

Industrial Clutch

Model **76970**
5CP Plunger Pumps
5FR Plunger Pumps **76980**

FEATURES

- E-coating provides 3 to 6 times improved corrosion resistant finish.
- Bearings designed for higher temperatures and better water resistance for harsh environments.
- Projection welded coil and plate offers extra durability in heavy vibration applications.
- High strength forged rotor, hub and armature offer maximum torque and long life.
- "B" belt grooves for maximum torque transfer.
- Use with 76513 rail assembly.

SPECIFICATIONS

	U.S. Measure	Metric Measure
Clutch Grooves.....		(2)
Shaft Size.....		(20 mm)
Diameter.....	10"	(254 mm)
Pitch Diameter.....	9.4"	(239 mm)
Belt Type.....	B	(B)
Torque.....	75 ft./lbs.	(101.7 Nm)
Watts.....	44	(44)
Amps.....	3.6	(3.6)
Power Required.....	12 VDC	(12 VDC)
Weight.....	13.7 lbs.	(6.2 kg)
Dimensions.....	10.0" x 2.53"	(254 x 64.3 mm)

⚠ CAUTIONS AND WARNINGS

All High Pressure Systems require a primary pressure regulating device (i.e. regulator, unloader) and a secondary pressure relief device (i.e. pop-off valve, relief valve). Failure to install such relief devices could result in personal injury or damage to pump or property. CAT PUMPS does not assume any liability or responsibility for the operation of a customer's high pressure system.

Read all CAUTIONS and WARNINGS before commencing service or operation of any high pressure system. The CAUTIONS and WARNINGS are included in each service manual and with each Accessory Data sheet. CAUTIONS and WARNINGS can also be viewed online at www.catpumps.com/cautions-warnings or can be requested directly from CAT PUMPS.

WARRANTY

View the Limited Warranty on-line at www.catpumps.com/warranty.

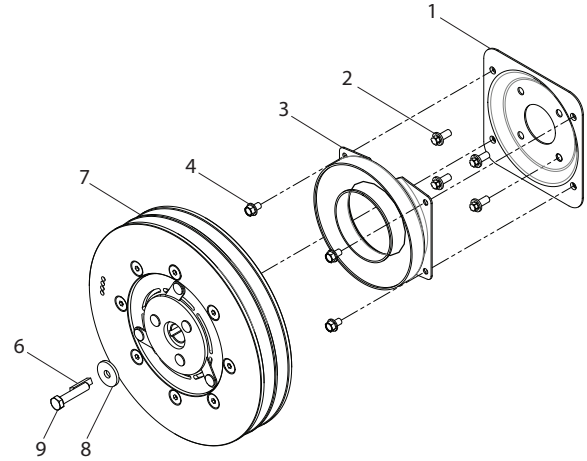
PARTS LIST

ITEM	PN	MATL	DESCRIPTION	QTY
1	34933	STZP	Plate, Clutch, 5CP 76970	1
	34948	STZP	Plate, Clutch, 5FR 76980	1
2	34935	STZP	Screw, Clutch Plate (M8x16) 5CP 76970	4
	34934	STZP	Screw, Clutch Plate (M6x16) 5FR 76980	4
3	—	—	Assembly, Coil	1
4	—	—	Screw, Coil Assembly (1/4" x 3/8")	4
5	6106	—	Lubricant, Anti-seize (2 ml) (Not Shown)	1
6	30057	STL	Key (M6x6x25)	1
7	—	—	Assembly, Armature/Rotor with 10" Pulley	1
8	126579	STZP R	Washer, Flat (M8)	1
9	† 92530	STZP	Screw, Shaft, HH Sems (M8x25)	1
	126544	STZP R	Screw, Shaft, HH Sems (M8x25)	1

† Replacement parts are different than service parts (standard shaft screw is a socket head, replacement is a hex head).
Apply blue Loctite® 242 to threads when using replacement screw.

R Components comply with RoHS Directive. Material Codes (Not Part of Part No.):
AL=Aluminum STL=Steel STCP=Steel/Chrome Plated STZP=Steel/Zinc Plated
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EXPLODED VIEW



OPERATION:

The clutch works with a flow switch, pressure switch or a manual on/off switch installed in the system and connected to a 12VDC power supply. When the trigger gun is released or the unit is manually turned off, a signal is sent to the clutch to disengage and cease pump operation. When operation resumes by opening the trigger gun or manually turning the system on, the clutch will engage, starting the pump and resuming full operation.

INSTALLATION:

1. Remove the four bearing cover screws on pump and discard.
2. Line up the clutch plate with the bearing cover screw holes with the **dish side out**. Secure with four flanged centering screws 5CP-(M8x16), 5FR-(M6x16) and torque per specifications.

Do not use pump bearing cover screws.

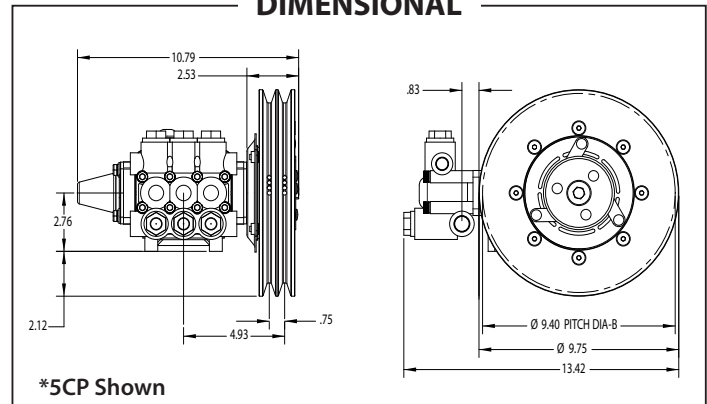
3. Mount the coil assembly onto the clutch plate and secure with four flanged centering screws (1/4"-20x3/8") and torque per specifications.
4. Lubricate the pump shaft with antiseize lubricant and insert the key into the pump shaft.
5. Slide the rotor and armature assembly over shaft. Be certain keyway of pump is aligned with armature keyway. Secure with flat washer and shaft screw (M8x25) and torque to specifications.
6. Apply Loctite® 242 to (8) flat head screws (M8x16). Align pulley holes with rotor and armature assembly holes and thread in screws. Torque to specifications.
7. Connect the lead wire to the positive side of the electric circuit. Also be certain there is an adequate grounded connection to the coil assembly plate.
8. Engage and disengage the clutch to assure proper functioning. If full load is required initially from the pump, allow clutch to engage 20-50 cycles before commencing normal operation for adequate burnishing.

NOTE: Follow standard belt mounting and center distance procedures to determine drive pulley size, speed and horsepower per belt.

TORQUE REQUIREMENTS

Item	Description	Qty	Thread Size	Tool Size	Torque		
					in. lbs.	Ft. lbs.	Nm
2	Clutch Plate Screws, 5CP 76970	4	M8	M10 Hex	115	9.4	13
2	Clutch Plate Screws, 5FR 76980	4	M6	M8 Hex	55	4.4	6.2
4	Coil Assembly Screws	4	1/4"	3/8" Hex	55	4.4	6.2
9	Shaft Screw	1	M8	M6 Allen	115	9.4	13

DIMENSIONAL



TROUBLESHOOTING

Clutch will not engage	<ul style="list-style-type: none"> • Check positive and ground connections. • Check for 12 VDC.
Squealing belt(s)	<ul style="list-style-type: none"> • Check belt slippage or belt tension.
Short belt life	<ul style="list-style-type: none"> • Check side-to-side alignment and belt tension. • Undersized belts; upgrade to dual clutch.
Excessive noise when clutch disengaged	<ul style="list-style-type: none"> • Worn bearing; replace clutch assembly.
Clutch cycling	<ul style="list-style-type: none"> • Check for adequate voltage. • Worn rotor or discolored rotor surface; replace clutch assembly.
Scraping noise when clutch engaged and/or disengaged.	<ul style="list-style-type: none"> • Check alignment of coil and rotor assembly.



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