REPAIR INSTRUCTIONS
SU [S10, S20 & S70] SERIES STEERING UNITS

For Use With Seal Kits: SU222001

dimensions: mm [in]

A) ***To aid in reassembly of the steering unit, make a "V" shaped set of lines from the endcover to the housing using either paint or a marker.*** With shaft facing down, secure steering unit in vise by clamping on to housing (6). Loosen and remove the seven bolts (15 & 16) holding assembly together. ***With paint or a marker, mark which bolt hole contained the restrictive bolt by running a straight line from the endcover (14) to the housing (6).*** Remove the bolt washers (5) from the seven bolts and discard bolt washers. Remove endcover (14) from assembly and set aside.

B) Lift rotor assembly (12) off drive link (10). Remove seals (4) from each side of rotor assembly (12) and discard seals. If present, remove drive link spacer (13) and set aside.

C) Remove wear plate (11) and drive link (10) and set components aside. Remove housing seal (3) from housing (6) and discard seal.

D) Remove housing (6) from vise and gently tap shaft assembly (17, 18, 19 & 20) through the rear of housing (6). When replacing the seals in the SU steering unit, it is not necessary to disassemble the shaft assembly (17, 18, 19 & 20) by removing the pin (18) or centering springs (19 & 20).

E) Remove the thrust ring (9) thrust washers (7) and thrust bearing (8) and set components aside. Carefully pry both the shaft seal (2) from inner bore of housing (6) and dust seal (1) from outer bore and discard seals.

F) At this point, all parts should be cleaned in an oil-based 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 reassembling the unit.

G) Begin reassembling the unit by placing the shaft assembly (17, 18, 19 & 20) on a flat surface with the output end facing up. Lower the thrust ring (9) then thrust washer (7) thrust bearing (8) the other thrust washer (7) and finally the new shaft seal (2) onto the shaft assembly. Press the new dust seal (1) into the housing (6) and secure housing in a vice with the dust seal (1) facing down. ***Refer to Figure 1 for correct component orientation.***

H) Carefully lower the shaft assembly into the housing (6). Insert a new housing seal (3) into the groove in housing. Place drive link (10) into shaft assembly making sure the groove in the drive link engages the pin (18) in the shaft assembly. At this point, to seat the shaft seal properly in the housing (6) use a rubber mallet and tap the drive link (10) until the shaft assembly is flush with the rear surface of the housing (6).

I) Place the wear plate (11) onto the housing (6). Insert new body seals (4) into grooves on both sides of the rotor assembly (12) and lower onto the drive link (10). ***For correct orientation, follow the paint/marker "V" shaped set of lines made before disassembly when placing the rotor assembly on the unit.***

J) If a spacer (13) was removed, place spacer inside rotor assembly and on top of drive link (10). ***Depending on the length of the drive link and the height of the rotor, some units will not use a spacer.***

K) Lower endcover (14) unto rotor assembly (12). Place new bolt washers (5) onto bolts (15 & 16) and place bolts into assembly. ***Make sure the restrictive bolt is placed back in the original bolt hole by lining up the mark made while removing the bolts.*** Pre-torque bolts to 13.6 Nm [10 ft. lb.] Final torque all bolts to 30 Nm [22 ft lb].
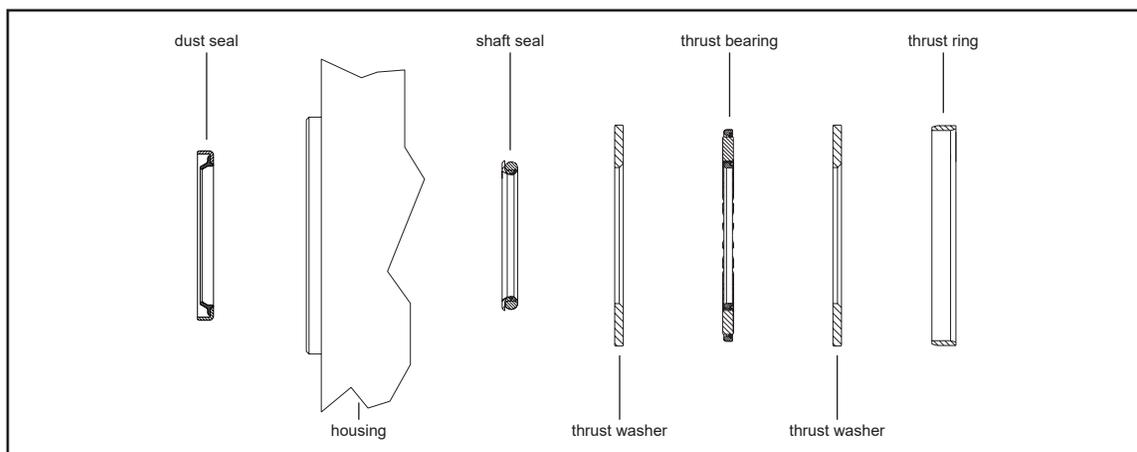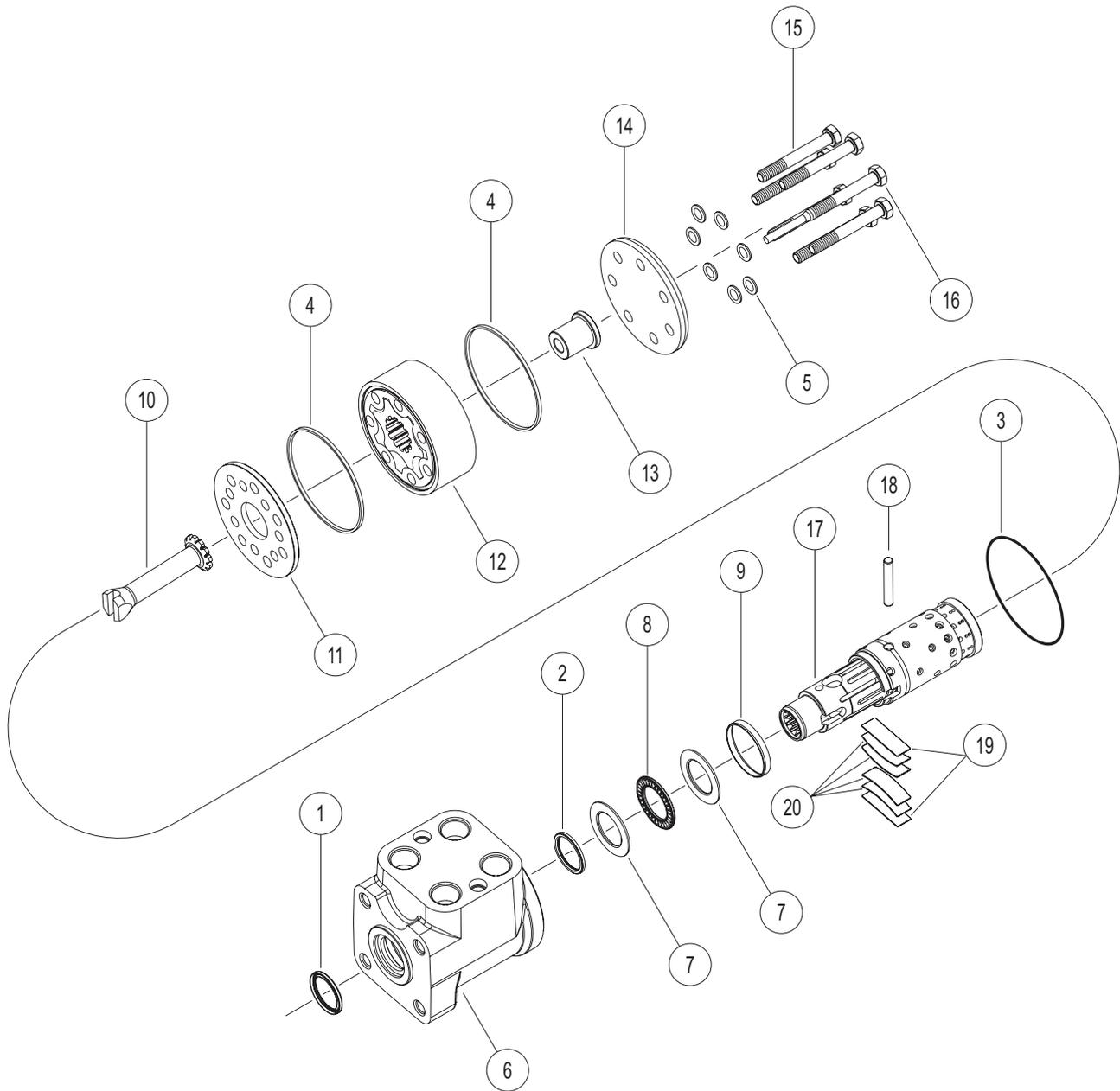

FIGURE 1

REPAIR INSTRUCTIONS
SU [S10, S20 & S70] SERIES STEERING UNITS

1. * Dust Seal
2. * Two Piece Shaft Seal
3. * Housing Seal
4. * Body Seal (2)
5. * Bolt Washer (7)
6. Housing
7. Thrust Washer (2)
8. Thrust Bearing

9. Thrust Ring
10. Drive Link
11. Wear Plate
12. Rotor Assembly
13. Drive Link Spacer
14. Endcover
15. Assembly Bolt (6)
16. Restrictive Bolt

17. Spool / Sleeve
18. Pin
19. Flat Spring (2)
20. Curved Spring (4)

* Contained in Seal Kit:
SU222001