



# Service Repair Manual

## **Models**

M314F Wheeled Excavator

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Product: WHEELED EXCAVATOR

Model: M314F WHEELED EXCAVATOR F4A

Configuration: M314F Wheeled Excavator F4A00001-UP (MACHINE) POWERED BY C4.4 Engine

## Disassembly and Assembly C4.4 Engines for Caterpillar Built Machines

Media Number -UENR4516-11

Publication Date -01/06/2015

Date Updated -29/10/2018

i05820290

### Idler Gear - Remove

SMCS - 1206-011

### Removal Procedure

Table 1

Required Tools			
Tool	Part Number	Part Description	Qty
A	9U-7336	Housing	1
	5P-7306	Engine Turning Tool	1
B	364-9107	Timing Pin (Fuel Injection Pump)	1
C	230-6284	Timing Pin (Camshaft)	1
D	136-4632	Timing Pin (Crankshaft)	1
	268-1966	Adapter	1
E	298-5564	T40 Torx Socket	1

#### Start By:

- a. Remove the front cover. Refer to Disassembly and Assembly, "Front Cover - Remove and Install" for the correct procedure.
- b. Remove the valve mechanism cover. Refer to Disassembly and Assembly, "Valve Mechanism Cover - Remove and Install" for the correct procedure.

**Note:** Care must be taken in order to ensure that the fuel injection pump timing is not lost during the removal of the fuel pump gear. Carefully follow the procedure in order to remove the fuel pump gear.

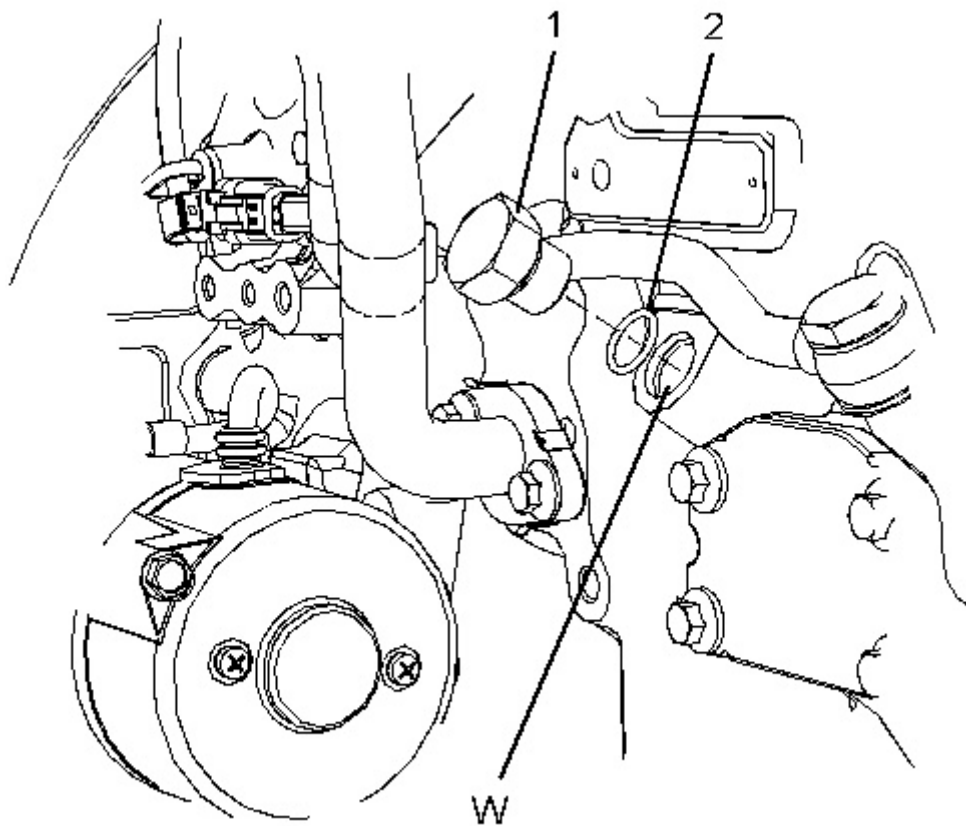
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### NOTICE

**Keep all parts clean from contaminants.**

**Contaminants may cause rapid wear and shortened component life.**

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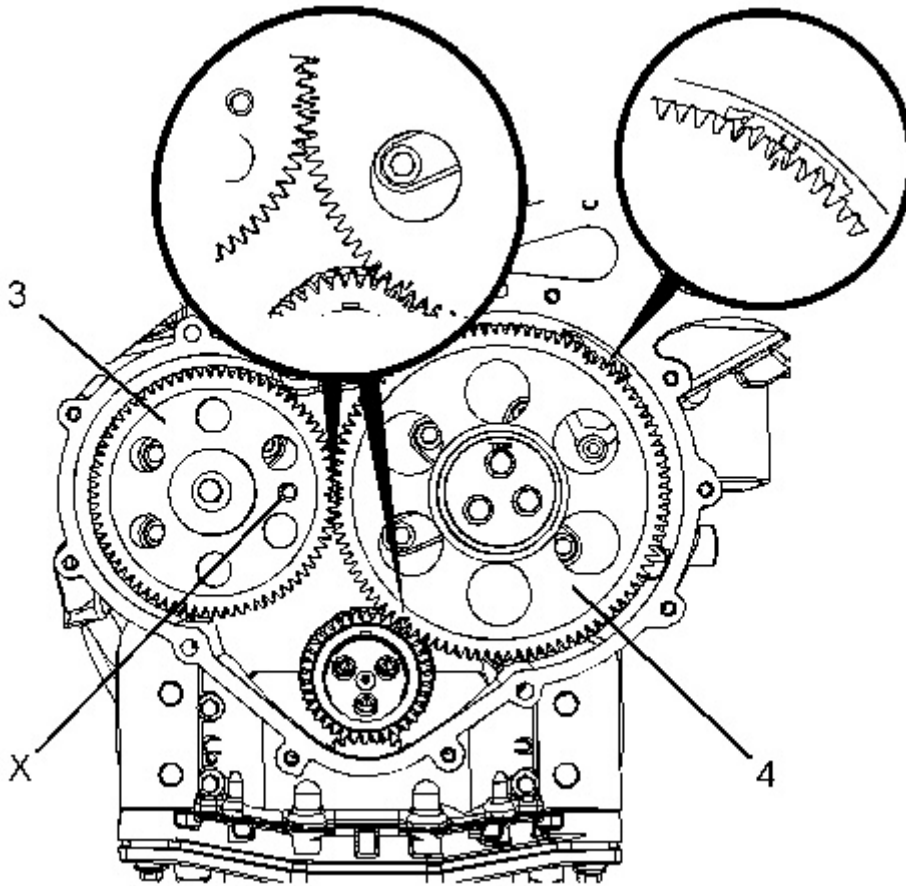


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Illustration 1

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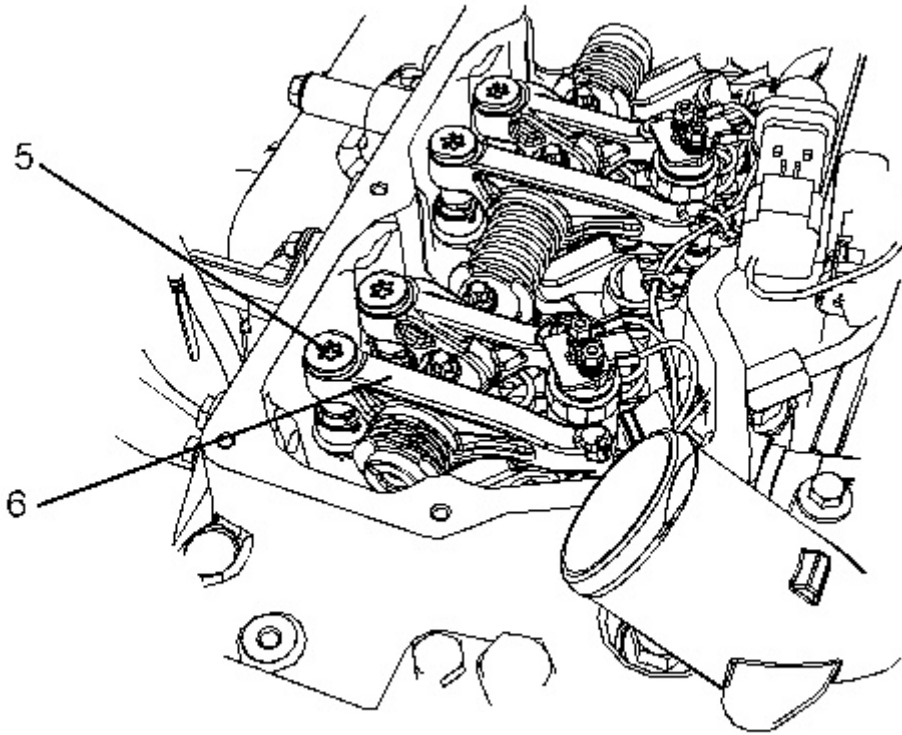
Illustration 2

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1. Remove plug (1) from the cylinder block and remove O-ring seal (2) from the plug.
2. Use Tooling (A) in order to rotate the crankshaft so that number one piston is at top dead center on the compression stroke. Refer to System Operation, Testing and Adjusting, "Finding Top Center Position for No.1 Piston" for the correct procedure.
3. Install Tooling (D) through Hole (W) in order to lock the crankshaft so that number one piston is at top dead center on the compression stroke.
4. Ensure that Tooling (C) is installed into Hole (X) in camshaft gear (3). Use Tooling (C) in order to lock the camshaft in the correct Position.

**Note:** Ensure that the gears are marked in order to show alignment. Refer to Illustration 2.

5. Use Tooling (B) in order to lock the fuel injection pump gear in the correct position. Refer to Disassembly and Assembly, "Fuel Injection Pump - Remove" for the correct procedure.
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Illustration 3

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6. Use Tooling (E) in order to loosen threaded inserts (5) on all rocker arms (6). Unscrew threaded inserts (5) on all rocker arms (6) until all valves are fully closed.

**Note:** Failure to ensure that ALL threaded inserts are fully unscrewed can result in contact between the valves and pistons.

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