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Internet Address: http://www.powerteam.com

**Parts List for:** 

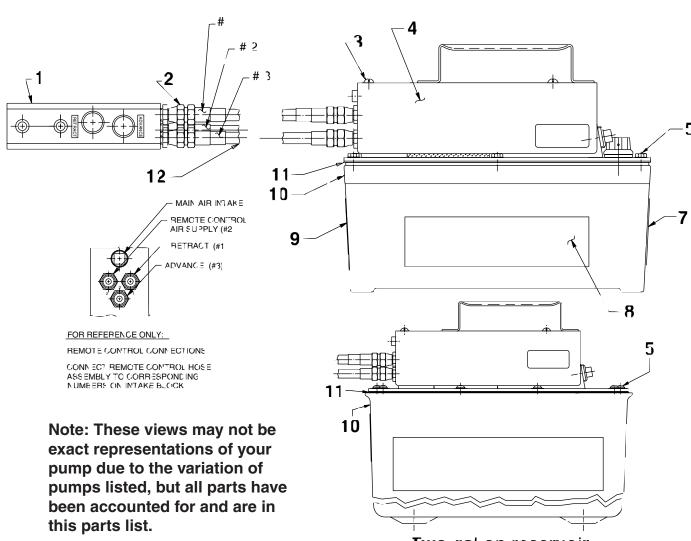
**PA50R Series** 

# MODEL G AIR HYDRAULIC PUMP

This section is for these following models:

PA50R PA50RV
PA50RE PA50R2
PA50RM PA50R2E
PA50RN PA50R2N
PA50R2V





Two gal on reservoir

Sheet No.

Rev. 5 Date: 2 April 2001

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Item	Part	No.	
No.	No.	Req'd	Description
1	44025	1	Remote Hand Switch Assembly (For all except PA50R2; See form #100426)
	421265	1	Remote Hand Switch Assembly (For PA50R2; See form #100426)
2	208218	6	Straight Fitting (1/8 NPTF; For PA50R, PA50RM & PA50R2)
3	10164	4	Screw (10-24 X 3/8)
4	41605BK2	1	Shroud
5	211060	6	Screw (9-15 X 1"; For plastic reservoir; Torque to 25/35 in. lbs.)
	215952	6	Screw (10-24 X 5/8; For metal reservoir)
	252168	10	Screw (1/4-10 X 1"; For PA50R2)
7	251762	1	Warning Decal (For PA50R, PA50RM, PA50R2, PA50R2E, PA50R2N & PA50R2V)
8	305496CE	1	Tradename Decal (For PA50R, PA50RM)
	309219CE	1	Tradename Decal (For PA50R2)
9	305494	1	Instruction Decal (For PA50R2, PA50R2E, PA50R2N & PA50R2V)
10	61243	1	Reservoir (plastic)
	41300WH2	1	Reservoir (metal)
	61165	1	Reservoir (For PA50R2)
11	*33853	1	Reservoir Gasket (For all except PA50R2, PA50R2N, PA50R2V & PA50R2E)
	*47409	1	Reservoir Gasket (For PA50R2, PA50R2E, PA50R2N & PA50R2V)
12	45052	12'	Three-Strand Hose (For PA50R, PA50RM & PA50R2; Note: Connect hose ass'y to hand control and pump as shown. Color coded or numbered ends must correspond to numbers on the hand control and pump unit.)

#### PARTS INCLUDED BUT NOT SHOWN

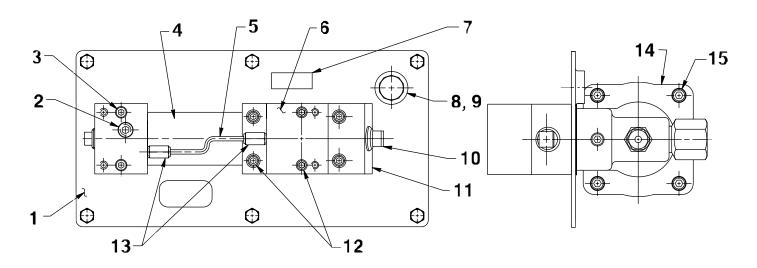
252168 4 Screw (1/4-10 X 1"; For pump mounting purposes only.; For PA50R2)
211060 4 Screw (9-15 X 1"; For pump mounting purposes only.; For PA50R)

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



Parts List Form No. 101954

# **TOP & END VIEWS**



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.

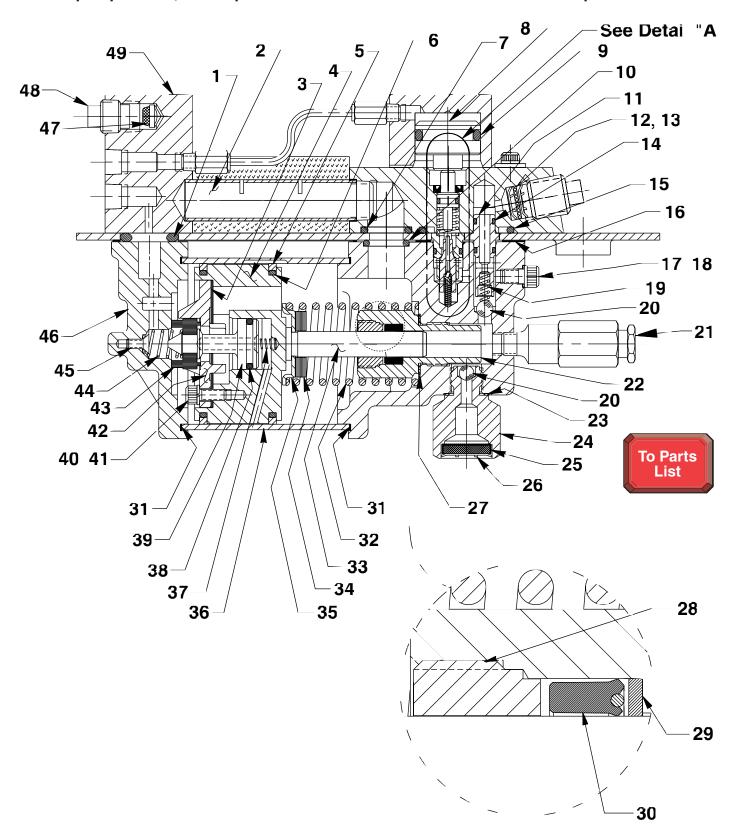
Iten No.		No. Req'd	Description
-110.		1109 4	500011011
1	420965BK2	1	Cover Plate (For all except PA50R2, PA50R2E, PA50R2N & PA50R2V)
	58706BK2	1	Cover Plate (For PA50R2, PA50R2E, PA50R2N & PA50R2V)
2	15499	1	Plug Fitting (1/8 PTF)
3	14423	2	Screw (10-24 X 2)
4	*29992	1	Foam Tube
5	14281	.3 ft	Nylon Tubing
6	34759	1	Piston Relief Valve Body
7	205724	1	Attention Decal (For PA50RV & PA50R2V)
	250328	1	Attention Decal (For PA50RE & PA50R2E)
8	251689	1	Filler/Breather Cap
9	*10273	1	O-ring (.81 X .62; For all except PA50RE, PA50RV, PA50R2E & PA50R2V)
	18999	1	O-ring (.81 X .62; For PA50RV & PA50R2V)
	250157	1	O-ring (.81 X .62; For PA50RE & PA50R2E)
10	58682	1	Release Valve Body
11	11127	1	Plug Fitting (3/8 NPTF)
12	11151	6	Screw (10-24 X 1-1/4"; Torque to 50/60 in. lbs.)
13	250725	2	Straight Fitting (1/16 NPTF)
14	64767	1	Pump Body
15	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.)

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

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# **BASIC PUMP ASSEMBLY**

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. 101954

Item No.	Part No.	No. Req'd	Description	Item No.	Part No.	No. Req'd	Description
1	*251717	1	O-ring (1.0 X .62; For all except PA50RE, PA50RV, PA50R2E & PA50R2V)	14	*12522	2	O-ring (.37 X .25; Urethane; For all except PA50RV, PA50RE, PA50R2V & PA50R2E)
	251718	1	O-ring (1.0 X .62; For PA50RV & PA50R2V)		11438	2	O-ring (.37 X .25; For PA50RV & PA50R2V)
	251719	1	O-ring (1.0 X .62; For PA50RE & PA50R2E)		17715	2	O-ring (.37 X .25; For PA50RE & PA50R2E)
2	28387	1	Muffler	15	*11841	1	O-ring (1.62 X 1.37; For all except
3	*28239	1	Gasket	. •		•	PA50RV, PA50RE, PA50R2V &
4	52390	1	Piston Body				PA50R2E)
5	*14265	2	Piston Ring (2.77 X 2.54)		19035	1	O-ring (1.62 X 1.37; For PA50RV &
6	*251835	2	O-ring (2-1/2" X 2-5/16" X 3/32; For all				PA50R2V)
			except PA50RE, PA50RV, PA50R2E & PA50R2V)		251695	1	O-ring (1.63 X 1.38; For PA50RE & PA50R2E)
	251865	2	O-ring (2.31 X 2.12; For PA50RV &	16	*351021	1	Cover Plate Gasket
			PA50R2V)	17	*10442	1	Copper Washer (.37 X .25)
_	251866	2	O-ring (2.31 X 2.12; For PA50RE & PA50R2E)	18	10002	1	Screw (1/4-20 X 3/8; Torque to 90/110 in. lbs.)
7	*10276	1	O-ring (1.0 X .75; For all except	19	*10445	1	Spring (.16 O.D. X .72)
			PA50RE, PA50RV, PA50R2E & PA50R2V)	20	*10423	2	Ball (9/32" dia.)
	19026	1	O-ring (1.0 X .75; For PA50RV & PA50R2V)	21		-	Relief Valve (When ordering a replacement relief valve refer to
	250188	1	O-ring (1.0 X .75; For PA50RE & PA50R2E)				stamped number on the outside of the relief valve. See note below.
8	*10272	1	O-ring (.75 X .56; For all except PA50RV, PA50RE, PA50R2E & PA50R2V)				Apply loctite 592 [Power Team #905516] or equiv. & torque to 150/170 in. lbs.)
	18998	1	O-ring (.75 X .56; For PA50RV & PA50R2V)	22	421642	1	Cylinder Blank (Torque to 90/100 ft. lbs. oiled)
	250194	1	O-ring (.75 X .56; For PA50RE &	23	*10261	1	Copper Washer (.75 X .60)
	200107	•	PA50R2E)	24	48010	1	Filter Adapter (For all except
9	34757	1	Piston Release				PA50R2, PA50R2N, PA50R2V &
10	*208144	1	O-ring (1.12 X .87; For all except				PA50R2E; Torque to 40/50 ft. lbs.
10	200144	ļ	PA50RE, PA50RV, PA50R2E & PA50R2V; Apply lubricant)	0.E	014570	4	oiled; See sheet 4 of 4 for pumps with 2 gal. reservoirs.)
	19028	1	O-ring (1.12 X .87; For PA50RV & PA50R2V; Apply lubricant)	25	214578	1	Filter (For all reservoir sizes except 2 gal. reservoirs built after June 1, 1998)
	19386	1	O-ring (1.12 X .87; For PA50RE & PA50R2E; Apply lubricant)	26	214586	1	Internal Retaining Ring (.63 X .015; For all reservoir sizes except 2 gal. reservoirs built after
11	34378	1	Check Valve Body				June 1, 1998)
12	*250638	1	Oil Filter Disc	27	*10263	1	Special Washer (1.0 X .77)
13	*11088	2	Internal Retaining Ring (.31 X .010)	<u> </u>	10203	'	-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.



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Rev. 5 Date: 2 April 2001

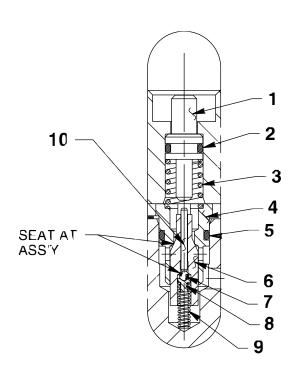
# Parts List, Form No. 101954, Back sheet 3 of 4

Item No.	Part No.	No. Req'd	Description
28	*351662	1	Retainer (Note: See "INSTRUCTIONS FOR RETAINER REPLACEMENT" on back sheet 4 of 4.)
29	*12488	1	Backup Washer
30	*253095	1	U-Cup
31	*17429	2	Backup Washer (.94 x .75)
32	*13938	1	Spring (1.45 O.D. x 4.4)
33	28400	1	Piston (7/16")
34	202613	1	Bumper
35	211082	1	Spring Guide
36	37434	1	Air Cylinder (Note: Locate groove on upper half (top) of pump with chamfered tube end towards rear head as shown.)
37	*12692	1	Spring (.18 O.D. X 1.70)
38	*211052	1	O-ring (.90 X .70; For all except PA50RE, PA50RV, PA50R2E & PA50R2V)
	250192	1	O-ring (.90 X .70; For PA50RV & PA50R2V)
	250193	1	O-ring (.90 X .70; For PA50RE & PA50R2E)

Item No.	Part No.	No. Req'd	Description
39	305475	1	Exhaust Valve Stem
40	*10241	3	Lockwasher (.33 X .20)
41	211054	3	Screw (10-24 X 1/2; Torque to
			50/55 in. lbs.)
42	33822	1	Piston End Plate Casting
43	*28183	1	Piston Poppet
44	*205679	1	Spring (.49 O.D. X .92)
45	*205674	1	Screw (8-32 X 3/8; Torque to 12/18 in.
			lbs.)
46	51480	1	Rear Head
47	*216296	1	Filter
48	13272	1	Plug Fitting To
			(1/4 NIDT)
49	41601	1	Manifold Drawing

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

#### **DETAIL "A-2"**



Item	Part	No.	
No.	No.	Req'd	Description
1	28227	1	Release Valve Button
2	*10266	1	O-ring (.37 X .25; For all except PA50RE, PA50RV, PA50R2E & PA50R2V)
	11438	1	O-ring (.37 X .25; For PA50RV & PA50R2V)
	17715	1	O-ring (.37 X .25; For PA50RE & PA50R2E)
3	*13944	1	Spring (.36 O.D. X .50)
4	34377	1	Poppet Retainer
5	*15279	1	O-ring (.50 X .37; For all except PA50RV, PA50RE, PA50R2V & PA50R2E)
	19775	1	O-ring (.50 X .37; For PA50RV & PA50R2V)
	17716	1	O-ring (.50 X .37; For PA50RE & PA50R2E)
6	29037	1	Release Valve Poppet
7	*14443	1	Ball (3/32")
8	209736	1	Ball Retainer
9	*13959	1	Spring (.12 O.D. X .50)
10	13937	1	Dowel Pin (.06 X .63; Note: Place tapered end toward ball.)

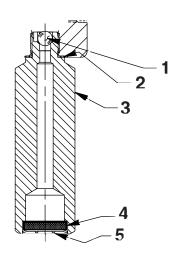
Part numbers marked with an asterisk (\*) are contained in a repair kit see sheet 4 of 4 for individual repair kit information.

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

Parts List Form No. 101954

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

For 2 Gallon Reservoirs Only

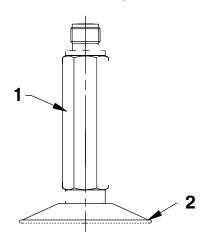


Item No.	Part No.	No. Req'd	Description
1	*10423	1	Ball (9/32 Dia.)
2	*10261	1	Special Washer (3/4 x 19/32 x 1/32)
3	48008	1	Filter Adapter (Torque to 40/50 ft. lbs., oiled; For PA50R2, PA50R2N, PA50R2V & PA50R2E)
4	214578	1	Filter
5	214586	1	Retaining Ring (.63 x .015)

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. 300961 PA50R2 PA50R2N No. 300965 PA50R PA50RM PA50RN

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#### INSTRUCTIONS FOR RETAINER REPLACEMENT

Your pump's retainer is locked into place by one of the two following methods. Determine which <u>method</u> 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.

