

REPAIR INSTRUCTIONS

HB [310] SERIES MOTOR BRAKES (WITH K MOUNT HOUSING)

For Use With Seal Kit(s): 300333800

dimensions: mm [in]

- A) Secure motor in vise with shaft end facing up. If drum (31) is still attached, remove nut (29) from shaft and use a puller to remove drum (31) from shaft (29). Remove key (28) from shaft. Remove motor from vise and secure in vise by clamping on to housing with shaft facing down.
- B) Make a "V" shaped set of lines from the endcover to the housing using either paint or a marker. Loosen and remove four bolts (26) holding motor assembly together. Remove endcover (24) from motor making sure not to drop endcover piston (22). Using needle nose pliers or two small screwdrivers lift endcover piston (22) out of endcover (24). Remove white Teflon seal (8) and O-ring seal (7) from endcover piston (22) and discard. Remove the piston spring (23) from endcover (24) and lay aside.
- C) Lift commutator container and commutator (21) from motor and lay aside. Place commutator on a flat, clean surface with the seal (6) facing up. Place the tip of a small screwdriver on the seal (6) and gently tap until opposite side of seal lifts from groove. Remove seal (6) and discard.
- D) Remove manifold (20), rotor assembly (19) and wear plate (17) from motor. Remove all seals (4 & 5) from components and discard. **NOTE - Do not allow rolls to drop from rotor assembly when removing rotor assembly from motor.** Remove drive link (18) from motor and lay aside. Remove the thrust bearing (16) from housing (10) and lay aside. From front housing, gently tap shaft (27) upwards and remove through rear of housing.
- E) Remove housing (10) from vise and place in an arbor press with front of housing facing up. Place 1-3/4" washer or similar item on front housing bearing. Using this washer, apply downward pressure with arbor press to press front and rear housing bearings and shaft seal components out through rear of housing (10).
- F) At this point, all parts should be cleaned in an oil-based solvent and dried using compressed air (for safety, observe all OSHA guidelines). All new seals should be lightly coated in clean oil prior to installation. Stand shaft (27) up on a clean surface with output end facing up. Install one thrust washer (13), thrust bearing (14) and remaining thrust washer (13) onto shaft. Using Figure 1 for correct orientation, install shaft seal (3) onto shaft with lip on seal facing down. Install backup seal (2) over shaft seal (3) making sure that lip on backup seal (2) faces shaft seal (3). Install metal backup shim (1a) over shaft. Place metal backup ring (1) over shaft (27) making sure large O.D. side faces down. Place front housing bearing (9) onto shaft making sure that side of bearing with faces up.
- G) Remove housing (10) from vise and carefully lower housing (10) over shaft assembly. Grasping output end of shaft, place housing/shaft assembly in arbor press with output end of shaft facing down. Place 1-7/8" washer on end of shaft and use press to slowly press shaft assembly into housing (10) until metal backup ring (1) contacts ridge in housing (10). Replace rear housing bearing (15) over shaft (27) and press down until bearing (15) is approximately .250 below rear surface of housing (10) install thrust bearing (16) onto rear of shaft (27).
- H) Install drive link (18) into shaft (27) making sure that the tapered end faces up. Place housing seal (4) in groove in wear plate (17). Place wear plate (17) onto housing (10) making sure that seal side faces down. Place a body seal (5) into the groove in the face of the rotor assembly (19). With the seal side of the rotor assembly (19) facing the wear plate (17), line up the splines of the drive link (18) and the rotor assembly (19) and lower the rotor assembly onto the wear plate (17).
- I) Place a body seal (5) into the groove in each face of the manifold (20). Lift the drive link (18) approximately .100 and place the tip of a small screwdriver under the disk-shaped portion of the drive link to hold it up. Making sure that the notch in the manifold is aligned with the tab on the rotor and that the side with the largest holes faces down, lower the manifold (20) onto the motor and engage the disk shaped portion of the drive link (18) into the groove in the manifold (20) (See Figure 2). Remove the screwdriver and lower the manifold (20). If the disk is engaged in the groove, the end of the drive link will protrude above the surface of the manifold. If it doesn't, remove manifold and repeat this step.
- J) Install the commutator seal (6) into the commutator (21) with the metal side facing up (Refer to PI333004 when replacing commutator seal). Use finger pressure to press the seal down flush with the surface of the commutator. Place the commutator container (21) onto the manifold (20) and then place the commutator onto the protruding end of the drive link (18) making sure that the seal side faces up.
- K) Install the remaining body seal (5) in the groove in the face of the endcover (24). Install the piston spring (23) into the endcover (24), then the white Teflon seal (8), followed by the O-ring seal (7). Lining up the alignment pin, press the piston (22) into the endcover (24). While holding the endcover piston (22) into the endcover (24), lower the endcover assembly onto the motor.
- L) Install the four assembly bolts (26) and pre-torque to 10 ft. lbs. Final torque all bolts to 50 ft. lbs.

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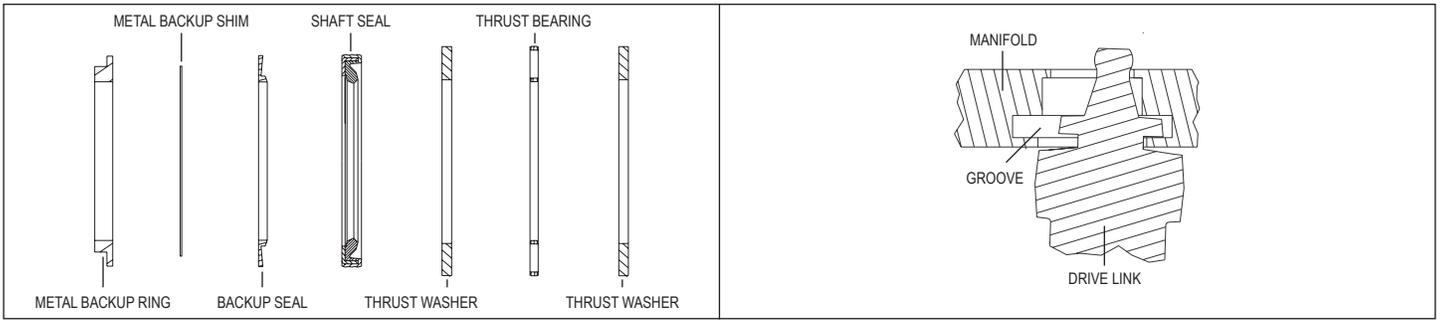


FIGURE 1

FIGURE 2

EXPLODED VIEW PARTS DESCRIPTION

- 1. * Metal Backup Ring
- 1a. * Metal Backup Shim
- 2. * Backup Seal
- 3. * Shaft Seal
- 4. * Housing Seal
- 5. * Body Seals (4)
- 6. * Commutator Seal (2)
- 7. * O-Ring Seal
- 8. * Teflon Backup Seal
- 9. Front Housing Bearing
- 10. Housing
- 11. Grease Fitting
- 12. Mounting Nuts (4)
- 13. Thrust Washers (2)
- 14. Front Thrust Bearing
- 15. Rear Housing Bearing
- 16. Rear Thrust Bearing
- 17. Divider Plate
- 18. Drive Link
- 19. Rotor Assembly
- 20. Manifold
- 21. Commutator Assembly
- 22. Endcover Piston
- 23. Piston Spring
- 24. Endcover
- 25. I.D. Tag Assembly
- 26. Assembly Bolts (4)
- 27. Shaft
- 28. Shaft Key
- 29. Shaft Nut
- 30. Lug Nuts (5)
- 31. Wheel Hub
- 32. Brake Return Spring
- 33. Pivot Pin
- 34. Brake Shoes (2)
- 35. Snap Ring
- 36. Actuator Pin
- 37. Brake Lever Arm
- 38. Roll Pin

* Contained in seal kit 300333800

