



TORQUE CONVERTER PARTS

FD-DS-2

PISTON DAMPER REPAIR SLEEVE



Applications:

- Ford E4OD single friction clutch

Details:

- For worn piston/damper assemblies
- Hardened inside diameter for longer life
- No disassembly of piston damper required
- Machining & welding required

Associated Parts:

- **FD-DA-9**, Standard Piston/Damper Assembly
- **FD-DA-14**, Heavy Duty Piston/Damper Assembly
- **FD-O-4V**, Standard O-Ring
- **FD-O-18V**, Oversized O-Ring



Part No.

FD-DS-2

Piston Damper Repair Sleeve

Sold in prepackaged quantities of 1 unit

Please refer to our

TORQUE CONVERTER PARTS CATALOG VOLUME 6

FD-DS-2 is:

Item Number 18 of Reference Figure 2.03 on page 64.



Sonnax now offers repair sleeve **FD-DS-2** for worn OEM E4OD piston/damper assemblies, Sonnax **FD-DA-9** or **FD-DA-14**. Installing repair sleeve **FD-DS-2** is the best option when bore wear is significant and an oversized o-ring is not adequate to prevent leakage.





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MACHINING & INSTALLATION INSTRUCTIONS

1. Before installing piston into the lathe chuck, center the Bellville spring in the damper assembly by tapping the piston on its edge. This will prevent cutting into the spring during the machining process.
2. Chuck the piston plate in a lathe and indicate to ensure that the friction material surface runs true.
3. Bore the inside diameter to 2.632"/2.634" (66.85mm/66.90mm), and chamfer to accept repair sleeve as shown in Figure 1.
4. Machine .002"-.004" (0.05mm/0.10mm) from the surface immediately adjacent to the inside diameter bore, as shown in Figure 1. This will ensure a flat mating surface for the sleeve flange. If .005" (0.13mm) or more material must be removed to obtain a flat surface, the piston is most likely bent and should be discarded.
5. Remove from the lathe and remove all burrs.
6. Place repair sleeve **FD-DS-2** in the piston damper assembly, making sure the flange is pressed firmly against the machined surface from step 4 (see Figures 2 and 3).
7. Weld 360° around the flange outside diameter. A TIG weld is preferred to ensure a strong, flat and leak proof weld (see Figure 3).
8. After the sleeve has been welded and allowed to cool, lightly clean the inside diameter with 600-grit emery cloth. Make sure none of the weld is above the top edge of the flange.
9. It is recommended that you check and balance the newly repaired piston damper assembly.

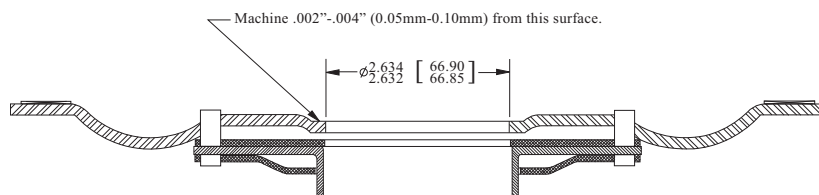


Figure 1

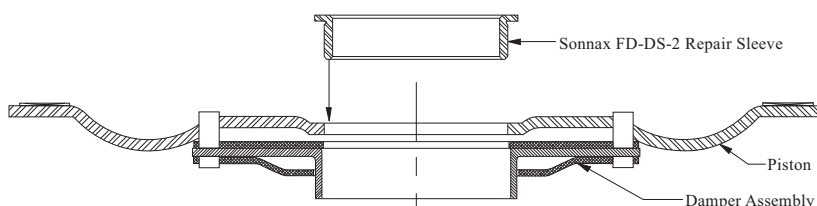


Figure 2

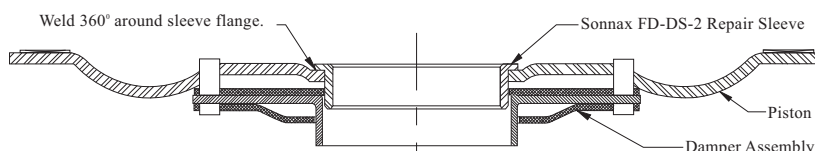


Figure 3