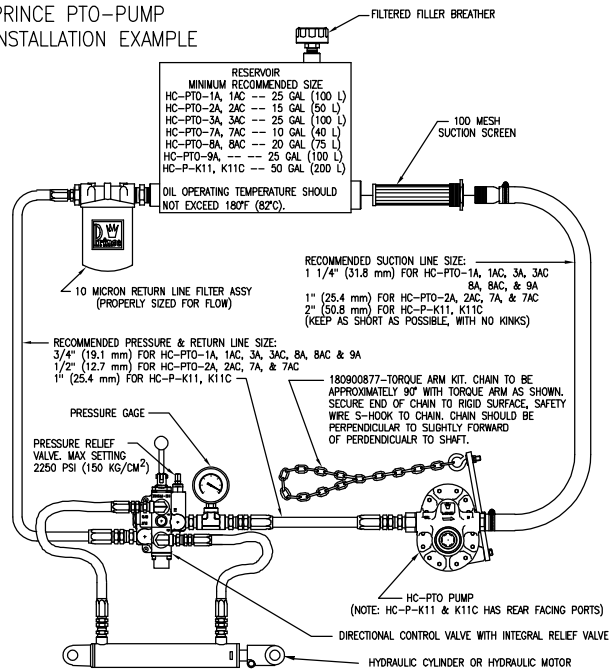


SYM.	REVISION
1	OUTLET ADAPTERS 500204011 WERE 500204010, ECN 11164, 7/12/96, MO
2	ADDED PART NO.'S AND SPECIFICATIONS FOR HC-P70-7A, 8A, 8A, 8A, & 9A PUMPS, ECN# 13961, 2-3-00, ADM.

PRINCE PTO-PUMP INSTALLATION EXAMPLE



PUMP MODEL	DESIGN RPM	MAXIMUM RPM	FLOW AT DESIGN RPM	INPUT POWER AT DESIGN RPM*	REQUIRED SHAFT TYPE
HC-P70-1A,1AC	540	600	21.0 gpm (79.5 l/min)	32.1 HP (23.5 kW)	1 3/8" (34.9 mm), 6 TOOTH
HC-P70-2A,2AC	540	600	11.4 gpm (43.1 l/min)	18.1 HP (13.5 kW)	1 3/8" (34.9 mm), 6 TOOTH
HC-P70-3A,3AC	1000	1100	22.4 gpm (84.8 l/min)	34.3 HP (25.6 kW)	1 3/8" (34.9 mm), 21 TOOTH
HC-P70-7A,7AC	540	600	7.1 gpm (26.9 l/min)	11.9 HP (8.9 kW)	1 3/8" (34.9 mm), 6 TOOTH
HC-P70-8A,8AC	1000	1100	13.5 gpm (51.1 l/min)	22.6 HP (16.7 kW)	1 3/8" (34.9 mm), 21 TOOTH
HC-P70-9A	540	600	17.1 gpm (64.7 l/min)	27.4 HP (20.4 kW)	1 3/8" (34.9 mm), 6 TOOTH
HC-P-K11,K11C	1000	1100	40.0 gpm (151 l/min)	64.8 HP (48.3 kW)	1 3/8" (34.9 mm), 21 TOOTH

*Numbers based on 2000 psi (140 Kg/cm²)

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PUMP INSTALLATION INSTRUCTIONS FOR MODELS:
HC-P70-1A, 1AC, 2A, 2AC, 3A, 3AC, 7A, 7AC
8A, 8AC, 9A & HC-P-K11, K11C

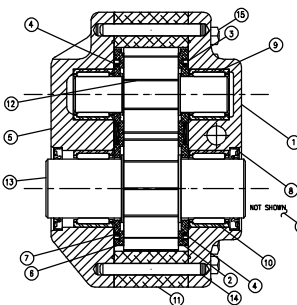
Prince PTO series pumps are specifically designed for PTO operation on agricultural tractors. In order to utilize these pumps to their full potential, please read the following and review the illustration on the back of this page before installation.

- OPEN CENTER:** Pump flow must return to the reservoir with the valve in the neutral position (valve must be an open center valve).
- PRESSURE:** Before installing, insure that the system has a relief valve set at or below rated pressure of 2250 psi (150 Kg/cm²).
- FILTRATION:** A 100 mesh suction strainer and a 10 micron return line filter, both sized properly for flow and both incorporating a "dirty filter" internal bypass filter are recommended. (Note: If the pump is being installed on a system where there has been a component that failed, the system should be cleaned out and new oil should be used.)
- HYDRAULIC FLUID:** Use a good quality mineral base hydraulic fluid with a viscosity of 70-250 sus (13-55 cSt) at system operating conditions. Depending on temperature, commonly used fluids are 10W, 20W, ISO32, ISO46 and ATF.
- TEMPERATURE:** If operating oil temperature exceeds 180°F (82°C), a larger reservoir or heat exchanger is required.
- TORQUE ARM:** Torque arm kit #180900877, with an 11" (280 mm) long torque arm and 800 lb (375 Kg) minimum working strength chain, is recommended. The chain should be approx. 90° to the torque arm and be secured to a rigid surface. The chain should be perpendicular to the PTO shaft to avoid an end thrust on the pump.
- SPLINE LENGTH:** Drive shaft must extend into pump a minimum of 3" (75 mm) for 6 tooth splines, 2 1/2" (60 mm) for 21 tooth splines.

PORTS: Ports are as shown. (Note, pumps are provided with a steel plug for the auxiliary outlet port and adapters shown.)

PUMP MODEL	INLET PORT RPM	INLET PORT TO HOSE ADAPTER (PRINCE PART No.)	AUXILIARY OUTLET PORT	REAR OUTLET PORT	OUTLET PORT TO PIPE ADAPTER (PRINCE PART No.)
HC-P70-1A & 1AC	#16 SAE O-RING	1 1/4" (31.8 mm) HOSE (270011013)	#12 SAE O-RING	#12 SAE O-RING	3/4" (19.1 mm) F. PIPE (500204011)
HC-P70-3A & 3AC	#16 SAE O-RING	1 1/4" (31.8 mm) HOSE (270011013)	#12 SAE O-RING	#12 SAE O-RING	3/4" (19.1 mm) F. PIPE (500204011)
HC-P70-2A & 2AC	#16 SAE O-RING	1" (25.4 mm) HOSE (270011017)	#12 SAE O-RING	#12 SAE O-RING	3/4" (19.1 mm) F. PIPE (500204011)
HC-P70-7A, 7AC	#16 SAE O-RING	1" (25.4 mm) HOSE (270011017)	#12 SAE O-RING	#12 SAE O-RING	3/4" (19.1 mm) F. PIPE (500204011)
HC-P70-8A & 8AC	#16 SAE O-RING	1 1/4" (31.8 mm) HOSE (270011013)	#12 SAE O-RING	#12 SAE O-RING	3/4" (19.1 mm) F. PIPE (500204011)
HC-P70-9A	#16 SAE O-RING	1 1/4" (31.8 mm) HOSE (270011013)	#12 SAE O-RING	#12 SAE O-RING	3/4" (19.1 mm) F. PIPE (500204011)
HC-P-K11 & K11C	#20 SAE O-RING	2" (50.8 mm) HOSE (270011046)	#12 SAE O-RING	#16 SAE O-RING	1" (25.4 mm) F. PIPE (500204012)

HC-P70 REPLACEMENT PARTS



ITEM	QTY	PAC	PART NO.	DESCRIPTION
1	1		500101001	FRONT PLATE
2	1		500102028	WEAR PLATE FROM PUMP SIDE
3	1		500102029	WEAR PLATE FROM DRIVE SIDE
4	2*		500103033	SAF
5	1		500101024	PROTECTOR FROM FRONT PLATE SIDE
6	1		500101015	BACK PLATE HC-P-K11, K11C
7	1		500101011	BACK PLATE HC-P70-1A, 2A, 3A, 7A, 8A, 9A & AC MODELS
8	1		500101028	WEAR PLATE BACK PLATE SIDE
9	1*		500102043	PROTECTOR BACK PLATE SIDE
10	2*		240102025	SHAFT
11	2*		240102026	SHAFT BEARING
12	2		241102021	DRIVE SHAFT BEARING
13	1		500103021	DRIVE SHAFT
14	11		500103021	BODY HC-P70-2A, 3A
15	11		500103021	BODY HC-P70-7A, 8A
16	11		500103021	BODY HC-P70-9A
17	11		500103021	BODY HC-P70-1AC
18	11		500103021	BODY HC-P70-7AC
19	11		500103021	BODY HC-P70-8AC
20	11		500103021	BODY HC-P70-9AC
21	11		500103021	BODY HC-P70-7AC, 8AC
22	11		500103021	BODY HC-P70-8AC, 9AC
23	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
24	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
25	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
26	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
27	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
28	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
29	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
30	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
31	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
32	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
33	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
34	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
35	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
36	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
37	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
38	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
39	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
40	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
41	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
42	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
43	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
44	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
45	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
46	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
47	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
48	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
49	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
50	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
51	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
52	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
53	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
54	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
55	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
56	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
57	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
58	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
59	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
60	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
61	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
62	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
63	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
64	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
65	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
66	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
67	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
68	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
69	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
70	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
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73	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
74	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
75	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
76	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
77	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
78	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
79	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
80	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
81	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
82	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
83	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
84	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
85	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
86	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
87	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
88	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
89	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
90	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
91	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
92	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
93	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
94	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
95	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
96	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
97	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
98	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
99	11		500103021	BODY HC-P70-7AC, 8AC, 9AC
100	11		500103021	BODY HC-P70-7AC, 8AC, 9AC

* PMCK-P70-1A SAE KIT FOR ALL PTO PUMP MODELS INDICATED HERE ARE REQUIRED
NOTE: ITEMS 12 AND 13 ARE COMPLETE WITH SHAFT, BEARING AND OIL RINGS

500107041 Rev 2

FRENCH TRANSLATION OF THESE SHEETS

DEBURR & BREAK ALL EDGES DO NOT SCALE DRAWING DIMENSIONS ARE IN INCHES OR (MILLIMETERS) UNLESS OTHERWISE SPECIFIED TOLERANCES: ANGLES: 1 FRACTION: 1/32 (0.79) 0.0 ±0.02 (±0.05) 0.00 ±0.005 (±0.13)	DRAWN BY ADM	DATE 2-1-00	SCALE FULL	CHD BY	DATE	APPD BY	DATE	PART NUMBER 500107045
PRINCE MFG. CORP. P.O. BOX 7000 N. SIOUX CITY, SD 57049 HYDRAULIC CYLINDERS & ACCESSORIES								DESCRIPTION PTO INSTALLATION INSTRUCTIONS MATERIAL FINISH

ATTRIBUTES