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Simplicity

Service Manual

Hydrostatic Transmissions

Models 6/7

Light Duty

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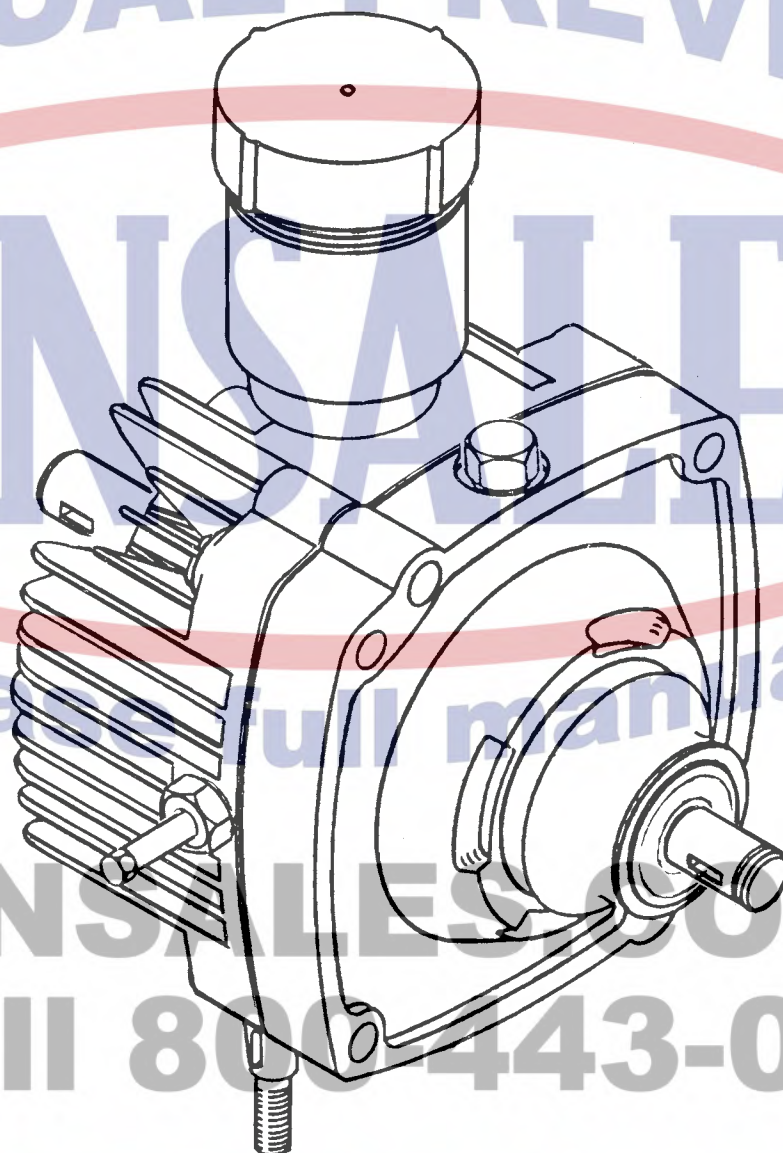
Service Manual

NO. 7-403

**Eaton
Hydraulics
Division**

Repair Information

Light Duty Eaton Hydrostatic Transmissions – Model 6 / 7



TP-1039

828

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General Parts List Model 6 and 7

Item No.	Description	Item No.	Description
1	Reservoir Adapter	28	Seal
2	Reservoir Cover	29	O-Ring
3	Reservoir Body	30	Nut
4	Reservoir Adapter	31	Dump Valve Shaft
5	Seal Ring	32	Seal
6	Cover	33	Control Shaft
7	Pin	34	Dowel
8	Retaining Ring	35	Cam Ring Insert
9	Washer	36	Pin
10	Button (Model 7 only)	37	Valve Body
11	Guide Fitting	38	Ball
12	O-Ring	39	Retaining Ring
13	Dump Valve Bracket	40	Spring
14	Spring	41	Plug
15	Seal Ring	42	O-Ring
16	Pump Rotor and Ball Assembly	43	Body
17	Pump Race	44	Seal
18	Cam Ring Assembly (includes No. 17)	45	Bearing
19	Piston (Model 7 only)	46	Snap Ring
20	Back-Up Ring (Model 7 only)	47	Retaining Ring
21	O-Ring (Model 7 only)	48	Spacer
22	Pintle	49	Gear
23	Motor Rotor and Ball Assembly	50	Retaining Ring
24	Retaining Ring	51	Output Shaft
25	Snap Ring	52	Key
26	Bearing	53	Motor Race
27	Input Shaft	54	Cap Screw
		55	O-Ring
		56	Plug

This list is for identification of parts only. To insure the correct replacement parts for your transmission, it will be necessary to order parts by part number. Consult your supplier for a parts list for your specific model number.

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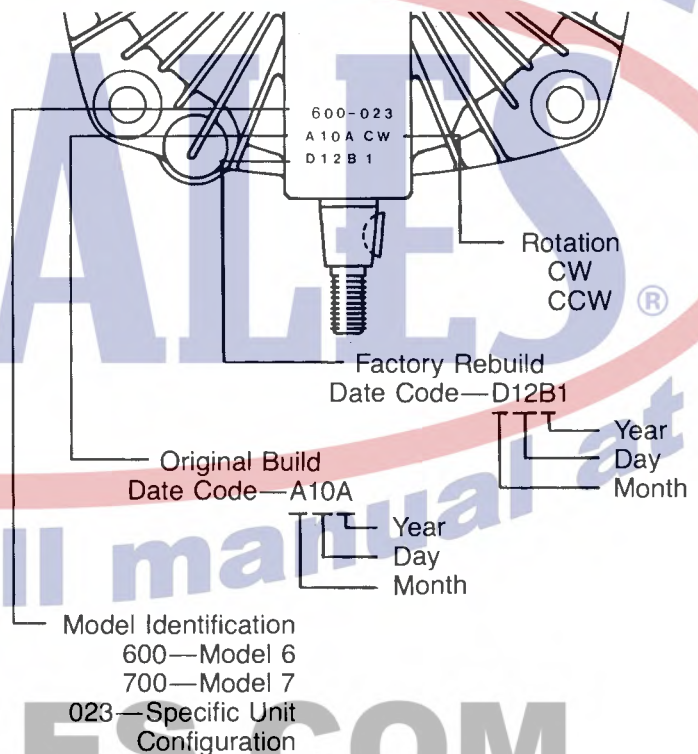
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Product Identification and Ordering Information

Refer to specific listing covering your Eaton transmission. Parts listings are available from the Hydraulics Division, Minneapolis Plant.

When ordering parts, please include the following:

Model Number
Date Code
Part Number
Part Name
Quantity of Parts



Special tools to aid in Disassembly/Reassembly

2" x 6" x 10" wooden block with $\frac{3}{4}$ " dia. hole in the center.

2 large, wide rubber bands.

$\frac{5}{16}$ -18 tap.

Light petroleum jelly (such as Vaseline).

Steel bar stock or piece of wood—2" dia. x $2\frac{1}{2}$ " long.

Disassembly/Reassembly

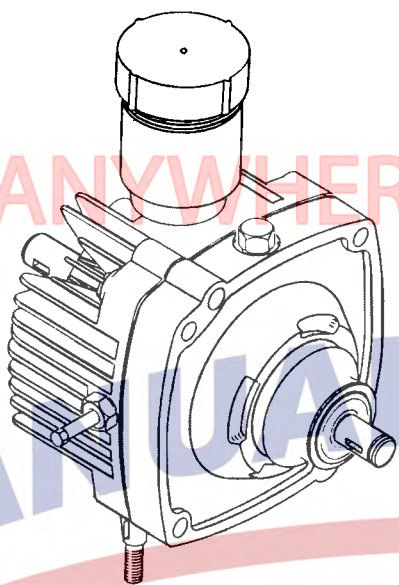


Fig. 1

Clean the transmission exterior thoroughly before repairs are begun. Use a cleaning solution that will not affect paint, gaskets, rubber seals, and plastic.

Important: When compressed air is used in cleaning, do not expose lip seals or bearing surfaces to high pressure.

Drain fluid from transmission.

Note: A 2" x 6" x 10" wooden block with a $\frac{3}{4}$ inch hole in the center is recommended for a suitable bench fixture.

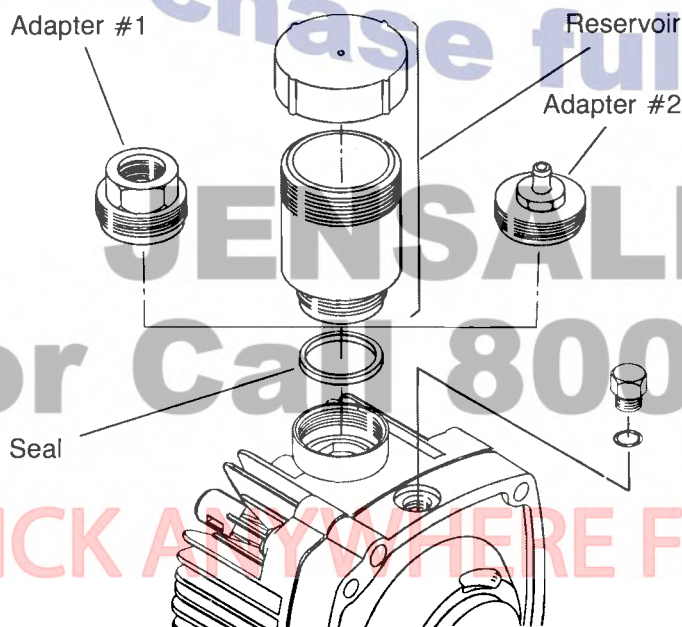


Fig. 2

Reservoir/Adapter—Disassembly

Eaton light duty transmissions are equipped with one of two adapters or a reservoir as shown in Fig. 2.

1 Remove the adapter or reservoir by rotating *clockwise*.

Important: The adapters and reservoir have left hand threads. To remove turn *clockwise*.

To remove adapter #1 use a six point $1\frac{1}{2}$ " hex wrench or socket.

To remove adapter #2 use a six point 1" hex wrench or socket.

To remove the reservoir use a small filter or web wrench.

2 Remove the seal ring from the cover and discard.

Note: We recommend that all seals be replaced with new ones whenever the transmission is disassembled and reassembled.

Body/Cover—Disassembly

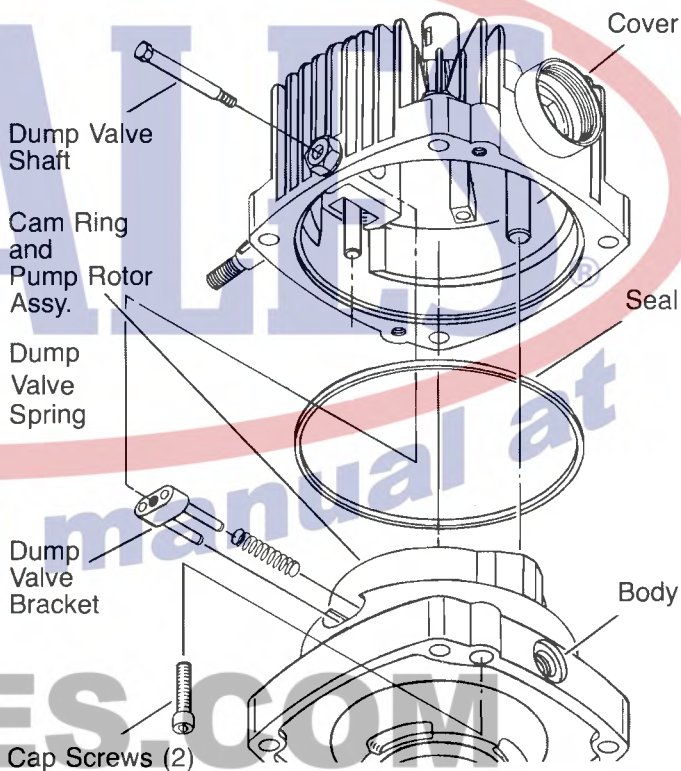


Fig. 3

Important: Before disassembling the transmission, scribe a line across the cover and body to ensure correct reassembly. Incorrect assembly will change output shaft rotation.

3 Use $\frac{1}{4}$ inch allen wrench to remove the (2) $\frac{5}{16}$ cap screws. Where applicable, remove the dump valve shaft.

4 Lift the cover to separate from the body.

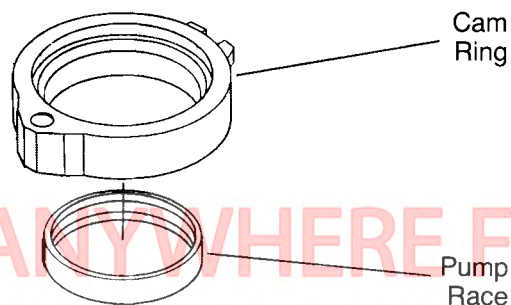


Fig. 9

Note: The pump race is press fit in the cam ring and will require a press to remove it. The cam ring and pump race are available as an assembly.

Note: If irregularities are noted in the pump race, it is reasonable to assume that one or more ball pistons and rotor bores will also be damaged.

Pump Rotor—Removal

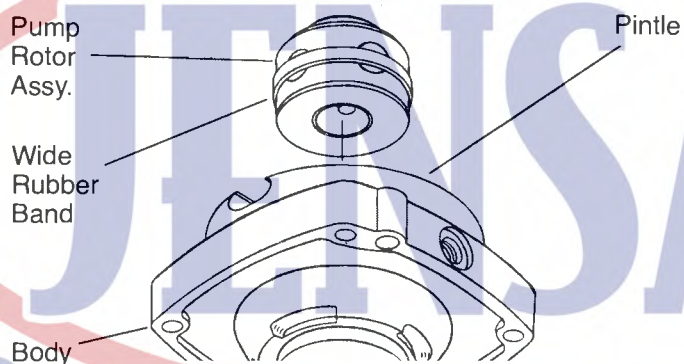


Fig. 10

13 Hold the pintle assembly in position against the body and remove the pump rotor assembly intact.

Pintle Assy.—Removal

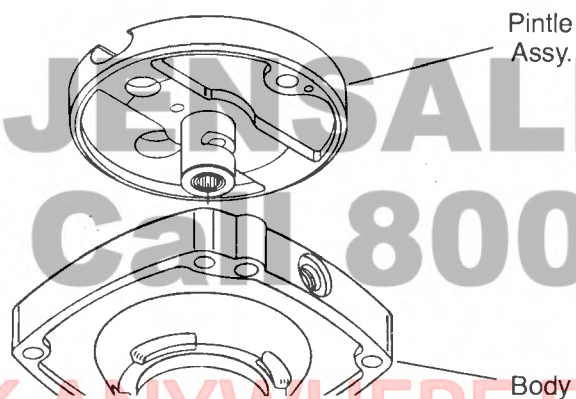


Fig. 11

14 Hold the motor rotor assembly in the bottom position and tap lightly on the body. Lift the pintle assembly out of the body.

Pintle Assembly—Disassembly/Inspection

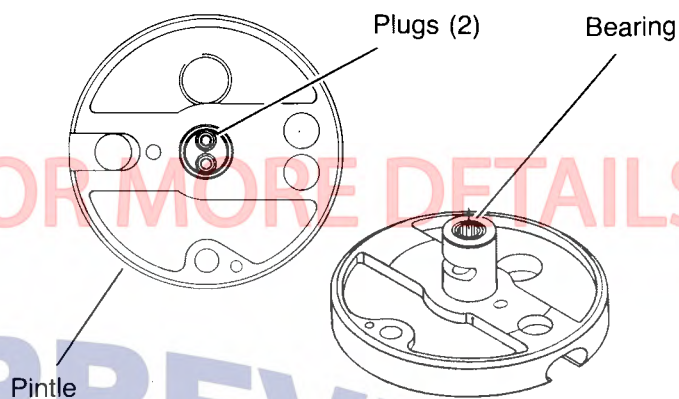


Fig. 12

15 We do not recommend complete disassembly of the pintle assembly for cleaning. Normal flushing should be all that is required. However, if complete disassembly is required, use the following procedures:

Note: Do not remove the two large plugs located on pintle journal.

16 Inspect the pintle journals, particularly in the porting area for any irregularities such as scoring or grooves cut between ports.

If any irregularities are noted: Replace the pintle assembly.

Check Valve—Removal

Note: Removal of check valves is not necessary if check valve balls move freely and seat properly.

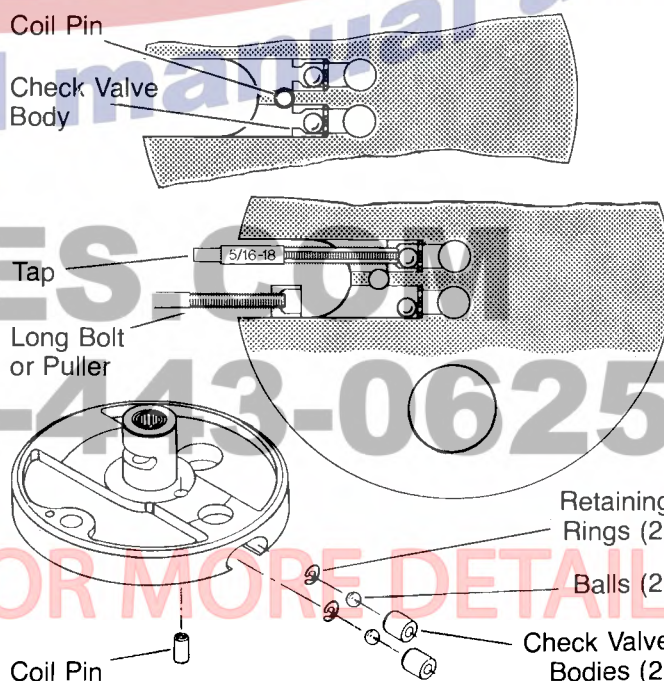


Fig. 13