Installation Information

No. 04-06-624
EN0800

Heavy Duty Series
Eaton® Pumps & Motors

Installation of Shaft Seal in Kit #990709 and #990753

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Introduction

Eaton Heavy Duty products are designed to allow field service of the shaft seal without disassembling the unit. This document describes the procedure to remove and replace only the seal.

Please read the following instructions completely before beginning work.

Seal removal

1 Remove the retaining ring (figure 1) using retaining ring pliers.

2 Use a punch and hammer to punch a hole in the shaft seal (figure 2 and 3).

3 Use a 3 inch sheet metal screw with the point blunted. Install screw into punched hole (figure 4 and 5) just far enough to pull the shaft seal out of it's pocket (figure 6).

4 Carefully insert the blade of a flat screw driver behind the seal. Pry seal out, taking care not to damage the shaft (figure 7).

figure 1

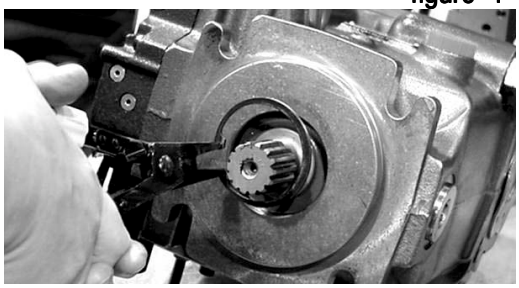


figure 2

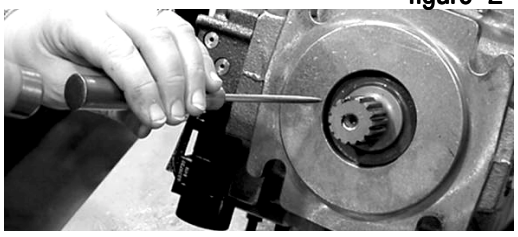


figure 3

figure 4

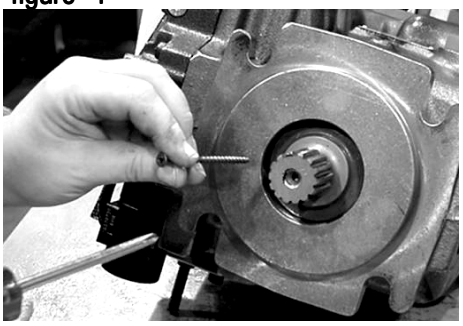
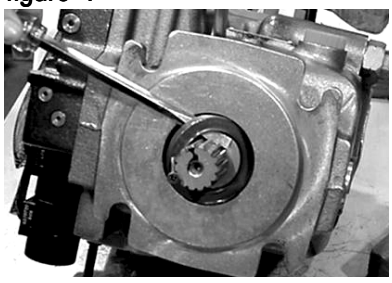


figure 6

figure 5

figure 7



Installing the New Seal

Use Seal 108395 for 33/39/46/54/64 Series 1 units and 33/39/46 Series 2 units.

Use Seal 110192 for special 54/64 Series 1 units with large seal and shaft and standard 54/64 Series 2 units

1 Grease surface of seal which contacts shaft.

2 Press the new greased shaft seal over a shaft bullet, see figure 9 and page 3 for correct bullet. Closed face of the shaft seal is to face the closed end of the bullet.

3 With the shaft seal on the bullet, insert bullet over drive shaft and into the seal pocket.

4 Using the installation tool (see figure 10) and a mallet, push the seal until the tool bottoms on the mounting flange.

> Note:
> The shaft seal kit comes with a shaft seal, retaining ring, and spacer. The spacer is only required for units that have extensive use in the field. The purpose of the spacer is to put the seal in a new location on the shaft sealing area. If using the spacer, install the spacer between the shaft seal and the retaining ring in step #5.

5 Remove the tool and Insert the retaining ring (and spacer if required) into the seal pocket.

6 Again using the tool and mallet, push the seal and retaining ring in until the retaining ring snaps into place in the groove.

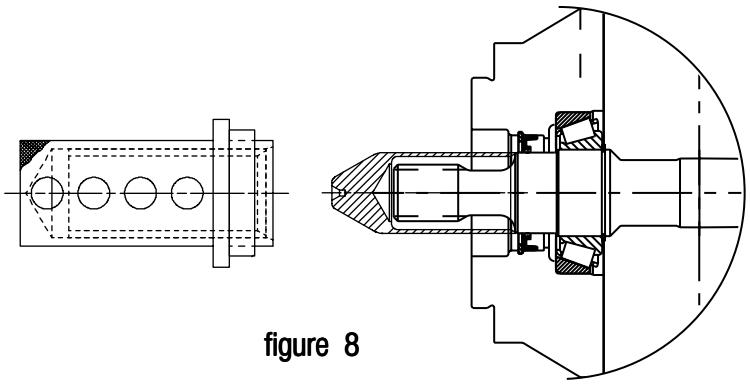
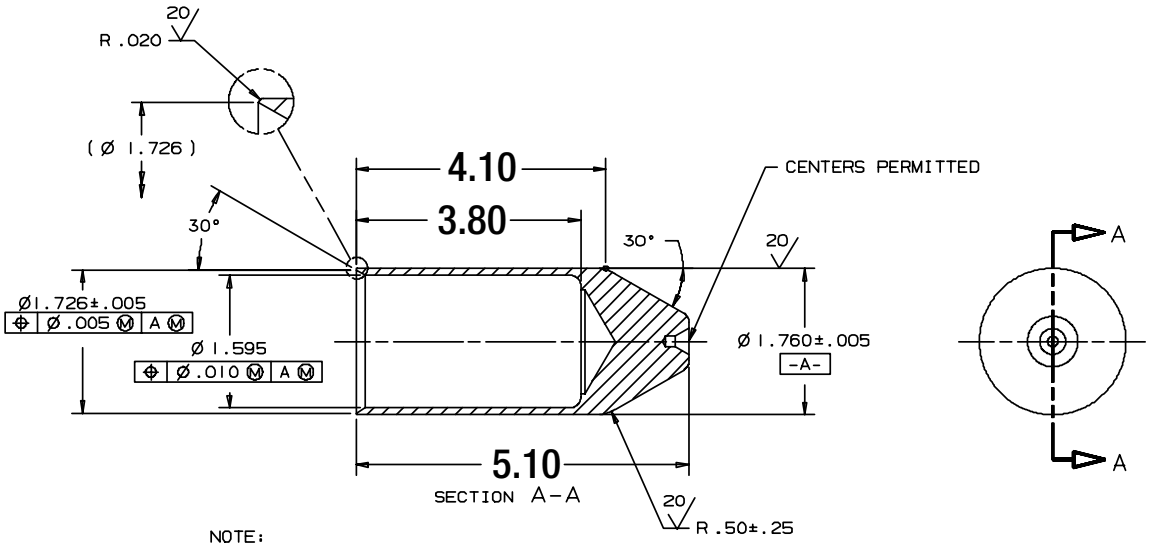


figure 8

Seal Bullet number 107876-002 for spline shaft and small ID seal (for other shafts see chart on page 3)



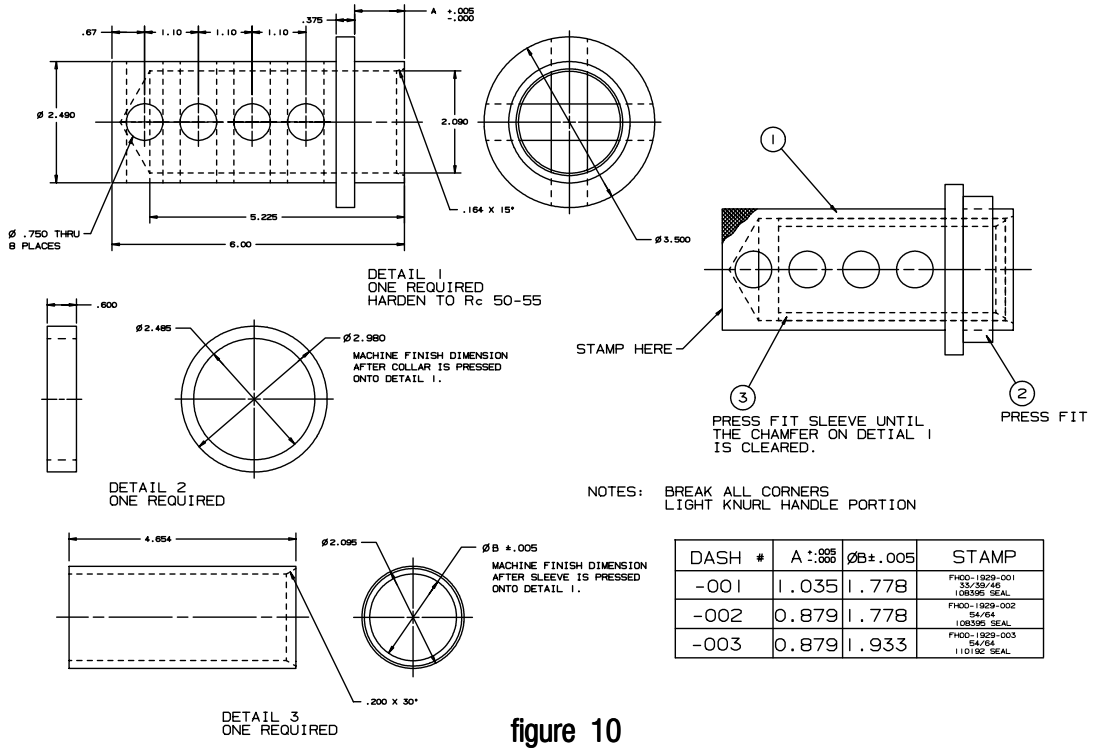
NOTE:

1. OPTIONAL MATERIAL: ASTM A 108 GRADE 12L14 COLD FINISHED STEEL
2. OPTIONAL MATERIAL: ASTM A 108 GRADE 1020 COLD FINISHED STEEL
3. BURR ALLOWANCE PER DS-015
4. R .010 MAX OR 45°±5° X .010 MAX CORNERS
5. OPTIONAL MATERIAL: DELRIN ROD

figure 9

Assembly Fixture to Install Shaft Seal, Number FH00 -1929 - xxx

(FH00-1929-001 (33/39/46 series 1 & 2) or FH00-1929-002 (54/64 series 1) or FH00-1929-003 (54/64 series 2 large shaft/seal))



DASH #	A +.005 -.000	ØB±.005	STAMP
-001	1.035	1.778	FH00-1929-001 33/39/46 108395 SEAL
-002	0.879	1.778	FH00-1929-002 54/64 108395 SEAL
-003	0.879	1.933	FH00-1929-003 54/64 110192 SEAL

figure 10

Seal kit Part Numbers

990709-000

For 33/39/46/54/64 Series 1 units and 33/39/46 Series 2 units.

Part No.	Qty.	Description
108395-000	1	Drive Shaft Seal
101680-250	1	Retaining Ring
107836-000	1	Spacer

990753-000

For 54/64 Series 1 units with large seal and shaft and 54/64 Series 2 units

Part No.	Qty.	Description
110192-000	1	Drive Shaft Seal
101680-250	1	Retaining Ring
107836-000	1	Spacer

Verify correct bullet for drive shaft

Before assembling seal in first unit, select and try fitting a bullet to the drive shaft. Bullet and output shaft chamfer must align with each other to leave no gap between bullet and shaft. Bullet should pilot on shaft diameter such that bullet can not shift side to side to allow step between bullet and shaft seal diameter.

Shaft Style	Seal ID	Bullet Number
14 T Spline	Small	FH00-2091
Other Splines (pictured)	Small	107876-002 long
1 3/8 dia. Tapered	Small	FH00-2062
1 1/2 dia. Tapered	Small	FH00-2066
Straight Keyed	Small	FH00-2103
Other Splines	Large	107877-001 short 107877-002 long
1 3/4 dia. Tapered	Large	FH00-2083