

## SERVICE INSTRUCTIONS FOR THE RE [535 & 536] SERIES MOTORS

For Use With Seal Kit: 500444535

dimensions: mm [in]

- A) Remove all shaft related components from shaft (23) (i.e. keys, nuts). To aid in reassembly of the motor, make a "V" shaped set of lines from the endcover (21) to the housing (10) using either paint or a marker. With shaft facing down, secure motor in vise by clamping on to housing (10).
- B) Loosen and remove seven bolts (22) holding motor assembly together. Remove endcover (21) and endcover seal (9). Discard seal. Remove balance plate (19) taking care not to drop the three steel balls (20) located in the three holes in the balance plate (19). Remove rotor set (18), manifold (17), drive link (16) and thrust bearing (15). Remove body seals (8) from rotor set (18) and housing seal (2) from housing (10) and discard seals.
- C) Gently tap shaft (23) and remove through rear of housing (10) and lay aside. Remove housing from vise and turn over. Pry dust seal (1) from housing and discard.
- D) Using a slide and hammer bearing puller (see Figure 1) remove rear housing bearing (8) through rear of housing.
- E) Remove the thrust washer (14), front thrust bearing (13), thrust washer (12), shaft seal (6), back-up seal (5), back-up shim (4), and back-up ring (3) from housing. Discard items (3, 4, 5, & 6).
- F) 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.
- G) Place shaft (23) on a clean flat surface with output end facing up. Place on shaft, the thrust washer (14), then thrust bearing (13), then thrust washer (12). Lightly coat seal area of shaft with clean oil and place shaft seal (6) down onto shaft (23) making sure that lip on seal faces down (See Figure 2 for correct seal orientation) until it contacts thrust washer (12). Carefully install the back-up seal (5) onto the shaft (23) with the flat side up and the seal lip facing the shaft seal (6). Place the metal back-up shim (4) onto the shaft, then place the back-up ring (3) onto the shaft with the flat side against the backup shim (4).
- H) Place housing (10) onto shaft assembly. Place housing shaft assembly back in vise with output shaft facing down. Install rear housing bearing (7) into rear of housing until bearing contacts the stop in the housing (flat side of bearing (8) should face up).
- I) Place thrust bearing (15) on top of shaft (23) and bearing (7). If shaft assembly and bearing (7) are properly seated in housing (10), thrust bearing (15) will be slightly countersunk with rear surface of housing (10). Lower drive link (16) into shaft (23). The side of the drive link with the longest splines goes into the shaft first.
- J) Install housing seal (2) into groove in housing (10). Place manifold (17) onto housing (10). The side of the manifold with the seven tear drop shapes faces the housing (10). Place body seals (8) in grooves in both sides of rotor set (18). Place rotor (18) onto manifold (17) with side of rotor with chamfer in splines facing manifold (17).
- K) Install balance plate (19) onto rotor (18) making sure holes for steel balls faces up and that all three balls (20) are seated in the holes. Install endcover seal (9) into groove in endcover (21) and place endcover onto balance plate (19). Install seven assembly bolts (22) and pre-torque to 13.6 Nm [10 ft-lb]. Using the bolt torque sequence shown in Figure 3, final torque all bolts to 67.8 [50 ft-lb].
- L) Remove motor from vise and place on work surface with shaft (23) facing up. Making sure that lip on seal (1) faces up, place dust seal (1) over shaft (23). Using a sleeve and a hammer, carefully drive dust seal (1) into place.

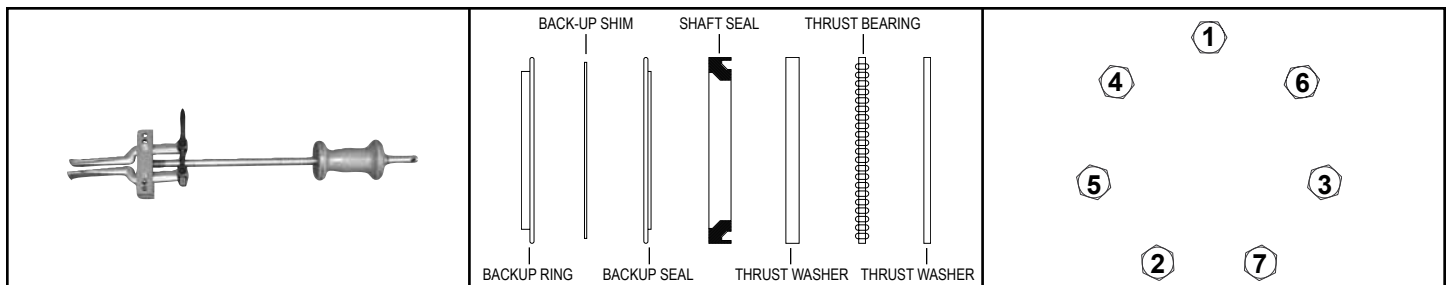
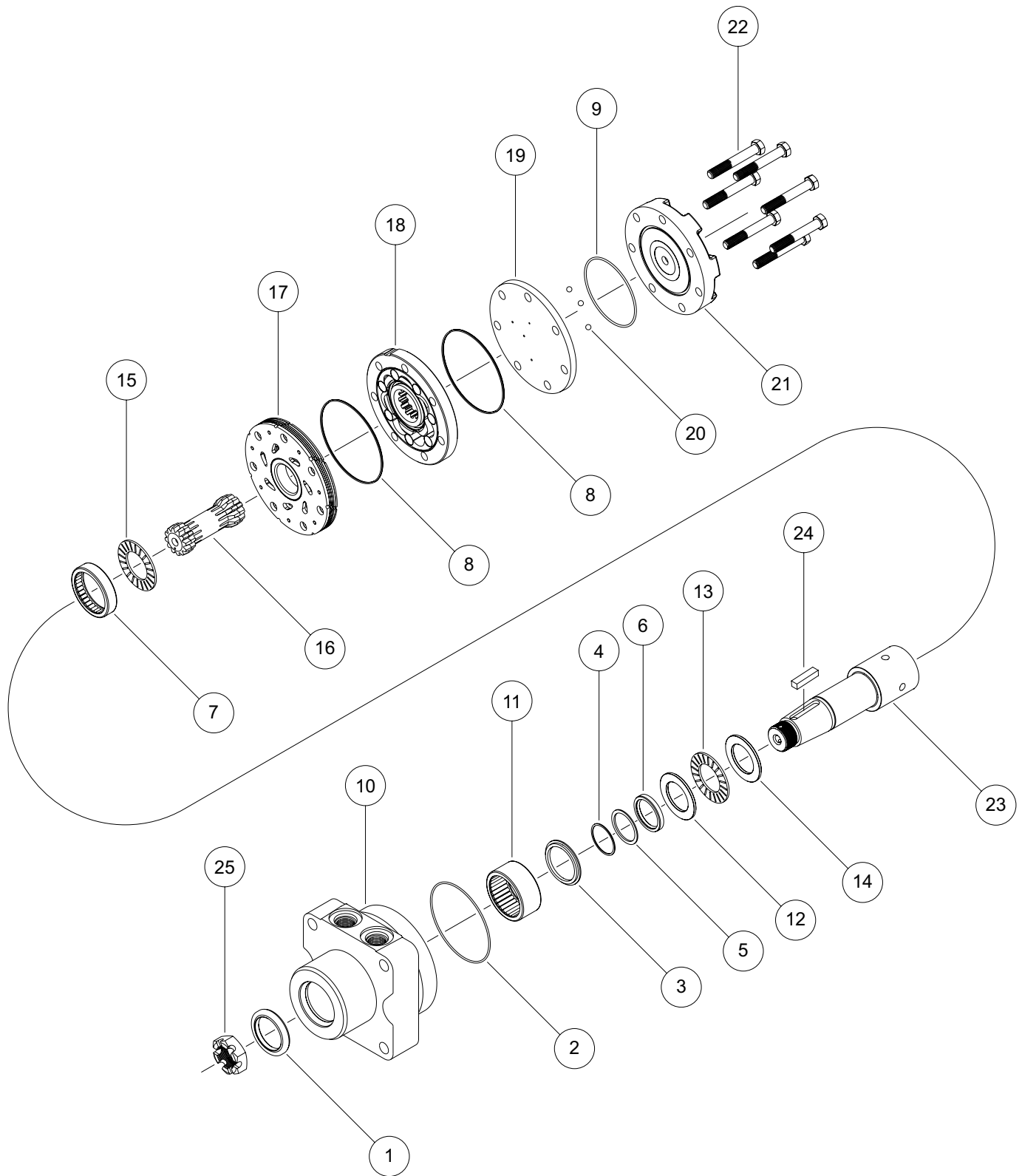


FIGURE 1

FIGURE 2

FIGURE 3



- |                           |                           |                    |                       |
|---------------------------|---------------------------|--------------------|-----------------------|
| 1. * Dust Seal            | 8. * Body Seal (8)        | 15. Thrust Bearing | 22. Assembly Bolt (7) |
| 2. * Housing Seal         | 9. * Endcover Seal        | 16. Drive Link     | 23. Shaft             |
| 3. * Metal Back-Up Ring   | 10. Housing               | 17. Manifold       | 24. Shaft Key         |
| 4. * Back-Up Shim         | 11. Front Housing Bearing | 18. Rotor Set      | 25. Shaft Nut         |
| 5. * Back-Up Seal         | 12. Thrust Washer         | 19. Balance Plate  |                       |
| 6. * Shaft Seal           | 13. Thrust Bearing        | 20. Steel Ball (3) |                       |
| 7. * Rear Housing Bearing | 14. Thrust Washer         | 21. Endcover       |                       |
- \* Included in Seal Kit 500444535