CATERPILLAR

Service Manual

242D SKID STEER LOADER

SN: DZT

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Printed by Heavy Equipment Manuals **Printed in U.S.A**
v2.20

Product: SKID STEER LOADER
Model: 242D SKID STEER LOADER DZT
Configuration: 242D Skid Steer Loader DZT00001-UP (MACHINE)

Disassembly and Assembly
C3.3B Tier 4 Final and EU Stage 3B Engines for Caterpillar Built Machines
Media Number -UENR3278-07 **Publication Date -01/09/2014** **Date Updated -11/07/2016**

i05210953

Alternator - Remove and Install

SMCS - 1405-010

Removal Procedure

Start By:

a. Remove V belt.

1. Turn the battery disconnect to the OFF position.

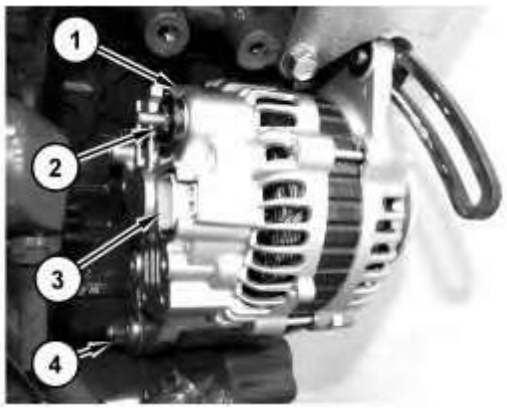

Illustration 1 g02798717

2. Disconnect harness assemblies (2) and (3) from alternator (1).
3. Remove nut (4).

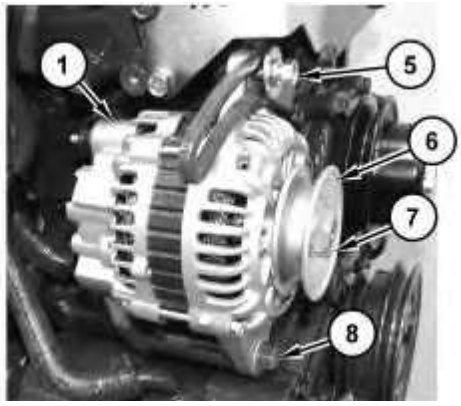

Illustration 2 g02798718

4. Remove nut (7) and pulley (6).
5. Remove bolts (5) and (6).
6. Remove alternator (1).

Installation Procedure

1. Install alternator (1) in the reverse order of removal.
    a. Ensure pulley (6) is correctly oriented.
    b. Tighten nut (7) to a torque of 58 to 79 N·m (43 to 58 lb ft).

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Bearing Clearance - Check

SMCS - 1203-535; 1219-535

Measurement Procedure

Table 1

Required Tools			
Tool	**Part Number**	**Part Description**	**Qty**
A	198-9142	Plastic Gauge (Green) 0.025 to 0.076 mm (0.001 to 0.003 inch)	1
	198-9143	Plastic Gauge (Red) 0.051 to 0.152 mm (0.002 to 0.006 inch)	1
	198-9144	Plastic Gauge (Blue) 0.102 to 0.229 mm (0.004 to 0.009 inch)	1
	198-9145	Plastic Gauge (Yellow) 0.230 to 0.510 mm (0.009 to 0.020 inch)	1

Note: Refer to Specification UENR3421 "Engine Design" for non-specified engine Torque Values.

Note: Plastic gauge may not be necessary when the engine is in the chassis.

NOTICE

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

Note: Caterpillar does not recommend the checking of the actual bearing clearances particularly on small engines. The checking can result in the possibility of obtaining inaccurate information and the possibility of damaging the bearing or the journal surfaces. Each Caterpillar engine bearing is quality checked for specific wall thickness.

Note: The measurements should be within specifications and the correct bearings should be used. If the crankshaft journals and the bores for the block and the rods were measured during disassembly, no further checks are necessary. However, if the technician still wants to measure the bearing clearances, Tooling (A) is an acceptable method. Tooling (A) is less accurate on journals with small diameters if clearances are less than 0.10 mm (0.004 inch).

NOTICE

Lead wire, shim stock or a dial bore gauge can damage the bearing surfaces.

The technician must be careful to use Tooling (A) correctly. The following points must be remembered:

- Ensure that the backs of the bearings and the bores are clean and dry.
- Ensure that the bearing locking tabs are properly seated in the tab grooves.
- The crankshaft must be free of oil at the contact points of Tooling (A).

1. Put a piece of Tooling (A) on the crown of the bearing that is in the cap.

   Note: Do not allow Tooling (A) to extend over the edge of the bearing.

2. Use the correct torque-turn specifications in order to install the bearing cap. Do not use an impact wrench. Be careful not to dislodge the bearing when the cap is installed.

   Note: Do not turn the crankshaft when Tooling (A) is installed.

3. Carefully remove the cap, but do not remove Tooling (A). Measure the width of Tooling (A) while Tooling (A) is in the bearing cap or on the crankshaft journal. Refer to Illustration 1.

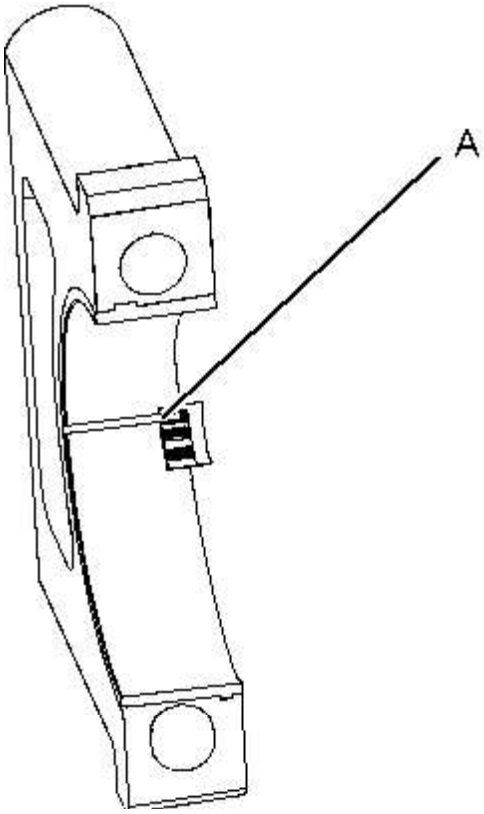

Illustration 1 g01152855

Typical Example

4. Remove all of Tooling (A) before you install the bearing cap.

   Note: When Tooling (A) is used, the readings can sometimes be unclear. For example, all parts of Tooling (A) are not the same width. Measure the major width in order to ensure that the parts are within the specification range. Refer to Specifications Manual, "Connecting Rod Bearing Journal" and Specifications Manual, "Main Bearing Journal" for the correct clearances.

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Boost Pressure Sensor - Remove and Install

SMCS - 1917-010

Removal Procedure

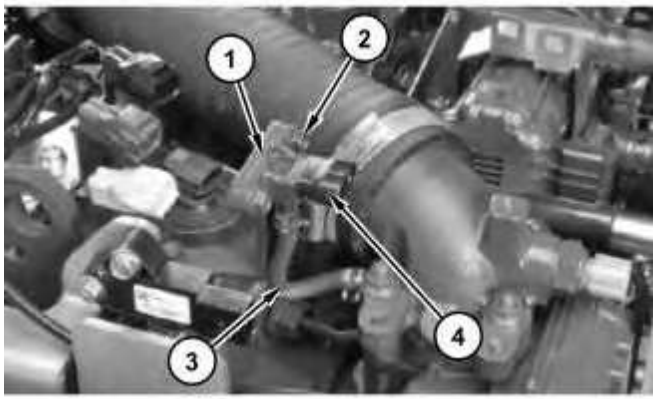

Illustration 1 g03339024

1. Disconnect harness assembly (4). Remove hose (3). Remove bolts (2) to remove boost pressure sensor (1).

Installation Procedure

1. Install boost pressure sensor (1) in the reverse order of removal.
   a. Tighten bolts (2) to a torque of 4 N·m (35 lb in) 5 N·m (44 lb in).