



Enclosed, Spring-Engaged Tooth Clutch 5H60SE-E

In accordance with Nexen's established policy of constant product improvement, the specifications contained in this manual are subject to change without notice. Technical data listed in this manual are based on the latest information available at the time of printing and are also subject to change without notice.

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DANGER

Read this manual carefully before installation and operation.

Follow Nexen's instructions and integrate this unit into your system with care.

This unit should be installed, operated and maintained by qualified personnel ONLY.

Improper installation can damage your system or cause injury or death.

Comply with all applicable codes.

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ISO 9001 Certified

CROSS SECTIONAL VIEW

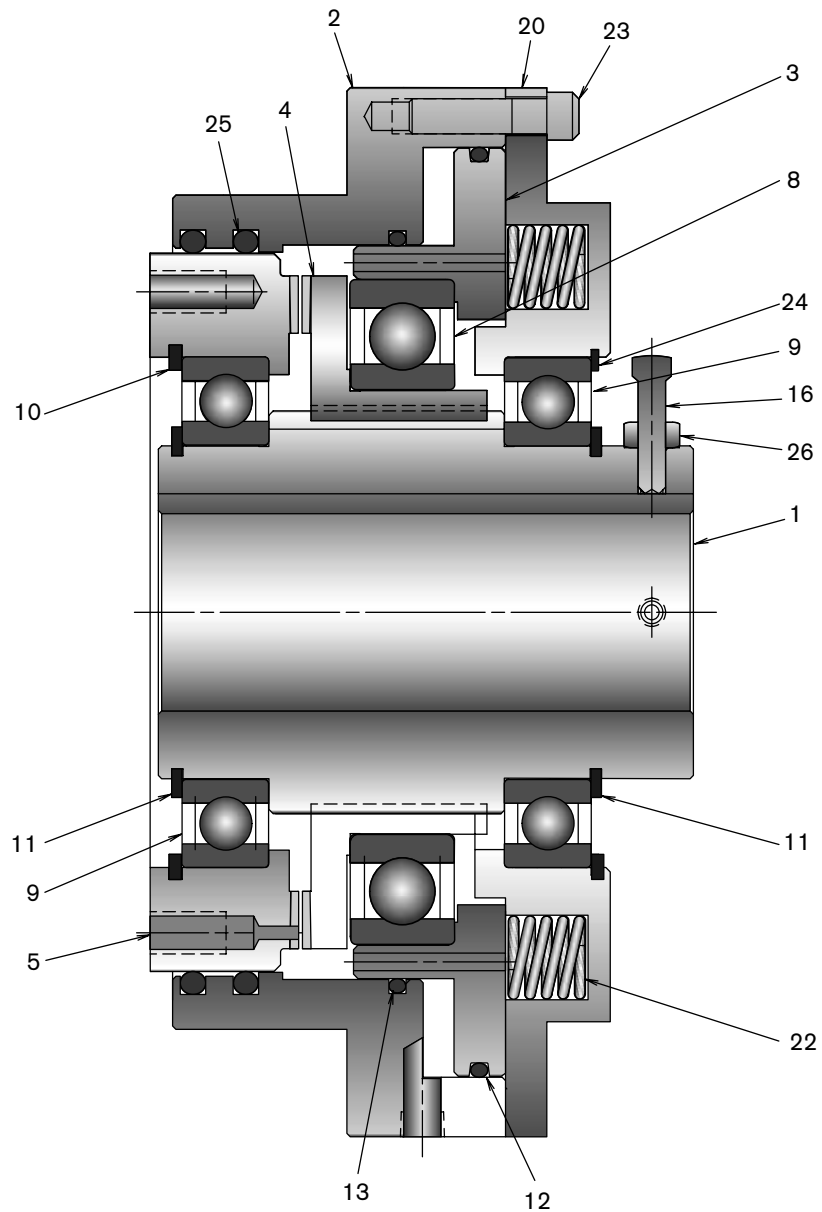


FIGURE 1

ITEM	DESCRIPTION	QTY
1	Hub	1
2	Cylinder	1
3	Piston	1
4	Drive Ring	1
5	Drive Flange	1
8	Ball Bearing	1
9	Ball Bearing	2
10	Retaining Ring	1
11	Retaining Ring	2


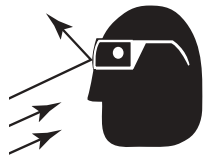
ITEM	DESCRIPTION	QTY
12	O-ring Seals	1
13	O-ring Seals	1
16	Square-Head Set Screws	2
20	Spring Housing	1
22	Springs	12
23	Cap Screws	6
24	Retaining Ring	1
25	Quad Seals	2
26	Hex Nuts	2

PARTS REPLACEMENT

DISASSEMBLY

NOTE: Refer to Figure 1.

1. Remove square-head Set Screws (Item 16) and Hex Nuts (Item 26) from unit.


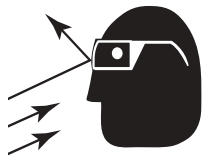
 WARNING	
Use caution and always wear safety glasses when working with spring or tension loaded devices such as retaining rings.	

2. Remove the Retaining Ring (Item 11) from the set screw end of the unit.
3. Supporting the Cylinder (Item 2), press the Hub (Item 1) and Drive Flange (Item 5) out of the unit.
4. Remove the Retaining Ring (Item 11) from the drive flange end of the hub.
5. Press the Hub (Item 1) out of Drive Flange (Item 5).
6. Remove the Retaining Ring (Item 10) from the Drive Flange (Item 5).
7. Press the old Ball Bearing (Item 9) from the Drive Flange (Item 5).
8. Clean the bearing bore of the Drive Flange (Item 5) with fresh safety solvent, making sure all old Loctite® (or equivalent) residue is removed.

DRIVE FLANGE ASSEMBLY

1. Apply an adequate amount of Loctite 680 (or equivalent) to evenly coat the bearing bore of the Drive Flange (Item 5).
 3. Reinstall the Retaining Ring (Item 10) into the Drive Flange (Item 5).
 4. Supporting the inner race of the Ball Bearing (Item 9) press the Hub (Item 1) into the Ball Bearing (Item 9) and Drive Flange (Item 5).
 5. Reinstall the Retaining Ring (Item 11) onto the Hub (Item 1).
- NOTE: Do not apply Loctite 680 (or equivalent) directly to ball bearing. Doing so would coat the groove that holds the retaining ring with Loctite (or equivalent) during assembly and cement the retaining ring in place.
2. Press the new Ball Bearing (Item 9) into the Drive Flange (Item 5).

AIR CHAMBER DISASSEMBLY

 WARNING	
Contents under spring pressure. Use caution and always wear safety glasses when working with spring or tension loaded devices.	


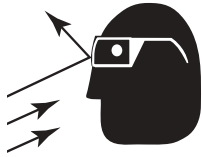
1. Carefully and alternately, loosen Cap Screws (Item 23) until there is no longer any spring tension, then remove the Cap Screws (Item 23).
2. Separate the Cylinder (Item 2) from the Spring Housing (Item 20).
3. Remove old gasket material from Cylinder (Item 2) and Spring Housing (Item 20).
4. Separate the Piston (Item 3) and Drive Ring (Item 4) from the Cylinder (Item 2).
5. Remove and discard O-rings (Items 12 & 13) and Quad Seals (Item 25).
6. Press the old Ball Bearing (Item 8) and Drive Ring (Item 4) out of the Piston (Item 3).
7. Using a bearing puller, remove the Drive Ring (Item 4) from the Ball Bearing (Item 8).
8. Remove the Springs (Item 22) from the Spring Housing (Item 20).
9. Remove the Retaining Ring (Item 24) from the Spring Housing (Item 20) and discard.
10. Press the old Ball Bearing (Item 9) from the Spring Housing (Item 20).
11. Clean the bearing bore of Piston (Item 3) and Spring Housing (Item 20) with fresh safety solvent, making sure all old Loctite (or equivalent) residue is removed..

AIR CHAMBER ASSEMBLY

1. Apply an adequate amount of Loctite 680 (or equivalent) to evenly coat the outer races of the new Ball Bearing (Item 8); then press the new Ball Bearing (Item 8) into the Piston (Item 3).
2. Apply an adequate amount of Loctite 680 (or equivalent) to evenly coat the bearing bore of the Spring Housing (Item 20) and press the Bearing (Item 9) into the Spring Housing (Item 20).
3. Reinstall the Retaining Ring (Item 24) into the Spring Housing (Item 20).
4. Supporting the inner race of the Ball Bearing (Item 8), press the Drive Ring (Item 4) into the new Ball Bearing (Item 8) and Piston (Item 3).
5. Apply a thin coat of O-ring lubricant to the O-ring contact surfaces at the Cylinder (Item 2), Piston (Item 3), and the new O-rings (Items 12 & 13).
6. Apply a thin coat of O-ring Lubricant to the quad seal contact surfaces of the Drive Flange (Item 5) and the new Quad Seals (Item 25).
7. Install the new O-ring (Item 12) into the Piston (Item 3) and the new O-ring (Item 13) into the Cylinder (Item 2).
8. Install the new Quad Seals (Item 25) into the Cylinder (Item 2).
9. Making sure not to damage the new O-ring (Items 12 & 13), press the Piston (Item 3) into the Cylinder (Item 2).
10. Apply a small bead of Loctite 510 (or equivalent) gasket eliminator or equivalent to the flange surfaces of the Cylinder (Item 2).
11. Install new Springs (Item 22) into the Spring Housing (Item 20).
12. Attach Spring Housing (Item 20) to Cylinder (Item 2) by alternately tightening Cap Screws (Item 23).

NOTE: Tighten cap screws (Item 23) to 34.0–44.3 Nm [301–392 in-lb].

FINAL ASSEMBLY

 WARNING	
<p>Contents under spring pressure. Use caution and always wear safety glasses when working with spring or tension loaded devices.</p>	

1. Supporting the inner race of the Ball Bearing (Item 9) in the Spring Housing (Item 20), press the Hub (Item 1) and Drive Flange (Item 5) into the Cylinder (Item 2) and Drive Ring (Item 4).
2. Reinstall the Retaining Ring (Item 11) onto the Hub (Item 1).
3. Reinstall the square Set Screws (Item 16) and Hex Nuts (Item 26) into the Hub (Item 1).

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

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