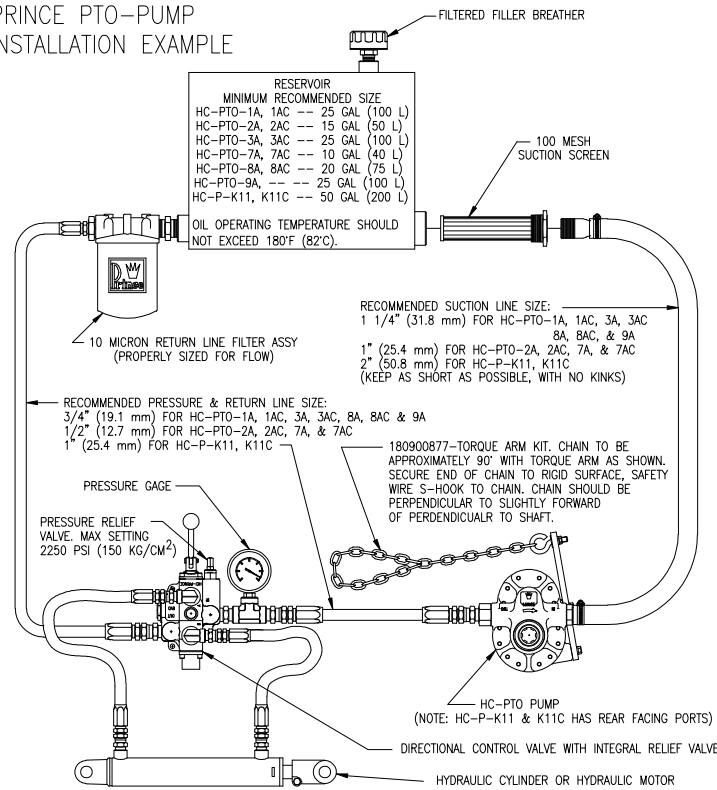


SYM.	REVISION
1	OUTLET ADAPTERS 500204011 WERE 500204010, ECN 11164, 7/12/96, MO
2	ADDED PART NO.'S AND SPECIFICATIONS FOR HC-PTO-7AC, 8A, 8AC, & 9A PUMPS, ECN# 13961, 2-3-00, ADM.

PRINCE PTO-PUMP INSTALLATION EXAMPLE



PUMP MODEL	DESIGN RPM	MAXIMUM RPM	FLOW AT DESIGN RPM*	INPUT POWER AT DESIGN RPM*	REQUIRED SHAFT TYPE
HC-PTO-1A, 1AC	540	600	21.0 gpm (79.5 l/min)	32.1 HP (23.9 kW)	1 3/8" (34.9 mm), 6 TOOTH
HC-PTO-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-PTO-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-PTO-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-PTO-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-PTO-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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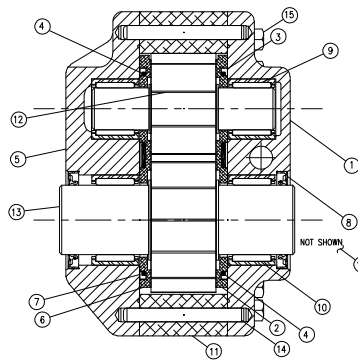
PUMP INSTALLATION INSTRUCTIONS FOR MODELS: HC-PTO-1A, 1AC, 2A, 2AC, 3A, 3AC, 7A, 7AC 8A, 8AC, 9A & HC-P-K11, K11C

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-PTO-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-PTO-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-PTO-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-PTO-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-PTO-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-PTO-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-PTO REPLACEMENT PARTS



ITEM	QTY	PMC PART NO.	DESCRIPTION
1	1	500101004	FRONT PLATE
2	1	500107029	WEAR PLATE FRONT PLATE SIDE
3	14	500107042	PROTECTOR FRONT PLATE SIDE
4	24	500107032	SEAL
5	1	500101015	BACK PLATE HC-P-K11, K11C
6	1	500101014	BACK PLATE HC-PTO-1, 2, 3, 7, 8, 9 A OR AC MODELS
7	14	500107028	WEAR PLATE BACK PLATE SIDE
8	24	240018026	SHAFT SEAL
9	2	210500083	IDLER SHAFT BEARING
10	2	211100011	DRIVE SHAFT BEARING
11	1	500103020	BODY HC-PTO-1A
11	1	500103021	BODY HC-PTO-2A, 3A
11	1	500103022	BODY HC-PTO-7A, 8A
11	1	500103024	BODY HC-PTO-8A
11	1	500103030	BODY HC-P-K11
11	1	500103033	BODY HC-PTO-1AC
11	1	500103034	BODY HC-PTO-2AC, 3AC
11	1	500103035	BODY HC-PTO-7AC, 8AC
11	1	500103032	BODY HC-P-K11C
12	1	500106002	IDLER GEAR ASSY HC-PTO-1A, 1AC, K11, K11C
12	1	500106003	IDLER GEAR ASSY HC-PTO-2A, 2AC, 3AC
12	1	500106012	IDLER GEAR ASSY HC-PTO-7A, 7AC, 8A, 8AC
12	1	500106018	IDLER GEAR ASSY HC-PTO-8A
13	1	500106021	DRIVE GEAR ASSY HC-PTO-1A, 1AC
13	1	500106024	DRIVE GEAR ASSY HC-PTO-2A, 2AC
13	1	500106022	DRIVE GEAR ASSY HC-PTO-3A, 3AC
13	1	500106023	DRIVE GEAR ASSY HC-PTO-7A, 7AC
13	1	500106029	DRIVE GEAR ASSY HC-PTO-8A, 8AC
13	1	500106027	DRIVE GEAR ASSY HC-PTO-9A
13	1	500106026	DRIVE GEAR ASSY HC-P-K11, K11C
14	2	180900872	DOBEL PIN HC-PTO-1A, 1AC, HC-P-K11, K11C
14	2	180900871	DOBEL PIN HC-PTO-2A, 2AC, 3AC
14	2	180900870	DOBEL PIN HC-PTO-7A, 7AC, 8A, 8AC
14	2	180900830	DOBEL PIN HC-PTO-8A
15	12	170002024	CAP SCREW HC-PTO-1A, 1AC, HC-P-K11, K11C
15	12	170002027	CAP SCREW HC-PTO-2A, 2AC, 3A, 3AC
15	12	170002025	CAP SCREW HC-PTO-7A, 7AC, 8A, 8AC
16	2	170002026	CAP SCREW HC-PTO-1A, 1AC, K11, K11C
16	2	170002036	CAP SCREW HC-PTO-2A, 2AC, 3A, 3AC
16	2	170002054	CAP SCREW HC-PTO-7A, 7AC, 8A, 8AC
16	2	170002054	SEAL KIT FOR ALL PTO PUMP MODELS INDICATED ITEMS ARE INCLUDED

NOTE: ITEMS 12 AND 13 ARE COMPLETE WITH SHAFT, GEAR AND GEAR RETAINERS.

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ENGLISH

DEBURR & BREAK ALL EDGES DO NOT SCALE DRAWING	DRAWN BY	DATE	SCALE	CHKD BY	DATE	APPR'D BY	DATE	PART NUMBER
DIMENSIONS ARE IN INCHES OR (MILLIMETERS) UNLESS OTHERWISE SPECIFIED	ADM	2-1-00	FULL					500107041
TOLERANCES: ANGLES ± 1° FRACTION ± 1/32 (± 0.79) .00 ±.02 (±0.05) .000 ±.005 (±0.13)	PRINCE MFG. CORP.		P.O. BOX 7000 N. SIOUX CITY, SD 57049		HYDRAULIC CYLINDERS & ACCESSORIES		DESCRIPTION PTO INSTALLATION INSTRUCTIONS	
	FINISH						MATERIAL	