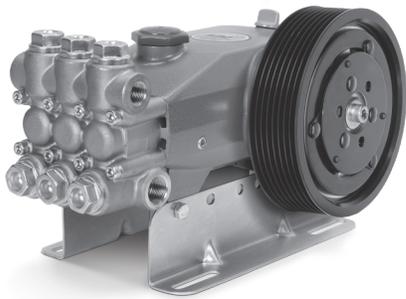


DATA SHEET

INDUSTRIAL CLUTCH



Model: 34971 Use with Pump Models: 7CP6110CS, 7CP6111CS, 7CP6160CS, 7CP6170, 7CP6171CS, 7CP6185CS



Pump Model 7CP6170 shown
(Pump and mounting rails sold separately)

SPECIFICATIONS	U.S. Measure	Metric Measure
Pulley Grooves	8	8
Shaft Size	0.945"	24 mm
Pitch Diameter	7.3"	185 mm
Belt Type	Poly-V, L-Style, 8 Ribs	Poly-V, L-Style, 8 Ribs
Torque	75 ft-lbs	101.7 Nm
Watts	44	44
Amps	3.6	3.6
Voltage Required	12V DC	12V DC
Weight	13.0 lbs	5.9 kg
Dimensions	7.3 x 2.07"	185 x 52.6 mm

FEATURES

- A precision-machined aluminum clutch plate ensures proper alignment and secure mounting.
- High-strength forged rotor, hub and armature ensure maximum torque and long service life.
- A projection-welded coil assembly adds strength and stability in high-vibration applications.
- Special e-coating delivers excellent corrosion resistance and long-lasting protection.
- Bearings use an advanced lubricant that maintains consistent viscosity at high temperatures and resists water in harsh environments.

SELECTION

Select a clutch from the list on the top of page one that is available for your pump model. Then, choose a clutch model that matches the number of grooves required for the drive package. The specified drive package should also consider the clutch's diameter and maximum torque rating.

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 counter sunk holes facing out. Install lockwashers onto flat head screws. Apply Loctite® 242® to threads of the flat head screws. Secure clutch plate to pump with four (4) flat head screws. (M8 x 25) and torque to 115 in-lbs (9.6 ft-lbs, 13 Nm).

Note: Do not use pump bearing cover screws.

3. Mount the coil assembly onto the clutch plate and secure with the four supplied coil assembly screws (1/4" – 20 x 3/8") and torque to 55 in-lbs (4.6 ft-lbs, 6.2 Nm).
4. Lubricate the pump shaft with anti-seize lubricant and insert the key into the pump shaft.
5. Slide the rotor and armature assembly over the shaft. Be certain keyway of pump is aligned with armature keyway. Slide spacer into bore flush to end of the shaft.

6. Slide flat washer (M8) over shaft screw. Apply Loctite® 242® to threads of shaft screw and torque to 115 in-lbs (9.6 ft-lbs, 13 Nm).
7. Check that there is an adequate grounded connection to the coil assembly plate, then connect the lead wire to the positive side of the electrical control circuit.
8. Engage and disengage the clutch to ensure proper function. If full load is required initially from the pump, allow clutch to engage 20–50 cycles to adequately burnish before commencing normal operation.

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

OPERATION

The clutch works with a flow switch, pressure switch or a manual on/off switch installed in the system and connected to a 12V DC power supply to supply an electrical control circuit to the clutch. During operation, the control circuit engages the clutch, which turns the pump shaft. When the trigger gun is released, or the operator manually turns the system off, the control circuit breaks, disengaging the clutch and stopping the pump's shaft.

Loctite® and 242® are registered trademarks of Henkel Corporation.

PARTS LIST

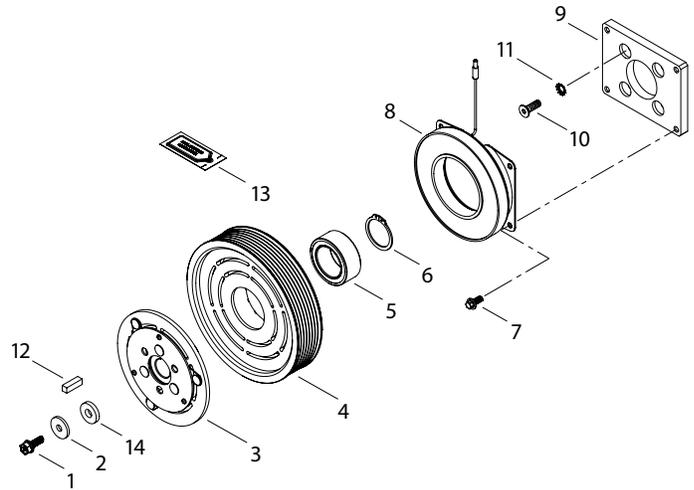
ITEM	P/N	MATL	DESCRIPTION	QTY
1	126544	STCP R	Screw, Shaft, SEMS (M8 x 25)	1
2	126579	STZP R	Washer, Flat (M8)	1
3	—	—	Armature	1
4	—	—	Rotor	1
5	—	—	Bearing	1
6	—	—	Ring, Snap	1
7	—	STZP	Screw, Coil Assembly	4
8	—	—	Assembly, Coil	1
9	32456	AL	Plate, Clutch	1
10	992877	S	Screw, Plate (M8 x 16)	4
11	992879	S	Lockwasher (M8)	4
12	44459	STL	Key, (M8 x 7 x 24)	1
13	6106	—	Lubricant, Anti-Seize (2 ml)	1
14	31376	STZP R	Spacer (M8 x 21 x 4)	1

R Components comply with RoHS Directive. Material Codes (Not Part of Part No.):
AL=Aluminum S=304SS STCP=Steel/Chrome Plated STL=Steel STZP=Steel/Zinc Plated

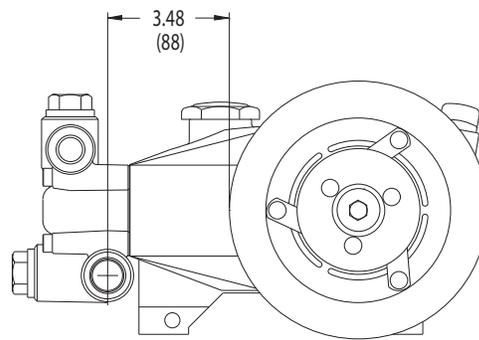
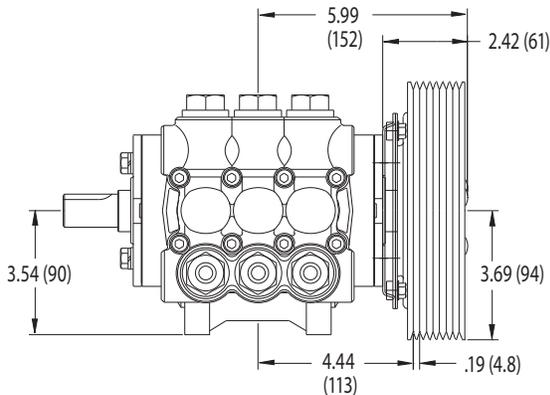
Note: Standard shaft screw is a SEMS combination, replacement is a hex head
Apply blue Loctite® 242® to threads when using replacement screw.

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EXPLODED VIEW



DIMENSIONAL



TROUBLESHOOTING

Problems	Probable Cause	Solution
Clutch will not engage	<ul style="list-style-type: none"> Loose positive ground or connection Improper voltage 	<ul style="list-style-type: none"> Tighten positive or ground connections Confirm 12V DC
Squealing belt(s)	<ul style="list-style-type: none"> Belt slippage or belt tension 	<ul style="list-style-type: none"> Tighten belt(s) or replace
Short belt life	<ul style="list-style-type: none"> Side-to-side alignment and belt tension 	<ul style="list-style-type: none"> Realign belt, tighten or replace
Excessive noise when clutch is disengaged	<ul style="list-style-type: none"> Worn bearing 	<ul style="list-style-type: none"> Replace clutch assembly
Clutch cycling	<ul style="list-style-type: none"> Inadequate voltage Worn rotor or discolored rotor surface 	<ul style="list-style-type: none"> Confirm voltage Replace clutch assembly
Scraping noise when clutch engaged and/or disengaged	<ul style="list-style-type: none"> Improper alignment of coil and rotor assembly 	<ul style="list-style-type: none"> Realign coil and rotor assembly

⚠ CAUTIONS AND WARNINGS

All high-pressure systems require a primary pressure regulating device (e.g. regulator, unloader) and a secondary pressure relief device (e.g. 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/dynamic-literature/cautions-and-warnings or can be requested directly from Cat Pumps.

WARRANTY

View the Limited Warranty online at www.catpumps.com/literature/cat-pumps-limited-warranty