

Disassembly and Assembly _____	2
General Service Information _____	983
Schematic _____	1041
Specifications _____	1133
Systems Operation _____	1329
Testing and Adjusting _____	2719
Torque Specifications _____	2827

REN7582-07 3044C Industrial Engine and Engines for Caterpillar Built Machines _____	2
REN8743-01 248B and 268B Skid Steer Loaders Engine Supplement _____	194
REN8744-01 248B and 268B Skid Steer Loaders _____	329
REN8748-02 248B and 268B Skid Steer Loaders Machine Systems _____	473
SEN9823-00 3044C Engine for Caterpillar Built Machines _____	738
UENR3262-00 Seal Installation _____	919

Bearing Clearance - Check _____	4
Camshaft - Remove and Install _____	7
Camshaft Gear - Remove and Install _____	11
Connecting Rod Bearings - Install _____	14
Connecting Rod Bearings - Remove _____	16
Crankcase Breather - Remove and Install _____	18
Crankshaft - Install _____	20
Crankshaft - Remove _____	25
Crankshaft Front Seal - Install _____	28
Crankshaft Front Seal - Remove _____	30
Crankshaft Gear - Remove and Install _____	32
Crankshaft Main Bearings - Install _____	35
Crankshaft Main Bearings - Remove _____	41
Crankshaft Pulley - Remove and Install _____	45
Crankshaft Rear Seal - Install _____	48
Crankshaft Rear Seal - Remove _____	50
Crankshaft Wear Sleeve (Rear) - Install _____	52
Crankshaft Wear Sleeve (Rear) - Remove _____	54
Cylinder Head - Install _____	56
Cylinder Head - Remove _____	60
Engine Oil Bypass Valve - Remove and Install _____	64
Engine Oil Cooler - Install _____	66
Engine Oil Cooler - Remove _____	68
Engine Oil Filter Base - Remove and Install _____	71
Engine Oil Pan - Remove and Install _____	74
Engine Oil Pressure Switch - Remove and Install _____	78
Engine Oil Pump - Install _____	81
Engine Oil Pump - Remove _____	83
Engine Oil Relief Valve - Remove and Install _____	85
Exhaust Manifold - Remove and Install _____	88

Flywheel - Install _____	91
Flywheel - Remove _____	93
Flywheel Housing - Remove and Install _____	95
Front Cover - Remove and Install _____	98
Fuel Injection Lines - Remove and Install - Naturally Aspirated Engines _____	100
Fuel Injection Lines - Remove and Install - Turbocharged Engines _	104
Fuel Injection Nozzles - Install - Naturally Aspirated Engines _____	107
Fuel Injection Nozzles - Install - Turbocharged Engines _____	109
Fuel Injection Nozzles - Remove - Naturally Aspirated Engines _____	111
Fuel Injection Nozzles - Remove - Turbocharged Engines _____	113
Fuel Injection Pump - Install _____	115
Fuel Injection Pump - Remove _____	118
Glow Plugs - Remove and Install - Turbocharged Engines _____	121
Housing (Front) - Install _____	124
Housing (Front) - Remove _____	126
Idle Gear - Remove and Install _____	128
Inlet and Exhaust Valve Guides - Remove and Install _____	132
Inlet and Exhaust Valve Seat Inserts - Remove and Install _____	136
Inlet and Exhaust Valve Springs - Remove and Install _____	139
Inlet and Exhaust Valves - Remove and Install _____	145
Inlet Manifold - Install _____	151
Inlet Manifold - Remove _____	153
Lifter Group - Remove and Install _____	155
Pistons and Connecting Rods - Assemble _____	158
Pistons and Connecting Rods - Disassemble _____	162
Pistons and Connecting Rods - Install _____	164
Pistons and Connecting Rods - Remove _____	167
Rocker Shaft - Assemble _____	170
Rocker Shaft - Disassemble _____	172

Rocker Shaft and Pushrod - Install _____	174
Rocker Shaft and Pushrod - Remove _____	176
Turbocharger - Install _____	178
Turbocharger - Remove _____	180
Valve Mechanism Cover - Remove and Install _____	183
Water Pump - Remove and Install _____	186
Water Temperature Regulator Housing - Remove and Install _____	189

[Previous Screen](#)

Product: SKID STEER LOADER

Model: 248B SKID STEER LOADER SCL

Configuration: 248B 268B SKID STEER LOADER SCL00001-UP (MACHINE) POWERED BY 3044C Engine

Disassembly and Assembly

3044C Industrial Engine and Engines for Caterpillar Built Machines

Media Number -REN7582-07

Publication Date -01/01/2010

Date Updated -26/02/2010

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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: 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: Cat does not recommend the checking of the actual bearing clearances particularly on small engines. This is because of the possibility of obtaining inaccurate results and the possibility of damaging the bearing or the journal surfaces. Each Cat 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 very 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.
-

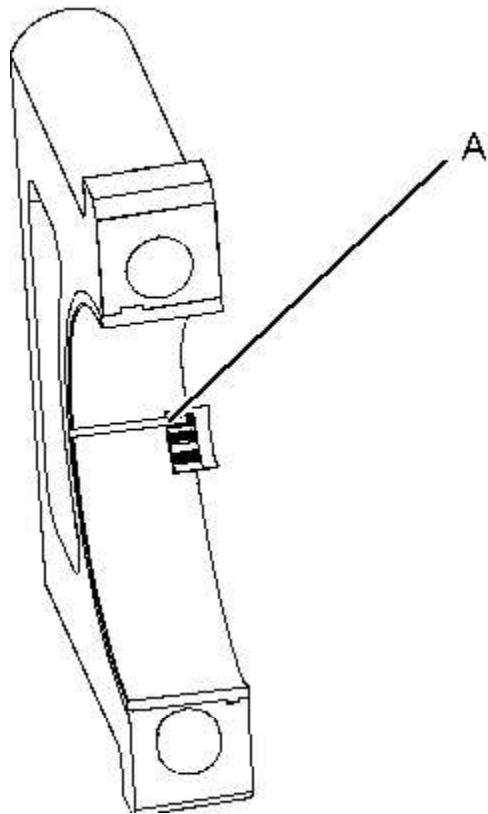


Illustration 1
Typical Example

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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.

[Previous Screen](#)

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Disassembly and Assembly

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Camshaft - Remove and Install

SMCS - 1210-010

Removal Procedure

Start By:

- A. Remove the rocker shaft and pushrods. Refer to Disassembly and Assembly, "Rocker Shaft and Pushrod - Remove".
- B. Remove the front housing. Refer to Disassembly and Assembly, "Housing (Front) - Remove".

NOTICE

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

1. Turn the engine upside-down so the valve lifters are held in a position away from the camshaft.
-

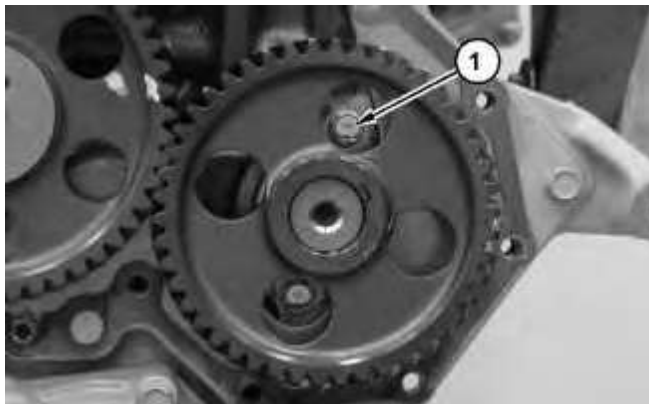


Illustration 1

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2. Remove bolts (1) .

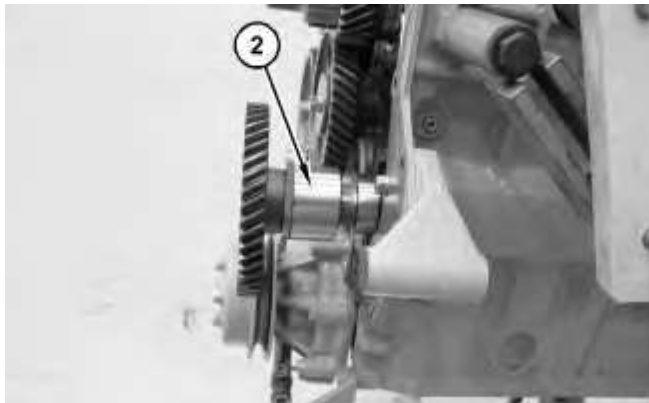


Illustration 2

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NOTICE

Do not damage the lobes or the bearings when the camshaft is removed or installed.

3. Carefully remove camshaft (2) .

Installation Procedure

NOTICE

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.