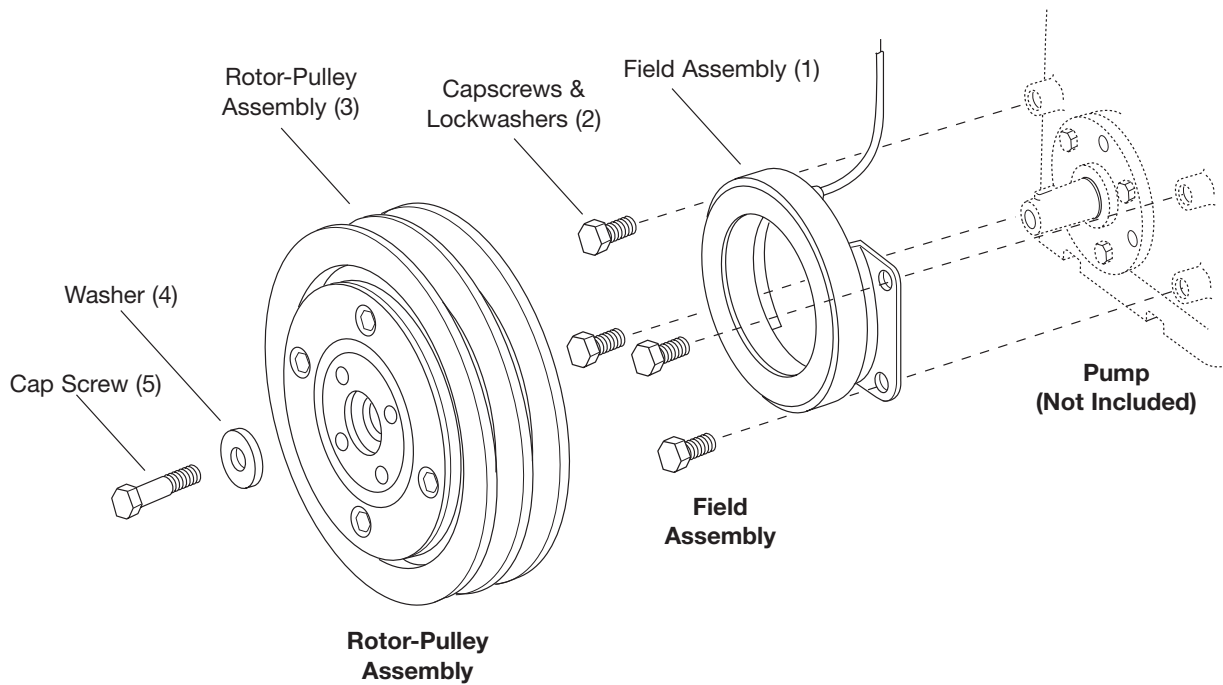


Pump Clutch Installation

P-1423
819-0388

Installation Instructions





⚠ CAUTION Failure to follow these instructions may result in product damage, equipment damage, and serious or fatal injury to personnel.

General

This pump clutch has been developed specifically for use in pump applications. Properly installed, it will provide maintenance-free service. The clutch uses a stationary field that does not require slip rings or brushes.

The clutch consists of two major components; a stationary magnetic field assembly and a rotor-pulley assembly. The field assembly is mounted on the pump face. The rotor-pulley is mounted to the pump shaft and driven by v-belts. Electricity energizes the clutch field to couple the clutch magnetically, thus driving the pump mechanism. De-energizing the field releases the clutch and uncouples the pump.

Wiring

The coil in the field assembly has a single leadwire (hot) and is grounded through the field shell. It will only be necessary to connect this leadwire to the electrical system as the pump should already be negatively grounded. Figure 1 shows an example of a typical system.

Service

The clutch automatically compensates for wear requiring no adjustments throughout the life of the clutch. **Do not** lubricate the unit. If the clutch should fail to operate, check the electrical circuit to be sure the proper voltage is being supplied to the clutch. **Do not** attempt to make any mechanical adjustments to the clutch.

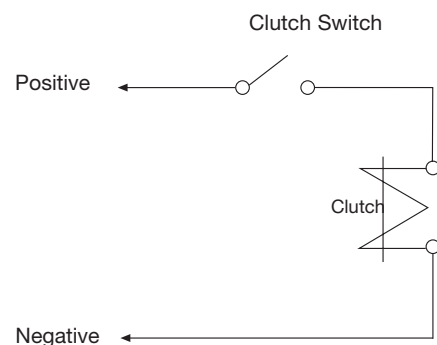


Figure 1

Installation

Diagnose Clutch Failure

Most clutch failures are a direct result of a system problem or failure. Before installing a new clutch, determine what caused the old clutch to fail and fix the system problem. By simply replacing the clutch without fixing the cause of the clutch failure, the new clutch may fail in the same manner as the old clutch.

Step 1

Position the field assembly (1) against the face of the pump and align the field mounting holes with those in the pump. Insert four capscrews into the bolt holes. Tighten the capscrews to a wrench torque of 7-10 lb.ft. (85-120 lb.in.).

▲CAUTION Use care not to strip the threads in the pump body.

Step 2

The pump shaft must be clean and free of burrs. Check the shaft key for proper position and seating.

Step 3

Slide the rotor-pulley assembly (3) onto the tapered shaft (aligning the key and the keyway). Secure the rotor-pulley assembly using the washer (4) and self-locking capscrew (5) provided with the clutch. Tighten the capscrew to a wrench torque of 15-20 lb.ft. (180-240 lb.in.).

Step 4

Rotate the rotor-pulley manually to ensure there is no interference between the field and the rotor-pulley. If any interference occurs, a rubbing/scraping noise will be heard as the pulley rotates. If rubbing or some other mechanical interference does occur, disassemble the clutch (per step 5) and repeat assembly of the field assembly to the pump.

Step 5 (If Required)

To remove the rotor-pulley from the pump shaft, remove the self-locking capscrew (5) and washer (4). Then, insert a 5/8-11 UNC capscrew (not provided) into the center hole of the rotor. Rotate the screw against the pump shaft until the rotor breaks loose from the shaft.

▲CAUTION Do not use a wheel puller on the outer diameter of the pulley as this can damage the clutch bearing. Warranty will be voided if clutch is removed without using the 5/8-11 UNC threaded hole provided in the hub center.

Step 6

Clutch Burnish Procedure

Install drive belts as required by pump design. Run the pump at normal operating speed and cycle the clutch on and off at a rate of 10 to 15 times per minute for 50 cycles minimum. This procedure will help bring the clutch up to operating torque capacity.

Note: To prevent electrical system damage, use the pump clutch control to cycle the clutch.

Warranty

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