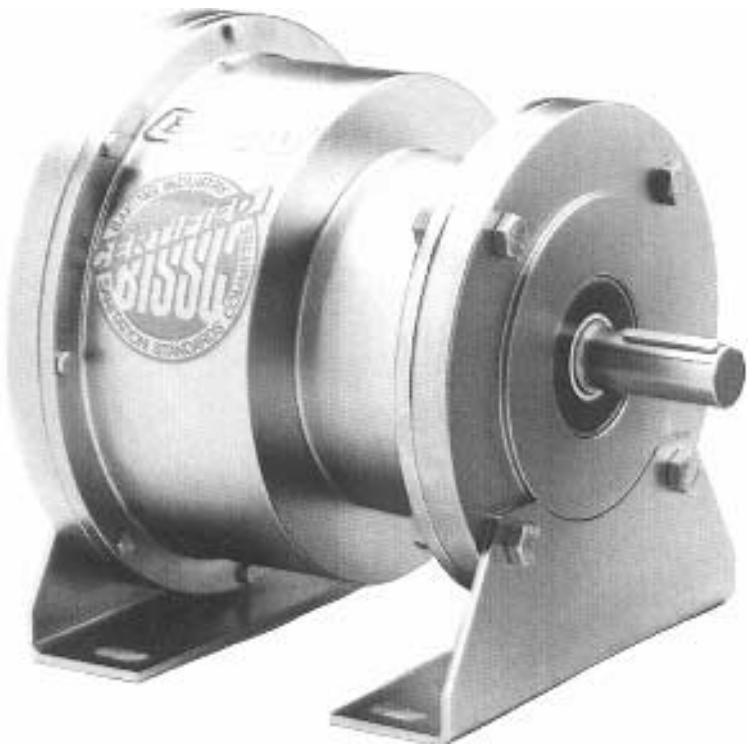
FORM NO. L-20251-B-1099

nexen
formerly Horton Industrial Products
"Air Champ"®

BISSC CERTIFIED 875 FMCBE
INSTALLATION, OPERATION, 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.

CONTENTS

INSTALLATION

BISSC CERTIFIED 875 FMCBE MOUNTED ON A C-FACED MOTOR

NOTE

Align the air inlet ports to a down position to allow condensation to drain out of the ports.

1. Insert customer supplied key into the motor shaft keyway.
2. Slide the Female Pilot (Item 26) and the Drive Disc (Item 4) onto the motor shaft (See Figure 1).

NOTE

Use Loctite® 242 on all fasteners.

3. Using four Nexen supplied 0.375-16 x 1.000" Hex. Head Cap Screws (Item 29), secure the Female Pilot and the Drive Disc to the motor (See Figure 1).
4. Alternately and evenly tighten the four Hex. Head Cap Screws (Item 29) to 15 Ft. Lbs. [20.3 N•m] torque.
5. Tighten the Set Screw (Item 31) to lock the Drive Disc (Item 4) onto the motor shaft (See Figure 1).
6. Coat the O-ring Seal (Item 33) and the seal contact surface with a film of O-ring lubricant, then wipe off any excess lubricant (See Figure 1).
7. Slide the O-ring Seal (Item 33) onto the diameter of the Female Pilot (Item 26) (See Figure 1).
8. Slide the FMCBE Assembly onto the Female Pilot (Item 26) and the Drive Disc (Item 4) (See Figure 1).
9. Using eight Nexen supplied 0.250-20 x 0.875" Hex. Head Caps Screws (Item 27), secure the FMCBE Assembly onto the Female Pilot and Drive Disc (See Figure 1).
10. Alternately and evenly tighten the eight Hex. Head Cap Screws (Item 27) to 49 In. Lbs. [5.5 N•m] torque.

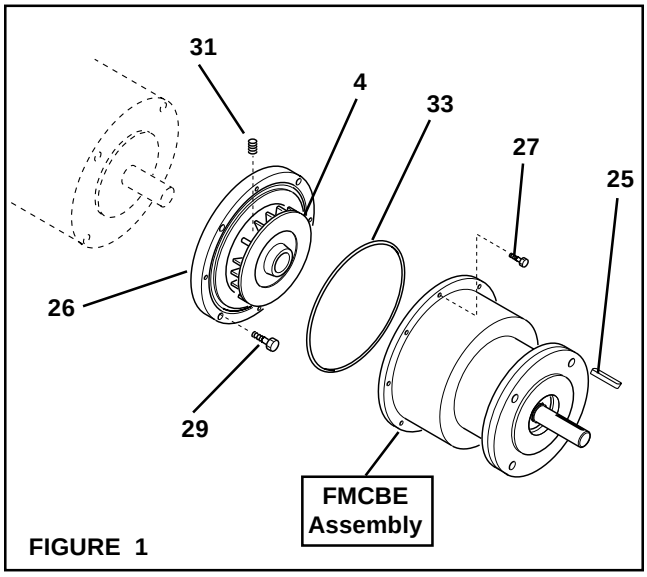


FIGURE 1

BISSC CERTIFIED 875 FMCBE MOUNTED BETWEEN A C-FACED MOTOR AND GEAR REDUCER

NOTE

Align the air inlet ports to a down position to allow condensation to drain out of the ports.

1. Insert customer supplied key into the motor shaft keyway.
2. Slide the Female Pilot (Item 26) and the Drive Disc (Item 4) onto the motor shaft (See Figure 2).

NOTE

Use Loctite® 242 on all fasteners.

3. Using four Nexen supplied 0.375-16 x 1.000" Hex. Head Cap Screws (Item 29), secure the Female Pilot and the Drive Disc to the motor (See Figure 1).
4. Alternately and evenly tighten the four Hex. Head Cap Screws (Item 29) to 15 Ft. Lbs. [20.3 N•m] torque (See Figure 2).

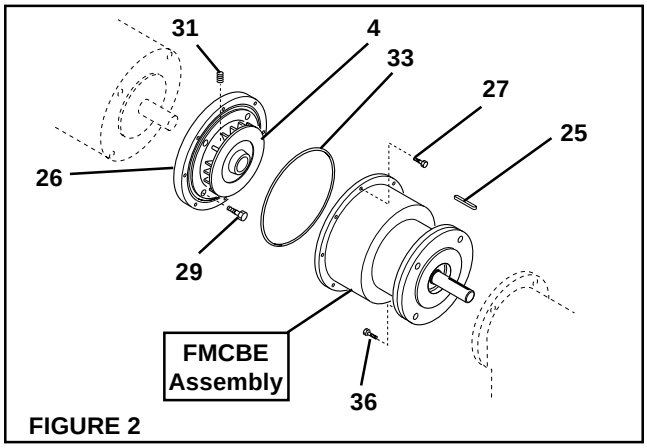


FIGURE 2

5. Tighten the Set Screw (Item 31) to lock the Drive Disc (Item 4) onto the motor shaft (See Figure 2).

6. Coat the O-ring Seal (Item 33) and the seal contact surface with a film of O-ring lubricant, then wipe off any excess lubricant (See Figure 2).

7. Slide the O-ring Seal (Item 33) onto the seal diameter of the Female Pilot (Item 26) (See Figure 2).

8. Slide the FMCBE Assembly onto the Female Pilot (Item 26) and the Drive Disc (Item 4) (See Figure 2).

9. Using eight Nexen supplied 0.250-20 x 0.875" Hex. Head Cap Screws (Item 27), secure the FMCBE Assembly to the Female Pilot and Drive Disc (See Figure 2).

10. Alternately and evenly tighten the eight Hex. Head Cap Screws (Item 27) to 49 In. Lbs. [5.5 N•m] torque.

11. Slide the Male Pilot end of the FMCBE Assembly and motor into the gear reducer.

12. Using four Nexen supplied 0.375-16 x 1.500" Hex. Head Cap Screws (Item 36), secure the Male Pilot end of the FMCBE Assembly to the gear reducer (See Figure 2).

13. Alternately and evenly tighten the four Hex. Head Cap Screws (Item 36) to 15 Ft. Lbs. [20.3 N•m] torque.

OPTIONAL INPUT UNIT

1. Coat the O-ring Seal (Item 59) and the seal contact surface with a film of O-ring lubricant, then wipe off any excess lubricant (See Figure 3).

2. Place the O-ring Seal (Item 59) into the seal groove of the Input Unit flange (See Figure 3).

3. Slide the Female Pilot (Item 26) and Drive Disc (Item 4) onto the Input Unit shaft (See Figure 3).

NOTE
Use Loctite® 242 on all fasteners.

4. Using four Nexen supplied 0.375-16 x 1.250" Hex. Head Cap Screws (Item 62) and Nuts (Item 64), secure the Female Pilot and Drive Disc to the Input Unit (See Figure 3).

5. Alternately and evenly tighten the four Hex. Head Cap Screws (Item 62) to 15 Ft. Lbs. [20.3 N•m] torque.

6. Tighten the Set Screw (Item 31) to lock the Drive Disc (Item 4) onto the Input Unit shaft (See Figure 3).

7. Coat the O-ring Seal (Item 33) and the seal contact surface with a film of O-ring lubricant, then wipe off any excess lubricant (See Figure 3).

8. Slide the O-ring Seal (Item 33) onto the seal diameter of the Female Pilot (Item 26) (See Figure 3).

9. Slide the FMCBE Assembly onto the Female Pilot (Item 26) and the Drive Disc (Item 4) (See Figure 3).

10. Using eight 0.250-20 x 0.875" Hex. Head Caps Screws (Item 27), secure the FMCBE Assembly to the Female Pilot and Drive Disc (See Figure 3).

11. Alternately and evenly tighten the eight Hex. Head Cap Screws (Item 27) to 49 In. Lbs. [5.5 N•m] torque.

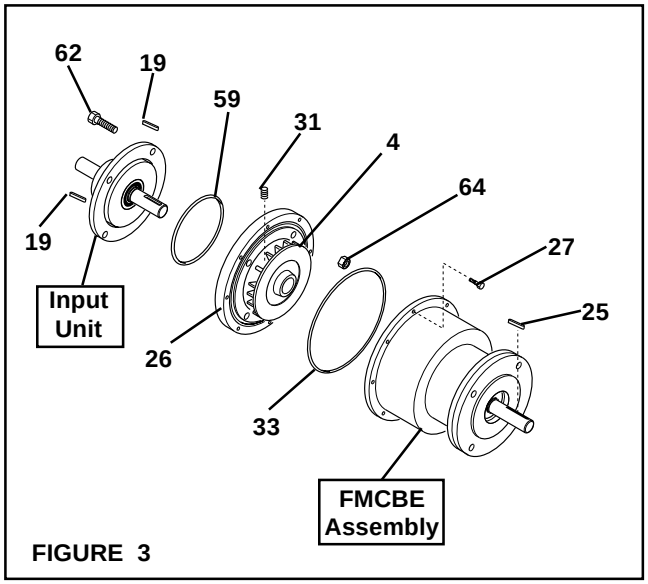


FIGURE 3

OPTIONAL MOUNTING FEET

1. Coat the O-ring Seal (Item 59) and the seal contact surface of the Input Unit with a film of O-ring lubricant, then wipe off any excess lubricant (See Figure 4).

2. Place the O-ring Seal (Item 59) into the seal groove of the Input Unit flange (See Figure 4).

3. Slide the Female Pilot Assembly onto the Input Unit shaft (See Figure 4).

NOTE
Use Loctite® 242 on all fasteners.

4. Using two 0.375-16 x 1.500" Hex. Head Cap Screws (Item 70) and Hex. Nuts (Item 72), secure one optional Mounting Foot (Item 71) to the Female Pilot Assembly and Input Unit (See Figure 4).

5. Using two 0.375-16 x 1.250" Hex. Head Cap Screws (Item 74) and Hex. Nuts (Item 72), secure Input Unit to Female Pilot Assembly using two remaining holes (See Figure 4).

6. Tighten four Hex. Head Cap Screws (Items 70 and 74) to 15 Ft. Lbs. [20.3 N•m] torque.

7. Tighten the Set Screw (Item 31) to lock the Drive Disc (Item 4) onto the Input Unit shaft (See Figure 4).

8. Coat the O-ring Seal (Item 33) and the seal contact surface with a film of O-ring lubricant, then wipe off any excess lubricant (See Figure 4).

9. Slide the O-ring Seal (Item 33) into the seal diameter of the Female Pilot Assembly (Item 26) (See Figure 4).

10. Slide the FMCBE Assembly onto the Female Pilot Assembly (See Figure 4).

11. Using eight 0.250-20 x 0.875" Hex. Head Caps Screws (Item 27), secure the FMCBE Assembly to the Female Pilot Assembly (See Figure 4).

12. Alternately and evenly tighten the eight Hex. Head Cap Screws (Item 27) to 49 In. Lbs. [5.5 N•m] torque (See Figure 4).

13. Using two 0.375-16 x 1.375" Hex. Head Cap Screws (Item 75) and Acorn Nuts (Item 73), secure one optional Mounting Foot (Item 71) to the Male Pilot end of the FMCBE Assembly (See Figure 4).

14. Using two 0.375-16 x 1.250" Hex. Head Cap Screws (Item 74) and Acorn Nuts (Item 73), plug the remaining mounting holes.

15. Alternately and evenly tighten the four Hex. Head Cap Screws to 15 Ft. Lbs. [20.3 N•m] torque.

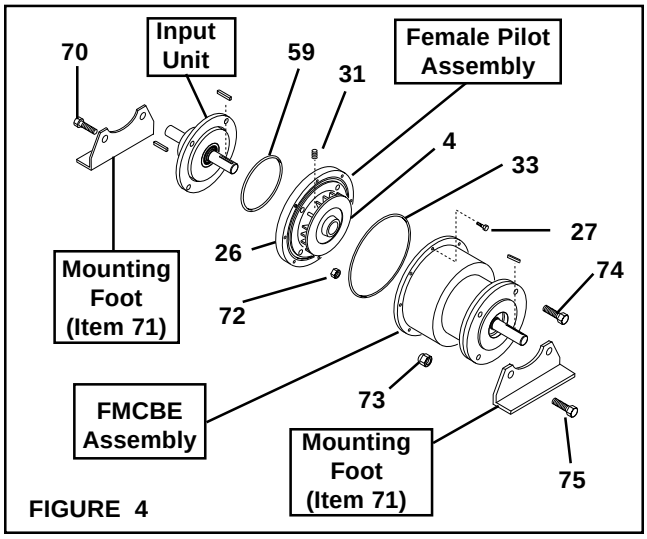


FIGURE 4

AIR CONNECTIONS

NOTE

For quick response, a quick exhaust valve and short air lines are recommended between the control valves and the BISSC Certified 875 FMCBE to ensure rapid engagement and disengagement. The units have 1/8 NPT ports.

4-WAY CONTROL VALVE

1. If the brake is to be set when the solenoid is de-energized, connect the port marked **2** to the brake and the port marked **4** to the clutch (See Figure 5).

2. Connect the air supply line to the inlet port marked **1** (See Figure 5).

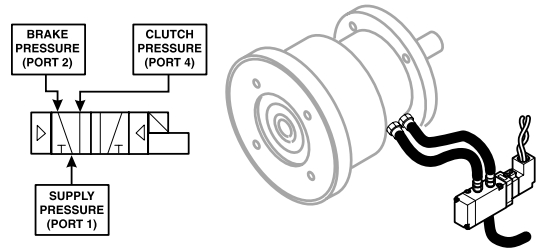


FIGURE 5

5-WAY CONTROL VALVE

1. If the brake is to be set and the clutch is to be **OFF** when the solenoid is de-energized, connect the port marked **4** to the brake and the port marked **2** to the clutch (See Figure 6).

2. Connect the brake air supply line to the port marked **5** and the clutch air supply line to the port marked **3** (See Figure 6).

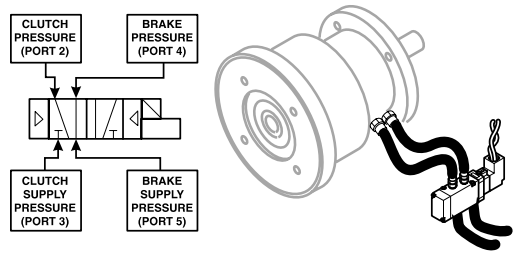


FIGURE 6

3-WAY CONTROL VALVES

1. Connect a 3-Way N.O Control into the brake inlet port and a 3-Way N.C. Control into the clutch inlet port (See Figure 7).

2. Connect an air supply line to the inlet port (marked **IN**) on the top of the 3-Way N.O. Control and an air supply line to the inlet port (marked **IN**) on the side of the 3-Way N.C. Control (See Figure 7).

NOTE

When a 3-Way N.O. Control is de-energized, air flows directly to the brake. When a 3-Way N.O. Control is energized, air exhaust from the brake.

When a 3-Way N.C. Control is de-energized, air exhausts from the clutch. When a 3-Way N.C. Control is energized, air flows to the clutch.

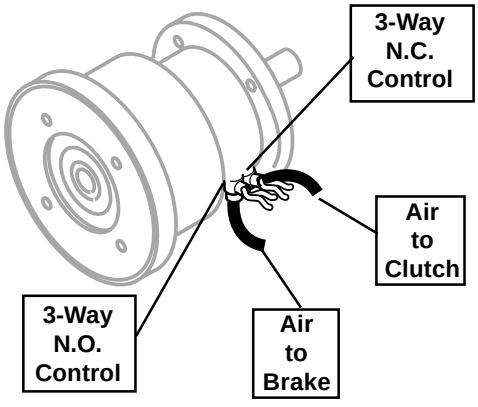


FIGURE 7

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 the BISSC Certified 875 FMCBE 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 unit, and use a low viscosity oil such as SAE-10.

Synthetic lubricants are not recommended.

LUBRICATOR DRIP RATE SETTING

NOTE

These settings 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 counter clockwise until closed.
7. Turn the Lubricator Adjustment Knob clockwise one third turn.
8. Open the air line to the unit.

TROUBLESHOOTING

SYMPTOM	PROBABLE CAUSE	SOLUTION
Failure to engage. (Clutch)	Air not getting to the BISSC Certified 875 FMCBE due to Control Valve malfunction.	Check for a Control Valve malfunction or low air pressure and replace the Control Valve if necessary.
	Defective O-ring Seals resulting in air leaks.	Replace the O-ring Seals.
	Lack of lubrication on Hub Spline.	Lubricate Hub Spline.
Failure to engage. (Brake)	Air not getting to the BISSC Certified 875 FMCBE due to Control Valve malfunction.	Check for a Control Valve malfunction or low air pressure and replace the Control Valve if necessary.
	Defective O-ring Seals resulting in air leaks.	Replace the O-ring Seals.
	Lack of lubrication on Hub Spline.	Lubricate Hub Spline.
Failure to disengage. (Clutch)	Unexhausted air due to a Control Valve malfunction.	Check for Control Valve malfunction and replace the Control Valve if necessary.
	Lack of lubrication on the Hub Spline.	Lubricate Hub Spline.
Failure to disengage. (Brake)	Unexhausted air due to a Control Valve malfunction.	Check for Control Valve malfunction and replace the Control Valve if necessary.
	Lack of lubrication on the Hub Spline.	Lubricate Hub Spline.
Loss of torque. (Clutch and Brake)	Defective O-ring Seals resulting in air leaks.	Replace the O-ring Seals.
	Contaminated Friction Facings.	Replace the Friction Facings.
	Worn Friction Facings.	Replace the Friction Facings.

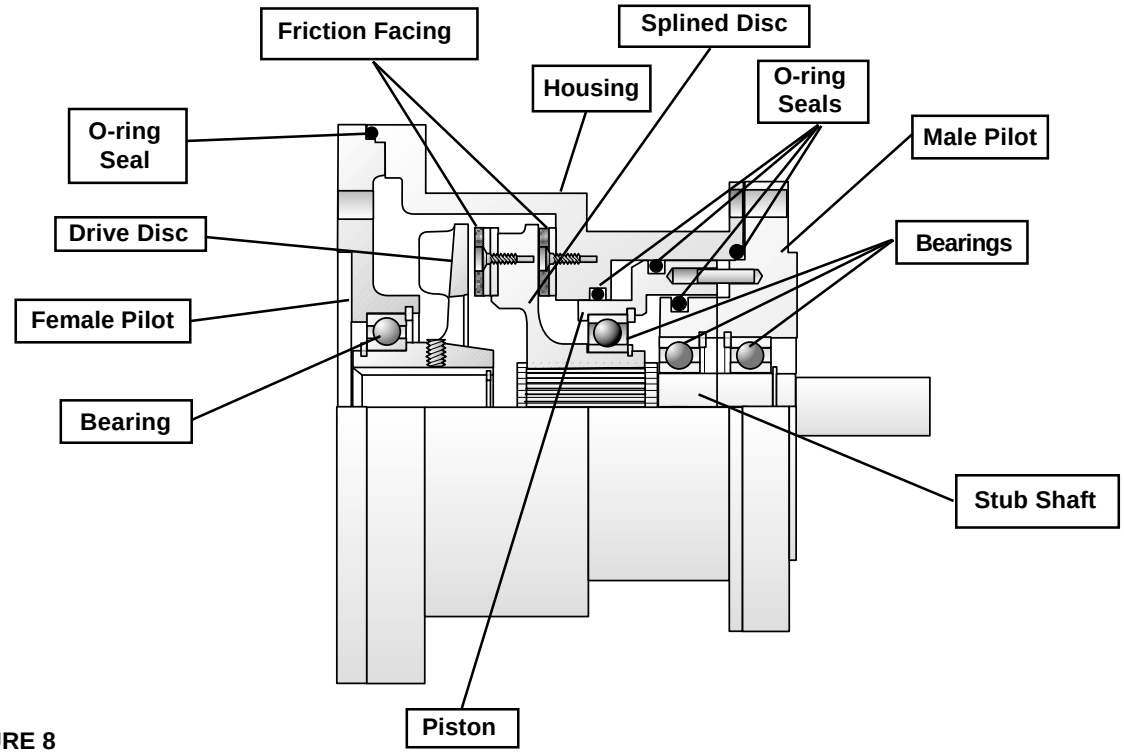


FIGURE 8

PARTS REPLACEMENT–FMCBE

NOTE

If an Input Unit has been installed, it must be removed prior to servicing the BISSC Certified 875 FMCBE.

COMPONENT DISASSEMBLY

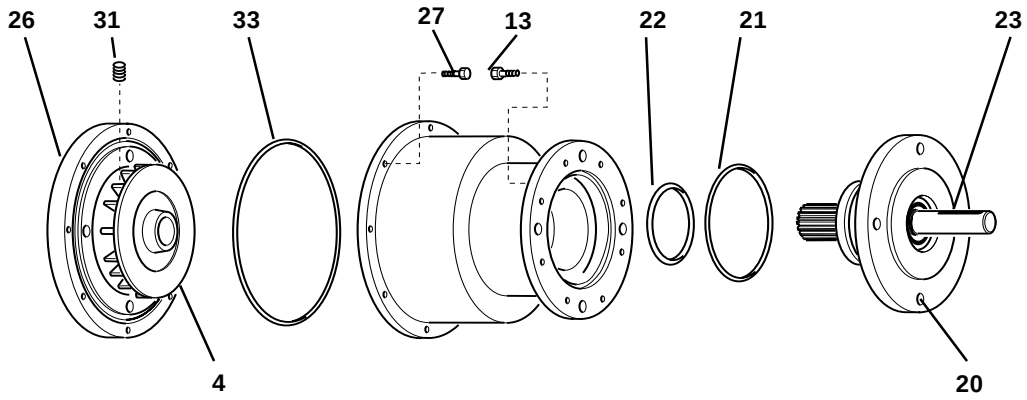


FIGURE 9

1. Remove the eight Hex. Head Cap Screws (Item 27), Female Pilot (Item 26), Drive Disc (Item 4), and O-ring Seal (Item 33) from the FMCBE Assembly (See Figure 9).
2. Remove the eight Hex. Head Cap Screws (Item 13), Male Pilot (Item 20), Bearings (Item 19), Stub Shaft (Item 23), and O-ring Seals (Items 21 and 22) (See Figure 9).

FRICTION FACINGS (Item 11), O-RING SEALS (Item 14 and 15), AND BEARING (Item 2)

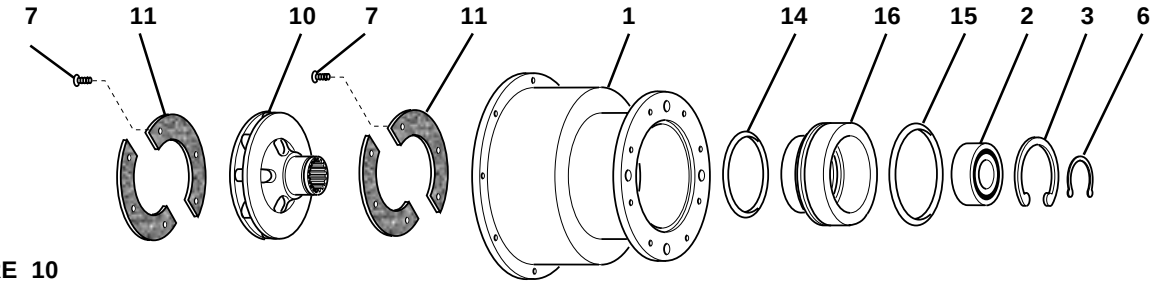


FIGURE 10

WARNING

Special attention should always be exercised when working with retaining rings. Always wear safety goggles when working with spring or tension loaded fasteners or devices.

1. Remove the Retaining Ring (Item 6) from the Splined Disc (Item 10) (See Figures 10 and 11).
2. Supporting the inner flange of the Housing (Item 1), press the Splined Disc (Item 10) out of the Piston (Item 16) and Bearing (Item 2) (See Figures 10 and 11).
3. Slide the Piston (Item 16) and O-ring Seals (Items 14 and 15) out of the Housing (Item 1) (See Figures 10 and 11).
4. Remove the Retaining Ring (Item 3) from the Piston (Item 16) (See Figures 10 and 11).
5. Supporting the Piston (Item 16), press the Bearing (Item 2) out of the Piston (See Figures 10 and 11).
6. Supporting the Piston (Item 16) and pressing on the outer race of the new Bearing (Item 2), press the new Bearing into the Piston (See Figures 10 and 11).
7. Install the Retaining Ring (Item 3) (See Figures 10 and 11).
8. Clean the O-ring contact surfaces of both the Piston (Item 16) and Housing (Item 1) with fresh safety solvent (See Figures 10 and 11).
9. Coat the O-ring contact surfaces of the Piston (Item 16) and Housing (Item 1) with fresh O-ring lubricant and wipe off the excess lubricant.
10. Coat the new O-ring Seals (Item 14 and 15) with fresh O-ring lubricant (See Figures 10 and 11).
11. Install O-ring Seal (Item 14) into the Housing (Item 1) and O-ring Seal (Item 15) onto the Piston (Item 16) (See Figures 10 and 11).
12. Slide the Piston (Item 16) with O-ring Seal (Item 15) back into the Housing (Item 1) and O-ring Seal (Item 14) (See Figures 10 and 11).
13. Remove the six Machine Screws (Item 7) securing the Split Friction Facings (Item 11) to the Housing (Item 1) (See Figures 10 and 11).

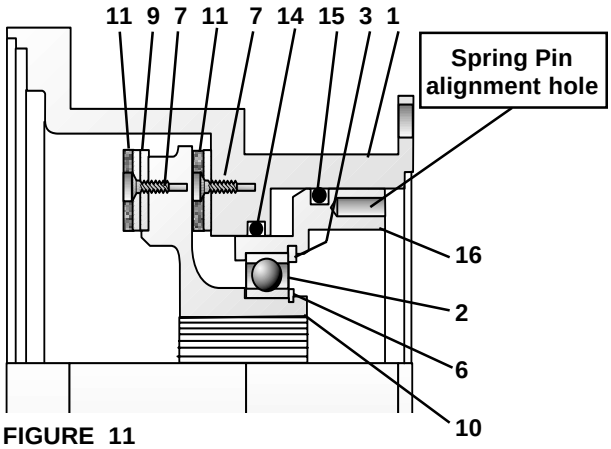


FIGURE 11

14. Remove the Split Friction Facing from the Housing (Item 11) (See Figures 10 and 11).
15. Using six new Machine Screws (Item 7), secure the new Friction Facing (Item 11) to the Housing (Item 1) (See Figures 10 and 11).
16. Tighten the six Machine Screws (Item 7) to 22 In. Lbs. [2.5 N•m] torque.
17. Remove the six Machine Screws (Item 7) securing the Split Friction Facings (Item 11) to the Splined Disc (Item 10) (See Figures 10 and 11).
18. Remove the Split Friction Facing (Item 11) (See Figures 10 and 11).
19. Using six new Machine Screws (Item 7), secure the new Friction Facing (Item 11) to the Splined Disc (Item 10) (See Figures 10 and 11).
20. Tighten the six Machine Screws (Item 7) to 22 In. Lbs. [2.5 N•m] torque.
21. Support the inner race of the Bearing (Item 2) and press the Splined Disc (Item 10) back into the Bearing (Item 2) and Housing (Item 1) (See Figures 10 and 11).
22. Install the Retaining Ring (Item 6) (See Figures 10 and 11).

MALE PILOT BEARINGS (Item 19) AND O-RING SEALS (Item 21 AND 22)

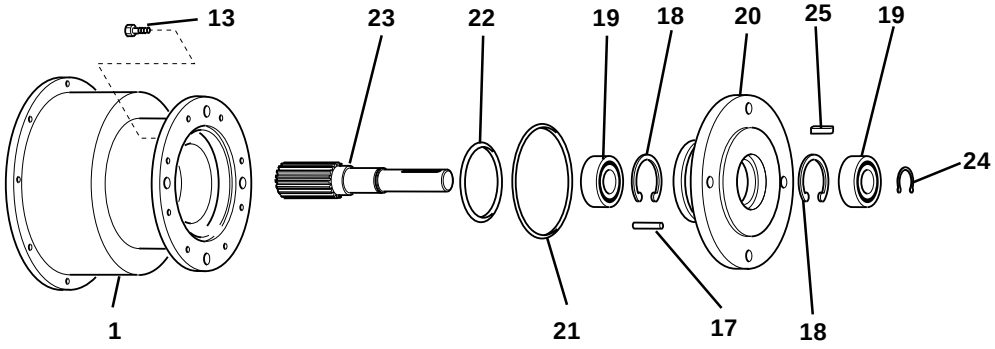


FIGURE 12

1. Remove the Key (Item 25) from the Stub Shaft (Item 23) (See Figure 12).

WARNING

Special attention should be exercise when working with retaining rings. Always wear safety goggles when working with spring or tension loaded fasteners or devices.

2. Remove the Retaining Ring (Item 24) (See Figures 12 and 13).

3. Press the Stub Shaft (Item 23) out of the Male Pilot (Item 20) and Bearings (Item 19) (See Figures 12 and 13).

NOTE

One Bearing (Item 19) will come out of the Male Pilot (Item 20) on the Stub Shaft (Item 23).

4. Press the Bearing (Item 19) that is still in the Male Pilot (Item 20) out (See Figures 12 and 13).

5. Using a bearing puller, remove the second Bearing (Item 19) from the Stub Shaft (Item 23) (See Figures 12 and 13).

6. Supporting the Male Pilot and pressing on the outer bearing race, press one new Bearing (Item 19) into the Male Pilot until it is seated against the Retaining Ring (Item 18) inside the Male Pilot (See Figures 12 and 13).

7. Support the inner race of the bearing pressed into the Male Pilot in Step 6 and press the Stub Shaft (Item 23) into the Bearing (Item 19) and Male Pilot (Item 20) (See Figures 12 and 13).

8. Pressing on both the inner and outer races, press the second Bearing (Item 19) onto the Stub Shaft (Item 23) and into the Male Pilot (Item 20) (See Figures 12 and 13).

9. Install the Retaining Ring (Item 24) (See Figures 12 and 13).

10. Remove the O-rings Seals (Items 21 and 22) (See Figure 12).

11. Clean the O-ring Seal contact surfaces of the Housing (Item 1) and Male Pilot (Item 20) with fresh safety solvent.

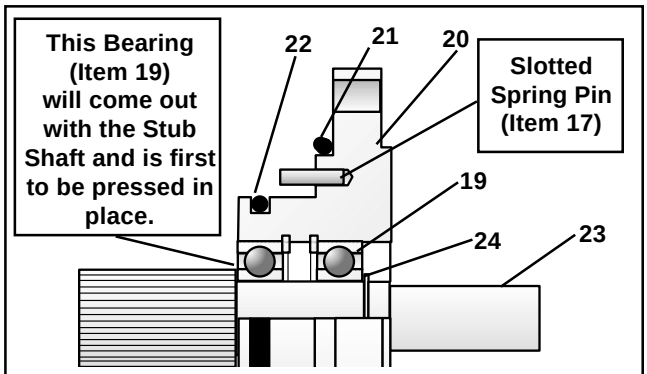


FIGURE 13

12. Coat the O-ring contact surfaces of the Male Pilot (Item 20) and Housing (Item 1) with fresh O-ring lubricant and wipe off the excess lubricant.

13. Coat the new O-ring Seals (Item 21 and 22) with fresh O-ring lubricant (See Figures 12 and 13).

14. Install the new O-ring Seals (Item 21 and 22) onto the Male Pilot (Item 20).

15. Coat the splined end of the Stub Shaft (Item 23) with a thin film of Never-Seez®.

16. Align the Slotted Spring Pin (Item 17) in the Male Pilot with the hole in the Piston and carefully slide the Male Pilot Assembly into the Housing and Piston/Splined Disc Assembly.

17. Apply a drop of Loctite® 242 to the threads of the eight Hex. Head Cap Screws (Item 13) (See Figures 12 and 13).

18. Using eight Hex. Head Cap Screws (Item 13), secure the Male Pilot to the Housing (Item 1) (See Figure 12).

19. Alternately and evenly tighten the eight Hex. Head Cap Screws (Item 13) to 21 In. Lbs. [3 N•m].

20. Apply a drop of Loctite® 242 to the Key (Item 25) (See Figure 12).

21. Press the Key (Item 25) into the Stub Shaft (Item 23) (See Figure 12).

FEMALE PILOT BEARING (Item 2) AND O-RING SEAL (Item 33)

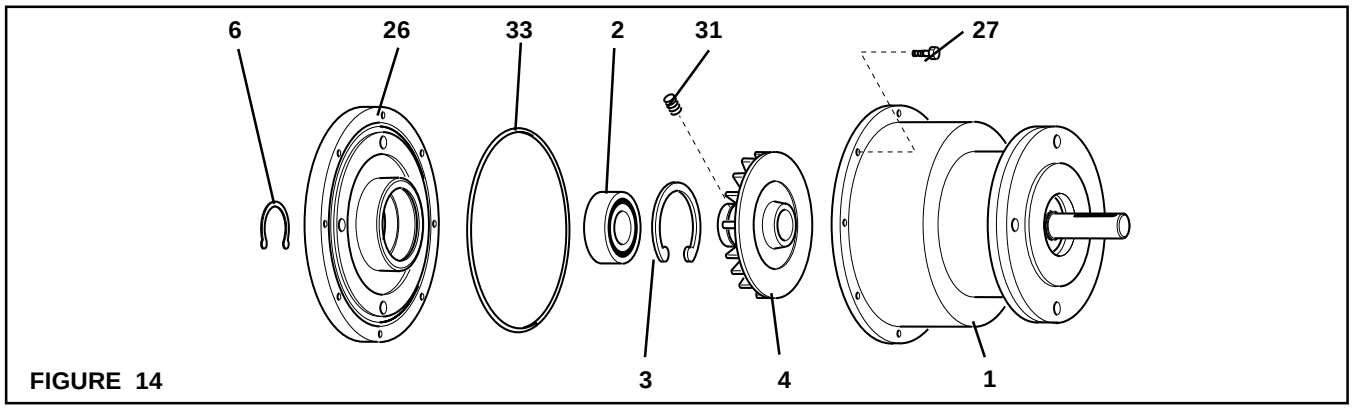


FIGURE 14

WARNING

Special attention should be exercised when working with retaining rings. Always wear safety goggles when working with spring or tension loaded fasteners or devices.

1. Remove the Retaining Ring (Item 6) from the Drive Disc (Item 4) (See Figures 14 and 15).
2. Fully supporting the Female Pilot (Item 26), press the Drive Disc (Item 4) out of the Female Pilot (Item 26) (See Figures 14 and 15).
3. Remove the Retaining Ring (Item 3) from the Female Pilot (Item 26) (See Figures 14 and 15).
4. Press the Bearing (Item 2) out of the Female Pilot (Item 26) (See Figures 14 and 15).
5. Fully supporting the Female Pilot (Item 26) and pressing on the outer bearing race, press the new Bearing (Item 2) into the Female Pilot (See Figures 14 and 15).
6. Install the Retaining Ring (Item 3) into the Female Pilot (Item 26) (See Figures 14 and 15).
7. Fully supporting the inner race of Bearing (Item 2), press the Drive Disc (Item 4) into the Bearing and Female Pilot (See Figures 14 and 15).
8. Install the Retaining Ring (Item 6) onto the Drive Disc (Item 4) (See Figures 14 and 15).
9. Clean the O-ring contact surfaces of the Female Pilot (Item 26) and Housing (Item 1) with fresh safety solvent.
10. Coat the O-ring contact surfaces of the Female Pilot (Item 26) and Housing (Item 1) with fresh O-ring lubricant and wipe off any excess lubricant.
11. Coat the new O-ring Seal (Item 33) with fresh O-ring lubricant and place the new O-ring onto the Female Pilot (See Figure 14).

NOTE

Do not tighten the Hex. Head Cap Screws (Item 27) until the Clutch-Brake has been installed on the unit it is controlling.

12. Secure the Female Pilot Assembly to the Housing with the eight Hex. Head Cap Screws (Item 27) (See Figure 14).

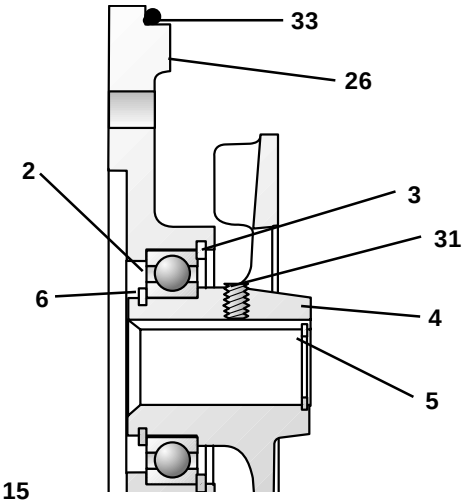


FIGURE 15

PARTS REPLACEMENT–INPUT UNIT

1. Remove the eight Hex. Head Cap Screws (Item 27) (See Figure 16).
2. Remove the Female Pilot Assembly, O-ring Seal (Item 33), and the Input Unit from the FMCBE (See Figure 16).
3. Remove four the Hex. Head Cap Screws (Item 62) and Hex. Nuts (Item 64) (See Figure 16).
4. Remove the Set Screw (Item 31) and slide the Female Pilot Assembly off the Input Unit (See Figure 16).
5. Remove the O-ring Seal (Item 59) (See Figure 17).
6. Remove both Keys (Item 19) (See Figure 17).

WARNING

Special attention should always be exercised when working with retaining rings. Always wear safety goggles when working with spring or tension loaded fasteners or devices.

7. Remove the Retaining Ring (Item 58) (See Figure 17).
8. Supporting the Bearing Flange (Item 20), press the Stub Shaft (Item 11) and Bearings (Item 30) out of the Bearing Flange (See Figure 17).

NOTE

One Retaining Ring must remain on the Stub Shaft (See Figure 16).

9. Remove one Retaining Ring (Item 35) (See Figure 17).
10. Press the Stub Shaft (Item 11) out of the Bearings (Item 30) (See Figure 17).
11. Press the new Bearings (Item 30) onto the Stub Shaft (Item 11) until they are seated against the Retaining Ring (Item 35) on the Stub Shaft.
12. Install the Retaining Ring (Item 35) that was removed from the Stub Shaft.
13. Remove the Variseal™ (Item 13) from the Bearing Flange (Item 20) (See Figure 17).
14. Supporting the Bearing Flange (Item 20) and pressing on the outer races of Bearings (Item 30), press the Stub Shaft and Bearings into the Bearing Flange until they are seated against the step in the Bearing Flange.
15. Install the Retaining Ring (Item 58) (See Figure 17).
16. Coat the outer seal of the Variseal™ with a thin film of O-ring lubricant (See Figure 18).
17. Press the Variseal™ with the spring facing out onto the Stub Shaft and into the Bearing Flange (See Figure 17).
18. Apply a drop of Loctite® 242 to the Keys (Item 19) (See Figure 17).
19. Press the Keys (Item 19) into the Stub Shaft (Item 11) (See Figure 17).

NOTE

After assembly is complete, the Stub Shaft should be rotated and checked for smooth operation. If drag is apparent, move the Stub Shaft in and out to release pressure on the bearing cage and recheck for smooth operation.

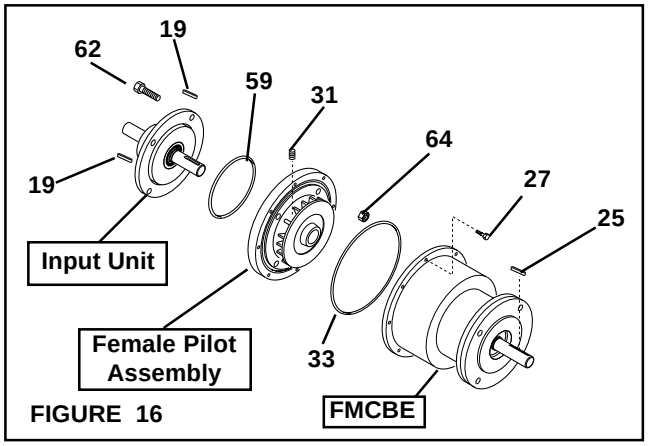


FIGURE 16

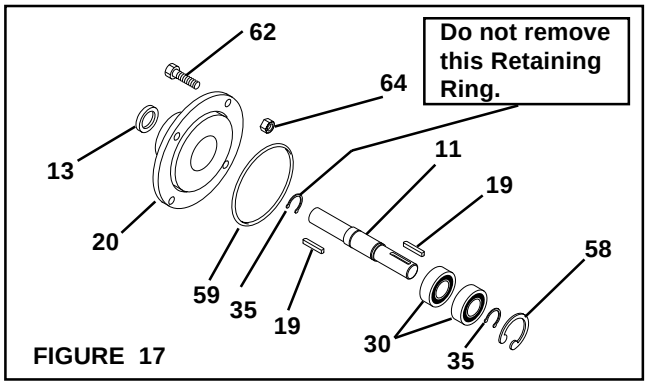


FIGURE 17

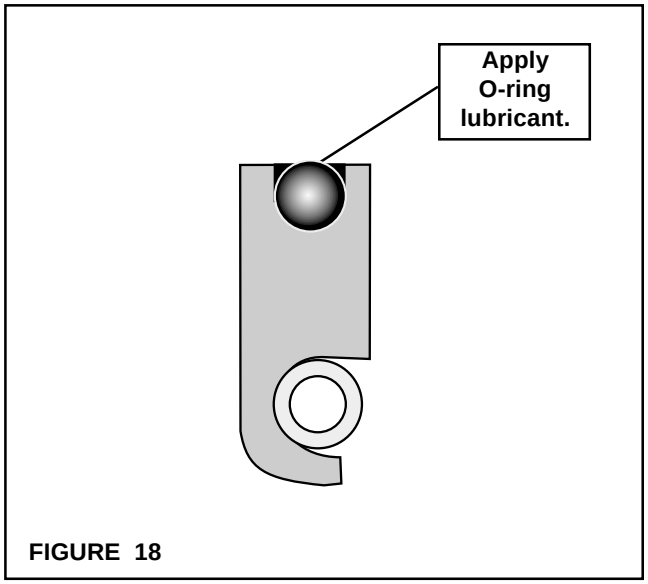


FIGURE 18

REPLACEMENT PARTS

The item or balloon number for all Nexen products is used for part identification on all product parts list, product price lists, unit assembly drawings, bills of materials, and instruction manuals.

When ordering replacement parts, specify model designation, item number, part description, and quantity. Purchase replacement parts through your local Nexen Distributor.

PARTS LIST

BISSC CERTIFIED 875 FMCBE

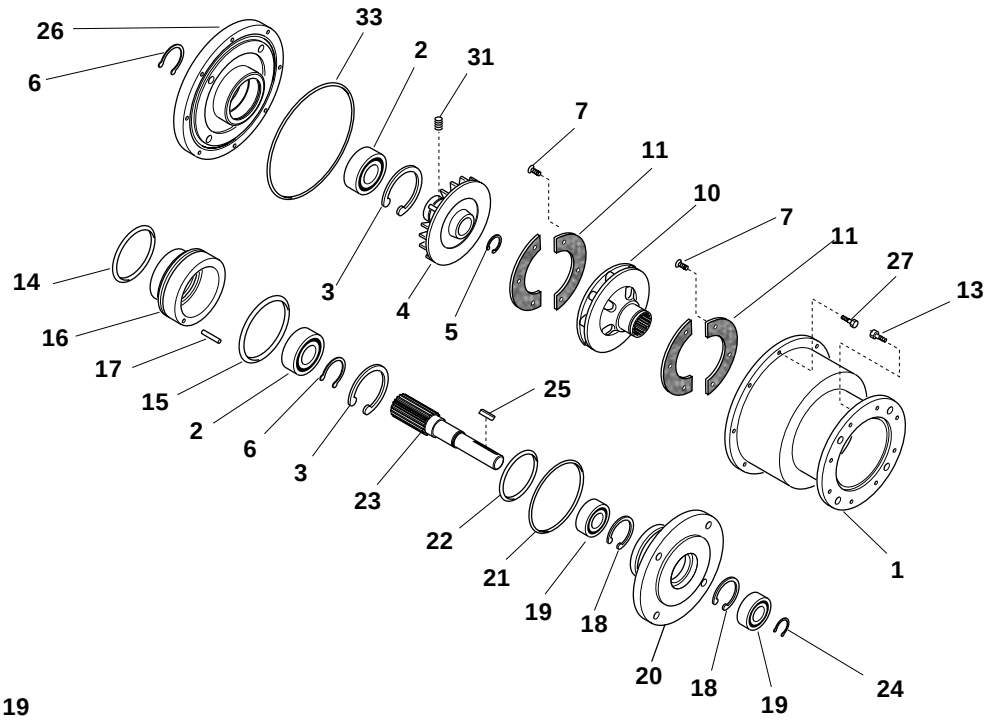


FIGURE 19

ITEM	DESCRIPTION	QTY
1	Housing	1
2[1, 2]	Bearing	2
3	Retaining Ring (Int.)	2
4	Drive Disc	1
5	Retaining Ring (Int.)	1
6	Retaining Ring (Ext.)	2
7[1, 2]	Machine Screw	12
10	Splined Disc	1
11[1, 2]	Friction Facing (1 Set, Split)	2
13	Hex. Head Cap Screw	8
14[1, 2]	O-ring Seal	1
15[1, 2]	O-ring Seal	1
16	Piston	1
17	Slotted Spring Pin	1

ITEM	DESCRIPTION	QTY
18	Retaining Ring (Int.)	2
19[1]	Bearing	2
20	Male Pilot	1
21	O-ring Seal	1
22[1,2]	O-ring Seal	1
23	Stub Shaft	1
24	Retaining Ring (Ext.)	1
25	Key	1
26	Female Pilot	1
27	Hex. Head Cap Screw	8
29	Hex. Head Cap Screw (Not Shown)	4
31	Set Screw	1
33	O-ring Seal	1
36	Hex. Head Cap Screw (Not Shown)	4

[1] Denotes Rebuild Kit Item.
Rebuild Kit Product No. 827262.

[2] Denotes Friction Facing Kit.
Friction Facing Kit Product No. 827263 (two kits required per unit).

INPUT UNIT

ITEM	DESCRIPTION	QTY
11	Stub Shaft	1
13[1]	Variseal™	1
19	Key	2
20	Bearing Flange	1
30[1]	Bearing	2
35	Retaining Ring (Ext.)	2
58	Retaining Ring (Int.)	1
59	O-ring Seal	1
62	Hex. Head Cap Screw	4
64	Hex. Nut	4

[1] Denotes Repair Kit item.
Repair Kit Product No. 827281.

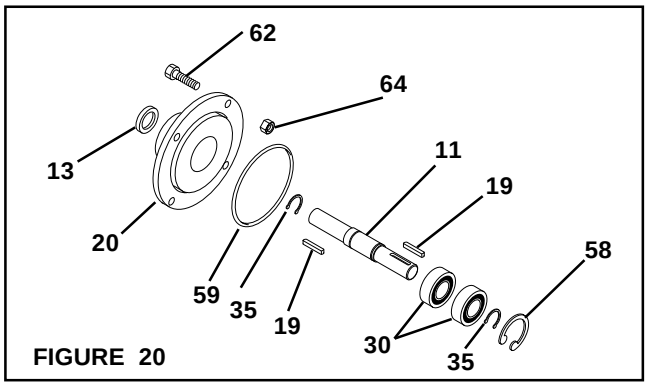


FIGURE 20

MOUNTING FOOT

ITEM	DESCRIPTION	QTY
70	Hex. Head Cap Screw (3/8-16 x 1.500")	2
71	Mounting Foot	2
72	Hex. Nut	4
73	Acorn Nut	4
74	Hex. Head Cap Screw (3/8-16 x 1.250")	4
75	Hex. Head Cap Screw (3/8-16 x 1.375")	2

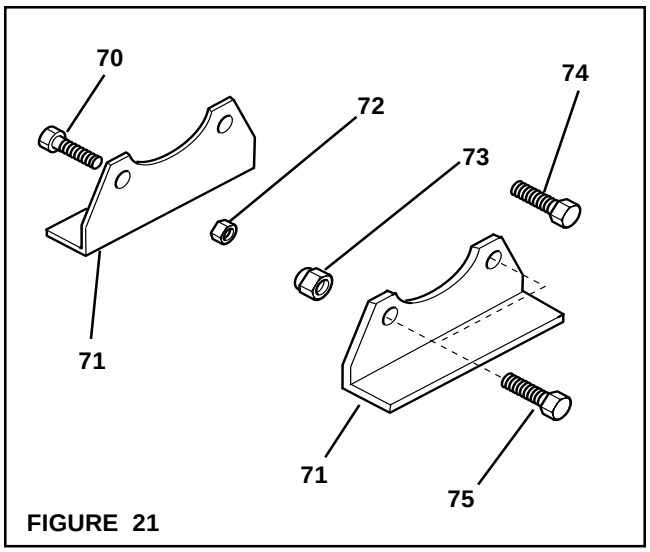


FIGURE 21

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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FORM NO. L-20251-B-1099