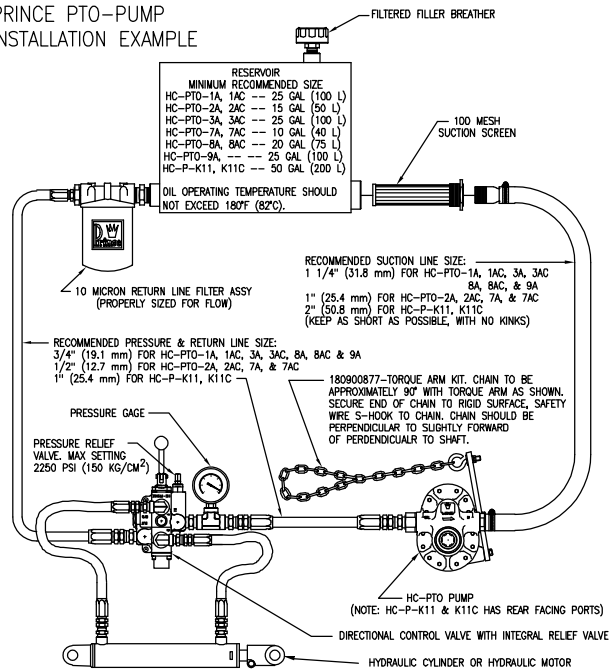


SYM.	REVISION
1	OUTLET ADAPTERS 500204011 WERE 500204010, ECN 11164, 7/12/96, MO
2	ADDED PART NO.'S AND SPECIFICATIONS FOR HC-P70-7A, 8A, 8A, & 9A PUMPS, ECN# 13961, 2-3-00, ADM.

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)

500107041 Rev 2

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.

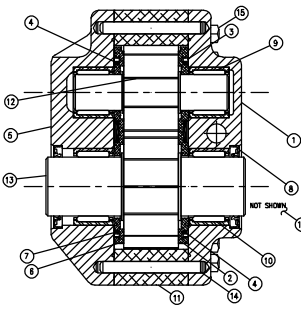
- OPEN CENTER:** Pump flow must return to the reservoir with the valve in the neutral position (valve must be an open center valve).
- PRESSURE:** Before installing, insure that the system has a relief valve set at or below rated pressure of 2250 psi (150 Kg/cm²).
- FILTRATION:** A 100 mesh suction strainer 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	#12 SAE O-RING	1" (25.4 mm) F. PIPE (500204012)

ITEM	QTY	PAC PART NO.	DESCRIPTION
1	1	500101001	FRONT PLATE
2	1	500102002	WEAR PLATE FROM PUMP SIDE
3	1	500102004	PROTECTOR FROM PLATE SIDE
4	2*	500103003	SPACER
5	1	500101015	BACK PLATE HC-P-K11, K11C
6	1	500101016	BACK PLATE HC-P70-1A, 2A, 3A, 7A, 8A, 9A
7	1	500101018	WEAR PLATE FROM PUMP SIDE
8	1	500102003	PROTECTOR FROM PLATE SIDE
9	2*	500102005	SPACER
10	2	211102001	DRIVE SHAFT BEARING
11	1	500103001	DRIVE SHAFT
12	1	500103002	BODY HC-P70-1A, 2A, 3A
13	1	500103004	BODY HC-P70-7A, 8A, 9A
14	1	500103005	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
15	1	500103006	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
16	1	500103007	BODY HC-P70-7AC, 8AC, 9AC
17	1	500103008	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
18	1	500103009	BODY HC-P70-7AC, 8AC, 9AC
19	1	500103010	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
20	1	500103011	BODY HC-P70-7AC, 8AC, 9AC
21	1	500103012	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
22	1	500103013	BODY HC-P70-7AC, 8AC, 9AC
23	1	500103014	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
24	1	500103015	BODY HC-P70-7AC, 8AC, 9AC
25	1	500103016	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
26	1	500103017	BODY HC-P70-7AC, 8AC, 9AC
27	1	500103018	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
28	1	500103019	BODY HC-P70-7AC, 8AC, 9AC
29	1	500103020	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
30	1	500103021	BODY HC-P70-7AC, 8AC, 9AC
31	1	500103022	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
32	1	500103023	BODY HC-P70-7AC, 8AC, 9AC
33	1	500103024	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
34	1	500103025	BODY HC-P70-7AC, 8AC, 9AC
35	1	500103026	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
36	1	500103027	BODY HC-P70-7AC, 8AC, 9AC
37	1	500103028	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
38	1	500103029	BODY HC-P70-7AC, 8AC, 9AC
39	1	500103030	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
40	1	500103031	BODY HC-P70-7AC, 8AC, 9AC
41	1	500103032	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
42	1	500103033	BODY HC-P70-7AC, 8AC, 9AC
43	1	500103034	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
44	1	500103035	BODY HC-P70-7AC, 8AC, 9AC
45	1	500103036	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
46	1	500103037	BODY HC-P70-7AC, 8AC, 9AC
47	1	500103038	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
48	1	500103039	BODY HC-P70-7AC, 8AC, 9AC
49	1	500103040	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
50	1	500103041	BODY HC-P70-7AC, 8AC, 9AC
51	1	500103042	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
52	1	500103043	BODY HC-P70-7AC, 8AC, 9AC
53	1	500103044	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
54	1	500103045	BODY HC-P70-7AC, 8AC, 9AC
55	1	500103046	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
56	1	500103047	BODY HC-P70-7AC, 8AC, 9AC
57	1	500103048	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
58	1	500103049	BODY HC-P70-7AC, 8AC, 9AC
59	1	500103050	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
60	1	500103051	BODY HC-P70-7AC, 8AC, 9AC
61	1	500103052	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
62	1	500103053	BODY HC-P70-7AC, 8AC, 9AC
63	1	500103054	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
64	1	500103055	BODY HC-P70-7AC, 8AC, 9AC
65	1	500103056	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
66	1	500103057	BODY HC-P70-7AC, 8AC, 9AC
67	1	500103058	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
68	1	500103059	BODY HC-P70-7AC, 8AC, 9AC
69	1	500103060	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
70	1	500103061	BODY HC-P70-7AC, 8AC, 9AC
71	1	500103062	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
72	1	500103063	BODY HC-P70-7AC, 8AC, 9AC
73	1	500103064	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
74	1	500103065	BODY HC-P70-7AC, 8AC, 9AC
75	1	500103066	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
76	1	500103067	BODY HC-P70-7AC, 8AC, 9AC
77	1	500103068	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
78	1	500103069	BODY HC-P70-7AC, 8AC, 9AC
79	1	500103070	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
80	1	500103071	BODY HC-P70-7AC, 8AC, 9AC
81	1	500103072	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
82	1	500103073	BODY HC-P70-7AC, 8AC, 9AC
83	1	500103074	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
84	1	500103075	BODY HC-P70-7AC, 8AC, 9AC
85	1	500103076	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
86	1	500103077	BODY HC-P70-7AC, 8AC, 9AC
87	1	500103078	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
88	1	500103079	BODY HC-P70-7AC, 8AC, 9AC
89	1	500103080	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
90	1	500103081	BODY HC-P70-7AC, 8AC, 9AC
91	1	500103082	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
92	1	500103083	BODY HC-P70-7AC, 8AC, 9AC
93	1	500103084	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
94	1	500103085	BODY HC-P70-7AC, 8AC, 9AC
95	1	500103086	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
96	1	500103087	BODY HC-P70-7AC, 8AC, 9AC
97	1	500103088	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
98	1	500103089	BODY HC-P70-7AC, 8AC, 9AC
99	1	500103090	BODY HC-P70-1AC, 2AC, 3AC, 7AC, 8AC, 9AC
100	1	500103091	BODY HC-P70-7AC, 8AC, 9AC

* PMX-P70-1A SAE KIT FOR ALL PTO PUMP MODELS INDICATED HERE ARE REQUIRED.
NOTE: ITEMS 12 AND 13 ARE COMPLETE WITH SHAFT, BEARING AND O-RING BEARING.

HC-P70 REPLACEMENT PARTS



500107041 Rev 2

SPANISH 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 500107044
PRINCE MFG. CORP. P.O. BOX 7000 N. SIOUX CITY, SD 57049 HYDRAULIC CYLINDERS & ACCESSORIES								DESCRIPTION PTO INSTALLATION INSTRUCTIONS MATERIAL FINISH

ATTRIBUTES