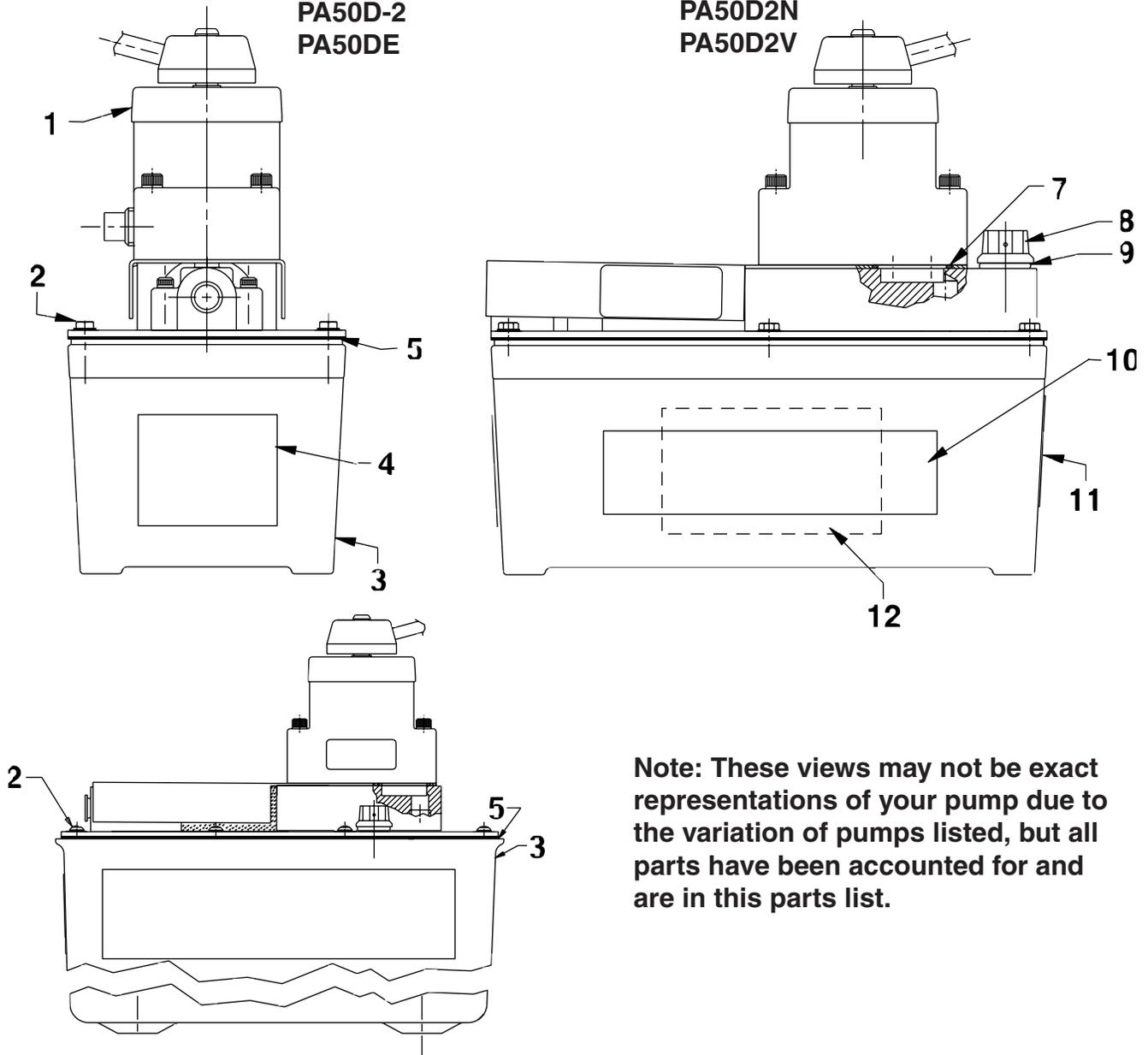


## MODEL G AIR HYDRAULIC PUMP

This section is for these following models:

PA50D  
PA50D-AUTOROBOT  
PA50D-BID  
PA50D-2  
PA50DE

PA50DN  
PA50DV  
PA50D2E  
PA50D2N  
PA50D2V



Two gal on reservoir

**Note:** These views may not be exact representations of your pump due to the variation of pumps listed, but all parts have been accounted for and are in this parts list.

# Parts List, Form No. 101955, Back sheet 1 of 4

Item No.	Part No.	No. Req'd	Description
1	52514	1	Manual Pump Mount Valve (For PA50D, PA50D-AUTOROBOT, PA50D-BID & PA50D-2; See Form #100661)
2	211060	6	Screw (9-15 X 1; Torque to 25/30 in. lbs.; For PA50D, PA50D-AUTOROBOT, PA50D-BID)
	252168	10	Screw (1/4-10 X 1; For PA50D-2)
3	61243	1	Reservoir (1 gal. plastic)
	61165	1	Reservoir (2 gal. plastic)
4	305494	1	Instruction Decal (For PA50D-AUTOROBOT & PA50D-2)
5	*33853	1	Reservoir Gasket (For PA50D, PA50D-AUTOROBOT, PA50D-BID, PA50DE, PA50DN & PA50DV)
	*47409	1	Reservoir Gasket (For PA50D-2, PA50D2E, PA50D2N & PA50D2V)
6	40063OR9	1	Reservoir (2 gal. metal; For PA6DM-2)
	41300WH2	1	Reservoir (2 gal. metal; For PA6DM & PA6DM-DE-STA-CO)
	64153OR9	1	Reservoir (2 gal. metal; For PA6DM-1)
7	*16684	1	O-ring (1.18 X 1.0; For PA50D, PA50D-AUTOROBOT, PA50DN & PA50D2N)
	18874	1	O-ring (1.18 X 1.0; For PA50DV & PA50D2V)
	17718	1	O-ring (1.18 X 1.0; For PA50DE & PA50D2E)
	*12779	1	O-ring (.93 X .81; For PA50D-BID)
8	251689	1	Filler/Breather Cap
9	*10273	1	O-ring (.81 X .62; For all except PA50DE, PA50DV, PA50D2E & PA50D2V)
	18999	1	O-ring (.81 X .62; For PA50DV & PA50D2V)
	250157	1	O-ring (.81 X .62; For PA50DE & PA50D2E)
10	305496	1	Tradename Decal (For PA50D-BID)
	305496CE	1	Tradename Decal (For PA50D)
	213883	1	Tradename Decal (For PA50D-AUTOROBOT)
	309219	2	Tradename Decal (For PA50R2)
	309219CE	2	Tradename Decal (For PA50D-2)
11	251762	1	Warning Decal (For PA50D-BID)
12	350568	1	Instruction Decal (For PA50D-AUTOROBOT)

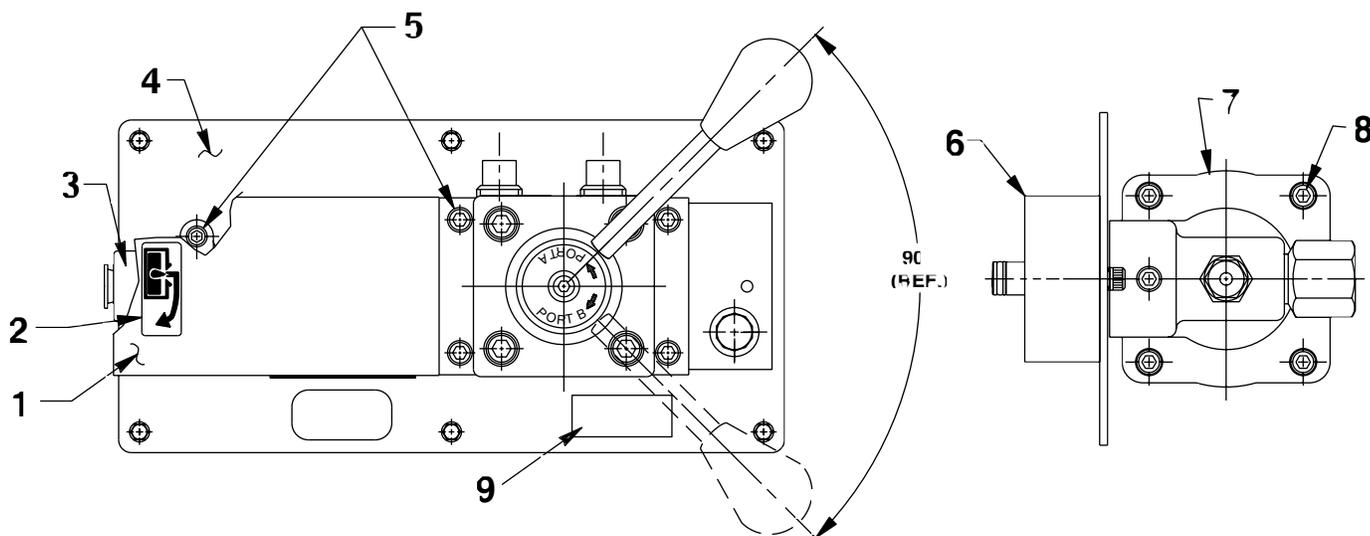
### PARTS INCLUDED BUT NOT SHOWN

252168	4	Screw (1/4-10 X 1 ; For PA50D-2; For pump mounting purposes only.)
10474	1	90° Elbow Fitting (3/8 NPTF; For PA50D-BID)
12328	1	Straight Fitting (1/4 NPTF; For PA50D-BID)
12546	1	Plastic Cap (For PA50D-BID)
251319	1	Plug Fitting (1/4 PTF; For PA50D-BID)

Part numbers marked with an asterisk (\*) are contained in a repair kit see sheet 4 of 4 for individual repair kit information.



TOP & END VIEW



**Note:** These views may not be exact representations of your pump due to the variation of pumps listed, but all parts have been accounted for and are in this parts list.

Item No.	Part No.	No. Req'd	Description
1	351134BK2	1	Foot Plate (For all except PA50D-BID)
2	251757	1	Decal (For all except PA50D-BID)
3	37199	1	Air Intake Manifold (For all except PA50D-BID)
	309246	1	Air Intake Manifold (For PA50D-BID)
4	421166BK2	1	Cover Plate (For all except PA50D2E, PA50D-2, PA50D2N & PA50D2V)
	58705BK2	1	Cover Plate (For PA50D-2, PA50D2E, PA50D2N & PA50D2V)
5	11151	6	Screw (10-24 UNC X 1-1/4 Lg.; Torque to 50/60 in. lbs.)
6	58695	1	Manifold (For PA50D, PA50D-AUTOROBOT, PA50DE, PA50DN & PA50DV)
	58691	1	Manifold (For PA50D-BID)
	58714	1	Manifold (For PA50D-2, PA50D2E, PA50D2N & PA50D2V)
7	64767	1	Pump Body
8	17428	4	Screw (1/4-20 X 3-1/2; Torque to 85/95 in. lbs., oiled; Note: cross torque in increments of 30 in. lbs.)
9	205724	1	Attention Decal (For PA50DV & PA50D2V)
	250328	1	Attention Decal (For PA50DE & PA50D2E)

**PARTS INCLUDED BUT NOT SHOWN**

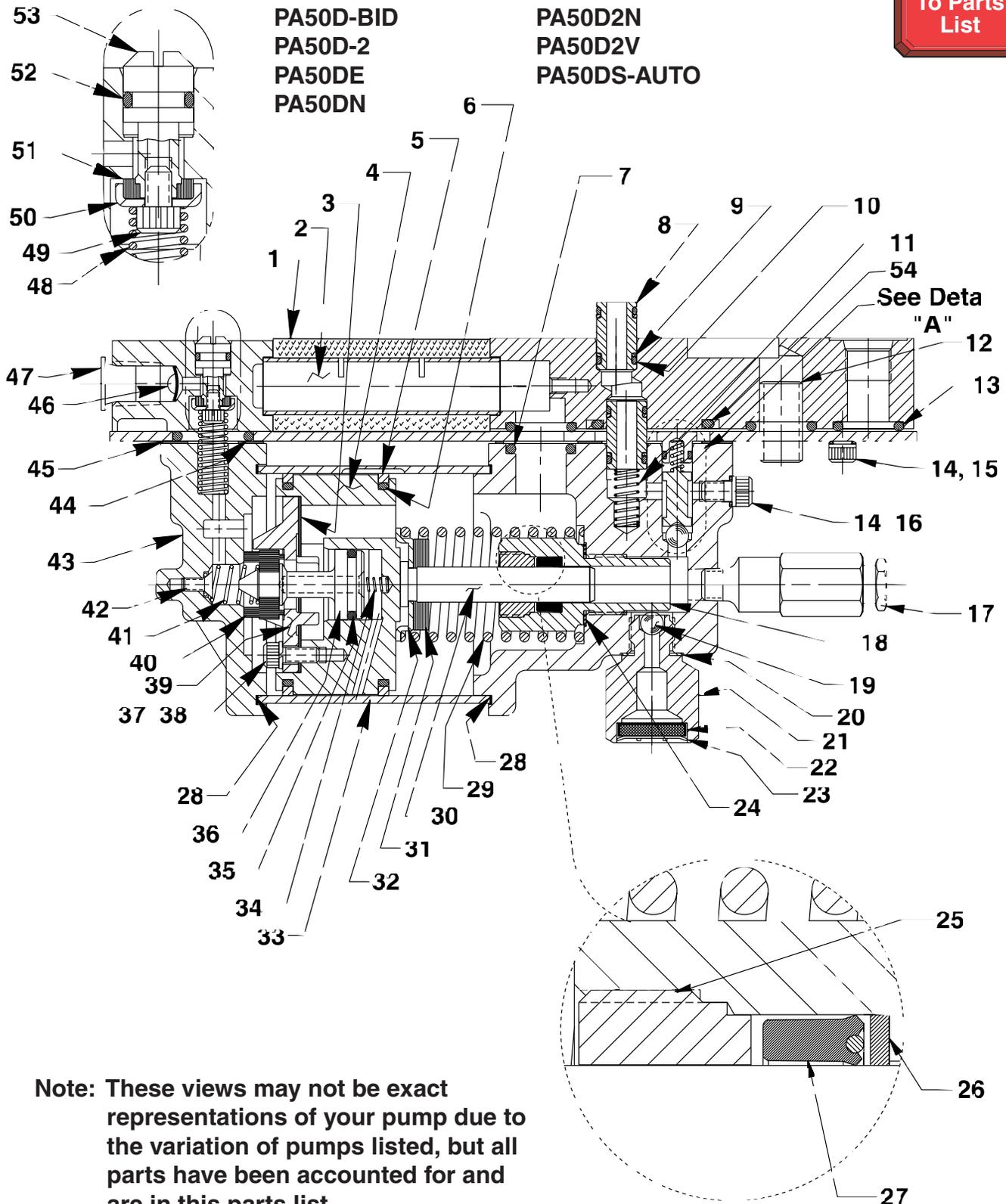
10469	1	Straight Fitting (3/8 NPTF; For PA50D-2)
10470	1	90° Elbow Fitting (3/8 NPTF; For PA50D-2)
10672	1	Straight Fitting (1/4 NPTF; For PA50D-BID)
11127	2	Plug Fitting (3/8 NPTF; For PA50D-2)

Part numbers marked with an asterisk (\*) are contained in a repair kit see sheet 4 of 4 for individual repair kit information.

## BASIC PUMP ASSEMBLY

This view covers these following pumps:

- |                 |             |
|-----------------|-------------|
| PA50D           | PA50DV      |
| PA50D-AUTOROBOT | PA50D2E     |
| PA50D-BID       | PA50D2N     |
| PA50D-2         | PA50D2V     |
| PA50DE          | PA50DS-AUTO |
| PA50DN          |             |



**Note:** These views may not be exact representations of your pump due to the variation of pumps listed, but all parts have been accounted for and are in this parts list.

Item No.	Part No.	No. Req'd	Description	Item No.	Part No.	No. Req'd	Description
1	*29992	1	Foam Tube	16	10002	1	Screw (1/4-20 X 3/8; Torque to 90/110 in. lbs.)
2	28387	1	Muffler	17	-----	-	Relief Valve (When ordering a replacement relief valve refer to stamped number on the outside of the relief valve. See note below. Apply loctite 592 [Power Team #905516] or equiv. & torque to 150/170 in. lbs.)
3	*28239	1	Gasket	18	421642	1	Cylinder Blank (Torque to 90/100 ft. lbs., oiled)
4	52390	1	Piston Body	19	*10423	1	Ball (9/32 Dia.)
5	*14265	2	Piston Ring (2.77 X 2.54)	20	*10261	1	Special Washer (.75 X .60)
6	*251835	2	O-ring (2-1/2" X 2-5/16" X 3/32; For all except PA50DV, PA50DE, PA50D2E & PA50D2V)	21	48010	1	Filter Adapter (Torque to 40/50 ft. lbs., oiled; For all except PA50D-2, PA50D2E, PA50D2N & PA50D2V; See sheet 4 of 4 for pumps with 2 gal. reservoirs.)
	251865	2	O-ring (2.31 X 2.12; For PA50DV & PA50D2V)	22	214578	1	Filter (For all reservoir sizes except 2 gal. reservoirs built after June 1, 1998)
	251866	2	O-ring (2.31 X 2.12; For PA50DE & PA50D2E)	23	214586	1	Retaining Ring (.63 X .015; For all reservoir sizes except 2 gal. reservoirs built after June 1, 1998)
7	*10272	1	O-ring (.75 X .56; For all except PA50DV, PA50DE, PA50D2E & PA50D2V)	24	*10263	1	Special Washer (1.0 X .77)
	18998	1	O-ring (.75 X .56; For PA50DV & PA50D2V)	25	*351662	1	Retainer (See Detail; Note: See "INSTRUCTIONS FOR RETAINER REPLACEMENT" on back sheet 4 of 4.)
	250194	1	O-ring (.75 X .56; For PA50DE & PA50D2E)	26	*12488	1	Backup Washer
8	21094	2	Bushing	27	*253095	1	U-cup
9	*11863	4	Backup Washer (.50 X .38)	28	*17429	2	Backup Washer (2.94 X 2.75)
10	*10268	4	O-ring (.50 X .37; For all except PA50DV, PA50DE, PA50D2E & PA50D2V)	29	*13938	1	Spring (1.452 O.D. X 4.4)
	19775	4	O-ring (.50 X .37; For PA50DV)	30	28400	1	Piston (7/16")
	17716	4	O-ring (.50 X .37; For PA50DE & PA50D2E)	31	202613	1	Bumper
	11439	4	O-ring (.50 X .37; For PA50D2V)	32	211082	1	Spring Guide
11	16448	1	Spring (.31 O.D. X .81)	33	37434	1	Air Cylinder (Note: Locate groove on upper half (top) of pump with chamfered tube end towards rear head as shown.)
12	15024	1	Straight Fitting (1/4 NPTF; For PA50DE, PA50DN & PA50DV)	34	*12692	1	Spring (3/16 O.D. X 1.70)
13	*10276	2	O-ring (1.0 X .75; For PA50D-2 & PA50D2N)	35	*211052	1	O-ring (.90 X .70; For all except PA50DE, PA50DV, PA50D2E & PA50D2V)
	*10276	3	O-ring (1.0 X .75; For PA50D, PA50D-AUTROBOT, PA50D-BID, PA50DN & PA50DS-AUTO)		250192	1	O-ring (.90 X .70; For PA50DV & PA50D2V)
	19026	2	O-ring (1.0 X .75; For PA50D2V)		250193	1	O-ring (.90 X .70; For PA50DE & PA50D2E)
	19026	3	O-ring (1.0 X .75; For PA50DV)	36	305475	1	Exhaust Valve Stem
	250188	2	O-ring (1.0 X .75; For PA50D2E)	37	*10241	3	Lockwasher (.33 X .20)
	250188	3	O-ring (1.0 X .75; For PA50DE)	38	211054	3	Screw (10-24 X 1/2; Torque to 50/55 in. lbs.)
14	*10442	1	Special Washer (.37 X .25; For PA50D-2, PA50D2E, PA50D2N & PA50D2V)	39	33822	1	Piston End Plate Casting
	*10442	2	Special Washer (.37 X .25; For PA50D, PA50D-AUTROBOT, PA50D-BID, PA50DE, PA50DN, PA50DS-AUTO & PA50DV)	40	*28183	1	Piston Poppet
15	10807	1	Screw (1/4-20 X 1/2; For PA50D, PA50D-AUTROBOT, PA50D-BID, PA50DE, PA50DN, PA50DS-AUTO & PA50DV)	41	*205679	1	Spring (.49 O.D. X .92)

-Continued-

Part numbers marked with an asterisk (\*) are contained in a repair kit see sheet 4 of 4 for individual repair kit information.

**NOTE:**

Standard relief valves are set at 10,100/10,700 PSI.

Relief valves pre-set at special settings are available.

Refer to your pump model number or contact Power Team Technical Services.

Note: Shaded areas reflect last revision(s) made to this form.



Sheet No. 3 of 4

Rev. 4 Date: 2 April 2001

# Parts List, Form No. 101955, Back sheet 3 of 4

Item No.	Part No.	No. Req'd	Description
42	*205674	1	Screw (8-32 X 3/8; Torque to 12/18 in. lbs.)
43	51480	1	Rear Head
44	*251717	1	O-ring (1.0 X .62; For all except PA50DE, PA50DV, PA50D2E & PA50D2V)
	251718	1	O-ring (1.0 X .62; For PA50DV & PA50D2V)
	251719	1	O-ring (1.0 X .62; For PA50DE & PA50D2E)
45	*351021	1	Coverplate Gasket
46	*216296	1	Filter Disc (For all except PA50D-BID)
47	14794	1	Plastic Cap (For all except PA50D-BID)
48	12691	1	Spring (.36 O.D. X 1.50; For all except PA50D-BID)
49	13936	1	Screw (8-32 X 1/4; For all except PA50D-BID)
50	28198	1	Seal Guide (For all except PA50D-BID)
51	*28182	1	Air Valve Poppet (For all except PA50D-BID)
52	*10267	1	O-ring (.43 X .31; For all except PA50D-BID, PA50DV, PA50DE, PA50D2E & PA50D2V)

Item No.	Part No.	No. Req'd	Description
	18974	1	O-ring (.43 X .31; For PA50DV & PA50D2V)
	13472	1	O-ring (.43 X .31; For PA50DE & PA50D2E)
53	33841	1	Actuator Button (For all except PA50D-BID)
54	*11841	1	O-ring (1.62 x 1.37 Nitrile)
	251695	1	O-ring (1.62 x 1.37 EPR)
	19035	1	O-ring (1.62 x 1.37 Viton)

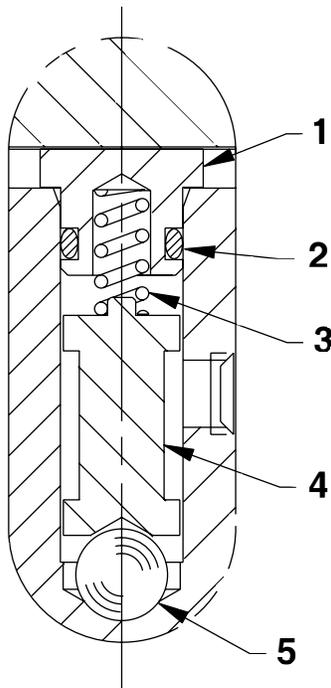
### PARTS INCLUDED BUT NOT SHOWN

10427	1	Plug Fitting (1/8 NPTF; For PA50D-AUTOROBOT)
15426	1	Straight Fitting (1/4 NPTF; For PA50D-AUTOROBOT)

Part numbers marked with an asterisk (\*) are contained in a repair kit see sheet 4 of 4 for individual repair kit information.



## DETAIL "A-3"

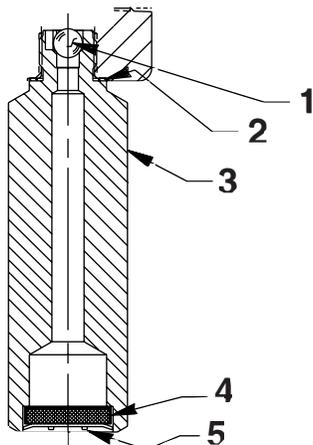


Item No.	Part No.	No. Req'd	Description
1	36497	1	Check Valve Retainer
2	*211053	1	O-ring (.37 X .25; For all except PA50DE, PA50DV, PA50D2E & PA50D2V)
	11438	1	O-ring (.37 X .25; For PA50DV & PA50D2V)
	17715	1	O-ring (.37 X .25; For PA50DE & PA50D2E)
3	*10445	1	Spring (.16 O.D. X .72)
4	202568	1	Ball Guide
5	*10423	1	Ball (9/32")

Part numbers marked with an asterisk (\*) are contained in a repair kit see sheet 4 of 4 for individual repair kit information.

### FILTER ADAPTER ASSEMBLY BEFORE 6/1/98

For 2 Gallon Reservoirs Only

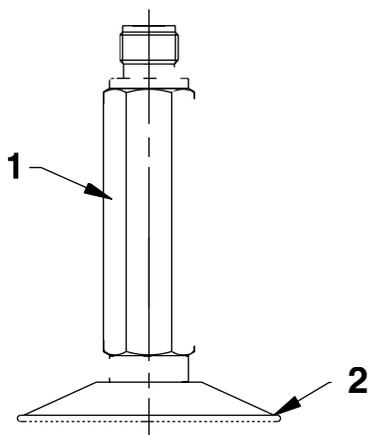


Item No.	Part No.	No. Req'd	Description
1	*10423	1	Ball (9/32 Dia.)
2	*10261	1	Special Washer (3/4 x 19/32 x 1/32)
3	48008	1	Filter Adapter (Torque to 40/50 ft. lbs., oiled; For PA50D-2, PA50D2E, PA50D2N & PA50D2V)
4	214578	1	Filter
5	214586	1	Retaining Ring (.63 x .015)

Part numbers marked with an asterisk (\*) are contained in a Repair Kit see sheet 4 of 4 for individual repair kit information.

### FILTER ADAPTER ASSEMBLY AFTER 6/1/98

For 2 Gallon Reservoirs Only  
(Reference Part Number 48008)



Item No.	Part No.	No. Req'd	Description
1	422017	1	Filter Adapter
2	29682	1	Filter

### REPAIR KITS

**No. 300962**

PA50D  
PA50DN

**No. 300961**

PA50D-2  
PA50D2N

**No. 300963**

PA50D-AUTOROBOT  
PA50D-BID

## INSTRUCTIONS FOR RETAINER REPLACEMENT

Your pump's retainer is locked into place by one of the two following methods. Determine which method was used on your pump's retainer, then follow the appropriate steps to remove the old and install and stake the new.

### Method 1 - Retainer shows no sign of stake marks

1. This retainer has been locked in place with a Loctite product. To replace it, a moderate amount of heat needs to be applied to the cylinder nut (in the area of the retainer) to soften the existing Loctite allowing it to be removed.
2. Install the new retainer into the cylinder nut and torque to 80/100 in. lbs. **Note: Do not use a Loctite product this time but stake the new retainer in place according to instructions in Step 3.**
3. To lock retainer into place, use a center punch positioned in the seam between the retainer and the cylinder nut and stake the new retainer in two places approximately 180° apart.

### Method 2 - Retainer has two stake marks in the seam between the retainer and the cylinder nut

1. For replacement of this retainer, the stake marks must be removed. Using a 1/8" or larger diameter drill bit, remove the existing stakes by drilling a short distance into the stake marks. Remove the retainer.
2. Install the new retainer into the cylinder nut and torque to 80/100 in. lbs.
3. To lock retainer into place, use a center punch positioned in the seam between the retainer and the cylinder nut and stake the new retainer in two places approximately 180° apart.

**NOTE: Do not stake in the old stake marks.**

