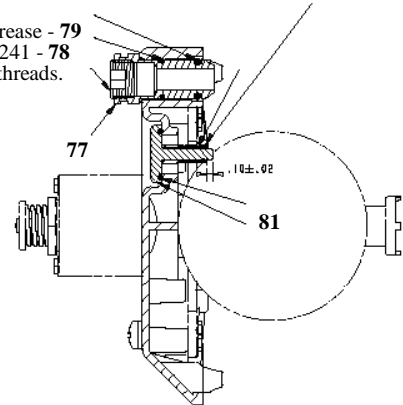
88 - Bend clip to retain motor assembly.



SECTION C-C

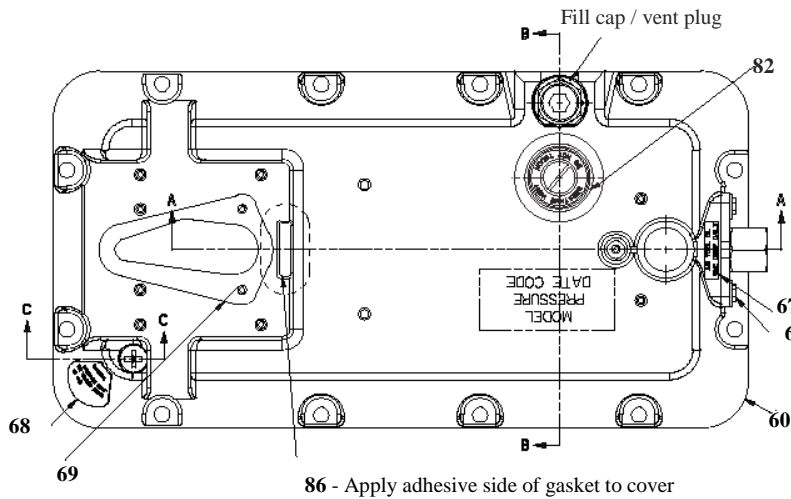
85 - Locking tabs on retaining ring must be pointed away from spring

Lubricate with Lubriplate DS-ES grease - 79
Apply Loctite PST 59241 - 78
or Vibraseal to threads.



SECTION B-B

66 - Apply 17-19 lb-in [2 Nm] of torque



86 - Apply adhesive side of gasket to cover

Figure 6

Repair Parts List for Figure 6				Repair Parts List for Figure 6			
Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
60	DC3913900SR	1	Cover Assy. (includes 61-87)	73	Not serviceable	1	Air Button
61	DA5295034	1	Swivel Coupler	77	DA4871118	1	Breather
62	★DA5015118SR	1	Filter	78	A1009245	1	3/8 Flush Plug W/Sealant
63	DA4847799	1	Stamped Bracket	79	★DA5349503	1	O Ring (Wear Coated)
64	DA5026349	1	Ret. Ring	80	★B1010503	1	O Ring
65	★B1220503	1	O Ring Ref B839503	81	DC708440	1	Poppet
66	DA5938028	6	Hi Lo Screw	82	U972038026-2	1	Breather Vent Decal
67	U972038026-3	1	Air Tool Oil Decal	83	B1224503	1	O Ring Ref J711041
68	DA7931026	1	Caution Decal	84	DC821110	1	Compression Spring
69	★DA6957037	1	Gasket	85	DC4077160	1	3/16" Retainer
70	★DA4390118	1	Filter	86	★DA6956037	1	Gasket
71	★B1005503	1	O Ring	88	★DA5521149	1	Retaining Pin
72	DC1522028	1	Phillips Heads Screw				

★ Items included in Pump Repair Kit PATG1100K.



Notes:

1. Torque Item #19 to 72—78 ft-lbs. [98-105 Nm] with threads lubricated
2. Torque Item #11 to 17—19 in-lbs. [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 $\frac{1}{8}$.219 ball to a force of 95—105 lbs. [444 N]

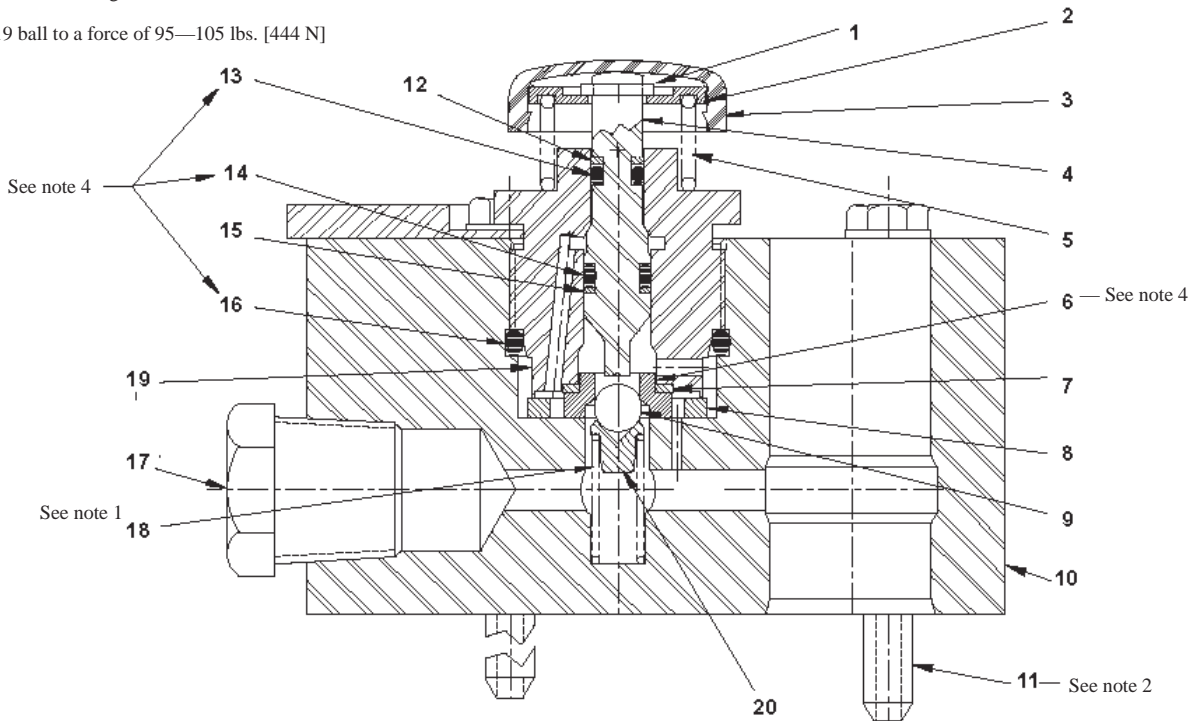


Figure 7

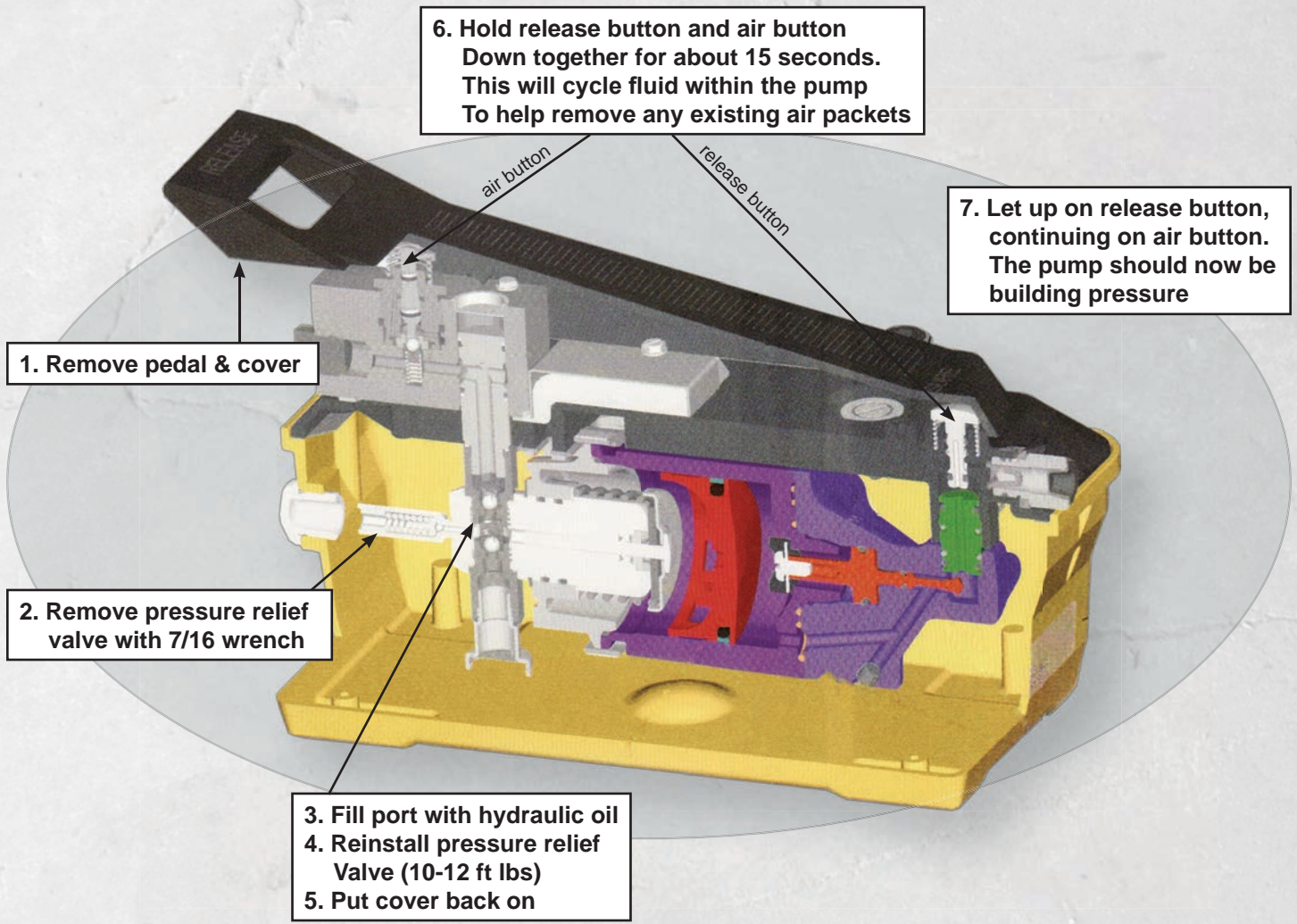
Repair Parts List for Figure 7							
Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
1	*DA5025349	1	Ret. Ring	11	DA4294028	4	Thd. Form Screw
2	DA4848108	1	Spring Washer	12	*B1006564	1	B/U Washer
3	*DA4831020	1	Cap	13	*B1001503	1	O-Ring (.12 x .25 x .06)
4	DA4832040	1	Release Plunger	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 PATG1100K.





TURBO II AIR HYDRAULIC PUMP MAINTENANCE INSTRUCTIONS



*Directions apply to the following models of ESCO Turbo II Air Hydraulic Pumps:
10500, 10502 and 10504*



15270 Flight Path Drive • Brooksville, FL 34604
Phone (352) 754-1117 • Toll Free (800) 352-9852 • Fax (352) 754-4508
Web: <http://www.esco.net> • Email: sales@esco.net



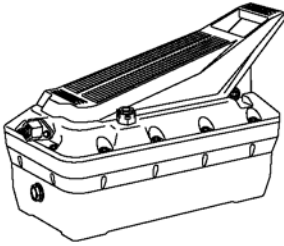


Repair Parts Sheet

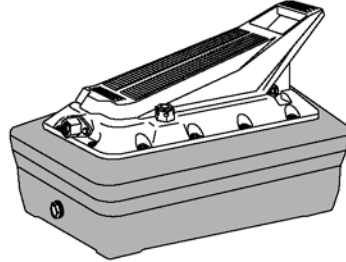
Turbo Air Hydraulic Pump

Model 10500, 10502, 10504
(AHP-15T, AHP-25TP, AHP35T)

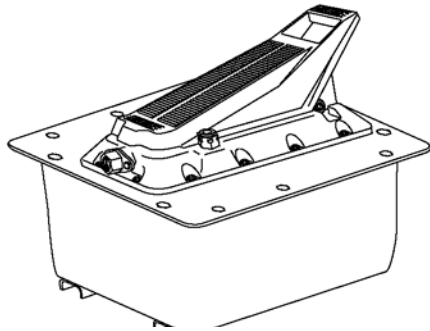
INSTALL ALL KIT COMPONENTS TO INSURE OPTIMUM PERFORMANCE OF THE REPAIRED PUMP.



AHP-15T
(10500)



AHP-25TP
(10502)



AHP-35T
(10504)

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

1. Remove cover.
2. Remove relief valve.
3. Fill chamber with oil.
4. Replace relief valve. Apply Loctite 545 to threads and torque to 10-12 ft-lbs. [14-16 Nm].
5. Replace pump cover. Tighten every other fastener around the perimeter of the cover in one continuous direction. Torque screws to 25-30 in-lbs.

Model Number	Use Repair Part Kit:
AHP-15T (10500)	PAT1053K1
AHP-25TP (10502)	PAT1105K
AHP-35T (10504)	910018AK1



CAUTION

AHP Air Hydraulic Pumps and all tire tools, should be used only by persons properly trained according to OSHA regulation #29CFR1910.177, "Servicing Single-Piece & Multi-Piece Wheels."

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Figure 1 - AHP-15T (10500) & AHP-25TP (10502) Reservoir Cover & Treadle

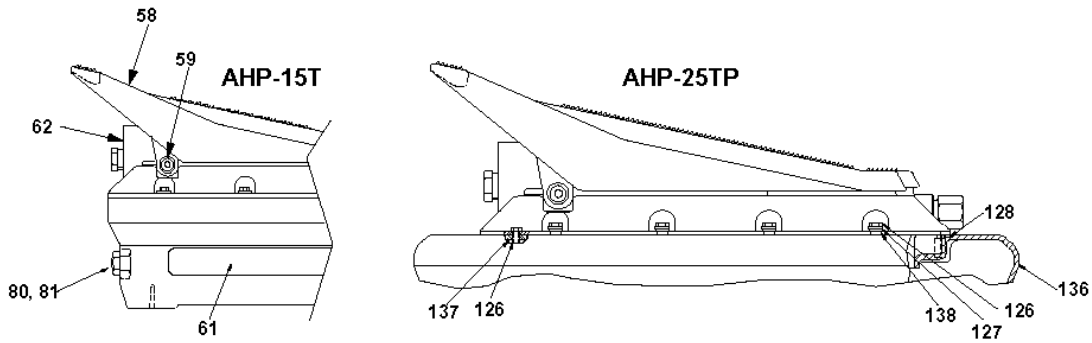
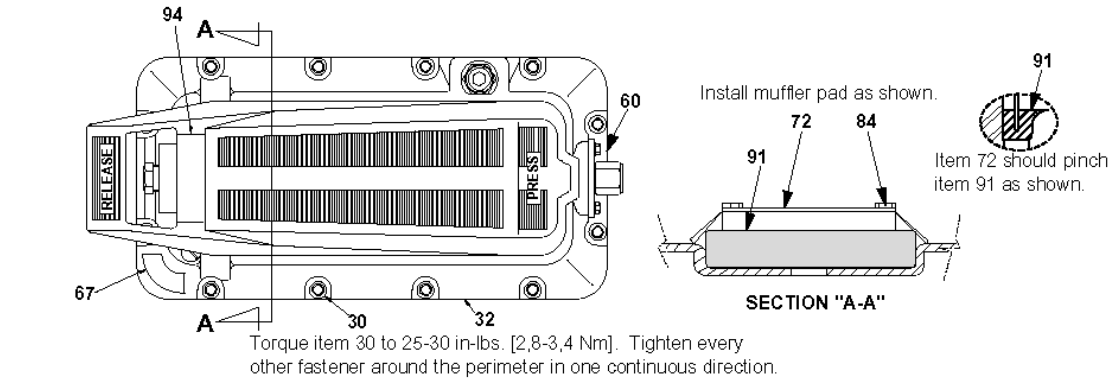
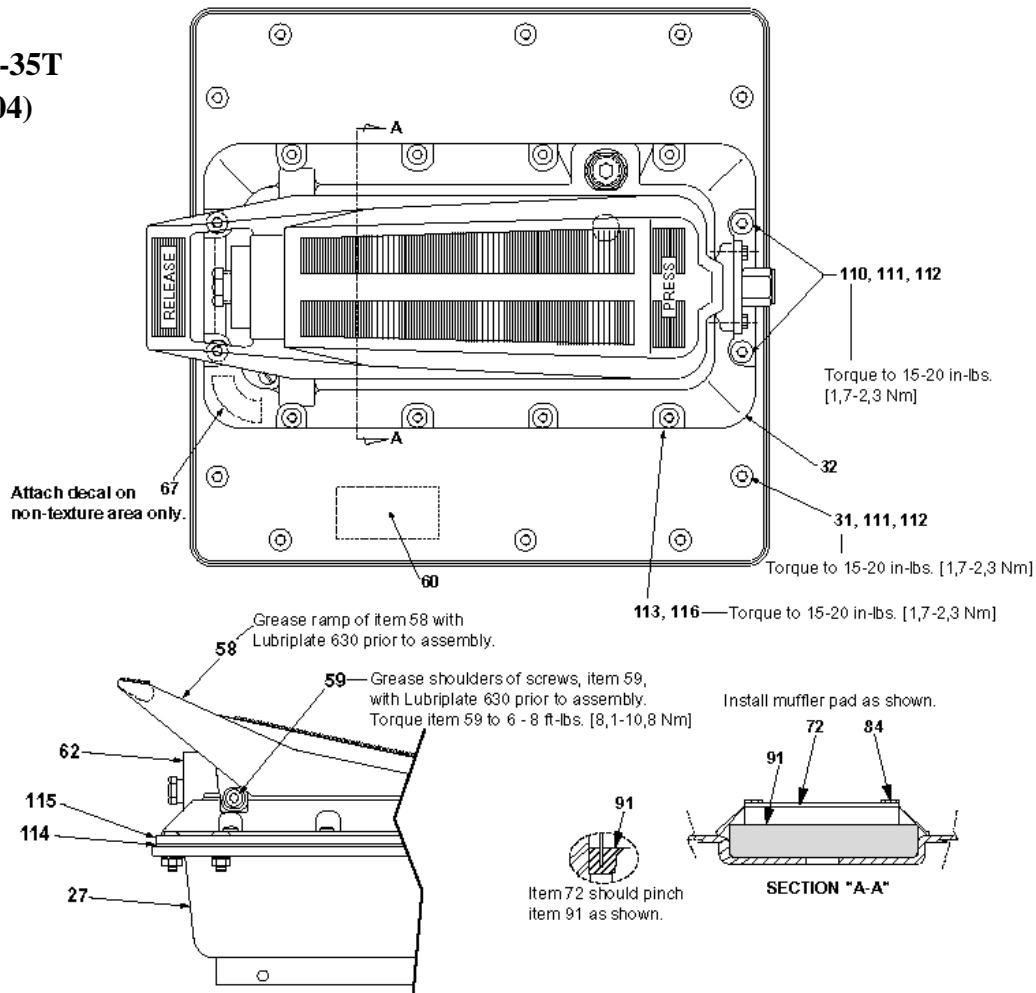


Figure 2 - AHP-35T (10504) Reservoir Cover & Treadle

**AHP-35T
(10504)**

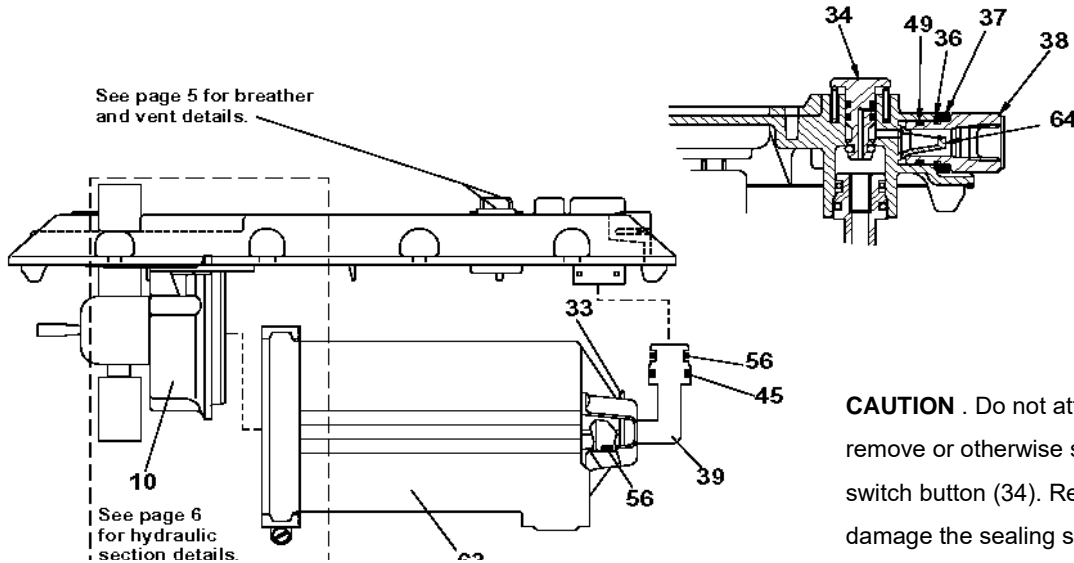


REPAIR PARTS LIST FOR FIGURES 1 and 2							
Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
27	DA5528025	1	3.5 Qt. Reservoir (AHP-15T)	84	CU874028	2	Screw
	DC975286	1	5 Qt. Reservoir (AHP-25TP)	91	DA8625116	1	Muffler
	DA11741025	1	2 Gal Reservoir (AHP-35T)	94	DA6773026	1	Decal
30	DA5938028	16	Hi Lo Screw (AHP-15T)	110	*DA6197028	4	Screw (AHP-35T)
31	B2525028	10	BHC Screw	111	B1001122	14	Hex Nut (AHP-35T)
32	DA4890020SR	1	Yellow Cover Ass.y See Figure 3.	112	B1015066	14	Washer (AHP-35T)
58	DA4849218	1	Treadle	113	*DC1063108	8	Sealing Washer (AHP-35T)
59	DA4236242	2	Shoulder Screw	114	*DA11720037	1	Resv. Gasket (AHP-35T)
60	DA10143026	1	Model Number Decal (blank)	115	DA11730101	1	Plate (AHP-35T)
61	DC1146026	1	ESCO Decal (AHP-15T, AHP-35T)	116	B2521028	8	BHC Screw (AHP-35T)
	DC825026	1	ESCO Decal (AHP-25TP)	126	DC1161046	16	Hex Hd. Mach. Screw (AHP-25TP)
62	DA4836900SR	1	Release Valve Ass.y See Figure 9.	127	*DC1162108	12	Sealing Washer (AHP-25TP)
67	DA5789026	1	Caution Decal	128	*DC714517	1	O-Ring Gasket Cover (AHP-25TP)
72	DA5690098	1	Muffler Cover	137	DC973101	2	Plate Reservoir Cover (AHP-25TP)
80	DC85900SR	1	Sight Glass Ass.y. (AHP-15T, AHP-25TP)	138	*DC1160186	12	Nylon Spacer (AHP-25TP)
81	B1016123	1	Hex Nut (AHP-15T, AHP-25TP) Included in DC85900SR (above)				

*Items included in and available only as part of Repair Kit. See front cover for the correct Repair Kit for your pump.



Figure 3 - Cover Assembly Side View



CAUTION . Do not attempt to remove or otherwise service the air switch button (34). Removal will damage the sealing surfaces molded in the reservoir cover.

Replacement Reservoir Cover Includes:

- 1. air button assembly (34)
- 2. reservoir safety relief (44,65,66,75)
- 3. breather seals (50, 51)

5. valve block-hydraulic tube seals (50, 51)

6. valve block gasket (95)

See Item 32 on page 2 for part numbers for the Replacement

REPAIR PARTS LIST FOR FIGURE 3							
Item	Part Number	Quantity	Description	Item	Part Number	Quantity	Description
10	DA4287111	1	Mounting Bracket	39	DA7059900	1	Elbow Assembly
33	HPP179017	1	Retaining Ring	45	★DA5521149	1	Retaining Pin
34	not serviceable	1	Air Button Assembly	49	★B1220503	1	O-Ring
36	HDA5026349	1	Retaining Ring	56	★B1009503	2	O-Ring (included with DA7059900 Elbow Assembly above)
38	DA5295034	1	Swivel Coupler	63	DA4283900SR	1	Air Motor Assembly
				64	★DA5015118SR	1	Filter

Figure 4- Cover Assembly Tool

Use the cover assembly tool to push the retaining ring (Figure 5, item 132) onto the poppet (Figure 5, item 130).

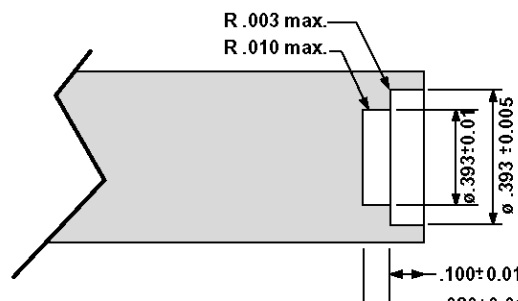
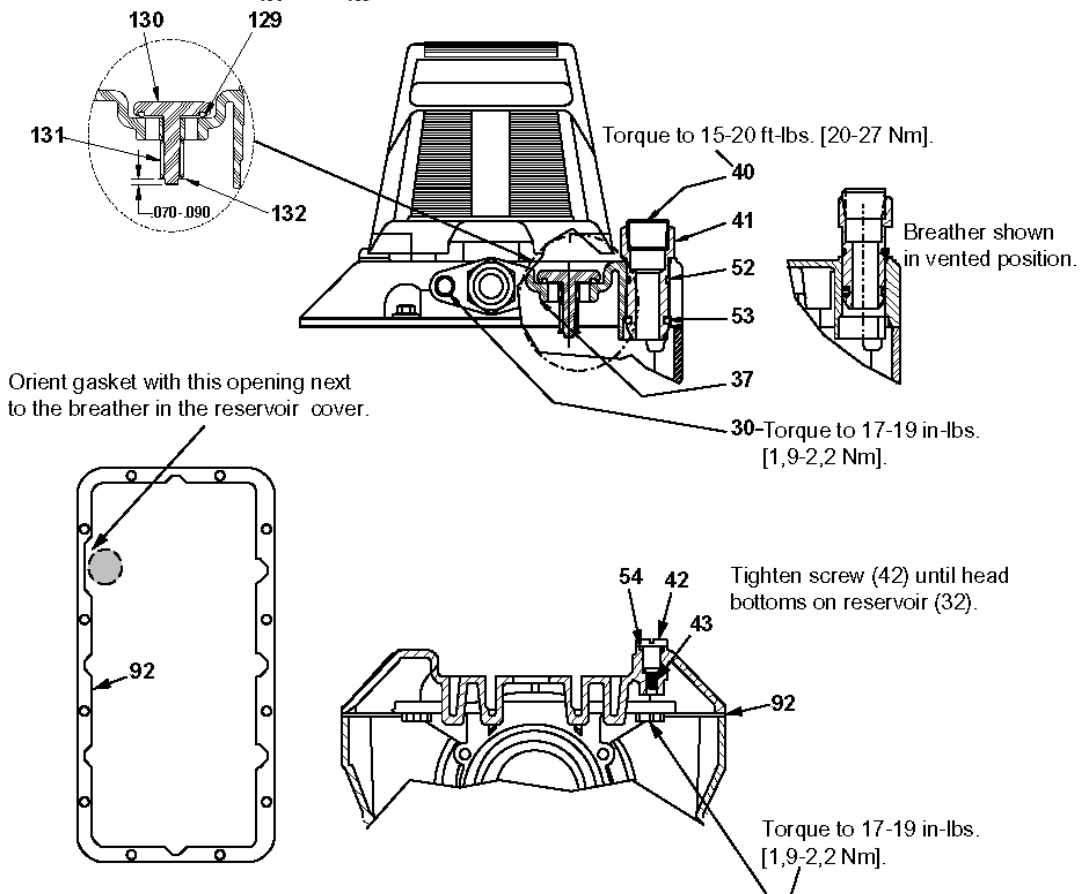


Figure 5 - Reservoir End View



REPAIR PARTS LIST FOR FIGURE 5

Item	Part Number	Quantity	Description	Item	Part Number	Quantity	Description
30	DA5938028	6	Hi Lo Screw	54	★B1005503	1	Seal
37	DA4847799	1	Stamped Bracket	92	★DA6328167	1	Resv. Gasket (AHP-15T)
40	†A1009245	1	Plug		★ DA7933167	1	Resv. Gasket (AHP-35T)
41	DA4871118SR	1	Breather Assembly	129	▲★DC1224503	1	O-Ring
42	DC1522028	1	Phillips Head Screw	130	★DC708044SR	1	Cover Relief Assembly
43	DA4390118	1	Filter	131	▲★DC821110	1	Compression Spring
52	†▲★DA5349503	1	Wear Coated O-Ring	132	▲★DC822044	1	Star Washer
53	†★B1010503	1	O-Ring				

★Items included in and available only as part of Repair Kit. See front cover for the correct Repair Kit for your pump.

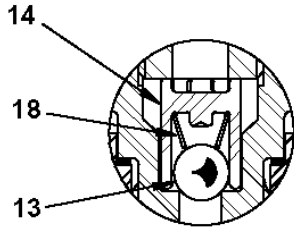
† Included as part of breather assembly DA4871118SR.

▲ Included as part of cover Relief Assembly DC708044SR.

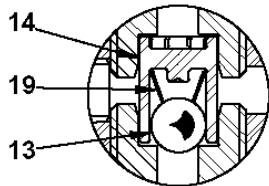


Figure 6 - Hydraulic Section Detail

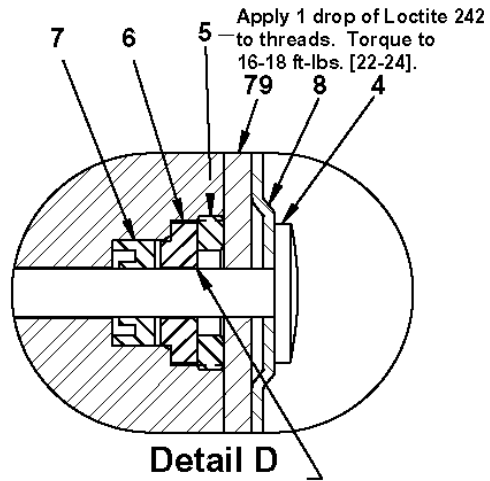
NOTE: The step seal, item 7, is very difficult to install without the seal tools in Figures 7 and 8.



Detail F



Detail E



Detail D

Torque to 31-35 ft-lbs [42-47 Nm].
(Dry threads)



Detail "J"

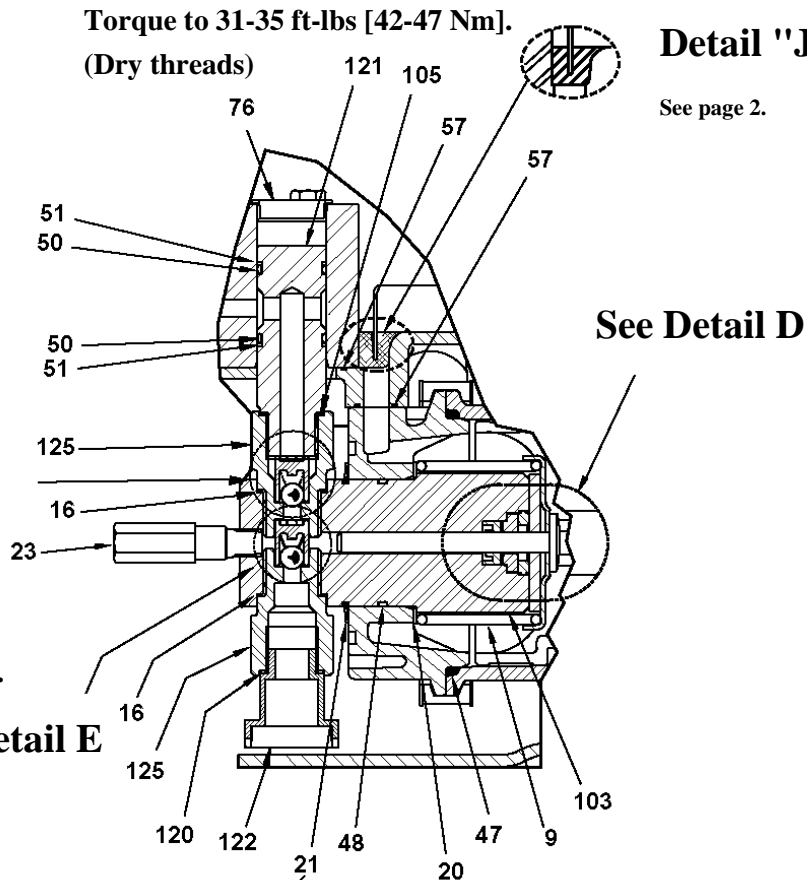
See page 2.

Torque to 31-35 ft-lbs.[42-47 Nm].
(Dry threads)

See Detail F

Apply Loctite 545 to threads. Torque to 10-12 ft-lbs. [14-16 Nm].

Detail E



See Detail D

Convex side must face air motor.



REPAIR PARTS LIST FOR FIGURE 6

Item	Part Number	Quantity	Description	Item	Part Number	Quantity	Description
4	CB180040	1	Plunger	48	★B1258503	1	O-Ring
5	★DA1204044	1	Bearing Retainer	50	★B1016803	2	O-Ring
6	★CB624108	1	Back-Up Bearing	51	★DA4974367	2	Back-Up Ring
7	HCB918041	1	U-Cup	57	★DA12342037	1	Gasket Set
8	DA4284108	1	Spring Washer	76	★DA5854009	1	Caplug
9	DA4285110	1	Spring	79	★DA6600108	1	Rubber Washer
13	HB1007016	1	Ball	103	DC114030	1	Cylinder
14	HDA3682013	2	Ball Guide	105	★DC170167	1	Copper Gasket
16	HDA3811167	2	Copper Gasket	120	★B1221503	1	O-Ring
18	DA4874110	1	Conical Spring	121	DC5268SR	1	Pressure Tube Ass.y.
19	HDA6911210	1	Conical Spring	122	DC442900SR	1	Intake Tube Ass.y. (AHP-15T, AHP-25T)
20	★DA4298108	1	Washer		DC460900SR	1	Intake Tube Ass.y. (AHP-35T)
21	★DA4343044	1	Bowed Retaining Ring	105	★DC170167	1	Copper Gasket
23	DA8802900SR	1	Relief Valve Assembly	125	DC283290SR	2	Seat
47	★B1282503	1	O-Ring				

★Items included in and available only as part of Repair Kit. See front cover for the correct Repair Kit for your pump.

Figure 7 - Seal Push Tool

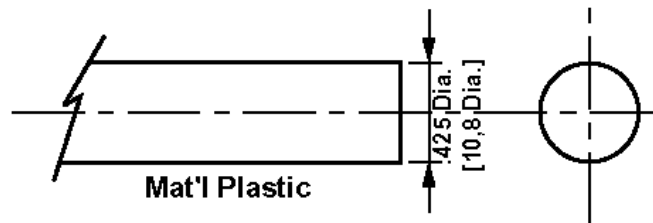
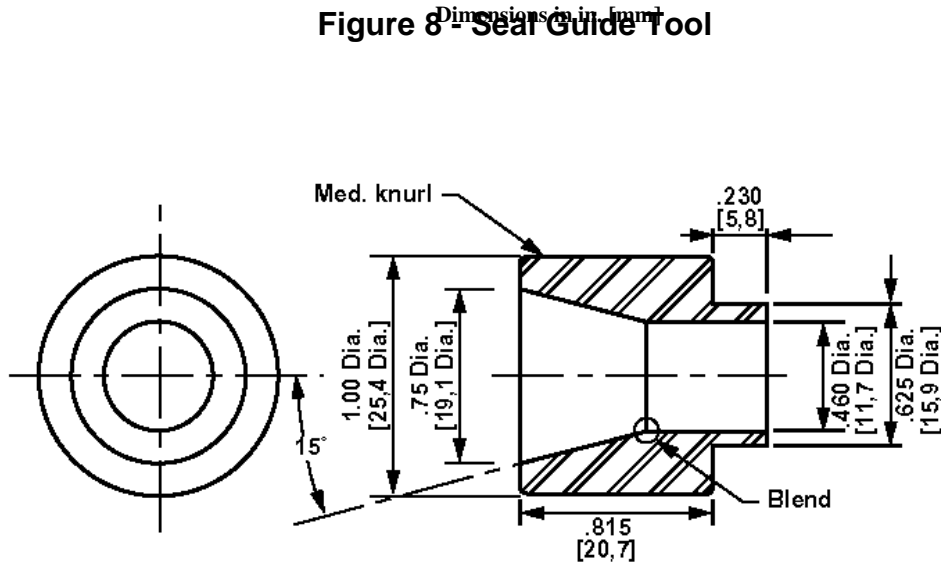


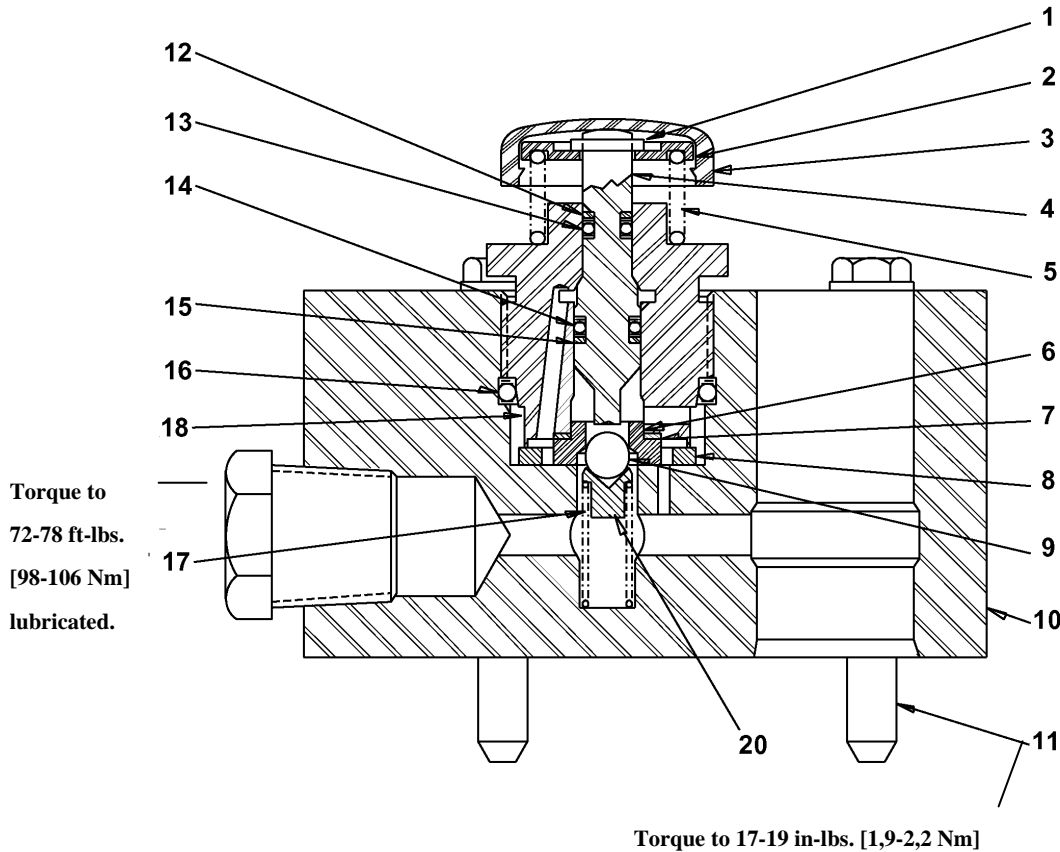
Figure 8 - Seal Guide Tool



Mat'l Plastic



Figure 9 - Release Valve



REPAIR PARTS LIST FOR FIGURE 9

Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
1	★DA5025349	1	Retaining Ring	11	DA4294028	4	Thread Forming Screw
2	DA4848108	1	Spring Washer	12	★B1006564	1	Back-Up Washer
3	★DA4831020	1	Cap	13	★B1001503	1	O-Ring
4	DA4832040	1	Release Plunger	14	★B1003503	1	O-Ring
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	★CJ656110	1	Spring
8	★CL344167	1	Gasket	18	DA4872013SR	1	Release Guide Ass.y.
9	★B1006016	1	Ball	20	★DA7572013	1	Ball Guide
10	DA4836900SR	1	Complete Valve Ass.y.				

★Items included in and available only as part of Release Valve Repair Kit DA4836900K1.
One Release Valve Repair Kit is included in the Pump Repair Kit. See front cover for the correct Repair Kit for your pump.

