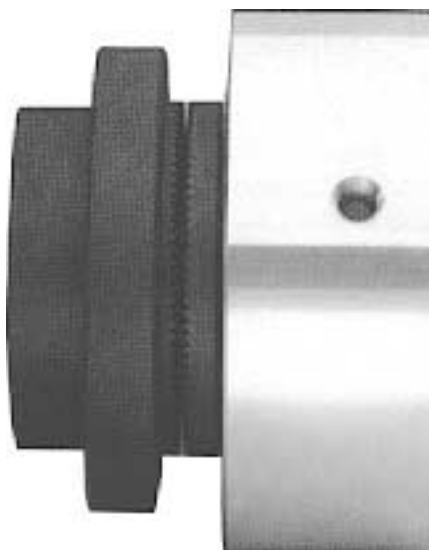


5H100P-SE PILOT MOUNT SPRING ENGAGED MULTIPOSITION TOOTH CLUTCH INSTALLATION AND MAINTENANCE INSTRUCTIONS



Read this manual carefully, making full use of its explanations and instructions. The "Know How" of safe, continuous, trouble-free operation depends on the degree of your understanding of the system and your willingness to keep all components in proper operating condition. Pay particular attention to all NOTES, CAUTIONS, and WARNINGS to avoid the risk of personal injury or property damage. It is important to understand that these NOTES, CAUTIONS, and WARNINGS are not exhaustive. Nexen cannot possibly know or evaluate all conceivable methods in which service may be performed, or the possible hazardous consequences of each method. Accordingly, anyone who uses a procedure that is not recommended by Nexen must first satisfy themselves that neither their safety or the safety of the product will be jeopardized by the service method selected.

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DANGER

Never attempt to disassemble the 5H100P-SE. The 5H100P-SE is a spring engaged unit. Attempting to disassemble this unit could result in severe injury or death and will void the warranty. If service is required, return the unit to Nexen.

SPECIFICATIONS

The 5H Spring Engaged Multiposition Tooth Clutches has a drive flange with a single bearing and tapped mounting holes. The 5H Series has a Drive Flange with two bearings, a pilot

diameter, and tapped holes for mounting a pulley, sprocket, gear, or coupling adapter (See Table 1).

	PRODUCT NO.	MODEL	ENGAGEMENT TORQUE (In. Lbs.)	DISENGAGEMENT PRESSURE (psi)
PILOT MOUNTED	913103	5H100PSE	43000	60

TABLE 1

APPLICATION CONSIDERATIONS

1. This unit is not designed for use in cyclical applications.

2. Only engage this clutch at 0 rpm.
3. Do not exceed 80 psi.

4. Consult factory for operating speeds above 100 rpm.

INSTALLATION

1. Install coupling adapter or bearing supported pulley, sheave, or gear.

2. Insert customer supplied key into shaft.
3. Apply and adequate amount of Loctite ® 242 to evenly coat the threads of the Set Screws.

4. Using the Set Screws, secure the Tooth Clutch to the shaft.

5. Tighten the Set Screws.

NOTE

Nexen Spring Engaged Multiposition Tooth Clutches mount on a full shaft using a full length key.

NOTE

Whenever possible, arrange the input drive to the Tooth Clutch through the drive flange to prevent the Tooth Clutch bearings from rotating unnecessarily.

In severe applications, the Tooth Clutch may tend to move axially along the shaft. To prevent this movement, confine the Tooth Clutch between its shoulders.

AIR CONNECTIONS

For quick response, locate the control valve as close to the Tooth Clutch as possible. Nexen recommends air controls having 1/8" ports along with a quick exhaust valve to ensure rapid engagement where long air lines are required.

Align the air inlet port to the six o'clock down position to allow condensation in the air chamber to drain out of the exhaust port.

To prevent hose breakage, resting the hose against a support mounted parallel to the Tooth Clutch centerline stops this rotation.

NOTE

Rigid pipe or tubing when connected directly to the Tooth Clutch will prevent proper actuation of the Tooth Clutch. Use only flexible hose or tubing when making air line connections.

LUBRICATION

NOTE

Pneumatically actuated devices require clean, pressure regulated, and lubricated air for maximum performance and long life. The most effective and economical way to lubricate Nexen Tooth Clutches is with an Air Line Lubricator, which injects oil into the pressurized air, forcing an oil mist into the air chamber.

Locate the lubricator above and within ten feet of the Tooth Clutch, and use a low viscosity oil such as SAE-10.

Synthetic lubricants are not recommended.

LUBRICATOR DRIP RATE SETTINGS

NOTE

These setting are for Nexen supplied lubricators. If you are not using a Nexen lubricator, calibration must replicate the following procedure.

1. Close and disconnect the air line from the unit.
2. Turn the Lubricator Adjustment Knob clockwise three complete turns.
3. Open the air line.
4. Close the air line to the unit when a drop of oil forms in the Lubricator Sight Gage.
5. Connect the air line to the unit.
6. Turn the Lubricator Adjustment Knob counterclockwise until closed.
7. Turn the Lubricator Adjustment Knob clockwise one-third turn.
8. Open the air line to the unit.

TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	SOLUTION
Failure to Engage.	Damaged engagement springs.	Contact NEXEN
	Unexhausted air due to control valve malfunction.	Replace control valve.
	Lack of lubrication in air chamber.	Check air chamber lubrication (See Lubrication).
	Using rigid pipe or tubing for air line connections.	Use flexible tubing for air line connections.
	Using a rigid coupling connected directly to the Drive Flange.	Contact NEXEN
Failure to Disengage.	Control valve malfunction or low air pressure.	Check system for air leaks or replace control valve.
	Using rigid pipe or tubing for air line connections.	Use flexible tubing for air line connections.
	Using a rigid coupling connected directly to the Drive Flange.	Contact NEXEN
	Lack of lubrication in air chamber.	Check air chamber lubrication (See Lubrication).
Tooth Wear or Clicking Sound.	Excessive engagement RPM, or unintentional disengagement due to torque overload.	Contact NEXEN for specifications.
Bearing Failure.	Stay within the specified speed limits as specified in the APPLICATION CONSIDERATIONS section, Page 2.	
	Avoid applying excessive overhung loads to Pilot Mount 5HP Tooth Clutches. Wide pulleys or sprockets which extend beyond the end of the clutch will increase the radial load and reduce bearing life.	

DANGER

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WARRANTY

Nexen Group, Inc. (Nexen) warrants its product(s) [the Product(s)] will be free from defects in materials and workmanship under normal use and service conditions for a period of 12 months from the date of shipment. NO OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED, OR STATUTORY, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY, OR OF FITNESS FOR A PARTICULAR PURPOSE, ARE GIVEN, AND ALL SUCH OTHER WARRANTIES ARE HEREBY EXPRESSLY DISCLAIMED.

Conditions

This warranty applies only if: (a) the Product has been installed, used, and maintained in accordance with any applicable Nexen installation or maintenance manual for the Product; (b) the alleged defect is not attributable to normal wear and tear; (c) the Product has not been altered, misused, or used for purposes other than those for which it was intended; and (d) the claimant has complied with the warranty claim procedures set out below in Warranty Claim Procedures.

Exclusive Remedy

The sole and exclusive remedy for a breach of this warrant shall be, at Nexen's sole election, repair or replacement with new, serviceably used or reconditioned Product, or issuance of a credit in the amount of the current Nexen discounted price for the Product.

Limitation of Damages

In no event shall Nexen be liable for any consequential, indirect, incidental, or special damages of any nature whatsoever, including without limitation, lost profits arising from the sale or use of the Products.

Warranty Claim Procedures

To make a claim under this warranty, the claimant must give written notice of the alleged defect to Nexen and deliver the Product to Nexen within one year of the date on which the alleged defect first became apparent.

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