

EATON 750, 780 HYDROSTATIC TRANSAXLE

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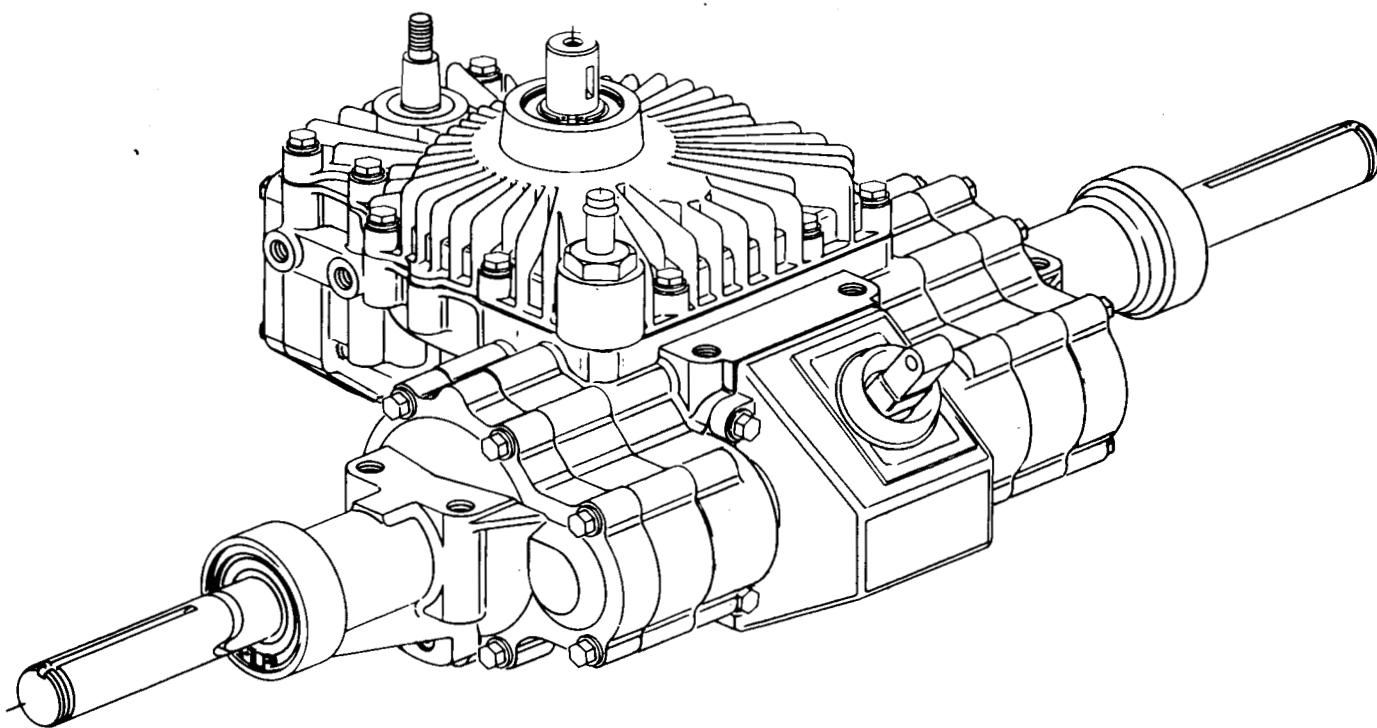
[TRANSAXLE PARTS DRAWING](#)

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**Eaton
Hydraulics
Division**

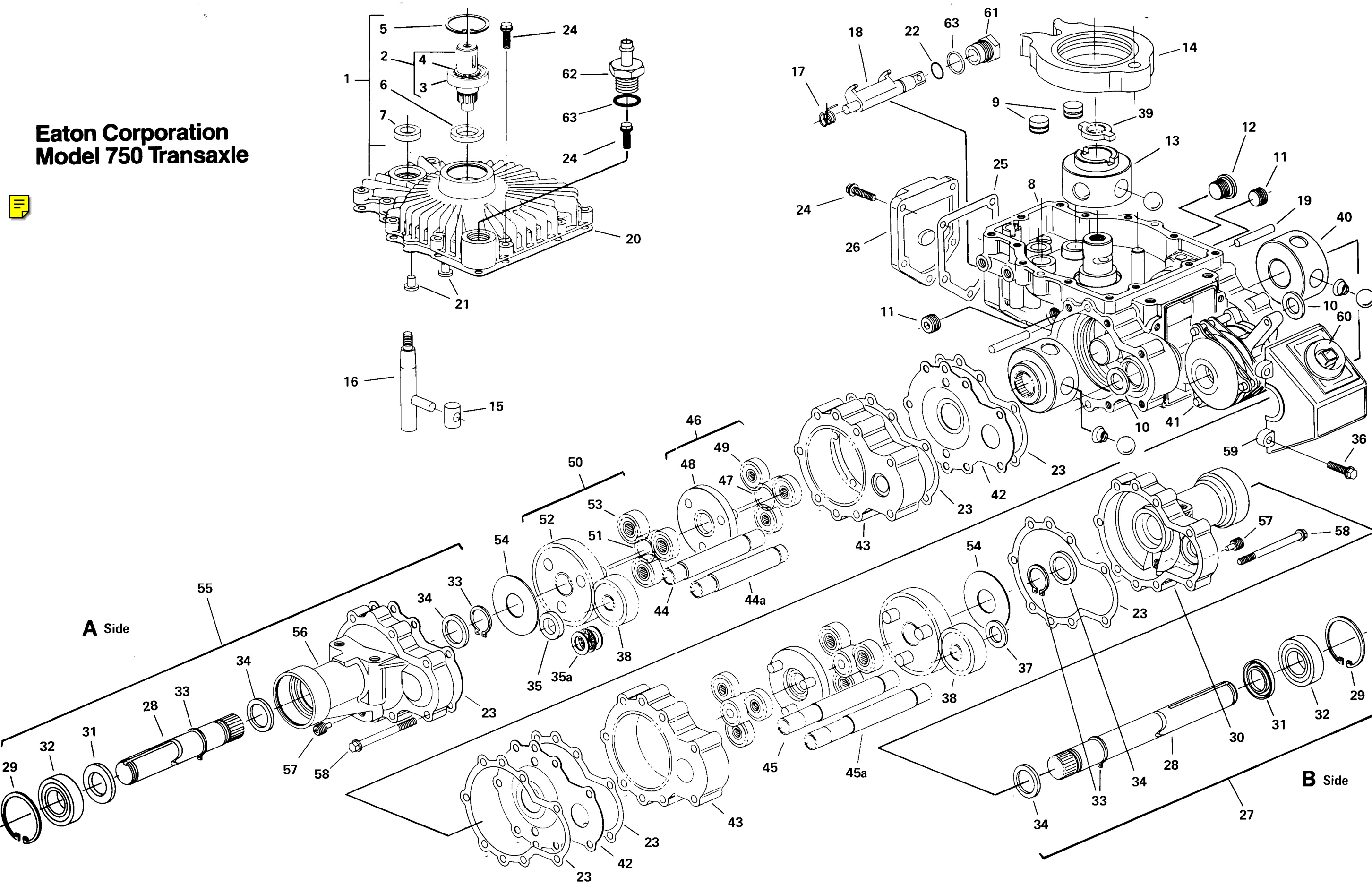
Repair Information

Hydrostatic Transaxle Series 750



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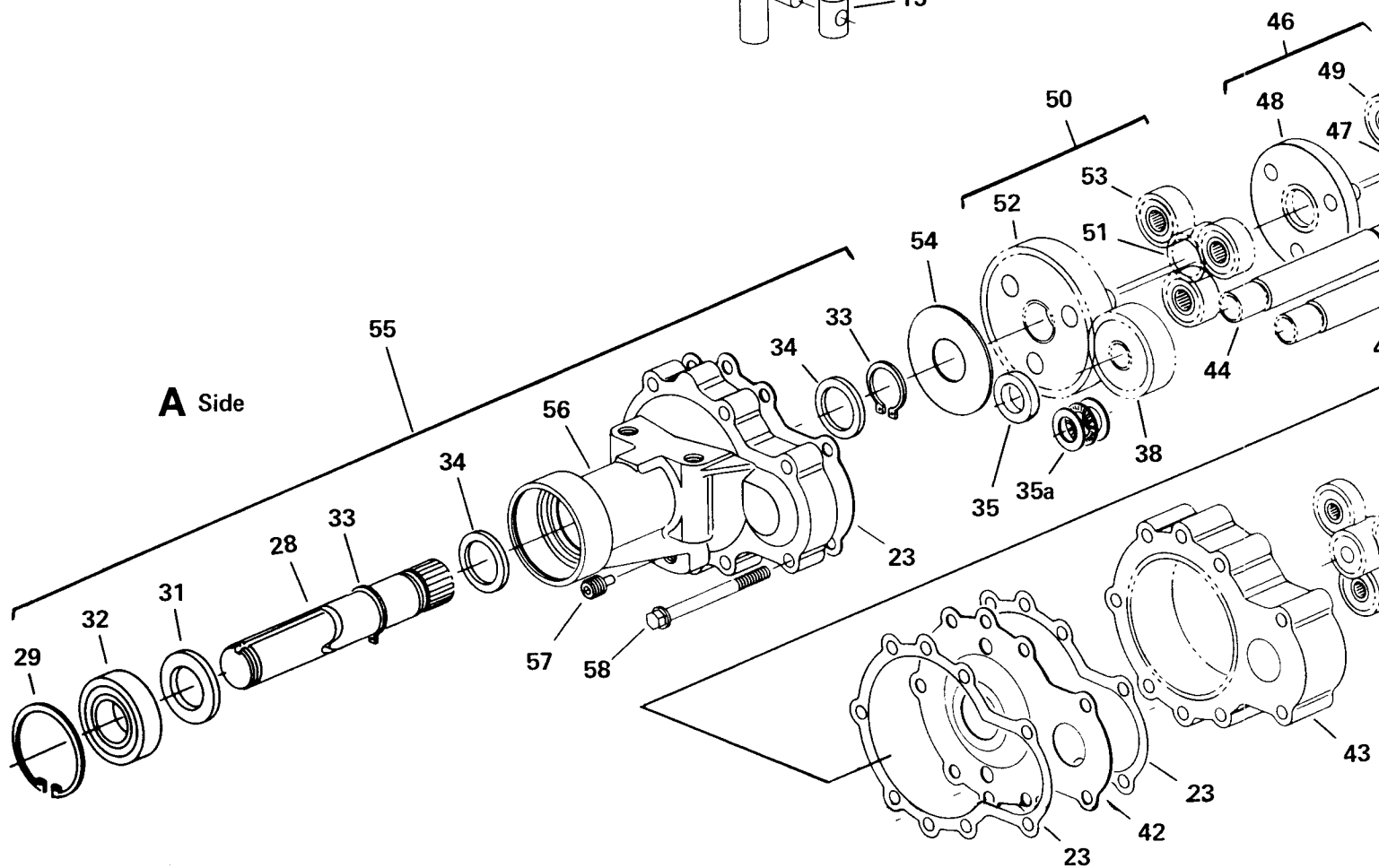
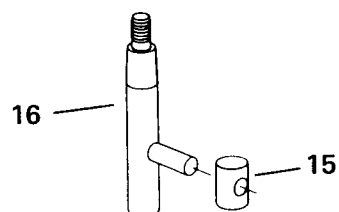
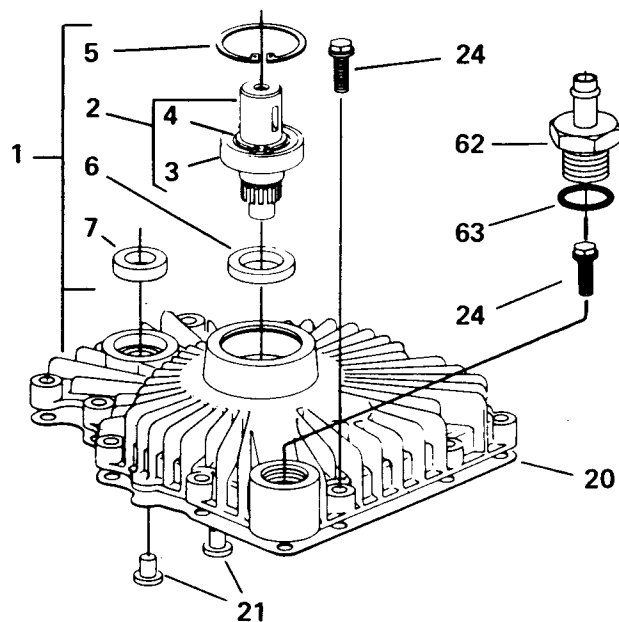
Eaton Corporation
Model 750 Transaxle

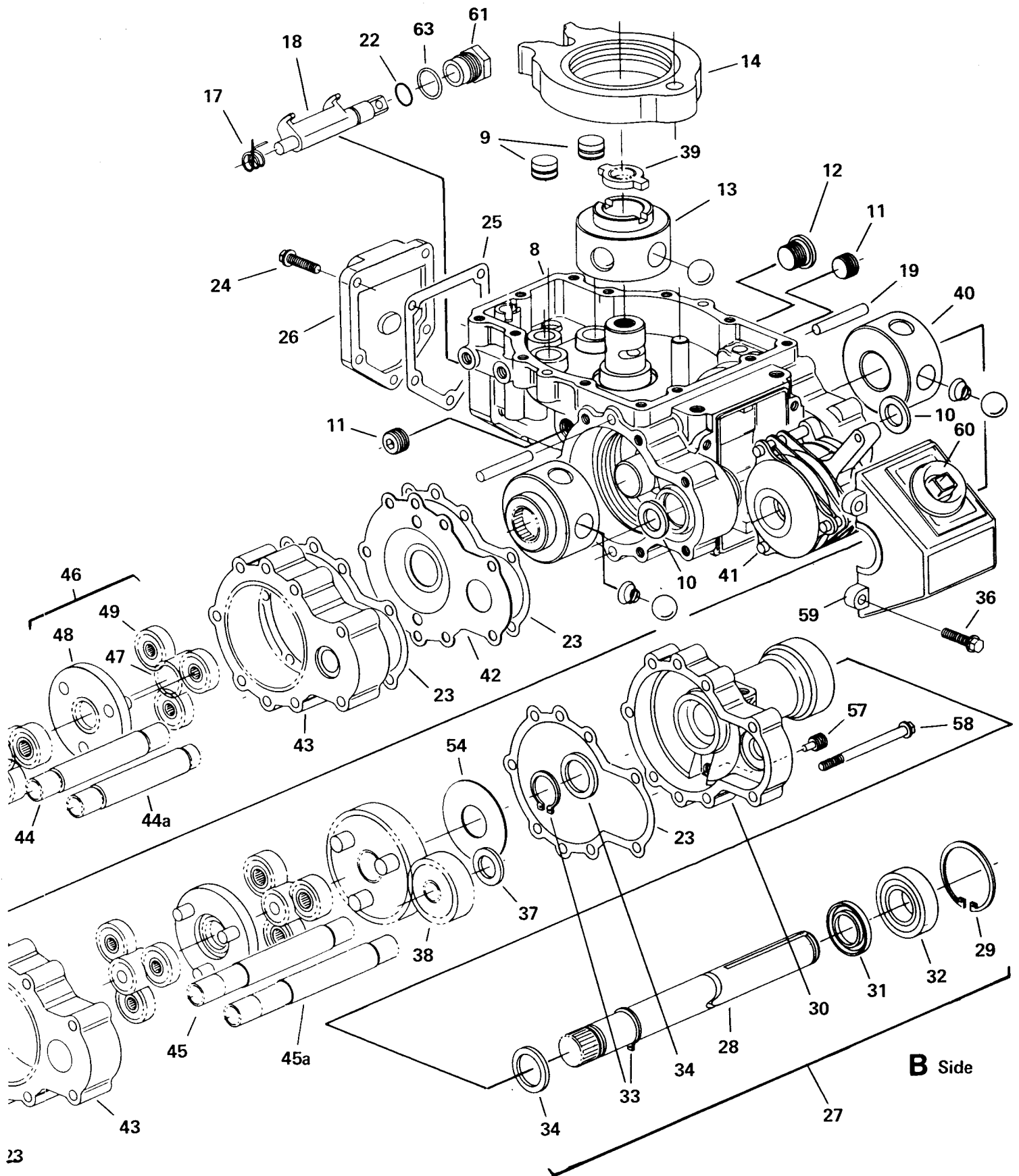


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Eaton Corporation Model 750 Transaxle

MODEL 780 ZERO-TURN TRANSAXLE SIMILAR





750 Transaxle Parts List

Ref. No.	Description	Qty
1	Cover, Subassembly (S/A)	1
2	Shaft, Input, S/A	1
3	Bearing, Input Shaft	1
4	Ring, Retaining, External	1
5	Ring, Retaining, Internal	1
6	Seal, Input Shaft	1
7	Seal, Control Shaft	1
8	Housing, S/A	1
9	Piston, Dampening, S/A	2
10	Seal, Brake Shaft	2
11	Plug, Socket Pipe	2
12	Socket Heat Plug-o-ring, S/A	1
13	Pump Rotor-Ball, S/A	1
14	Cam Ring, S/A	1
15	Insert	1
16	Control Shaft, S/A	1
17	Spring, Dump Valve	1
18	Bracket, Dump Valve	1
19	Dowel	4
20	Gasket, Cover	1
21	Button	2
22	O-ring	1
23	Gasket, Axle Housing	6
24	Screw, 1/4-20 Hex Flange	18
25	Gasket, Valve Cover	1
26	Cover, Valve	1
27	Axle Housing, S/A - B	1
28	Shaft, Axle	1
29	Retaining Ring, Internal	1
30	Housing, Axle - B	1
31	Seal, Axle Shaft	1
32	Bearing, Axle	1
33	Retaining Ring, External	2
34	Washer, Thrust	2
35	Spacer (Thick - PB)	1
35a	Washers, Thrust and Bearing, Thrust (DL/PB)	2&1
36	Screw, 1/4-20 Self Tap	4
37	Spacer (Thin - PB or DL/PB)	1
38	Brake Gear	2
39	Drive	1
40	Motor, Rotor-Ball, A & B S/A	2
41	Parking Brake or Optional Differential Lock/Parking Brake (PB or DL/PB)	1
42	Plate, Wear	2
43	Ring Gear, A & B S/A	2
44	Brake Shaft-A (PB)	1
44a	Brake Shaft-A (DL/PB)	1
45	Brake Shaft-B (PB)	1
45a	Brake Shaft-B (DL/PB)	1
46	Planetary Gear, First, A & B S/A	2
47	Sun Gear, First	2
48	Primary Carrier, A & B S/A	2
49	Pin Gear, A & B S/A, First	6
50	Planetary Gear, Second, A & B S/A	2
51	Sun Gear, Second	2
52	Secondary Carrier, A & B S/A	2
53	Pin Gear, A & B S/A, Second	6
54	Washer, Thrust	2
55	Axle Housing, S/A - A	1
28	Shaft, Axle	1
29	Retaining Ring, Internal	1
56	Housing, Axle - A	1
31	Seal, Axle Shaft	1
32	Bearing, Axle	1
33	Retaining Ring, External	2
34	Washer, Thrust	2
57	Plug, Magnetic	2
58	Screw, 1/4-20 Hex Flange	14
59	Cover (PB or DL/PB)	1
60	Boot, Dust	1
61	Nut, Dump Valve	1
62	Adapter, Reservoir, 3/8 I.D. Tube	1
63	O-ring, Dump Valve Nut & Adapter, Reservoir	2

Transaxle Series 750

The following tools are required for disassembly and reassembly of the transaxle.

- 3/8 inch Socket or End Wrench
- 1 inch Socket or End Wrench
- Torque Wrench (300 lb-in)
- No. 5 or 7 Internal Retaining Ring Pliers
- No. 4 or 5 External Retaining Ring Pliers
- 6 or 8 inch C-clamp
- Small Screwdriver (4 to 6 inches long)
- Long Drift Punch
- Piece of Pipe or Hydraulic Tubing (1½ in. O.D. x 6 in. long)

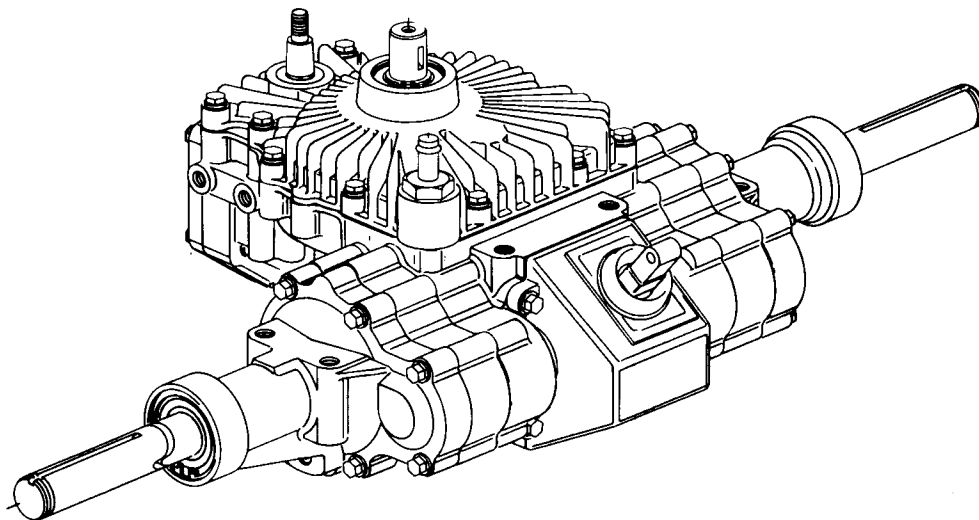
- 3 or 4 Large Wide Rubber Bands
- Light Petroleum Jelly (such as Vaseline)

Product Identification and Ordering Information

When ordering parts for the transaxle, please include the following:

Date Code
Input Rotation
Model Number
Part Name
Part Number
Quantity of Parts

This information is located on the under side of the pump housing, opposite the input shaft.



4

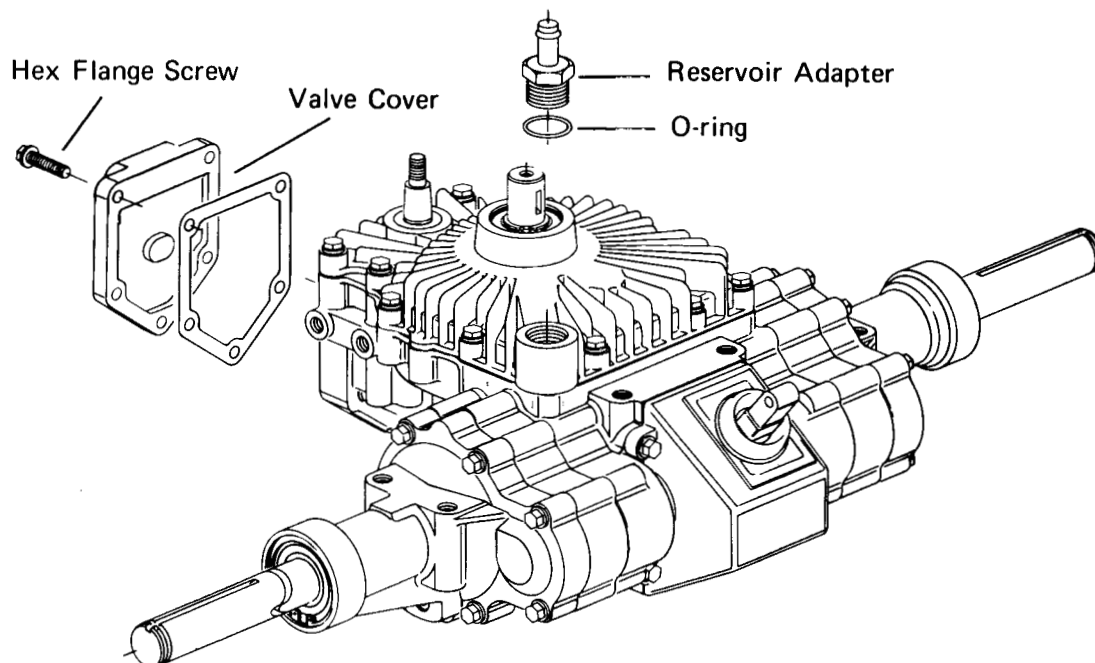
Complete Disassembly

The following procedures describe complete disassembly of the Transaxle Series 750. These procedures cover the basic unit only. However, procedures for units with options such as the differential lock/parking brake are still basically the same.

The level of cleanliness maintained while repairing the transaxle could affect its performance. Work in a clean area. After disassembly, wash all parts with clean solvent and blow the parts dry with air. Inspect

all mating surfaces. Replace any damaged parts that could cause internal leakage. Do not use grit paper, files or grinders on finished parts.

Our service policy is to replace all seals and gaskets whenever a transaxle is disassembled. Lubricate the new seals with petroleum jelly before installation. Use only clean, recommended hydraulic fluid on the finished surfaces at reassembly.



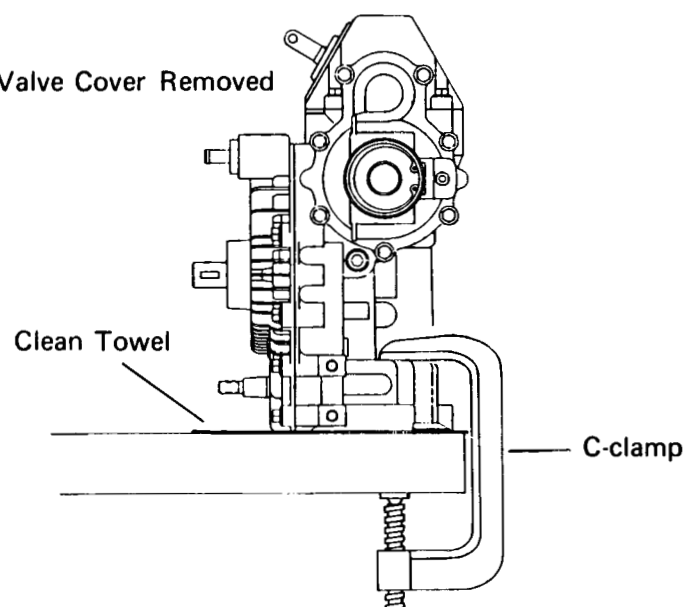
1 Drain the transaxle and then secure it with the valve cover in the up position. Remove the hex flange screws from the valve cover.

2 Remove the valve cover from the housing assembly.

3 Remove the valve cover gasket.

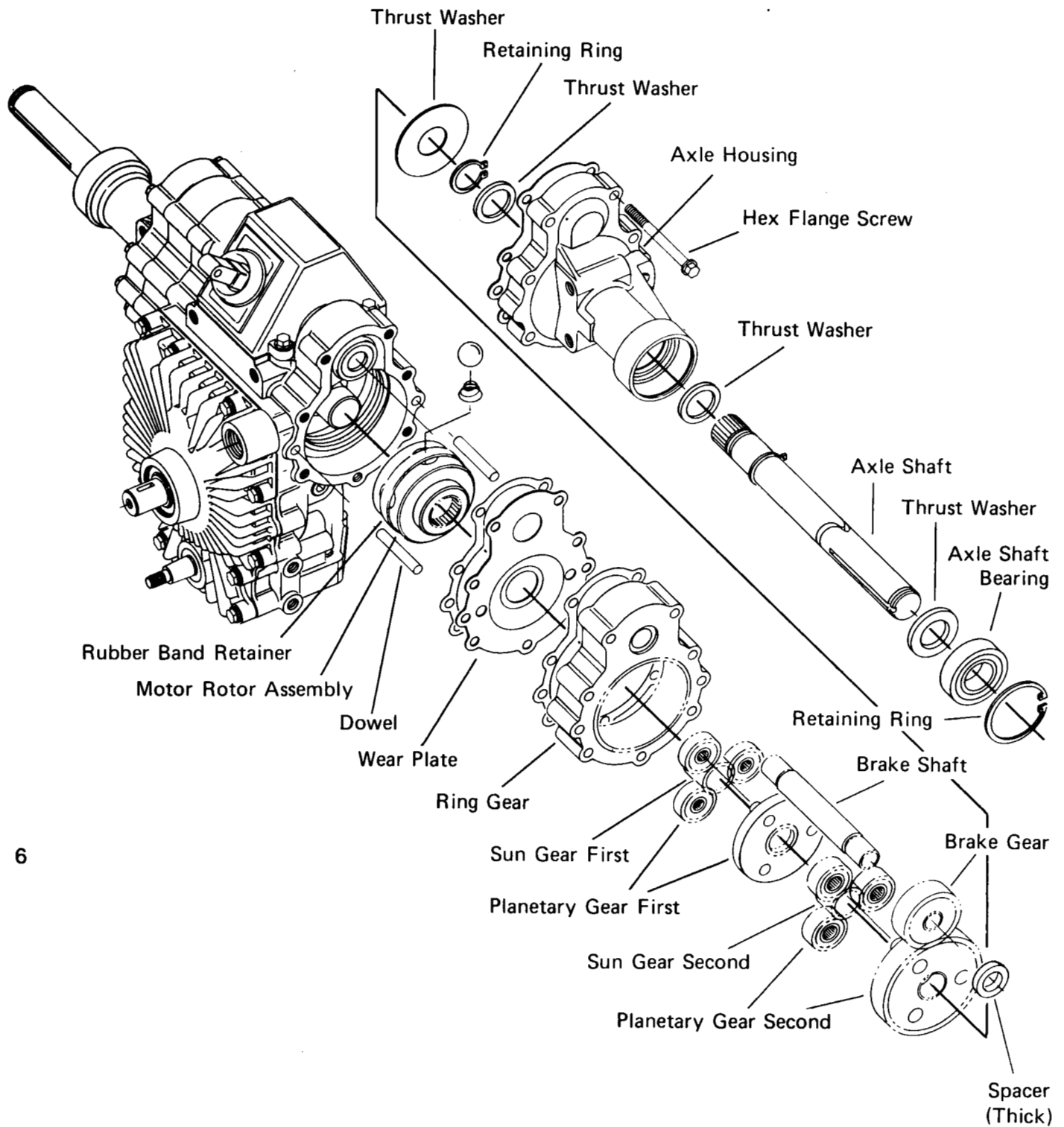
Note: The gasket may have remained on the valve cover when the cover was removed from the housing assembly.

Transaxle with Valve Cover Removed



4 It is easier to disassemble the axle assemblies with the transaxle as shown. Before securing the transaxle in this position, place a clean towel between the valve cover surface and the work surface to protect the sealing surface from possible damage during repositioning.

Use a 6 to 8 inch C-clamp to secure the transaxle to a clean work surface. Do not overtighten the C-clamp when securing the transaxle.



5 Remove the hex flange screws from either axle assembly.

6 Carefully remove the axle assembly from the housing assembly.

7 In most cases the brake shaft will remain in the housing assembly when the axle assembly is removed. If this occurs, remove the brake shaft at this time.

Important: Be extremely careful when removing the motor rotor assemblies. The ball pistons are spring loaded in the bores and must remain intact because each ball piston is matched to its respective bore.

8 The best way to remove the motor rotor assemblies is to place a separate motor race on top of the existing motor race in the housing assembly. Hold the separate race securely in position. Then carefully pull the motor rotor assembly outward until the ball pistons are fully engaged in the groove located in the center of the separate race. Carefully remove the rotor assembly and race together as a set, handling the motor rotor assembly only.

Note: If a separate motor race is not available, work a wide rubber band around the outside of the motor rotor to hold the ball pistons in their bores. It is essential that the ball pistons be retained in their bores during handling. This is especially true for the motor rotors, as the motor ball pistons are spring loaded in the bores.

9 Reposition the transaxle and remove the hex flange screws from the remaining axle assembly.

10 Carefully remove the axle assembly from the housing assembly.

11 Remove the remaining brake shaft from the housing assembly.

12 Using a separate race or wide rubber band to retain the ball pistons in their bores, carefully remove the other motor rotor assembly.

Axle Disassembly Procedures

13 The following procedures apply to both axle assemblies.

Remove the axle housing gasket from the wear plate.

Note: This gasket may have remained on the housing assembly when the axle assembly was removed.

14 Remove the wear plate from the axle assembly.

15 Remove the axle housing gasket from the ring gear assembly.

16 Remove the first sun gear from the primary carrier assembly.

Note: The first sun gear may have remained in the motor rotor during removal of the axle assembly.

17 Remove the primary carrier assembly from the ring gear assembly.

18 Remove the second sun gear from the secondary carrier assembly.

19 Remove the ring gear assembly from the axle housing.

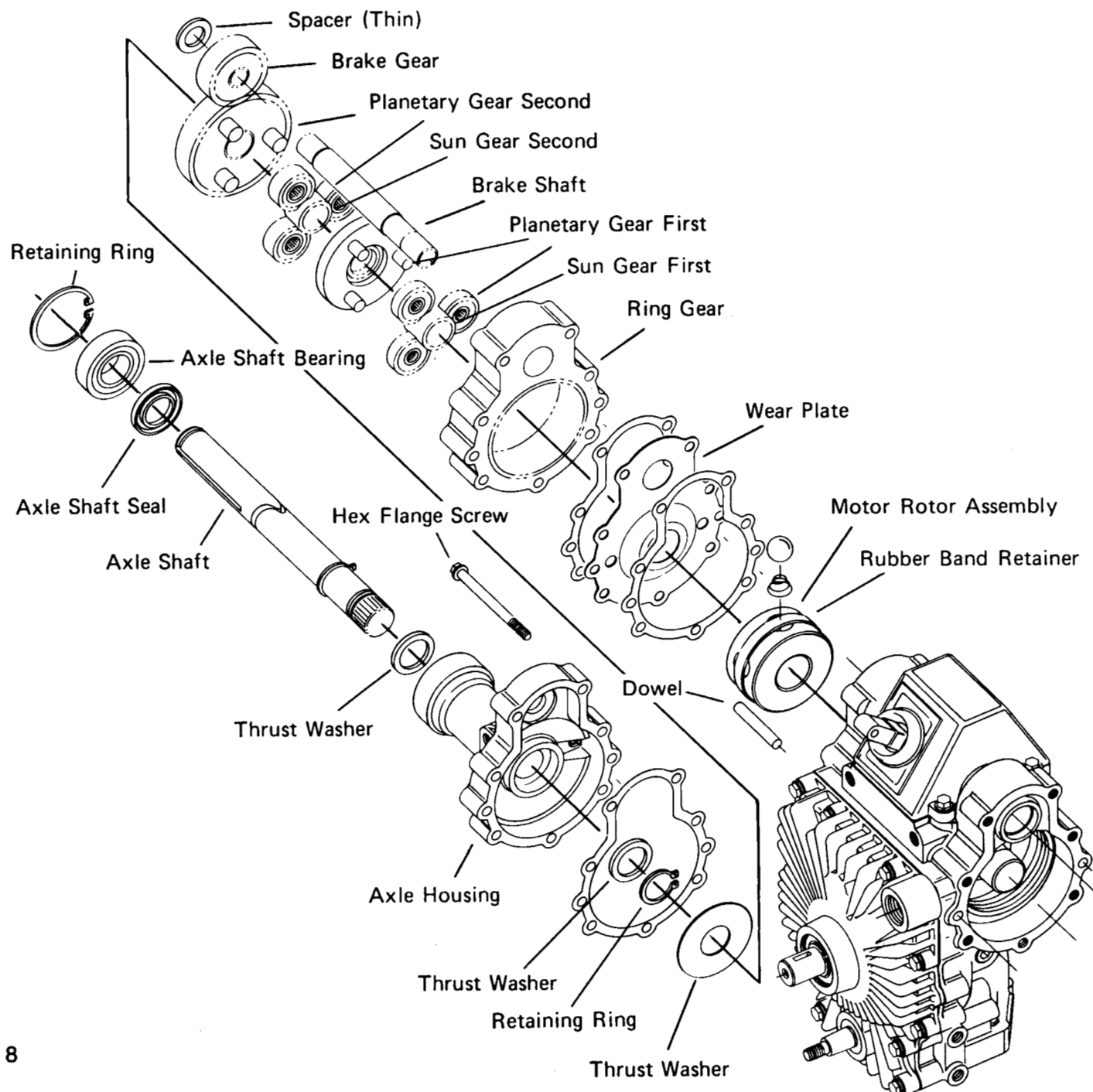
20 Remove the gasket and dowel pins from the axle housing.

21 Remove the brake gear from the axle housing.

22 Remove the spacer washer from the axle housing.

23 Remove the secondary carrier assembly from the axle shaft. Both the primary and secondary carrier assemblies may be disassembled for inspection.

24 Remove the large thrust washer from the axle housing.



8

25 Reposition the axle housing with the splined end of the axle in the up position. Use a no. 4 or 5 external retaining ring pliers to remove the retaining ring and thrust washer from the axle shaft.

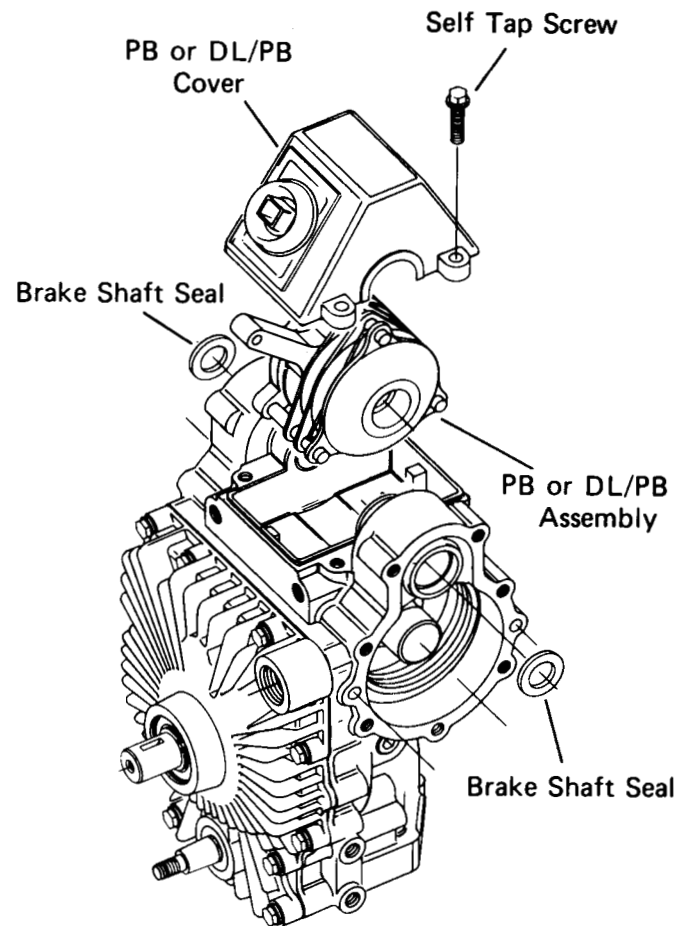
26 Reposition the axle housing assembly with the wheel end of the axle in the up position. Use a no. 5 or 7 internal retaining ring pliers to remove the bearing retaining ring from the axle housing.

27 Remove the axle from the axle housing by using a small press or by tapping the splined end of

the axle with a plastic tipped hammer. This will dislodge the seal and bearing from the axle bore.

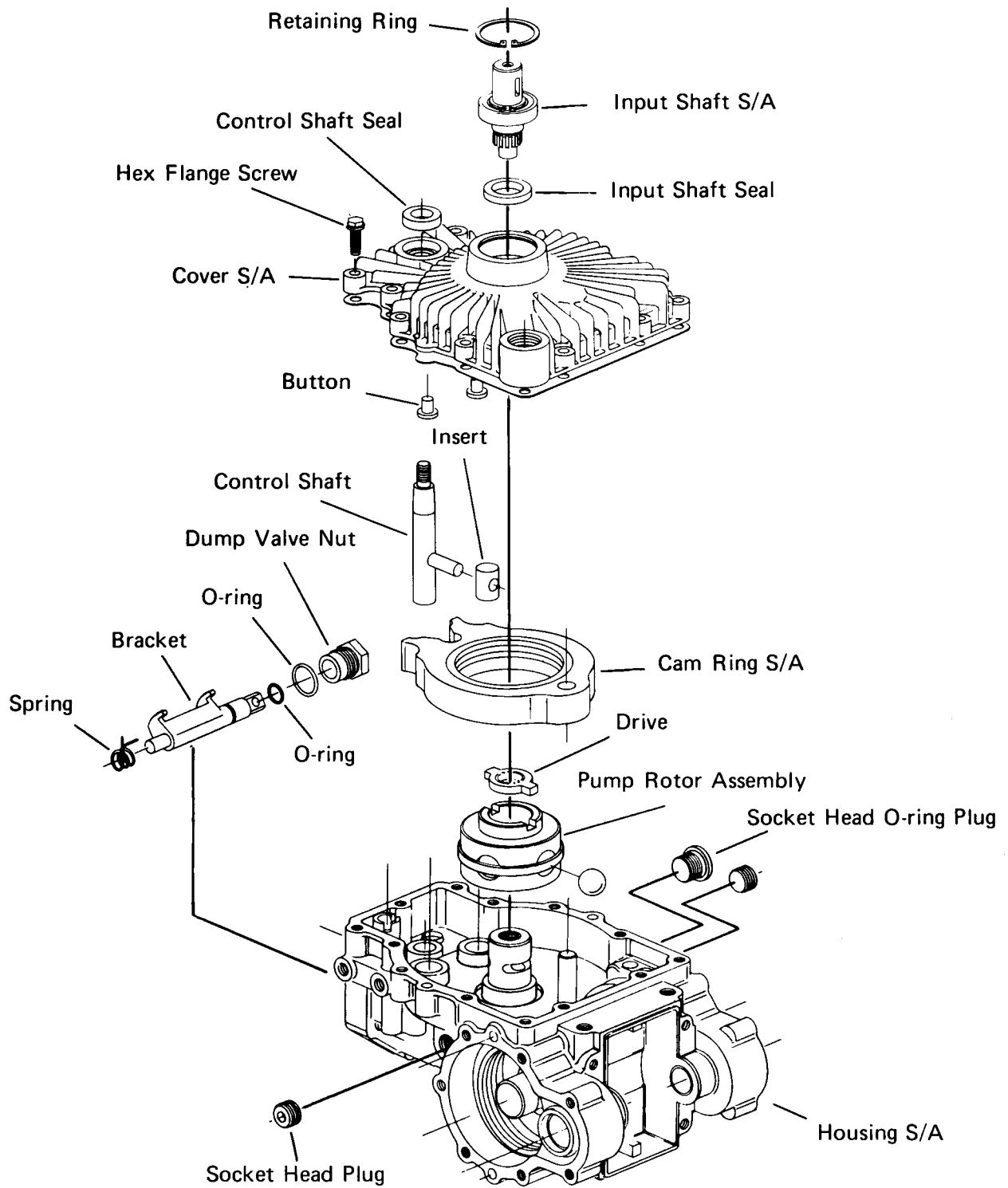
28 Press the bearing from the axle shaft. Remove the seal and thrust washer from the axle shaft. The thrust washer may have remained in the axle housing when the axle shaft was removed,

Note: The retaining ring remaining on the axle shaft need not be removed.



Housing Disassembly Procedures

- 29** Remove the four self tap screws from the brake cover.
- 30** Remove the brake cover from the housing assembly. 9
- 31** Remove the PB or DL/PB assembly from the housing assembly.
- 32** In most cases further disassembly of the PB or DL/PB is not necessary.



33 Reposition the housing assembly and remove the cap screws from the cover assembly.

Note: One of the hex flange screws is located in the case drain port.

34 Carefully separate and remove the cover from the housing assembly.

35 To remove the input shaft assembly, first remove the retaining ring from the input shaft with a no. 5 or 7 internal retaining ring pliers.

36 Reposition and support the cover with the input shaft in the down position. Use a plastic hammer or press to remove the input shaft assembly from the cover.

37 Remove the input shaft seal from the cover with a screwdriver.

38 Reposition the cover and then pry the control shaft seal from the cover assembly with a small screwdriver.

39 Remove the two buttons from the cam ring assembly.

Note: These buttons may have remained in the cover assembly.

40 Remove the cover gasket from the housing.

Note: This gasket may have remained on the cover when it was removed.

41 Remove the drive from the pump rotor assembly.

42 Remove the control shaft and insert from the housing and cam ring assembly.

43 Remove the cam ring insert from the control shaft.

44 Carefully remove the pump rotor assembly from the housing, making sure the ball pistons are not dislodged from their bores.

Important: It is essential that the pump rotor assembly remain intact during handling as each ball piston is matched to its respective bore.

45 Install a wide rubber band around the pump rotor to retain the ball pistons in their bores.

Rotor Assemblies—Disassembly and Inspection

46 Inspect the rotor assemblies in the following manner. Remove the piston balls from the rotor, one at a time, working clockwise from the letter stamped in the rotor face. Place the piston balls in a container

such as an egg carton or ice cube tray. The balls must be replaced in the same bores from which they were removed because they are all select fit.

Check for broken or collapsed springs in the motor rotor assembly. When broken or collapsed springs are found with no other irregularities, the springs may be replaced individually without replacing the complete motor rotor assembly.

Inspect the piston balls. They must be smooth and completely free of any irregularities.

Inspect the rotor bores, rotor bushing and pintle journals for irregularities or excessive clearance. The ball piston to rotor bore clearance is select fit electronically from .0002 to .0006 inch. When irregularities are noted, replace the complete rotor assembly.

47 Install the pistons in their matching bores. Hold them in place with a rubber band or separate race.

48 Remove the cam ring assembly from the housing.

49 The pump and motor journals and cam ring dowel cannot be removed once they have been installed in the housing assembly.

Note: Inspect the pump and motor journals for any irregularities. If any are found, the housing must be replaced as a complete assembly.

50 Reposition the housing assembly and remove the dump valve nut from the housing assembly.

51 Remove the o-ring from the dump valve nut.

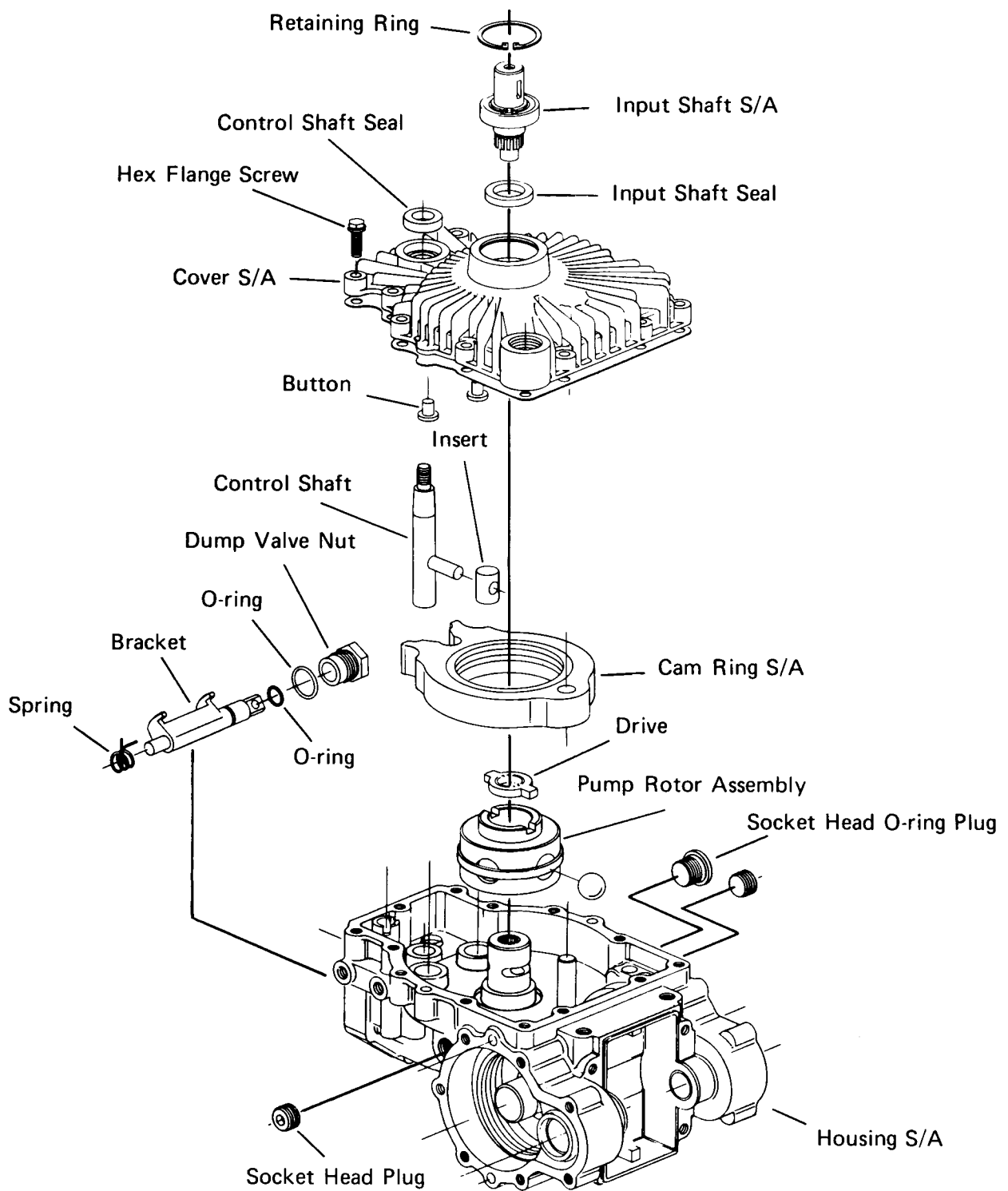
53 Remove the dump valve bracket and spring from the housing assembly by sliding them over and lifting upward. Remove the spring from the dump valve bracket.

54 Remove the o-ring from the dump valve bracket.

55 Reposition the housing assembly on its side. Using a long drift punch, remove the brake shaft seal from the housing. Turn the housing assembly over and remove the other brake shaft seal.

56 Removal of the check valve assemblies for inspection or cleaning is not recommended. Normal flushing should be all that is required to clean the check valves.

Removal of the dampening pistons for inspection or cleaning is also not recommended. Once again, normal flushing should be all that is required for cleaning.



Reassembly

57 Before reassembling the Transaxle Series 750, clean all parts and assemblies with clean solvent and blow them dry with compressed air. Inspect and replace all scratched or damaged parts. Replace all gaskets, shaft seals and o-rings. Lubricate all shaft seals and o-rings with petroleum jelly (Vaseline) for retention during assembly. Freely lubricate all bearings and finished part surfaces with clean hydraulic fluid to provide lubrication at start-up.

Housing Reassembly

58 Position the housing assembly on its side. Lubricate and install the brake shaft seal with the seal lip pointing away from the housing. Press or drive the seal into the counterbore.

59 Turn the housing assembly over and repeat the same procedure for the other brake shaft seal.

60 Lubricate and install the o-ring in the groove located in the dump valve bracket.

61 Install the spring on the dump valve bracket with the right angle bend of the spring pointing inward.

62 With the housing assembly in an upright position, install the spring and dump valve bracket in the housing assembly. The spring is properly installed when the longest leg points toward the check valve assembly.

63 Lubricate and install the o-ring around the dump valve nut.

64 Install the nut over the dump valve bracket, into the housing assembly, making sure you do not damage the dump valve o-ring during installation. Torque the dump valve nut to 150 lb-in.

65 Reposition the housing assembly. Install the cam ring assembly in the housing assembly with the flush side of the cam ring facing outward.

66 Install the cam ring insert on the control shaft pivot dowel.

67 Install the control shaft assembly, first aligning the cam ring insert with the cam ring assembly and then with the housing assembly.

68 Remove the rubber band from the pump rotor assembly. Lubricate and install the pump rotor assembly on the pump journal located in the housing assembly.

69 Install the cover gasket on the housing assembly.

70 Install the drive in the pump rotor assembly.

Cover Reassembly

71 Lubricate and install the control shaft seal with the seal lip pointing inward. Press or drive the seal into the seal counterbore.

72 Lubricate and install the input shaft seal with the seal lip pointing inward. Press or drive the seal into the counterbore.

73 Press or drive the input shaft assembly into the cover.

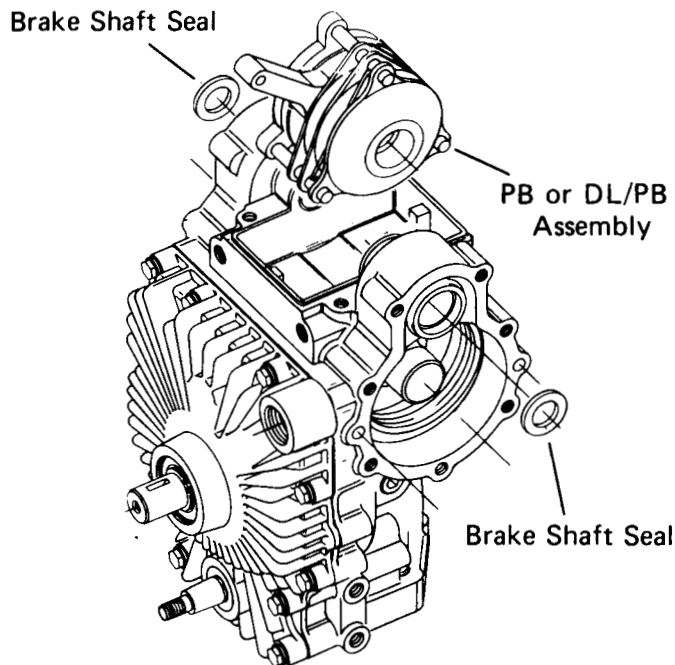
74 Install the retaining ring on the input shaft, making sure it is firmly seated in the retaining ring groove.

75 Apply a small amount of petroleum jelly to the buttons for retention during assembly. Install the buttons in the cover assembly.

76 Install the cover assembly by carefully aligning it with the control shaft, cam ring pivot dowel and pump rotor drive.

77 After engaging the control shaft and pivot dowel in the cover assembly, carefully rotate the input shaft to engage the pump rotor drive. When all mating parts are aligned and engaged, the cover assembly should fall into position on the housing assembly.

78 Install the hex flange screws in the cover assembly and torque them to 125 lb-in.



79 Before installing the parking brake assembly, make sure the brake is in the unlocked position.

Note: On transaxles with the differential lock/parking brake option, do not move the lever unnecessarily, especially when it is out of the housing assembly. The differential lock/parking brake assembly incorporates automatic self-adjusting brakes. Unnecessary activation of the lever may cause the brake to expand and make installation of the assembly very difficult.

Install the parking brake assembly in the housing assembly, aligning it with the four notches cast in the housing assembly.

Note: Make sure the parking brake handle is pointing or leaning towards the cover side of the housing assembly.

80 To ensure correct installation of the axle housings in the housing assembly, the housing and axle assemblies are marked with an A and B. **The B side of the transaxle must be assembled first.**

There are two different brake or differential shaft lengths that are used in the axle housing assemblies. The shorter shaft is always used in the A axle housing, regardless of whether the parking brake or differential lock option is used. The longer shaft is always used in the B axle housing assembly.

Apply a small amount of petroleum jelly to the brake shaft seal. Carefully install the longer of the two brake shafts in the B side of the housing assembly.

Note: Make sure the brake shaft seal is not damaged during installation.

81 The next step is to engage the brake shaft with the parking brake. To align and engage the splines, hold the parking brake disk with one hand and then rotate the brake shaft slightly with the other hand.

82 Reposition the housing assembly and carefully install the motor rotor assembly on the motor journal, into the housing assembly.

Note: If a rubber band was used to retain the ball pistons, remove it now.

83 The first sun gear is longer than the second sun gear. Install the smaller end of the first sun gear into the motor rotor assembly.

84 Install the two dowel pins and the first of three identical gaskets on the B side of the housing assembly.

85 Install the wear plate, bowed side toward the motor rotor assembly, aligning it with the two dowels.

86 Install the second of three gaskets on the wear plate, aligning it with the dowels.

87 Install the ring gear assembly on the housing assembly, aligning it with the brake shaft and dowels.

Caution: The two ring gear assemblies are identical and can be installed on either side of the housing assembly. However, when installing the ring gear assembly, the side with the bearing must face the axle housing assembly.

88 Lubricate and assemble the three planetary gears on the primary carrier assembly.

89 Install the primary carrier assembly into the ring gear assembly by aligning and engaging it with the previously installed sun gear.

90 Install the second sun gear in the primary carrier assembly.

91 Lubricate and assemble the three planetary gears on the secondary carrier assembly.

92 Install the secondary carrier, aligning and engaging the three planetary gears with the ring gear assembly and second sun gear.

93 Install the brake gear on the brake shaft.

94 Two different spacer thicknesses are used in the axle housing assemblies. On transaxles with parking brakes, the thicker spacer is used in the A axle assembly and the thinner spacer is used in the B axle assembly.

On transaxles with the differential lock/parking brake option, the A axle housing assembly uses two thin thrust washers and a thrust bearing to replace the thick spacer. The B axle housing assembly always uses the thinner spacer, regardless of whether the parking brake or differential lock/parking brake option is used.

For retention during assembly, apply a small amount of petroleum jelly to the thin spacer. Install the spacer on the brake shaft and brake gear.

95 Install the third and final gasket on the ring gear assembly.

Axle Reassembly

96 Lubricate and install the axle shaft and thrust washer in the axle housing.

97 Position the axle housing assembly with the axle end pointing downward. Install the inner thrust washer and axle shaft retaining ring.

98 Reposition the axle assembly with the output end pointing upward. Protecting the lip of the axle

seal from the retaining ring groove and keyway, lubricate and install the seal with the lip pointing inward toward the axle housing.

99 Use a piece of hydraulic tubing (1½ in. O.D. x 6 in. long) to press the seal into the counterbore.

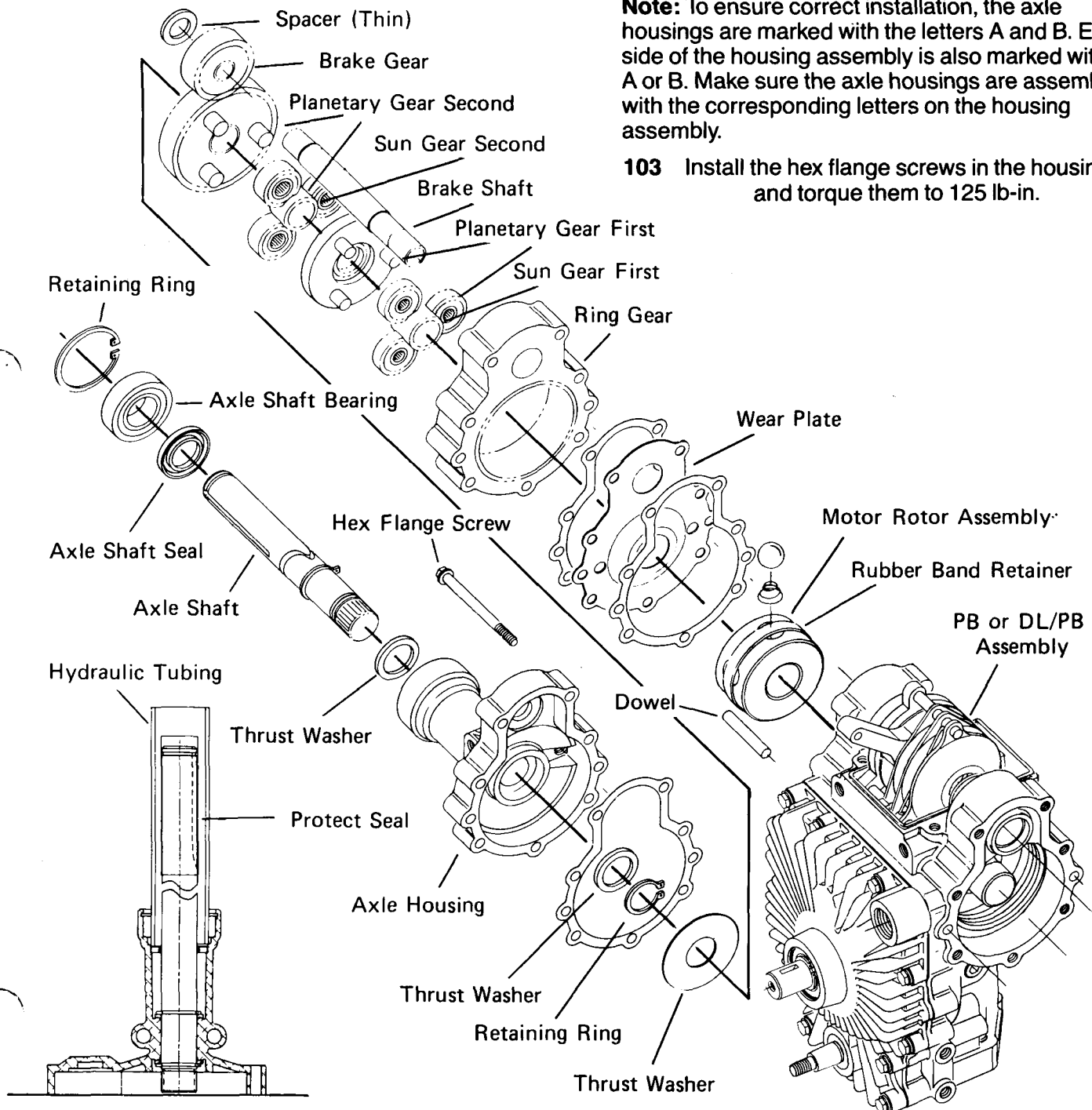
100 Press the sealed bearing over the axle shaft, and into the counterbore. Use a no. 5 or 7 internal retaining ring pliers to install the retaining ring in the axle housing.

101 Reposition the axle housing assembly and install the large thrust washer on the axle shaft.

102 Install the B axle housing assembly, aligning and engaging the axle shaft with the secondary carrier assembly.

Note: To ensure correct installation, the axle housings are marked with the letters A and B. Each side of the housing assembly is also marked with an A or B. Make sure the axle housings are assembled with the corresponding letters on the housing assembly.

103 Install the hex flange screws in the housing and torque them to 125 lb-in.



104 Reposition the housing assembly. Apply a small amount of petroleum jelly to the brake shaft seal. Carefully install the remaining brake shaft.

105 To align and engage the brake shaft splines, hold the parking brake disk with one hand and rotate the brake shaft slightly with the other hand.

106 Reposition the housing assembly and install the remaining motor rotor assembly.

107 Install the smaller end of the first sun gear into the motor rotor assembly.

108 Install the two dowel pins and the first of three identical gaskets on the A side of the housing assembly.

109 Install the wear plate with the bowed side facing the motor rotor assembly, aligning it with the two dowels.

110 Install the second of three gaskets on the wear plate, also aligning it with the dowels.

111 Install the ring gear assembly on the housing assembly, aligning it with the brake shaft and dowels.

Caution: When the ring gear assembly is installed, the side with the bearing must face the axle housing.

112 Install the primary carrier assembly in the ring gear, aligning and engaging it with the previously installed sun gear.

113 Install the second sun gear in the primary carrier assembly.

114 Install the secondary carrier, aligning and engaging the three planetary gears with the ring gear assembly and second sun gear.

115 Install the brake gear on the brake shaft.

116 Apply a small amount of petroleum jelly to the spacer for retention. Install the thick spacer on the brake shaft.

Differential lock/parking brake option only, apply a small amount of petroleum jelly to the thrust washers and bearing for retention during assembly. Install the thrust washers and bearing on the brake shaft.

Note: At assembly, the thrust bearing must be positioned between the two thrust washers.

117 Install the third gasket on the ring gear assembly.

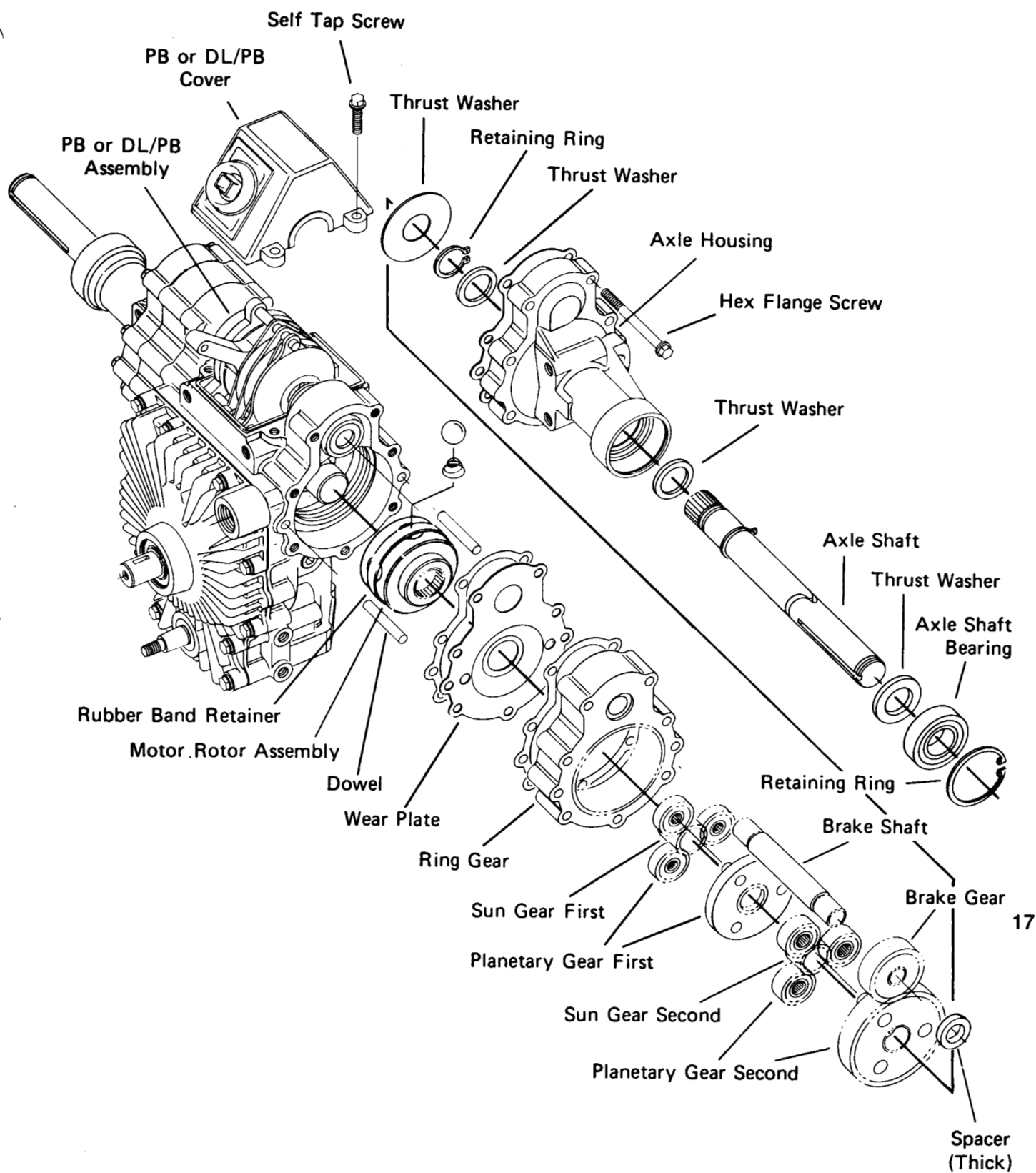
118 Install the large thrust washer on the axle shaft.

119 Install the A axle housing assembly, aligning and engaging the axle shaft with the secondary carrier assembly.

120 Install the hex flange screws in the housing and torque them to 125 lb-in.

121 Reposition the transaxle assembly and install the cover (PB or DL/PB) by inserting the lever through the dust boot.

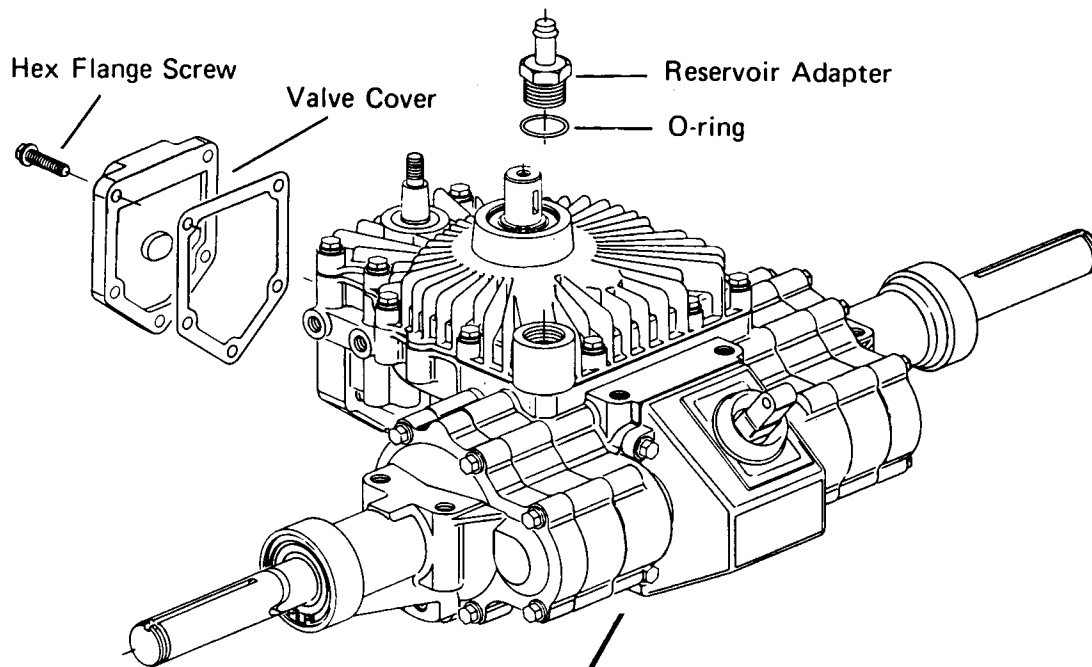
122 Install the self tap screws in the brake cover and torque them to 105 lb-in.



123 Reposition the transaxle assembly and install the valve cover gasket.

124 Install the valve cover.

125 Install the hex flange screws in the valve cover and torque them to 125 lb-in.



18

Build Date Code Effective January 1, 1990

Original Build (example - 010190)

01 01 90
Month Day Year

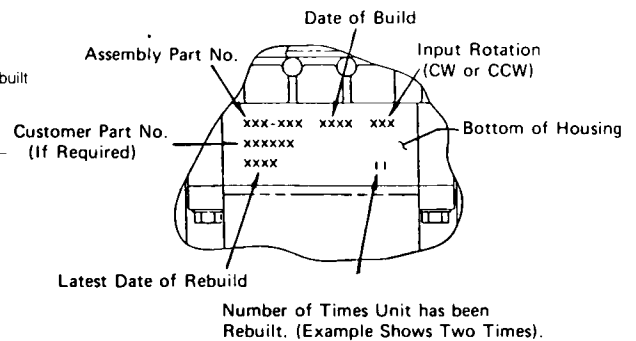
Factory Rebuild (example - 0101901)

01 01 90 1
Month Day Year No. times rebuilt

Build Date Code prior to January 1, 1990

Month X X X
Day 01-31
Year
A = January G = July
B = February H = August
C = March I = September
D = April J = October
E = May K = November
F = June L = December

(example - L 31 J)
Year
A = 1980 F = 1985
B = 1981 G = 1986
C = 1982 H = 1987
D = 1983 I = 1988
E = 1984 J = 1989



Fluid Recommendations

A reputable supplier can help you make the best selection of hydraulic fluid for use in Eaton hydrostatic products.

For satisfactory operation, the following recommendations apply:

1. The filter system used in the hydraulic circuit should be capable of cleaning and maintaining the hydraulic fluid to meet ISO Cleanliness Code 18/13 per SAE J1165. This code allows a maximum of 2500 particles per milliliter greater than 5 μ m and a maximum of 80 particles per milliliter greater than 15 μ m.
2. At normal operating temperatures, optimum viscosity ranges are from 80-180 SUS (16-39 cSt). Viscosity should never fall below 60 SUS (10 cSt) and, at the lowest expected start-up temperature, should not exceed 10,000 SUS (2158 cSt).
3. The fluid should be chemically stable, incorporating rust and oxidation inhibitors.
Specific types of fluid meeting these requirements are:
 - Premium hydraulic oil; such as Mobil DTE-26
 - Engine crankcase oil—SAE 20w-20, SAE 30 or SAE 40

Note: If the natural color of the fluid has become milky, it is possible that a water contaminant problem exists.

For accurate level readings, take readings when the fluid is cold.

Eaton Corporation **Hydraulics Division** 15151 Highway 5, Eden Prairie, MN 55344 Telephone (612) 937-9800

Eaton G.m.b.H. **Hydraulics Division** ☐ 100 410 • D-5620 Velbert 1 West Germany ☎ 49-2051-2070

EAT•N

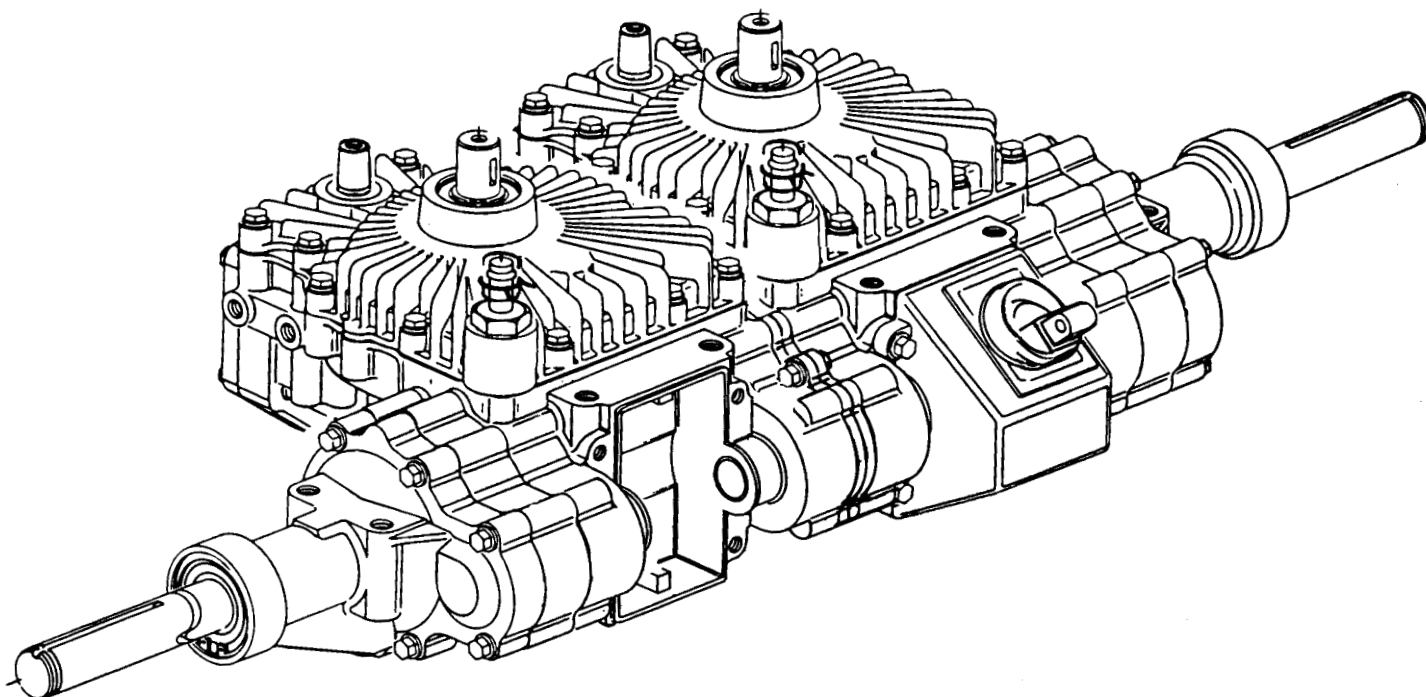
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FORM NO. 7-413
July, 1987

**Eaton
Hydraulics
Division**

Parts Information

Hydrostatic Transaxle Series 780



EAT•N

Options

• 13:1 Final Drive Reduction

Ref. No.	Part No.	Description	Qty.
51	104551	Motor, Rotor-Ball, A & B S/A, 15T ..	2
54	104341	Ring Gear, A & B S/A, 54T	2
56	990418	Planetary Gear, First, A & B S/A ...	2
57	NSS	Sun Gear, First, 24T	2
58	NSS	Primary Carrier, A & B S/A, 18T ..	2
59	NSS	Plnt Gear, A & B S/A, First, 15T ..	6
60	990406	Planetary Gear, Second, A & B S/A	2
61	NSS	Sun Gear, Second, 18T	2
62	NSS	Secondary Carrier, A & B S/A ...	2
63	NSS	Plnt Gear, A & B S/A, Second, 18T	6

• 16:1 Final Drive Reduction

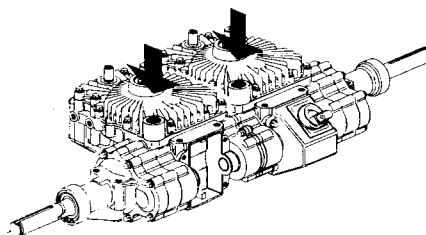
Ref. No.	Part No.	Description	Qty.
51	104073	Motor, Rotor-Ball, A & B S/A, 18T ..	2
54	104341	Ring Gear, A & B S/A, 54T	2
56	990405	Planetary Gear, First, A & B S/A ...	2
57	NSS	Sun Gear, First, 18T	2
58	NSS	Primary Carrier, A & B S/A, 18T ..	2
59	NSS	Plnt Gear, A & B S/A, First, 18T ..	6
60	990406	Planetary Gear, Second, A & B S/A	2
61	NSS	Sun Gear, Second, 18T	2
62	NSS	Secondary Carrier, A & B S/A ...	2
63	NSS	Plnt Gear, A & B S/A, Second, 18T	6

Complementary Component

78	104973	Reservoir Assembly for 3/8 in. I.D. Hose—Two Line	1
79	104276	Cover	1
80	104443	Gasket	1
81	104946	Reservoir	1

• 23:1 Steel Gear Kit

990474	15T Sun Gear, Second (1) 21T Plnt Gear, Second (3) Secondary Carrier (1) (Two Kits Required Per Unit)
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105636 Adapter, Reservoir, 3/8 I.D. Tube 90° . 1

Eaton Corporation
Model 780 Transaxle

Assembly Part No.

Customer Part No. (If Required)

Latest Date of Rebuild

Date of Build

Input Rotation (CW or CCW)

Bottom of Housing

Number of Times Unit has been Rebuilt. (Example Shows Two Times).

Build Date Code Effective January 1, 1990

Original Build (example - 010190)

Factory Rebuild (example - 0101901)

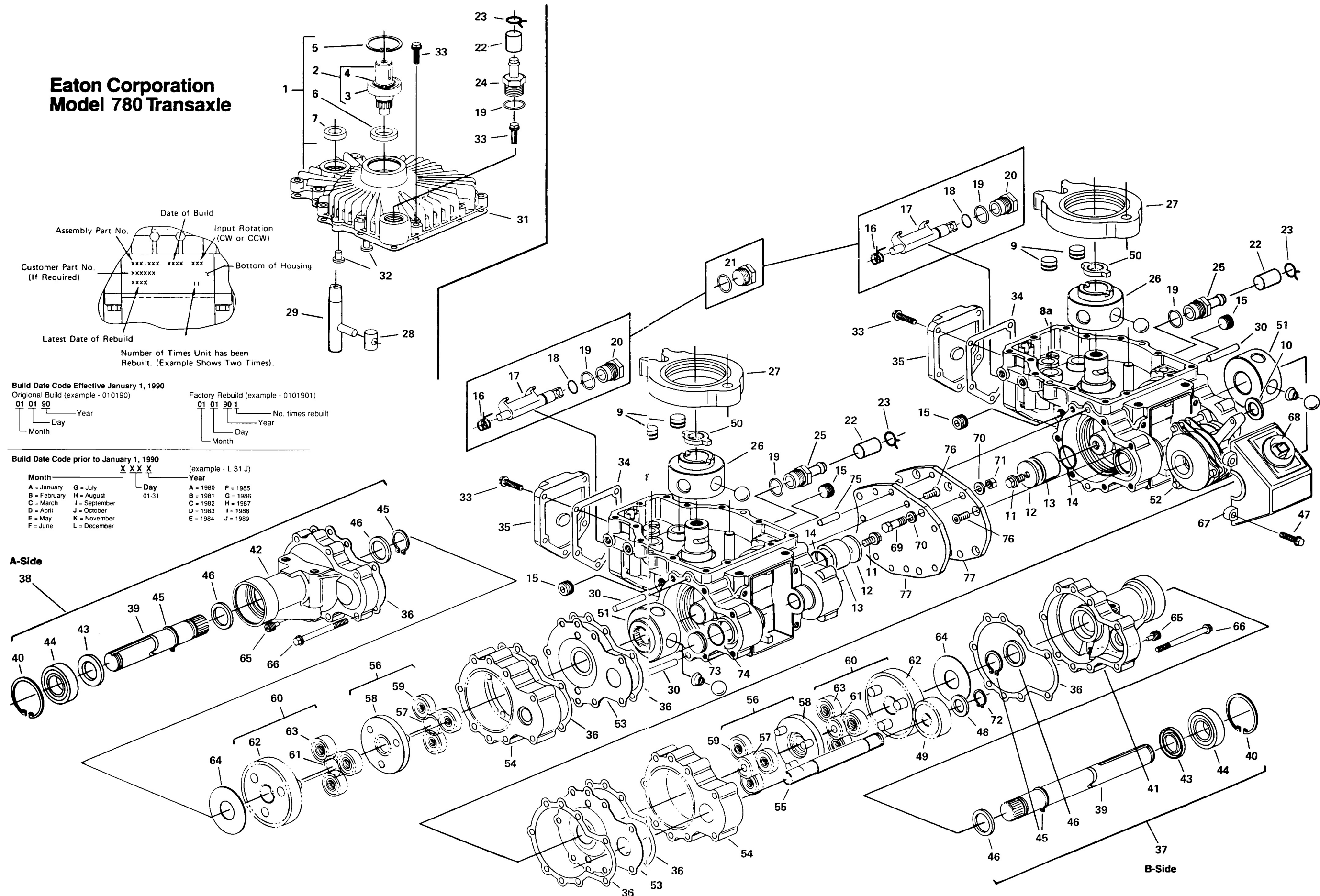
01	01	90
Month	Day	Year

01	01	90	1
Month	Day	Year	No. times rebuilt

Build Date Code prior to January 1, 1990

(example - L 31 J)

Month	Day	Year
A = January	G = July	A = 1980
B = February	H = August	B = 1981
C = March	I = September	C = 1982
D = April	J = October	D = 1983
E = May	K = November	E = 1984
F = June	L = December	F = 1985
		G = 1986
		H = 1987
		I = 1988
		J = 1989



Ref. No.	Part No.	Description	Qty. 780	Ref. No.	Part No.	Description	Qty. 780
1	106071 †	Cover, Subassembly (S/A)	2	31	105327	Gasket, Cover	2
2	106073 †	Shaft, Input, S/A	2	32	101597	Button	4
3	NSS	Bearing, Input Shaft	2	33	103757-088	Screw, 1/4-20 Hex Flange	10
4	NSS	Ring, Retaining, External	2	34	104416	Gasket, Valve Cover	2
5	101680-156	Ring, Retaining, Internal	2	35	104393	Cover, Valve	2
6	93955 †	Seal, Input Shaft	2	36	104442	Gasket, Axle Housing	6
7	93895	Seal, Control Shaft	2	37	104822-008	Axle Housing, S/A-B	1
8	104716	Housing, S/A CW (A)	1	38	104821-008	Axle Housing, S/A-A	1
8a	104717	Housing, S/A CW (B)	1	39	104815-008	Shaft, Axle	2
9	104294	Piston, Dampening, S/A	4	40	101680-206	Retaining Ring, Internal	2
	105814*	Piston, Dampening, S/A	4	41	105745	Housing, Axle-B	1
10	104020	Seal, Brake Shaft (B housing Only)	1	42	105748	Housing, Axle-A	1
11	103757-088	Screw, Hex Flange	2	43	103960	Seal, Axle Shaft	2
12	104988	Washer	2	44	104928	Bearing, Axle Shaft	2
13	104989	Cup, Seal	2	45	103983-098	Retaining Ring, External	4
14	8761-121	O-ring	2	46	103966	Washer, Thrust	4
	NSS	Pluget, Lee	5	47	104436-100	Screw, 1/4-20 Self-Tap	30
	NSS	Journal, Pump, S/A	2	48	◆	Spacer	1
	NSS	Retainer	4	49	103933	Gear, Brake	1
	NSS	Ball, Grade 200	4	50	104107	Drive	2
	NSS	Body, Valve	4	51	104551	Motor Rotor Ball, A & B S/A, 15T	2
	NSS	Dowel, Cam Ring Pilot	2	52	104084	Parking Brake Assembly	1
	NSS	Journal, Motor, S/A	2	53	104337	Plate, Wear	2
	NSS	Race, Motor	2	54	104340	Ring Gear, A & B S/A, 57T	2
	NSS	Plug, Socket Pipe	2	55	104596	Shaft, Brake	1
	NSS	Shaft, Bushing (B Housing Only)	2	56	990408	Planetary Gear, First, A & B S/A	2
	NSS	Journal, Motor, R/A	2	57	NSS	Sun Gear, First, 15T	2
	NSS	Flange	2	58	NSS	Primary Carrier, A & B S/A, 15T	2
	NSS	Screw, 1/4 Hex Socket	14	59	NSS	Plnt Gear, A & B S/A, First, 21T	2
15	95653-038	Plug, Socket Pipe	4	60	990409	Planetary Gear, Second, A & B S/A	2
		With Dump Valve Option		61	NSS	Sun Gear, Second, 15T	2
16	104684	Spring, Dump Valve	2	62	NSS	Secondary Carrier, A & B S/A	2
17	105660	Bracket, Dump Valve	2	63	NSS	Plnt Gear, A & B S/A, Second, 21T	2
18	8761-013	O-ring, Dump Valve Bracket	2	64	◆	Washer, Thrust	2
19	8785-010	O-ring, Tube Fitting	6	65	103772	Plug, Magnetic	2
20	104664	Nut, Dump Valve Fitting	2	66	103757-275	Screw, 1/4-20 Hex Flange	14
		Without Dump Valve Option		67	104387	Cover, Brake	1
21	25090-010	O-ring Plug, S/A	2	68	104391	Boot, Dust	1
22	104435	Protector, Shipping	4	69	95862-100	Bolt, 5/16-18 Hex Head	4
23	104859-008	Clamp, Hose	4	70	95897-031	Washer	8
24	104943	Adapter, Reservoir, 3/8 I.D. Tube	1	71	96081-031	Nut, Hex	4
25	104429	Adapter, Reservoir, 3/8 I.D. Tube	2	72	103222-062	Retaining Ring, External	1
26	104413	Pump Rotor Ball, S/A	2	73	104447	Plug, Seal	1
27	105813	Cam Ring, S/A	2	74	8761-021	O-ring	1
28	103621	Insert	2	75	104730	Dowel	2
29	104935	Control Shaft, S/A	2	76	105949-062	Torx Button Head Screw	14
30	104537	Dowel	4	77	105948	Flange	2

NSS Not Sold Separately

† Input Shaft Change from .750 Dia. to 17mm Dia. Effective Date August 1, 1990.

Previous parts, cover (104410), input shaft subassembly (103768) and input shaft seal (104538), are subject to availability and they are *not* interchangeable with 17 mm input shaft parts.

* Piston, Dampening, S/A (Wide Band Neutral — Not Shown, Has Orifice Hole Through Center).

◆ The axle housings (Ref. No. 41 and 42) have been redesigned so the thrust washer (Ref. No. 64) and spacer (Ref. No. 48) are no longer used or available. If these parts need to be replaced you must replace the axle housing(s). Effective November, 1989

HOW TO ORDER REPLACEMENT PARTS

EACH ORDER MUST INCLUDE THE FOLLOWING INFORMATION

- | | |
|-------------------|----------------------|
| 1. Product Number | 4. Part Number |
| 2. Date Code | 5. Quantity of Parts |
| 3. Part Name | |

Eaton Corporation **Hydraulics Division** 15151 Highway 5, Eden Prairie, MN 55344 Telephone (612) 937-9800

Eaton G.m.b.H. **Hydraulics Division** ☐ 100 410 • D-5620 Velbert 1 West Germany ☎ 49-2051-2070



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