

CX235C SR
Tier 4
Crawler Excavator

SERVICE MANUAL

Part number 84577150

1st edition English
February 2012





Section

1001

Safety, general information and standard torque data

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Safety, general information and standard torque data

GENERAL INFORMATION

CLEANING

Clean all metal parts except bearings, in a suitable cleaning solvent or by steam cleaning.

Do not use caustic soda for steam cleaning.

After cleaning, dry and put oil on all parts.

Clean oil passages with compressed air.

Clean bearings in a suitable cleaning solvent,
dry the bearings completely and put oil on the bearings.

INSPECTION

Check all parts when the parts are disassembled.

Replace all parts that have wear or damage.

Small scoring or grooves can be removed with a hone or crocus cloth.

Complete a visual inspection for indications of wear, pitting and the replacement of parts necessary to prevent early failures.

BEARINGS

Check bearings for easy action.

If bearings have a loose fit or rough action replace the bearing.

Wash bearings with a suitable cleaning solvent and permit to air dry.

DO NOT DRY BEARINGS WITH COMPRESSED AIR.

NEEDLE BEARINGS

Before you press needle bearings in a bore always remove any metal protrusions in the bore or edge of the bore.

Before you press bearings into position put petroleum jelly on the inside and outside diameter of the bearings.

GEARS

Check all gears for wear and damage.

Replace gears that have wear or damage.

Oil seals, O-rings and gaskets.

Always install new oil seals, O-rings and gaskets.

Put petroleum jelly on seals and O-rings.

SHAFTS

Check all shafts that have wear or damage.

Check the bearing and oil seal surfaces of the shafts for damage.

SERVICE PARTS

Always install genuine Case service parts.

When ordering refer to the

Parts Catalogue for the correct part number of the genuine Case replacement items.

Failures due to the use of other than genuine Case replacement parts are not covered by warranty.

LUBRICATION

Only use the oils and lubricants specified in the Operator's or Service Manuals.

Failures due to the use of non-specified oils and lubricants are not covered by warranty.

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Safety



This symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED. The message that follows the symbol contains important information about safety. Carefully read the message. Make sure you fully understand the causes of possible injury or death.

To prevent injury always follow the Warning, Caution and Danger notes in this section and throughout the manual. Put the warning tag shown below on the key for the key switch when servicing or repairing the machine. One warning tag is supplied with each machine. Additional tags are available from your service parts supplier.

⚠ WARNING

Read the operator's manual to familiarize yourself with the correct control functions.

⚠ WARNING

Operate the machine and equipment controls from the seat position only. Any other method could result in serious injury.

⚠ WARNING

This is a one man machine, no riders allowed.

⚠ WARNING

**Before starting engine, study Operator's Manual safety messages.
Read all safety signs on machine.
Clear the area of other persons.
Learn and practice safe use of controls before operating.
It is your responsibility to understand and follow manufacturers instructions on machine operation, service and to observe pertinent laws and regulations.
Operator's and Service Manuals may be obtained from your CASE dealer.**

⚠ WARNING

**If you wear clothing that is too loose or do not use the correct safety equipment for your job, you can be injured.
Always wear clothing that will not catch on objects.
Extra safety equipment that can be required includes hard hat, safety shoes, ear protection, eye or face protection, heavy gloves and reflector clothing.**

⚠ WARNING

When working in the area of the fan belt with the engine running, avoid loose clothing if possible, and use extreme caution.

⚠ WARNING

When doing checks and tests on the equipment hydraulics, follow the procedures as they are written. DO NOT change the procedure.

⚠ WARNING

When putting the hydraulic cylinders on this machine through the necessary cycles to check operation or to remove air from a circuit, make sure all people are out of the way.

⚠ WARNING

Use insulated gloves or mittens when working with hot parts.

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⚠ WARNING

Lower all attachments to the ground or use stands to safely support the attachments before you do any maintenance or service.

⚠ WARNING

Pin sized and smaller streams of hydraulic oil under pressure can penetrate the skin and result in serious infection.

If hydraulic oil under pressure does penetrate the skin, seek medical treatment immediately.

Maintain all hoses and tubes in good condition.

Make sure all connections are tight.

Make a replacement of any tube or hose that is damaged or thought to be damaged.

DO NOT use your hand to check for leaks, use a piece of cardboard or wood.

⚠ WARNING

When removing hardened pins such as a pivot pin, or a hardened shaft, use a soft head (brass or bronze) hammer or use a driver made from brass or bronze and a steel head hammer.

⚠ WARNING

When using a hammer to remove and install pivot pins or separate parts using compressed air or using a grinder, wear eye protection that completely encloses the eyes (approved goggles or other approved eye protectors).

⚠ WARNING

Use suitable floor (service) jacks or chain hoist to raise wheels or tracks off the floor.
Always block machine in place with suitable safety stands.

⚠ WARNING

When servicing or repairing the machine, keep the shop floor and operator's compartment and steps free of oil, water, grease, tools, etc.

Use an oil absorbing material and/or shop cloths as required.

Use safe practices at all times.

⚠ WARNING

Some components of this machine are very heavy.
Use suitable lifting equipment or additional help as instructed in this Service Manual.

⚠ WARNING

Engine exhaust fumes can cause death.

If it is necessary to start the engine in a closed place, remove the exhaust fumes from the area with an exhaust pipe extension.

Open the doors and get outside air into the area.

⚠ WARNING

When the battery electrolyte is frozen, the battery can explode if (1), you try to charge the battery, or (2), you try to jump start and run the engine.

To prevent the battery electrolyte from freezing, try to keep the battery at full charge.

If you do not follow these instructions, you or others in the area can be injured.



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Removal and Installation of Engine Assembly

Removal and Installation of Engine Assembly

⚠ WARNING

- Keep away from fire.
- Be sure to release hydraulic pressure before beginning work.
- The air conditioner circuit is filled with high-pressure gas, so beware of the gas released when loosening lines.
- Do not use open flames and do not allow sparks near the battery.

⚠ CAUTION

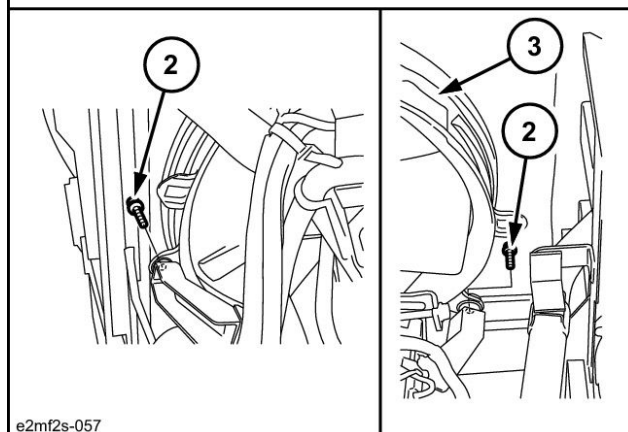
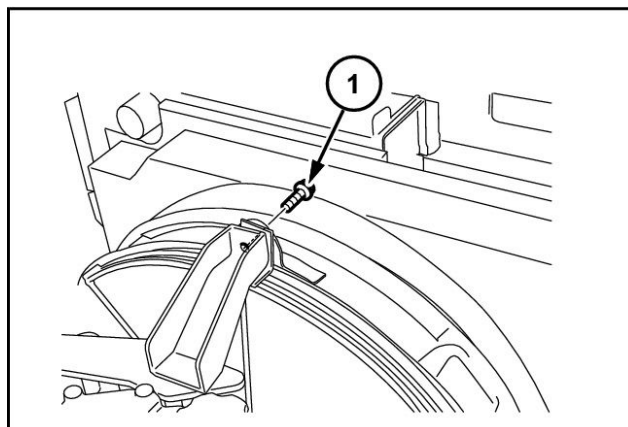
- Be sure to stop the engine before beginning work.
- Be sure to inspect the wire rope and other lifting equipment before beginning work.
- Do not stand or pass under the suspended load.

Items to prepare

- Wrenches [7 mm (0.276 in), 8 mm (0.315 in), 13 mm (0.512 in), 14 mm (0.551 in), 17 mm (0.669 in), 36 mm (1.417 in)]
- Box wrench [24 mm (0.915 in)]
- Shackle (with the required lifting capacity) x 2
- Wire rope (with the required breaking load)
- Crane (with the required lifting capacity)
- Marking pen
- Caps
- Plugs
- Waste oil can
- Rag
- Cleaning fluid
- Wood plank

Removal of Engine Assembly

1. Remove the counterweight. (For details, see "Removal and Installation of Counterweight".)
2. Remove the pump. (For details, see "Removal and Installation of Hydraulic Pump".)
3. Use a wrench [14 mm (0.551 in)] to remove the bolts (1) and (2), and then remove the fan shroud (3).



4. Use a wrench [14 mm (0.551 in)] to remove the bolts (1), and then remove the fan guard (2).

