

Product: MOTOR GRADER

Model: 140M 3 AWD MOTOR GRADER N9G

Configuration: 140M Series 3 Motor Grader-All Wheel Drive N9G00001-UP (MACHINE) POWERED BY C9.3 Engine

Disassembly and Assembly

12M Series 3, 140M Series 3 and 160M Series 3 Motor Graders Machine Systems

Media Number -UENR3488-02

Publication Date -01/09/2018

Date Updated -24/09/2018

i07512054

Gerotor Motor (Circle Drive) - Assemble

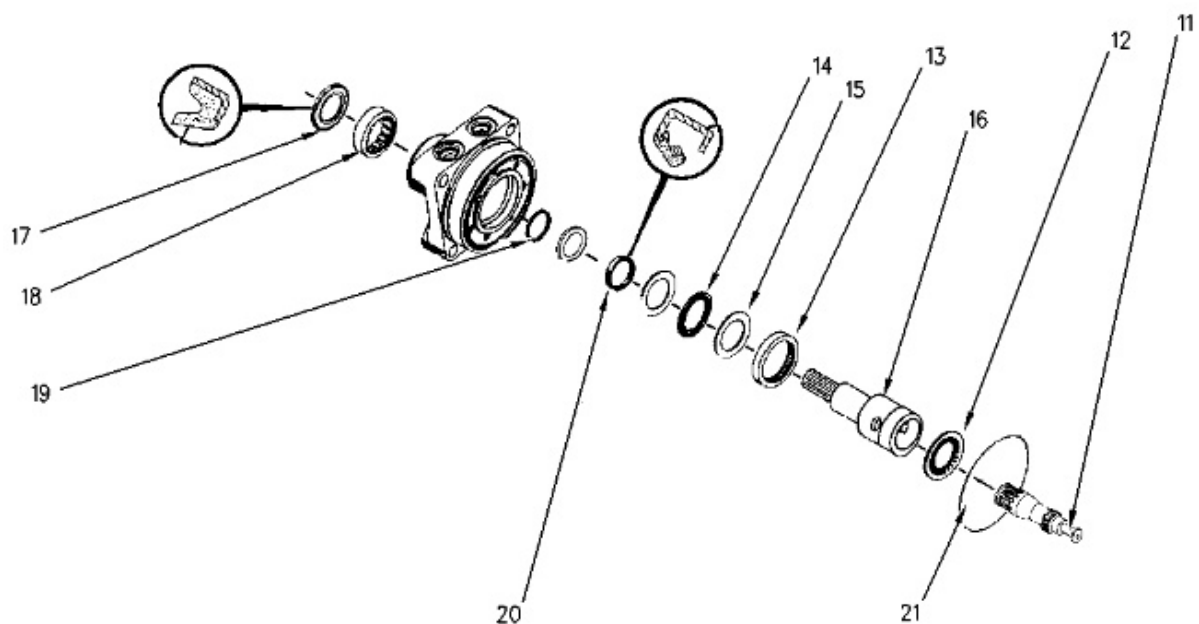
SMCS - 5082-016; 5206-016

Assembly Procedure

Table 1

Required Tools			
Tool	Part Number	Part Description	Qty
A	1P-0510	Driver Gp	1

1. Make sure that all the components of the gerotor motor are clean prior to assembly. During the assembly, check the condition of all the O-ring seals that are used in the motor. If any of the seals are damaged, use new parts for replacement.



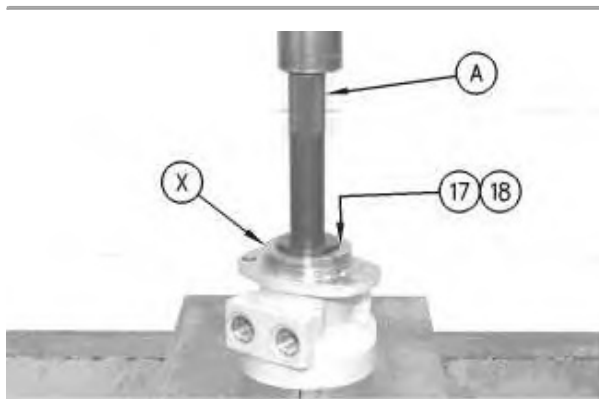


Illustration 2

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2. Install bearing (18). Use a suitable press to press bearing (18) to a depth of 7.62 mm (0.300 inch) below Surface (X).
3. Install lip seal (17). Press lip seal (17) in flush to 0.51 mm (0.020 inch) below face.

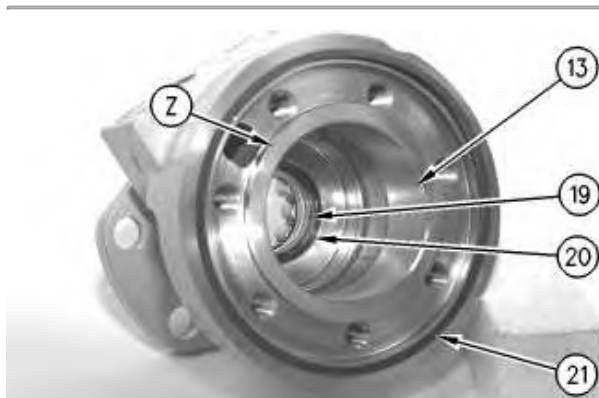


Illustration 3

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4. Install backup ring (19) and the shim to the motor assembly.
5. Install lip seal (20) to the motor assembly.
6. If equipped, install the needle bearing (13). Press the needle bearing to a depth of 2.92 mm (0.115 inch) below Surface (Z). Install O-ring seal (21) to the motor assembly.

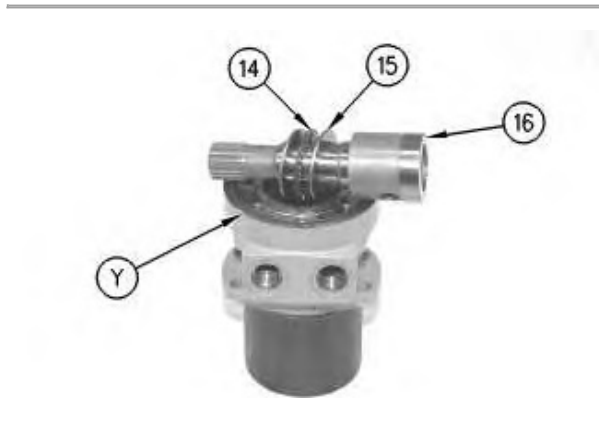


Illustration 4

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7. Position the motor assembly so that Face (Y) is facing upward. Install two races (15) and bearing (14) to shaft (16), as shown.
8. Install shaft (16) to the motor assembly.



Illustration 5

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9. Install link (11) and bearing (12) to the motor assembly.

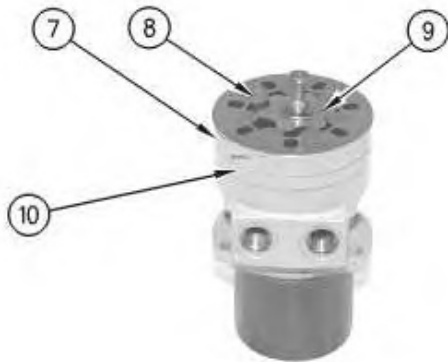


Illustration 6

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10. Install spacer (10) and inner rotor (9) to the motor assembly.
11. Install the O-ring seal in outer rotor (7). Install pins (8) and outer rotor (7) to the motor assembly.



Illustration 7

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12. Install the O-ring seals on both sides of manifold (6). Install manifold (6) to the motor assembly.
-

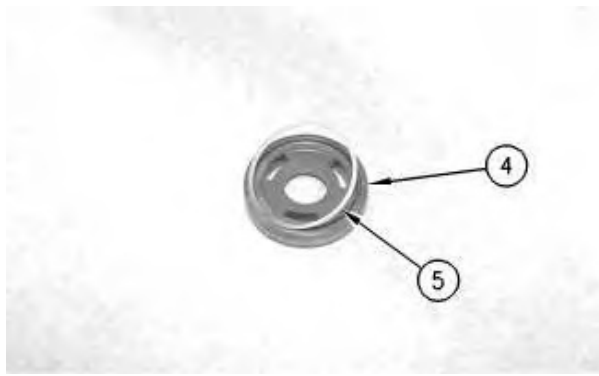


Illustration 8

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13. Install a new ring (5) to inner plate (4).

Note: Ring (5) is cone-shaped. The cone fits into the groove of inner plate (4).



Illustration 9

g00635555

14. Install inner plate (4). The seal ring should face the outer cap. Install outer plate (3) to the motor assembly.



Illustration 10

g00635556

15. Install cap (2) and bolts (1) on to the motor assembly.
16. Tighten bolts (1) to a torque of 68 ± 7 N·m (50 ± 5 lb ft).

End By:

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i02798560

Gerotor Motor (Circle Drive) - Install

SMCS - 5082-012; 5206-012

Installation Procedure

Table 1

Required Tools			
Tool	Part Number	Part Description	Qty
A	311-1362	Vacuum Cap	1

NOTICE

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

Note: Check the O-ring seals for wear or for damage. Replace the components, if necessary.

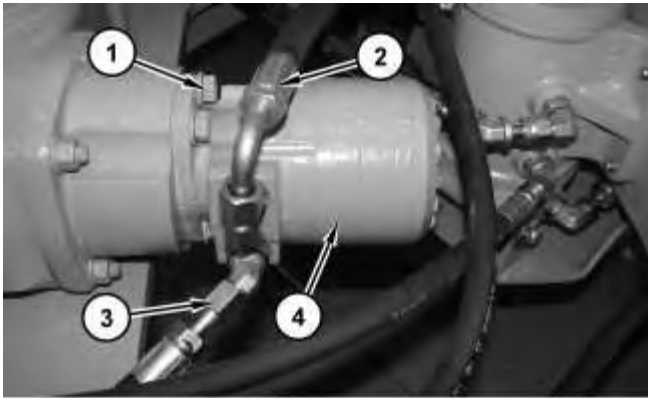


Illustration 1

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1. Position the O-ring seal and gerotor motor (4). Install bolts (1).
2. Connect hose assemblies (3) and (2).

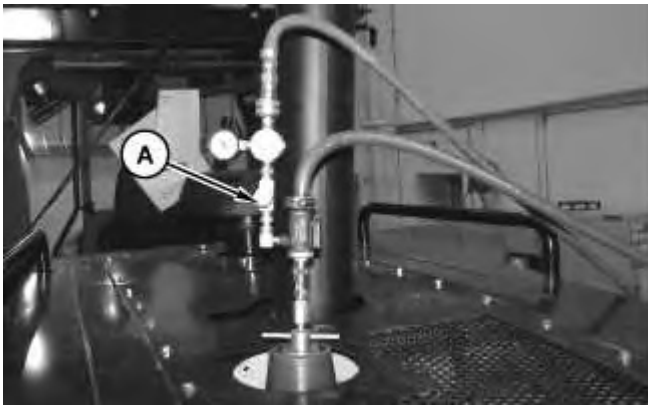


Illustration 2

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3. Remove Tooling (A).
4. Check the level of the hydraulic system. Refer to Operation and Maintenance Manual, "Hydraulic System Oil Level - Check" for the correct procedure.

End By:

- a. Separate the steering frame lock. Refer to Disassembly and Assembly, "Steering Frame Lock - Separate and Connect".
-

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i05508935

Circle Drive - Remove

SMCS - 5207-011

Removal Procedure

Table 1

Required Tools			
Tool	Part Number	Part Description	Qty
A	138-7575	Link Bracket	3

Start By:

- a. Remove the gerotor motor.

Note: Cleanliness is an important factor. Before the disassembly procedure, the exterior of the component should be thoroughly cleaned. This will help to prevent dirt from entering the internal mechanism.

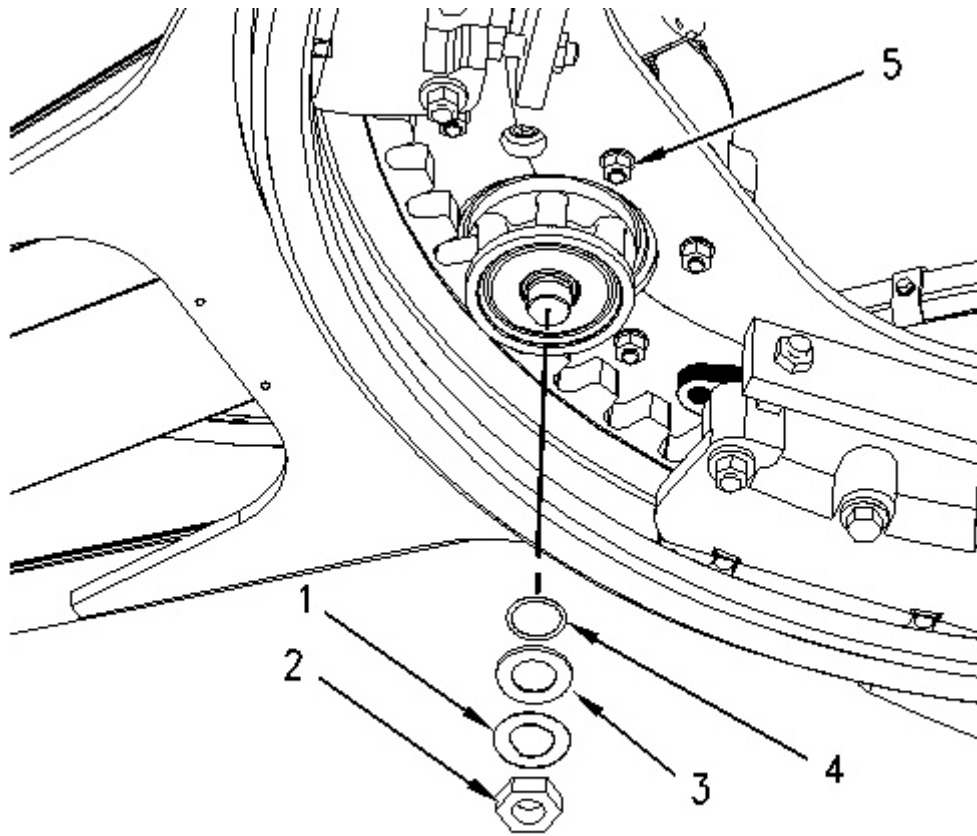


Illustration 1

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1. Bend lock (1) from nut (2). Remove nut (2), lock (1), and washer (3).
 2. Remove O-ring seal (4). Remove nuts (5).
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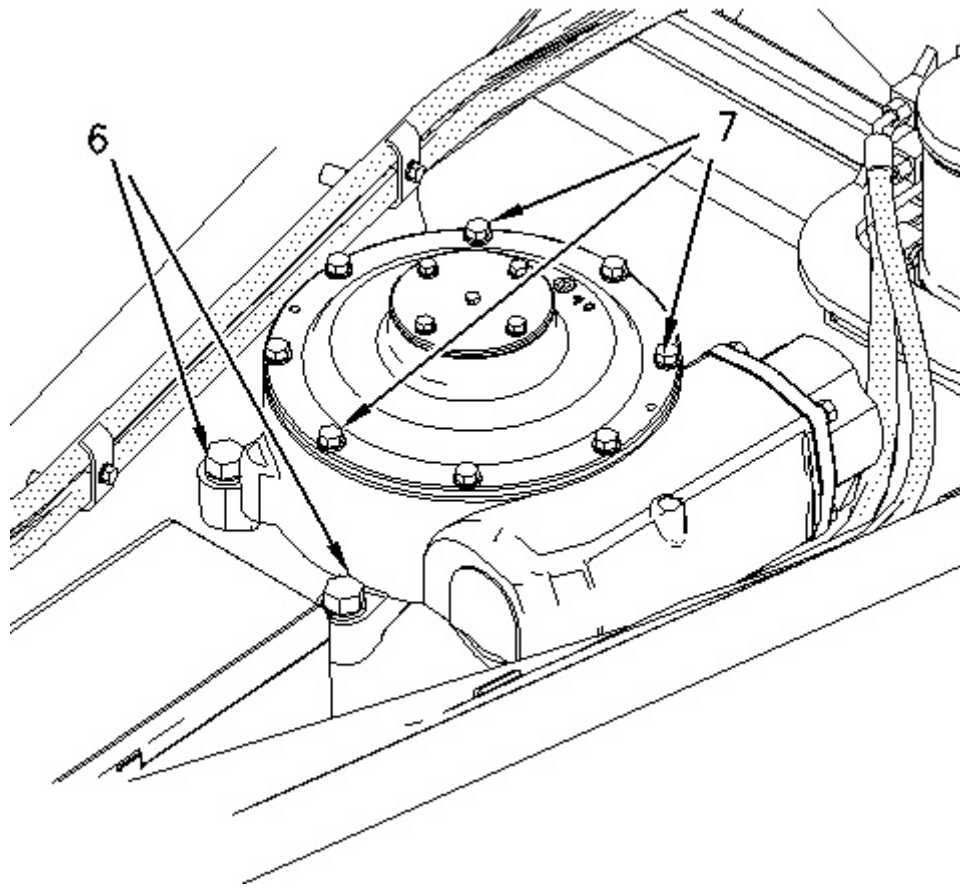


Illustration 2

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3. Remove bolts (6).
 4. Remove bolts (7).
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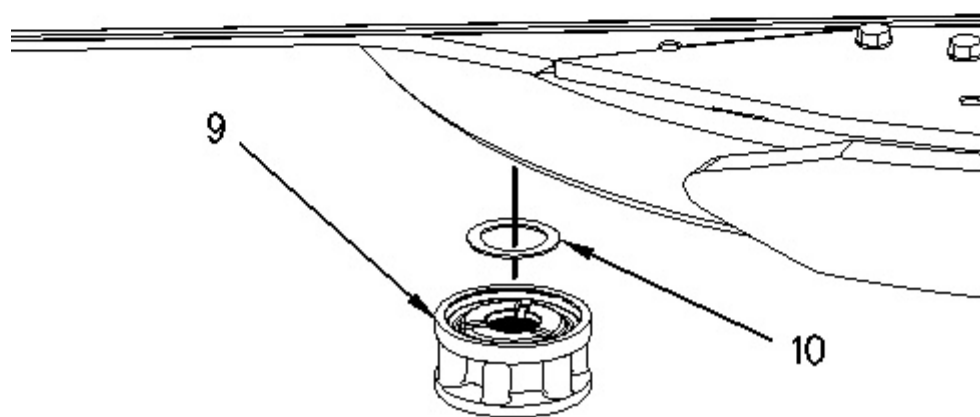
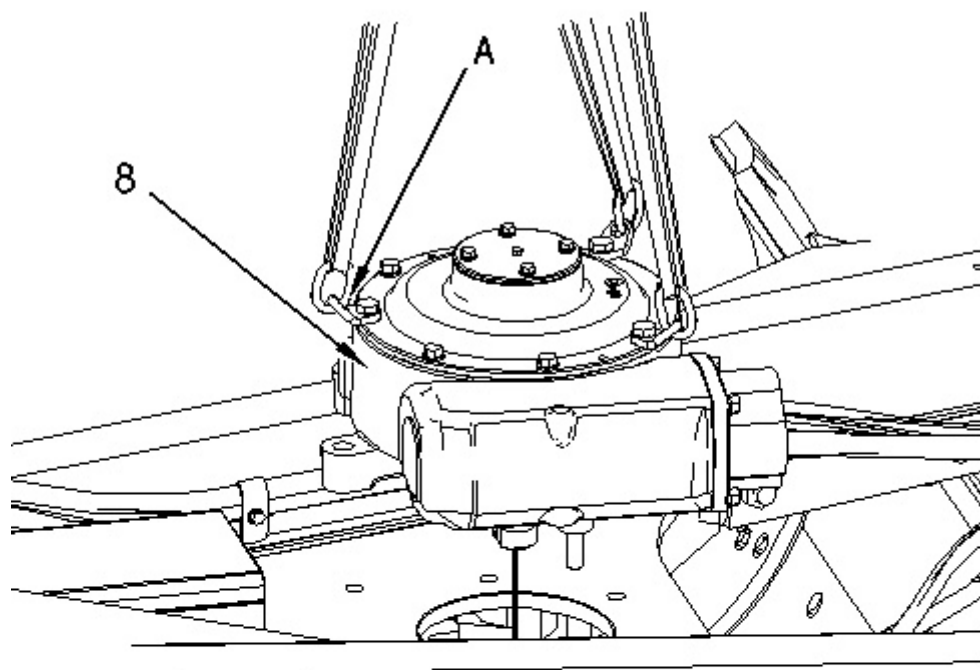


Illustration 3

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5. Attach Tooling (A) to circle drive (8). Attach a suitable lifting device to Tooling (A). The weight of circle drive (8) is approximately 127 kg (280 lb).
6. Raise circle drive (8) and remove gear (9) and thrust washer (10).

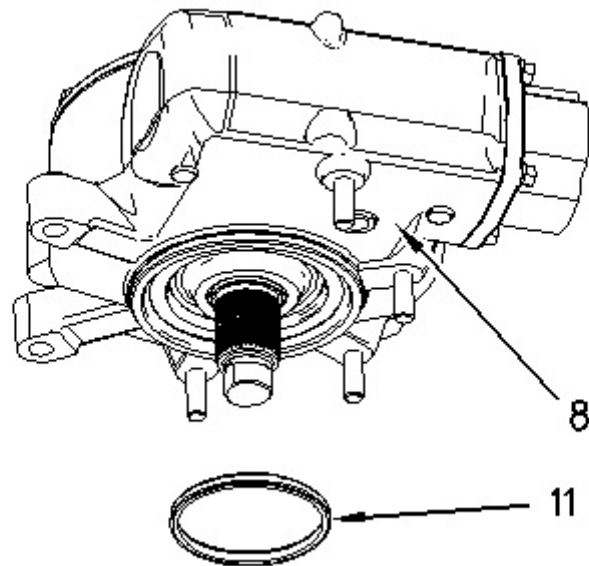


Illustration 4

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7. Remove Duo-Cone seal (11) from circle drive (8). Remove circle drive (8).
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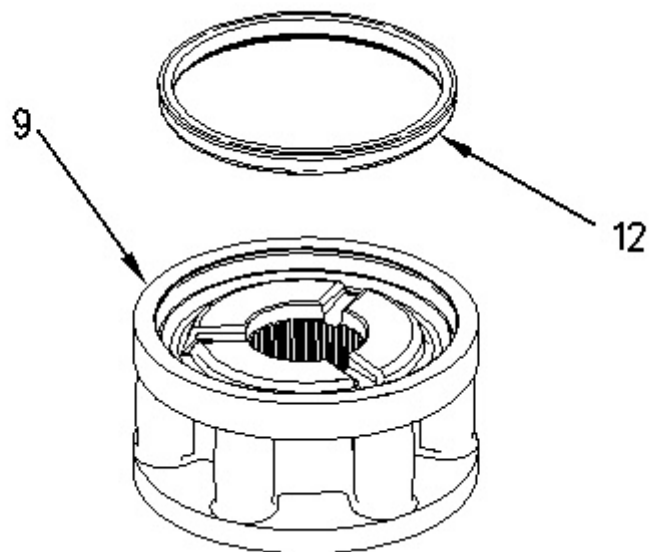


Illustration 5

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8. Remove Duo-Cone seal (12) from gear (9).
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