



Worm Gear and Bevel Speed Reducers Oil Seal Replacement Procedure

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FORM
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⚠ WARNING

- Read and follow all instructions carefully.
- Disconnect and lock-out power before installation and maintenance. Working on or near energized equipment can result in severe injury or death.
- Do not operate equipment without guards in place. Exposed equipment can result in severe injury or death.

⚠ CAUTION

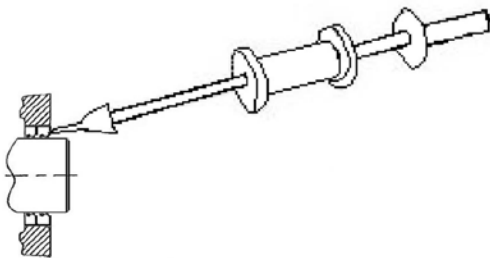
- Periodic inspections should be performed. Failure to perform proper maintenance can result in premature product failure and personal injury.

1. Lower the oil to a level below the bottom of the seal that is being replaced.

NOTICE: Thoroughly clean all debris from the area around the oil seal being replaced in order to keep contamination out of the gearbox when the old seal is removed.

- Using a punch with a sharp point, place two or more small holes equally spaced in the face of the seal to be removed. Take care not to damage the shaft or housing.
- Insert screw end of slide hammer in the punched holes and gently work the seal loose. After removal, be careful to prevent metal or dirt particles from entering unit. See Figure 1.

Figure 1: Oil seal



4. Remove any burrs or sharp edges from the seal bore in the housing, keyway, or shaft shoulder, as applicable, using an abrasive pad

NOTICE: Do not use abrasive pad on the shaft's seal surface.

- Clean the seat in housing and seal surface of shaft with soft cloth.
- Cover the keyway, threads or shaft shoulder with electrical tape. Starting at the shoulder of the shaft's seal journal, wrap the tape in a spiral pattern progressing away from the shoulder leaving enough electrical tape extending outward to allow for easy removal after the seal is installed.
- Apply a generous amount of grease over the taped shaft.
- Protect seal lips from damage during handling. Apply grease to the rubber lip of the new seal. If the seal casing is metal, apply a thin bead of silicone around the outside diameter of the seal just prior to installation. If the seal casing is rubber, do not apply sealant to the outside diameter of the seal.
- Start the seal over the shaft with the seal spring toward the reducer and apply just enough pressure with a slight turning rotation to position the seal on the shaft. Verify that no part of the seal lip is rolled.

10. Using a seal installation tool (customer supplied) consisting of a square faced pipe or tube that fits against the oil seal's face with an outside diameter larger than the seal's outside diameter, evenly drive or press the seal until fully seated and even with the end of the housing bore. See Figure 2. Verify seal casing is not bent and the seal is not misaligned in the bore.

Figure 2: Oil seal pressed in flush with housing face

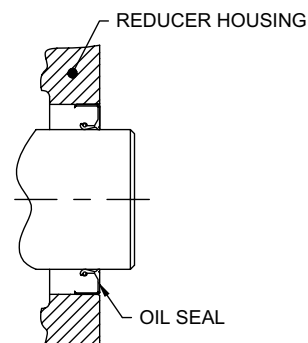
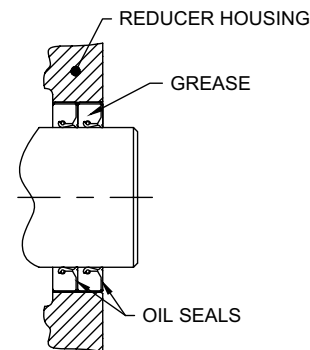


Figure 3: Two oil seals



If dual seals are being utilized (see Figure 3), press the first seal in to a depth equal to the seal's width. Apply a good quality NLGI #2 grease over the first seal so when the second seal is installed the cavity between the seals is approximately 2/3 filled with grease. Press a second seal over the first so it is flush with the housing face.

11. Wipe any excess sealant and grease from the outside diameter of the seal and remove the electrical tape from the shaft. Replace drain plug and fill to proper level with appropriate oil.

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