

Installation Information

NO. 4-339
Revised Feb. 2006



Series 3, 4, 6, 12, 100,
230 & 450
Steering Control
Units
Char-Lynn®
-001, -002

64463-000
9900380-000
Seal Kits

Eaton
14615 Lone Oak Road
Eden Prairie, MN 55344
USA
Tel. 952 937-9800
Fax. 952 974-7722
www.hydraulics.eaton.com

Copyright Eaton Corporation, 1992
All Rights Reserved
Printed in USA

Clean exterior of steering control unit. Drain oil from housing. Disassemble and reassemble parts as shown in Fig. 1.

These instructions cover the standard steering control units without integral column configuration. For complete disassembly and reassembly instructions refer to Repair Manual 7-304.

Disassembly

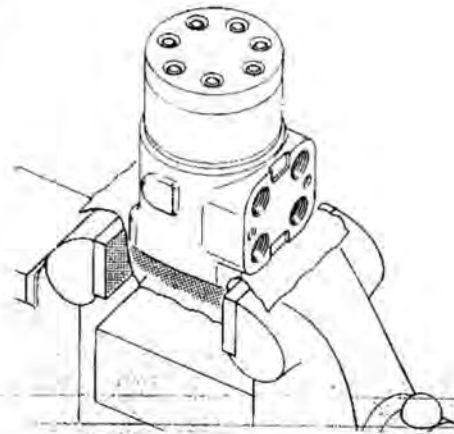


Figure 2

Meter (Gerotor) End

- 1 Clamp housing as shown in Fig. 2. Don't over-tighten jaws.
- 2 Remove cap screws and washers.
- 3 Remove end cap.
- 4 Remove seal from end cap.
- 5 Remove meter (gerotor) and drive spacer(s). (drive spacer not used on 4.5 cu. in. displ. units).
- 6 Remove seal from meter (gerotor).
- 7 Remove drive.
- 8 Remove spacer plate.
- 9 Remove seal from housing.

Control End

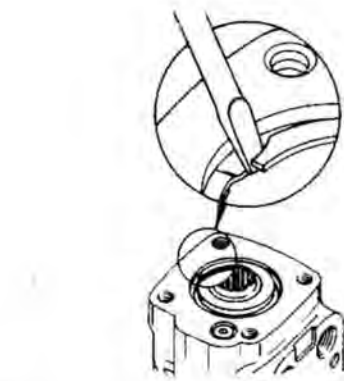


Figure 3

- 10 Place housing on a clean soft cloth to protect surface finish. Use a thin bladed screwdriver to pry retaining ring from housing.

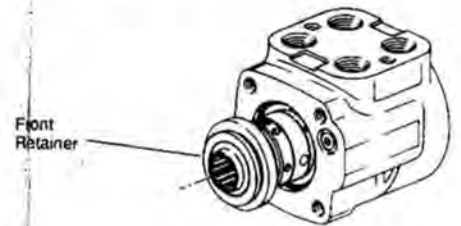


Figure 4

- 11 Rotate spool and sleeve until pin is horizontal. Push spool and sleeve assembly forward just far enough to remove front retainer from housing see Fig. 4.
- 12 Remove dust seal from front retainer. Use a thin bladed screwdriver to pry dust seal from front retainer, do not damage seal pocket of front retainer.

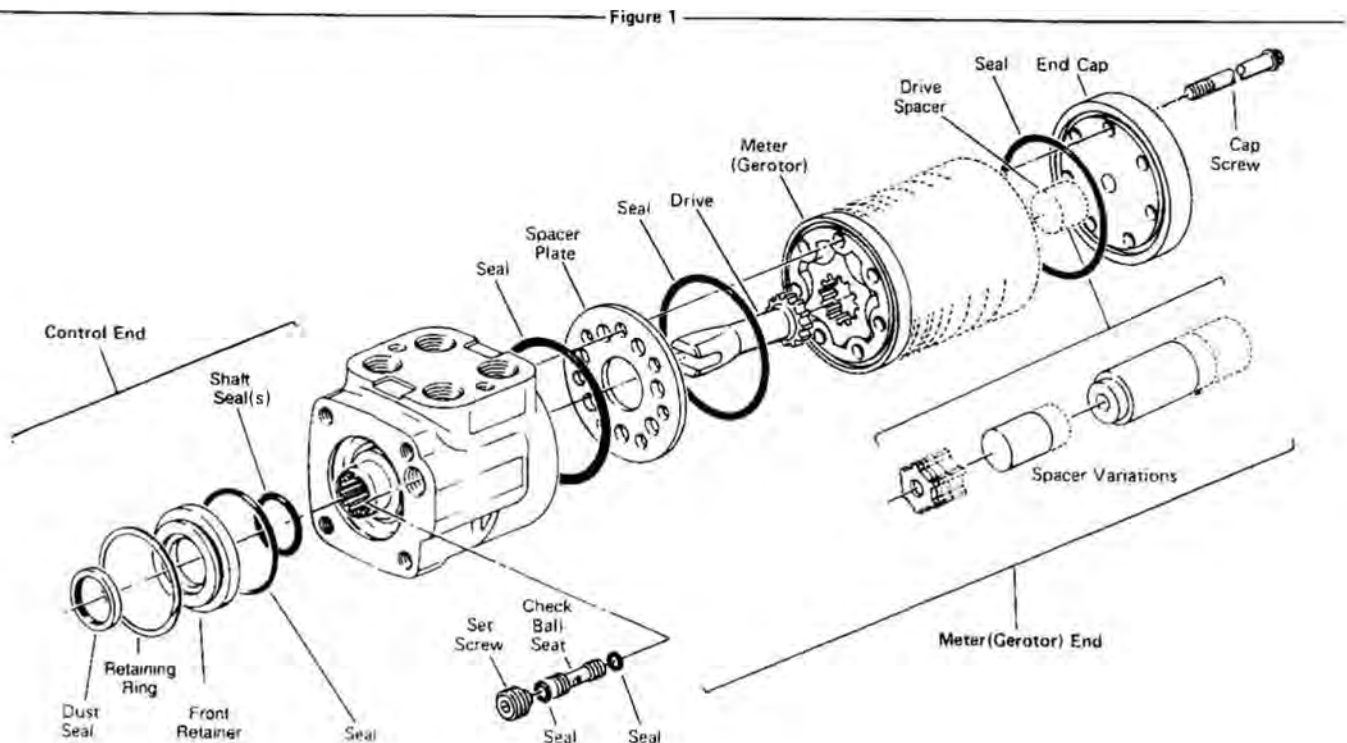


Figure 1

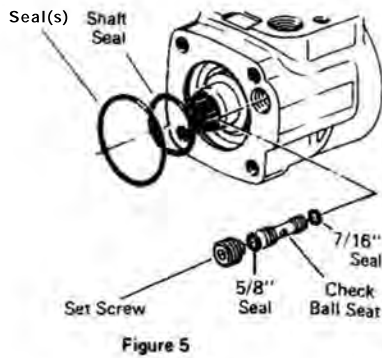


Figure 5

- 13 Remove seal from housing.
- 14 Remove the shaft seal(s) from the front retainer (shaft seal may be one, two, or three pieces)
- 15 Place housing on soft cloth, then remove set screw, see Fig. 5.
- 16 Screw 1/8"–24 machine screw into end of check ball seat. Pull on screw to lift seat from housing. Do not lose check ball and check ball retainer from check hole of housing.
- 17 Remove 2 seals from check ball seat.

Reassembly

Replace all parts that have nicks, scratches, or excessive wear which could cause leakage. Don't file or grind any parts of this unit. Clean disassembled parts in clean solvent, then blow dry with air. Don't dry parts with cloth or paper towel.

Note: Lubricate all seals with Parker O-Lub or equivalent. Do not use excessive lubricant on seals.

Do not use excessive lubricant on seals for meter section.

Control End

Note: Check ball retainer must be straight (not tilted on edge) and positioned below check ball located in check valve hole of housing.

- 18 Lubricate 5/8" diameter seal and 7/16" diameter seal. Install seals on check ball seat as shown in Fig. 1.
- 19 Lubricate check ball seat and seals thoroughly before installing seat in housing. When installing seat, do not twist or damage seals. Install check ball seat (insert open end first) in housing.
- 20 Install and torque set screw to 100 inch pounds.
- 21 Install 2-1/8" diameter seal in control end of housing, see Fig. 5.
- 22 Install dust seal in front retainer, flate or smooth side inboard, see Fig. 6.
- 23 Install the shaft seal into the front retainer.
- 24 Install the front retainer over spool end with a twisting motion. Tap front retainer in place with a rubber hammer. Make sure front retainer is flush against the o-ring seal.

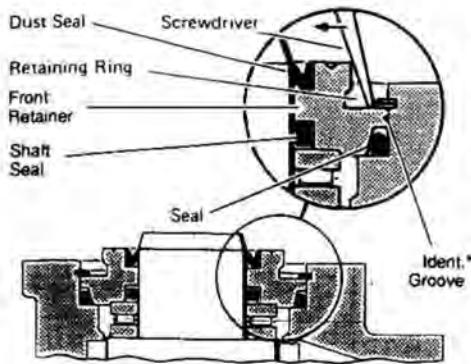


Figure 6

*Correct Front Retainer has Identification Groove (2 Places).

25 Install retaining ring in housing. After installing ring, tap on ring end or pry with screwdriver around entire circumference of ring to properly seat ring in groove.

Meter (gerotor) End

26 Clamp housing as shown in Fig. 2. Don't over-tighten jaws.

Note: Push spool and sleeve down flush with or slightly below 14 hole surface of housing. Clean upper surface of housing with palm of clean hand. Clean remaining meter end parts in a similar way before reassembling.

- 27 Install large diameter seal in housing.
- 28 Install spacer plate. Align holes.

29 Rotate spool and sleeve assembly until pin is parallel with port face, see Fig. 7, (ref. C). Install drive, make sure you engage drive with pin. To assure proper alignment, mark drive as shown in Fig. 7, (ref. B). Note relationship between slotted end of drive to splined end of drive when marking.

30 Install large diameter seal in (gerotor).

Meter (gerotor) Star Valley

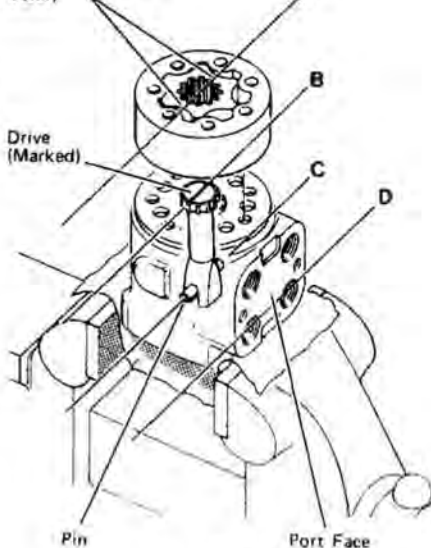


Figure 7

31 With seal side of meter (gerotor) toward spacer plate, align meter (gerotor) star valleys (ref. A) on drive (ref. B). Note the parallel relationship of reference lines A, B, C, and D Fig. 7. Align bolt holes without disengaging meter (gerotor) from drive.

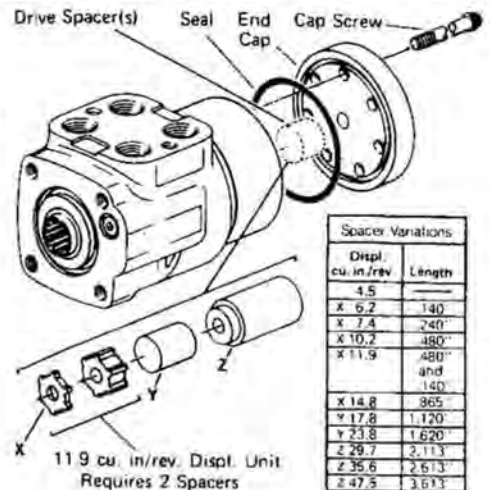


Figure 8

32 Install drive spacer(s) when used in meter (gerotor) see Fig. 8.

33 Install large diameter seal in end cap.

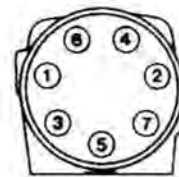


Figure 9

34 Install end cap, align holes.

35 Install 7 cap screws. Pretighten screws to 150 in-lb. then torque screws to 275 lb-in in sequence, see Fig. 9