

Hydraulic Technologies 5885 11th Street Rockford, IL 61109-3699 USA powerteam.com Tech Services: (800) 477-8326 Fax: (800) 765-8326 Order Entry: (800) 541-1418 Fax: (800) 288-7031

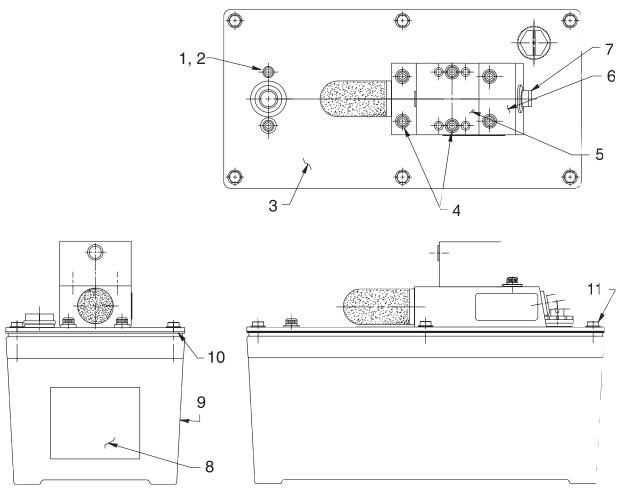
#### **Parts List for:**

AP02528 AP02529 AP03715 PA4-ADV

### **MODEL F**

## **AIR HYDRAULIC PUMP**

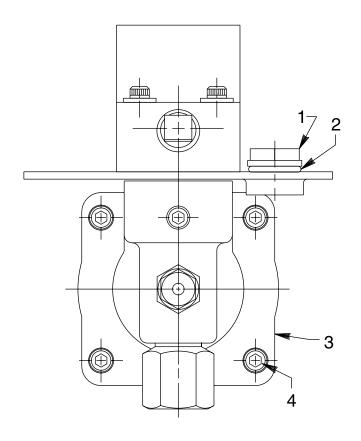
Max. Capacity: 7,400 PSI (510 Bar)



Item No.	Part No.	No. Req'd	Description	Item No.	Part No.	No. Req'd	I Description
1	11434	2	Cap Screw (10-24 UNC X 1/2 Lg.)	11	211060	6	Screw (#9-15 X 1" Lg.;
2	11089	2	Flat Washer (#10 bolt)				Torque to 25/30 in. lbs.)
3 4	20965BK2	1	Cover Plate				
4	11151	6	Cap Screw (10-24 UNC X 1-1/4" Lg.; Torque to 50/60 in. lbs.)		PARTS 211060		IDED BUT NOT SHOWN Screw (#9-15 X 1" Lg.;
5	420293	1	Valve Body				For mounting purposes only.)
6	58685	1	Release Valve Body				31 1 37
7	11127	1	Plug (3/8 NPTF)		Part num	nbers m	narked with an asterisk (*)
8	*305494	1	Decal				n Repair Kit No. 300838.
9	61243	1	Reservoir				,
10	*33853	1	Reservoir Gasket				

Rotary Lift No. IN30090

# BASIC PUMP ASSEMBLY END VIEW



Item No.	Part No.	No. Req'd	Description
1	251689	1	Filler/Breather Cap
2	*10273	1	O-ring (13/16 X 5/8 X 3/32)
3	64767	1	Pump Body
4	17428	4	Soc. Hd. Cap Screw (1/4-2 Torque to 85/95 in. lbs. oiled. Note: Cross torque in increment

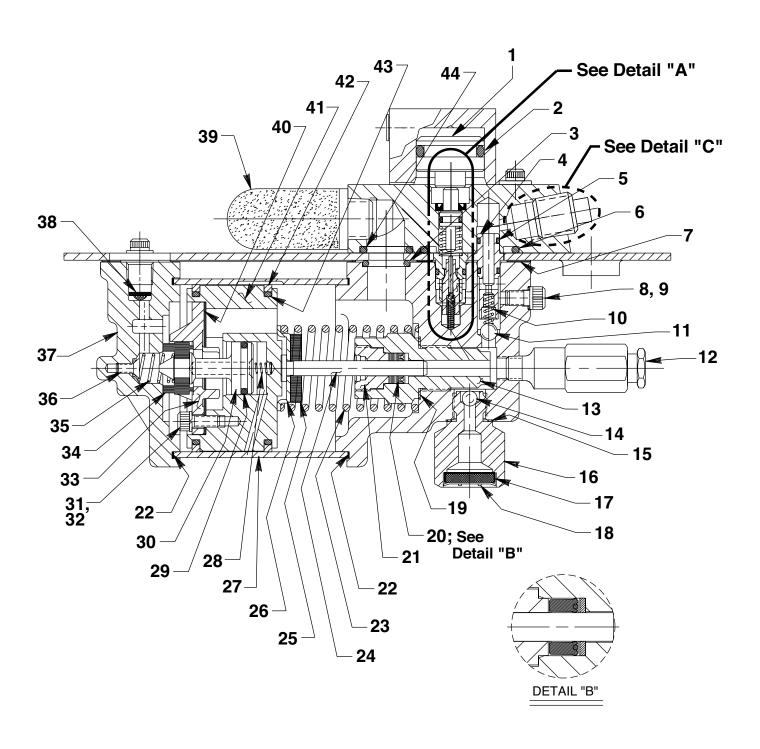
Part numbers marked with an asterisk (\*) are contained in Repair Kit No. 300838.

Refer to any operating instructions included with this product for detailed information about operation, testing, disassembly, reassembly, and preventive maintenance.

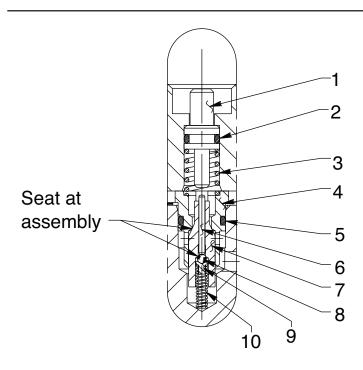
Items found in this parts list have been carefully tested and selected. **Therefore: Use only genuine Power Team replacement parts!** 

Additional questions can be directed to our Technical Services Department.

## **BASIC PUMP ASSEMBLY**



Item No.	Part No.	No. Req'd	Description	Item No.	Part No.	No. Req'd	Description
1	34757		Release Piston	22	*17429	2	Backup Washer
2	*208144	1	O-ring (1-1/8" X 7/8 X 1/8;				(2-15/16" X 2-3/4" X .045)
_			Apply Lubricant)	23	*13938	1	Compression Spring
3	*10272		O-ring (3/4 X 9/16 X 3/32)				(1.452 O.D. X 4-7/16" Lg.)
4	34378		Check Valve Body	24	28226		Piston
5 6	*12522		O-ring (3/8 X 1/4 X 1/16; Urethane)	25	203143		Bumper
6	*11841	1	O-ring (1-5/8" X 1-3/8" X 1/8)	26	210994		Spring Guide
7	*351021	1	Gasket	27	37434	1	Air Cylinder (Note: Locate groove
8	*10442		Copper Washer (3/8 X 1/4 X 1/32)				on upper half [top] of pump with
9	10002	1	Soc. Hd. Cap Screw (1/4-20 UNC				chamfered tube end towards rear
40	*40445		X 3/8 Lg., Torque to 90/110 in. lbs.)	00	*40000		head as shown.)
10	*10445	1	Compression Spring	28	*12692	1	Compression Spring
	*40400		(5/32 O.D. X 3/4 Lg.)	00	*044050		(3/16 O.D. X 1-11/16" Lg.)
11	*10423		Steel Ball (9/32 Dia.)	29	*211052		O-ring (.900 X .706 X .097)
12	21278-70	1	Relief Valve Ass'y (Apply loctite	30	305475		Exhaust Valve Stem
			(For PA4-ADV; 592 [Power	31	*10241	3	Lockwasher (For #10 bolt)
	21278-57	1	Set at 7,100/7,700 PSI) Relief Valve Ass'y (For AP02528;	32	211054	3	Soc. Hd. Cap Screw (#10-24 X 1/2 Lg.; Torque to 50/55 in. lbs.)
			Set at 5,800/6,400 PSI) or equiv. &	33	33822	1	End Piston Plate
	21278-60	1	Relief Valve Ass'y torque to	34	*28183		Piston Poppet
			(For AP03715; 150/170 in.	35	*205679		Compression Spring
			Set at 6,100/6,700 PSI) lbs.)				(.485 O.D. X .915 Lg.)
	21278-83	1	Relief Valve Ass'y	36	*205674	1	Flat Hd. Screw
			(For AP02529;				(8-32 UNC X 3/8 Lg.;
4.0	45070		Set at 8,400/9,000 PSI)				Torque to 12/18 in. lbs.)
13	45278	1	Piston Cylinder	37	37468	1	Rear Head
	*40075		(Torque to 90/100 ft. lbs. oiled)	38	*216296	1	Screen
14	*10375		Steel Ball (1/4 Dia.)	39	*250461	1	Muffler
15	*10261	1	Soft Copper Washer	40	*28239	1	Gasket
40	000000		(3/4 X 19/32 X 1/32)	41	52390	1	Piston Body
16	308893	1	Filter Adapter	42	*14265	2	Piston Seal
47	04.4570		(Torque to 40/50 ft. lbs. oiled.)	43	*251835	2	O-ring (2-1/2" X 2-5/16" X 3/32)
17	214578		Filter	44	*10276		O-ring (1" X 3/4 X 1/8)
18	214586		Retaining Ring (Internal)				
19	*10263	1	Soft Copper Washer		Part num	nbers m	arked with an asterisk (*)
20	*10004	4	(1" X .765 X 1/32)				Repair Kit No. 300838.
20 21	*13934 *304295	1	U-cup & Backup Retainer (Note: See "INSTRUCTIONS FOR RETAINER REPLACEMENT"		are com	aniou ii	Triopan intrio. 000000.

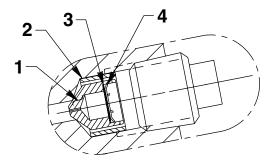


## **DETAIL "A"**

Item No.	Part No.	No. Req'd	Description
1	28227	1	Release Valve
2	*12522	1	O-ring (.37 X .25 Urethane)
3	*13944	1	Compression Spring
			(3/8 O.D. X 1/2 Lg.)
4	34377	1	Retainer Poppet
5	*13943	1	O-ring (1/2 X 3/8 X 1/16)
6	13937	1	Dowel Pin (Note: Place tapered end toward ball.)
7	29037	1	Release Valve Poppet
8	*14443	1	Steel Ball (3/32 Dia.)
9	209736	1	Ball Retainer
10	*13959	1	Compression Spring (1/8 O.D. X 1/2 Lg.)

Part numbers marked with an asterisk (\*) are contained in Repair Kit No. 300838.

## **DETAIL "C"** (FOR AP02528 & AP02529)



Item No.	Part No.	No. Req'd	Description
1	251966	1	Poppet (For AP02528)
	215868	1	Poppet (For AP02529)
2	214583	1	Retaining Sleeve
3	214596	1	Filter Disc
4	12201	1	Retaining Ring

### 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.

