

Repair Instructions D9 800 & 801 Series

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Chapter

1

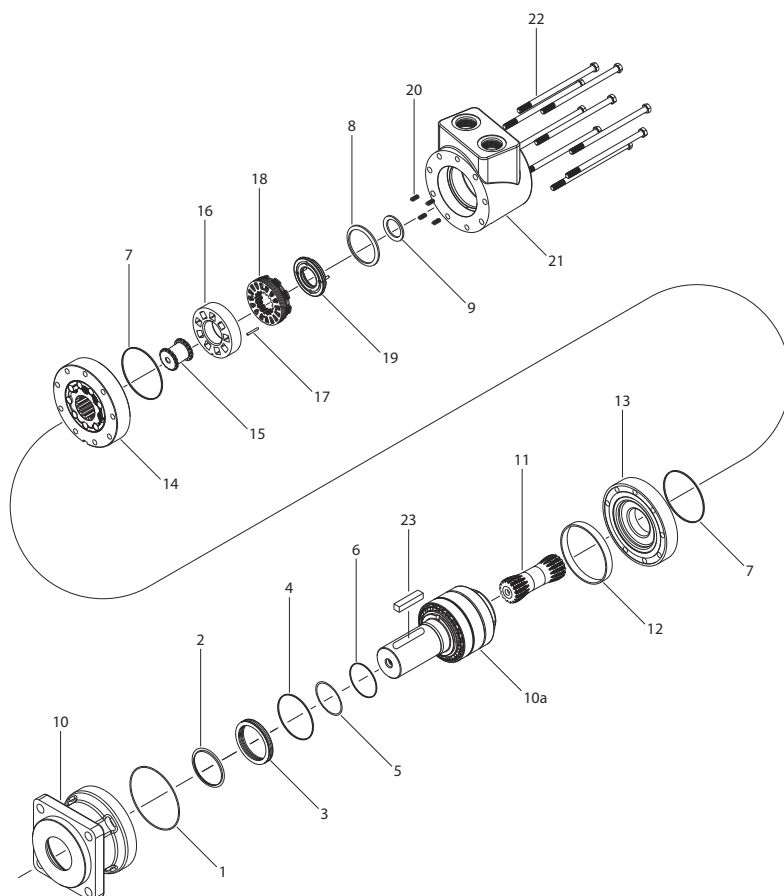
D9 800 & 801 Series Diagram

Topics:

- [D9 800 & 801 Series Exploded View](#)

D9 800 & 801 Series Exploded View

Exploded View Diagram



Component List

Description	Item Number
Housing seal	1
Dust seal	2
Seal carrier insert	3
O-ring seal	4
Backup shim	5
Quad seal	6
Body seal	7
Large piston seal	8
Small piston seal	9
Housing/shaft assembly (housing)	10
Housing/shaft assembly (shaft)	10a
Drive link	11

Description	Item Number
Bearing spacer	12
Wear plate	13
Rotor assembly	14
Driver	15
Manifold	16
Pin	17
Commutator	18
Piston	19
Piston springs	20
Endcover	21
Assembly bolt	22
Shaft key	23

Chapter

2

D9 800 & 801 Series Service Instructions

Topics:

- *D9 800 & 801 Series Seal Kit Installation*

D9 800 & 801 Series Seal Kit Installation

1. To aid in reassembly of the motor, make a “V” shaped set of lines from the endcover to the housing using either paint or a marker. With the shaft facing down, secure the motor in a vise by clamping on the housing flange (10).
2. Loosen and remove nine bolts (22) holding the motor assembly together. Place an 11/64 x 2 ½” pin through the endcover (21) drain port and into the manifold. Remove the endcover assembly.

Note: If the pin is not used, the internal components of the endcover will fall out.

3. Flip the endcover assembly over. Remove the 11/64 x 2 ½” pin from the endcover (21) drain port. Remove the manifold (16), pin (17), commutator (18), piston (19) and springs (20) from the endcover. Place the piston (19) on a flat clean surface with piston seals (8 & 9) facing up. Remove the piston seals from the piston (19) and discard.
4. Remove driver (15), rotor set (14) and wear plate (13) from the motor. Remove all seals from components and discard. Remove seal (1) from housing and discard. Remove drive link (11) and spacer ring (12) from housing.

Note: Do not allow rolls to drop from rotor assembly when removing rotor assembly from motor.

5. To aid in the reassembly of the shaft sub-assembly make a “V” shaped set of line across the rear of the housing and the bearing locking nut on the shaft assembly using either paint or a marker. Remove the housing (10) from the vise and flip over.
6. Remove any shaft hardware, using a press, press the shaft assembly (10a) out of the rear of the housing (10). Remove the seal carrier insert (3). Remove the dust seal (2), o-ring seal (4), backup shim (5), and quad seal (6) and discard all seals.

Note: At this point all parts should be cleaned in an oil-based solvent and dried using compressed air (for safety, observe OSHA safety guidelines). All new seals should be lightly coated in clean oil prior to installation.

7. Place new dust seal (2) into seal carrier insert (3) with the lip facing up. Place new o-ring seal (4) into outer groove of the seal carrier insert (3). Insert back up shim (5) then quad seal (6) into seal carrier insert (3). With dust seal (2) facing down, press seal carrier insert into housing bottom bore. Press the shaft assembly (10a) into housing (10) lining up the “V” set of lines on the bottom of the housing and shaft assembly.
8. Insert drive link (11) into shaft assembly (10a) and place bearing spacer (12) into housing (10).

Note: If a "V" shaped set of lines was drawn on the motor prior to disassembly, use them as a guide for reassembly to insure proper positioning of components.

9. Install the housing seal (1) in the groove on the housing (10).
10. Install the wear plate (13) with the counter bore towards the housing (10).
11. Place body seals (7) in grooves in both sides of rotor set (14). Place rotor set (14) onto wear plate (13) with I.D. spline chamfer facing wear plate. See below for rotor assembly timing.

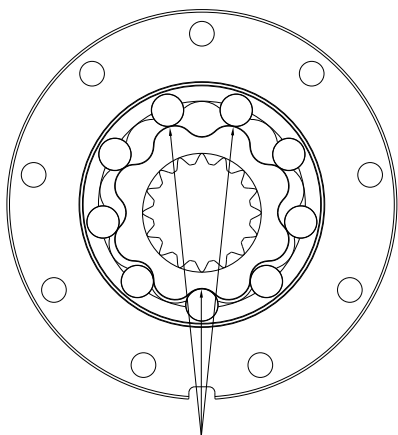


Figure 1: D9 Rotor Assembly Timing Position

12. Place the endcover (21) on a flat clean surface with cavity facing up. Place four springs (20) into holes in the bottom of the cavity.
13. Install the O.D. and I.D. piston seals (8 & 9) onto the piston (19). The seals are cone shaped. The I.D. of the outer seal and the O.D. of the inner seal should be installed towards the piston. The opposite edges should be coming out away from the piston. See below for proper installation of the piston seals.

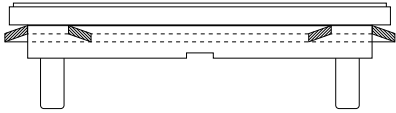


Figure 2: D9 Piston Seal Orientation

14. Install the piston (19) into the endcover (21). The two alignment pins in the piston (19) should be inserted into the two holes in the bottom of the endcover (21).
15. Install the commutator (18) into the endcover (21) with the I.D. splines facing up. The commutator must be timed correctly. There are two notches on the O.D. of the commutator (18). One of the notches is aligned with a pin closer to the I.D. of the commutator. This notch is to be aligned with the small, drilled hole on the I.D. land of the endcover (21). See below for timing the commutator correctly.

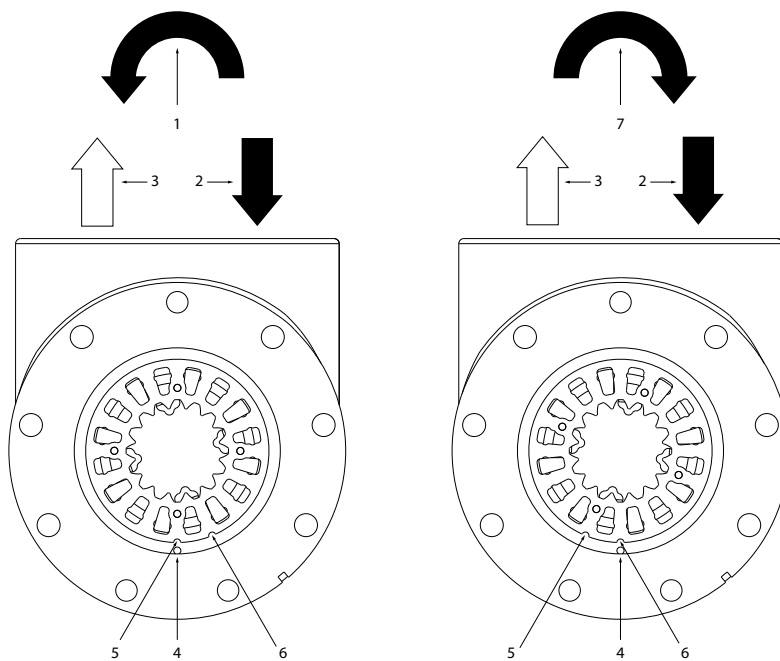


Figure 3: D9 Commutator Timing

- a. D9 800 series motor rotation as viewed from shaft end
 - b. Inlet pressure
 - c. Return line
 - d. Pin
 - e. Commutator notch 1
 - f. Commutator notch 2
 - g. D9 801 series motor rotation as viewed from shaft end
16. Install the manifold dowel pin (17) into the endcover. Install the manifold (16) into the endcover with the large openings facing up and the slot on the O.D. aligned with the dowel pin (17).
 17. Install a 11/64 x 2 1/2" pin (or similar) into the drain port of the endcover (21) and into the manifold (16)

Note: If the pin is not used, the internal components of the endcover will fall out. The endcover contents may need to be compressed to be able to insert the pin (or similar) through the drain port and into the manifold.

18. Install the driver (15) into the rotor set (14). Place the endcover (21) onto the rotor set (14) aligning the driver (15) into the commutator (18).



Caution: Make sure to visually align bolt holes before the driver is in the commutator. If the commutator spins during installation, the motor will run in the reverse direction.

19. Install nine assembly bolts (22) into endcover and pre-torque to 13.6 Nm [10 ft. lb.]. Final torque all bolts to 69.8 ± 7.5 Nm [51.5 ± 5.5 ft. lb.].

Chapter

3

D9 800 & 801 Series Parts Listing

Topics:

- [*D9 800 & 801 Series Replacement Kits*](#)

D9 800 & 801 Series Replacement Kits

Available Parts Kits

Note: Refer to [D9 Exploded View](#) for item numbers.

Table 1: Seal Kit(s)

Description	Exploded View Item Number	Qty. In Kit	Order Number
Housing seal	1	1	800888200 (Includes item numbers 1-9)
Dust seal	2	1	
Seal carrier insert	3	1	
O-ring seal	4	1	
Backup shim	5	1	
Quad seal	6	1	
Body seal	7	2	
Large piston seal	8	1	
Small piston seal	9	1	

Table 2: Miscellaneous Kit(s)

Description	Exploded View Item Number	Qty. In Kit	Order Number
Spacer ring	12	1	800018012
Wear plate	13	1	800012000
Driver	15	1	800014000
Manifold	16	1	800015000
Manifold pin	17	1	800018009
Commutator	18	1	800012001
Endcover piston	19	1	800018004
Piston spring	20	4	800018007
2000 PSI relief valve	Not shown	1	800018039
2500 PSI relief valve	Not shown	1	800018047
3000 PSI relief valve	Not shown	1	800018028

Table 3: Rotorset, Drive link and Bolt Kit(s)

Exploded View Item Number	14	14	11	22
Displacement	Standard Rotor Kit	Freeturn Rotor Kit	Drive Link Kit	Bolt Set Kit (7)
260	800000260	800001260	800014013	800885260

Exploded View Item Number	14	14	11	22
Displacement	Standard Rotor Kit	Freeturn Rotor Kit	Drive Link Kit	Bolt Set Kit (7)
300	800000300	800001300	800014014	800885300
375	800000375	800001375	800014015	800885375
450	800000450	800001450	800014016	800885450
525	800000525	800001525	800014017	800885525
625	800000625	800001625	800014018	800885625
735	800000735	800001735	800014019	800885735
910	800000910	800001910	800014020	800885910
1K0	8000001K0	8000011K0	800014021	8008851K0

Table 4: Housing/Shaft and Related Component Kit(s)

Exploded View Item Number	10/10a	18	Not Shown	Not Shown	Not Shown
Description	Housing/Shaft Kit	Key Kit	Nut Kit	Bolt Kit	Washer Kit
C8 Housing/40 Shaft	800130101	700669105	N/A	700669305	700669306
C8 Housing/33 Shaft	800130102	N/A	N/A	N/A	N/A
C8 Housing/41 Shaft	800130103	700669102	N/A	N/A	N/A
C8 Housing/42 Shaft	800130105	N/A	N/A	N/A	N/A
C8 Housing/36 Shaft	800130106	700669104	N/A	N/A	N/A
C8 Housing/30 Shaft	800130107	50072459	N/A	N/A	N/A
C8 Housing/23 Shaft	800130109	N/A	N/A	N/A	N/A
C8 Housing/32 Shaft	800130115	700669106	N/A	N/A	N/A
E8 Housing/40 Shaft	800130401	700669105	N/A	700669305	700669306
E8 Housing/33 Shaft	800130402	N/A	N/A	N/A	N/A
E8 Housing/41 Shaft	800130403	700669102	N/A	N/A	N/A
E8 Housing/42 Shaft	800130405	N/A	N/A	N/A	N/A

Exploded View Item Number	10/10a	18	Not Shown	Not Shown	Not Shown
Description	Housing/Shaft Kit	Key Kit	Nut Kit	Bolt Kit	Washer Kit
E8 Housing/36 Shaft	800130406	700669104	N/A	N/A	N/A
E8 Housing/30 Shaft	800130407	50072459	N/A	N/A	N/A
E8 Housing/23 Shaft	800130409	N/A	N/A	N/A	N/A
E8 Housing/32 Shaft	800130415	700669106	N/A	N/A	N/A
D8 Housing/38 Shaft	800130204	800018017	800018000	N/A	N/A
D8 Housing/45 Shaft	800130208	700669103	700669303	N/A	N/A
D8 Housing/47 Shaft	800130210	700669105	N/A	700669305	700669306
D8 Housing/68 Shaft	800130211	700669102	N/A	N/A	N/A
D8 Housing/72 Shaft	800130213	800018026	800018025	N/A	N/A
D8 Housing/51 Shaft	800130214	700669107	700669303	700669306	N/A
W8 Housing/38 Shaft	800130304	800018017	800018000	N/A	N/A
W8 Housing/45 Shaft	800130308	700669103	700669303	N/A	N/A
W8 Housing/47 Shaft	800130310	700669105	N/A	700669305	700669306
W8 Housing/68 Shaft	800130311	700669102	N/A	N/A	N/A
W8 Housing/72 Shaft	800130313	800018026	800018025	N/A	N/A
W8 Housing/51 Shaft	800130314	700669107	700669303	700669306	N/A

Table 5: Endcover Kits (Exploded View Item Number 21)

Description	Standard Endcover Kit	Valve Cavity Endcover Kit	Internal Drain Endcover Kit	Valve Cavity & Internal Drain Endcover Kit
0	800016001	N/A	N/A	N/A
7	800016003	N/A	N/A	N/A
8	800016002	N/A	N/A	N/A

Description	Standard Endcover Kit	Valve Cavity Endcover Kit	Internal Drain Endcover Kit	Valve Cavity & Internal Drain Endcover Kit
9	800016000	800016004	N/A	N/A

