

**SERVICE INSTRUCTIONS FOR THE WG [275, 276 & 280, 281] SERIES MOTORS**

For Use With Seal Kit: 270501001 &amp; 280501001

dimensions: mm [in]

- A)** Remove all shaft related components from shaft (17) (i.e. keys, nuts). To aid in reassembly of the motor, make a "V" shaped set of lines from the endcover (15) to the housing using either paint or a marker. With shaft facing down, secure motor in vise by clamping on to housing (6).
- B)** Loosen and remove six bolts (16) holding motor assembly together. Remove endcover (15) and body seal (1). Discard seal. Remove commutator (14) and place on a flat, clean surface with the seal (4) facing up. Place a small screwdriver on the seal and gently tap until the opposite side lifts from the groove. Remove seal (4) and discard. Remove manifold (13). Remove rotor assembly (12). Remove both seals (1) from rotor assembly (12) and discard. Remove wear plate (11) and lay aside. Remove drive link (10) and thrust bearing (9) from housing. Remove body seal (1) from housing and discard.
- C)** Gently tap shaft (17) upward from housing (6) and remove through rear of housing. Using a slide hammer type bearing puller, (see Figure 1), remove the rear housing bearing (8). Remove shaft seal (2), thrust washer (3), and thrust bearing (7). Discard shaft seal (2), thrust washer (3), and rear housing bearing (8).

At this point, all parts should be cleaned in an oil-base solvent and dried using compressed air (For safety, observe all OSHA safety guidelines). All new seals should be lightly coated in clean oil prior to installation.

- D)** Place shaft (17) on a clean flat surface with output end facing up. Replace thrust bearing (7) on shaft, then thrust washer (3). Then coat shaft seal area on shaft with clean oil. Slide shaft seal (2) down onto shaft (17) making sure that lip on seal faces down and it contacts thrust washer (3).
- E)** Place shaft/seal assembly into housing (6) and using an arbor type press, seat the shaft/seal assembly into housing. Replace rear housing bearing (8) and press into housing bore a minimum of 2,3 [.09] (the thickness of rear thrust bearing (9)). Install body seal (1) into groove in housing. Install drive link (10) into housing with pointed tip facing up.
- F)** Place thrust bearing (9) over drive link (10). If shaft/seal assembly is properly seated in housing (6), thrust bearing (9) will be flush (or countersunk) with rear surface of housing.
- G)** Place wear plate (11) onto housing (6). Place body seals (1) in grooves in both sides of rotor (12). Place rotor (12) onto wear plate (11) with side of rotor with chamfer in splines facing wear plate (11).
- H)** Place manifold (13) onto rotor (12) making sure counter bore faces rotor (12) and diamond shapes face endcover (15). Install commutator seal (4) into groove in commutator (14) and gently tap seal to seat. Place commutator (14) onto drive link (10) with seal in commutator facing endcover (15).
- I)** Place body seal (1) into groove in endcover (15) and place onto manifold (13).
- J)** Install six assembly bolts (16) and pre-torque to 13,6 Nm [10 ft. lb.]. Using the bolt torque sequence shown in Figure 2, final torque all bolts to 27,1 - 33,9 Nm [20 to 25 ft. lb.].

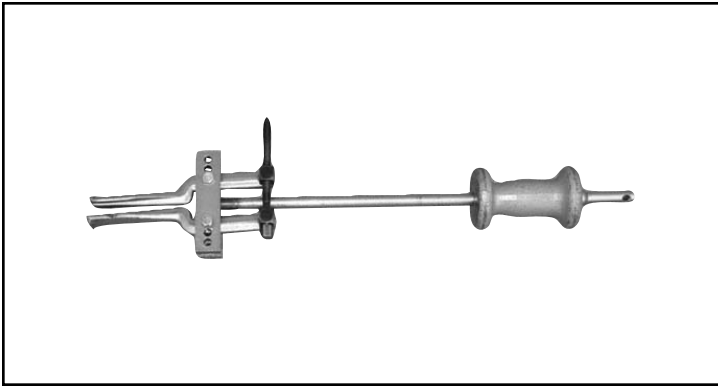


FIGURE 1

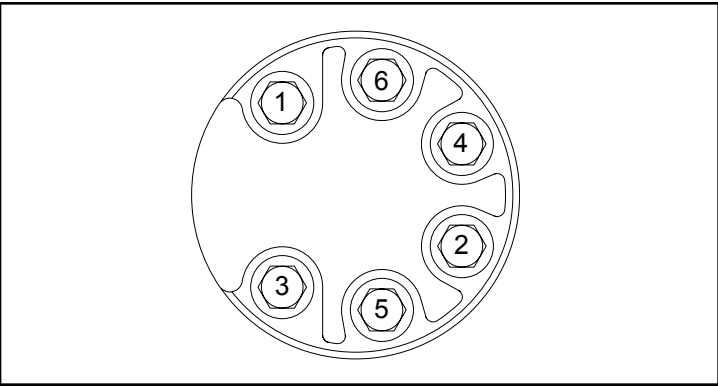
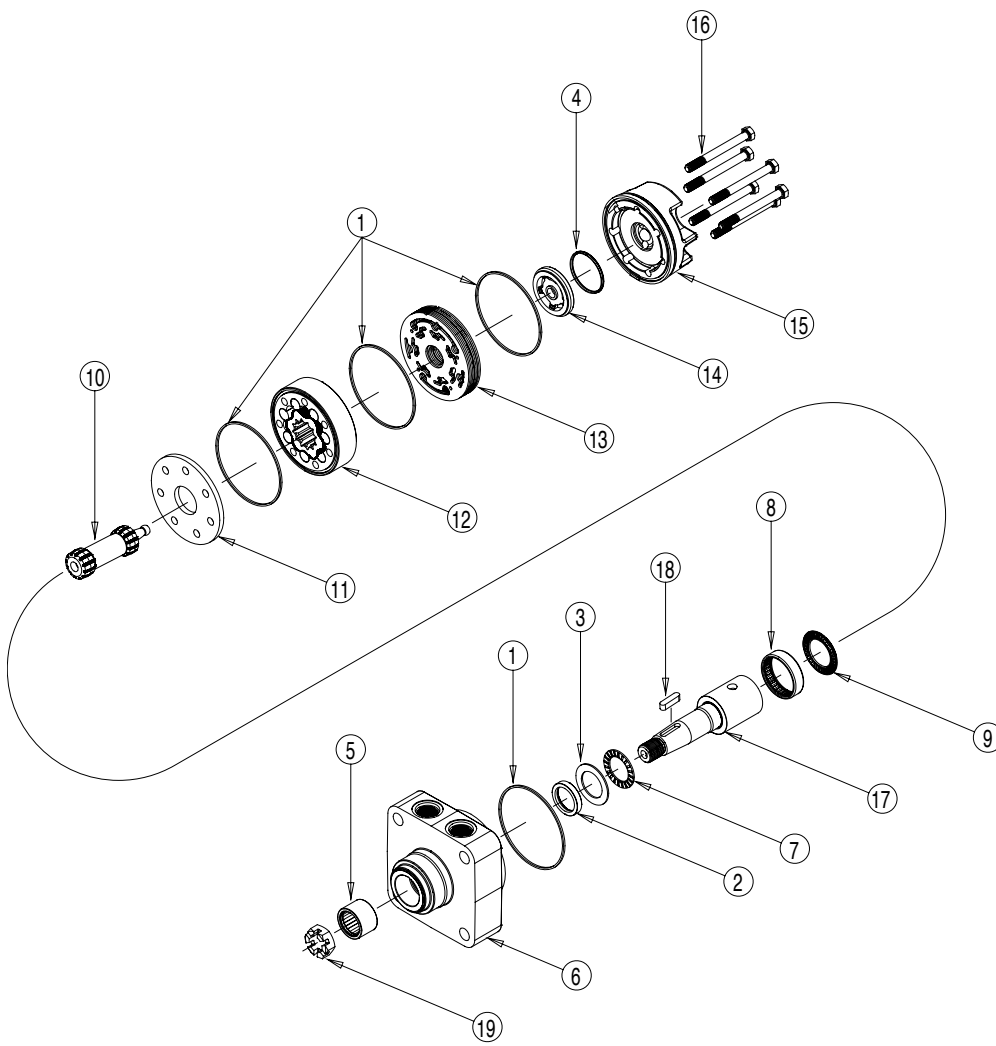


FIGURE 2



- 1. \* Body Seals (2)
  - 2. \* Shaft Seal
  - 3. \* Thrust Washer
  - 4. \* Commutator Seal
  - 5. Front Housing Bearing
  - 6. Housing
  - 7. Front Thrust Bearing
  - 8. \* Rear Housing Bearing
  - 9. Rear Thrust Bearing
  - 10. Drive Link
  - 11. Wear Plate
  - 12. Rotor Assembly
  - 13. Manifold
  - 14. Commutator
  - 15. Endcover
  - 16. Assembly Bolts (6)
  - 17. Shaft
  - 18. Shaft Key
  - 19. Shaft Nut
- \* Contained in Seal Kit 270501001