SERVICE NOTICE

CAT 2007 EMISSION C -7 MAINTENANCE

WITH THE INCEPTION OF THE NEW CAT C7 ENGINE WITH 2007 EMISSIONS, THERE ARE CERTAIN MAINTENANCE ITEMS WHICH SHOULD BE DONE TO MAINTAIN THE PROPER OPERATION OF THE ñARDò
AFTERTREATMENT REGENERATION DEVICE

ATTACHED IS THE ñMAINTENANCE SCHEDULEò FROM THE ñOPERATION AND MAINTENANCE MANUALò FROM CAT (#SEBU8083-08) WHICH COMES WITH EACH UNIT
PAGE #2-4 OF THIS DOCUMENT

HIGHLIGHTED IN YELLOW IS THE SERVICE OF ARD CLEANING WHICH IS RECOMMENDED AT 50,000 MILES, AS STATED BEFORE WITH OUR INDUSTRY NOT PRODUCING HEAT AS IN OTHER VOCATIONS IT IS RECOMMENDED THAT YOU MIGHT CONSIDER INCREASING THIS SERVICE TO A 24,000 INTERVAL-PAGE #3
PAGES 5-7 OF THIS DOCUMENT HAS THE PROCEDURE FOR THIS

HIGHLIGHTED IN GREEN IS ALSO A SERVICE WHERE THE SPARK PLUG IN THE ñARDò NEEDS TO BE INSPECTED/REPLACED AND THE CRANKCASE FUMES FITTING NEEDS TO BE CLEANED/INSPECTED PAGE#3
PAGES 8-12 OF THIS DOCUMENT HAS THE PROCEDURE FOR THIS

THE PART NUMBER OF THE LIQUID CLEANER IS **#308-1504**

CHITTENANGO	800-962-5768
HENRIETTA	800-463-3232
ALBANY	866-867-1100

THANK YOU

NEW YORK BUS SALES, LLC.

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Maintenance Interval Schedule - C7 Engines with Shallow Sumps

SMCS - 1000; 7500

S/N - C7S1-UP

S/N - C7W1-UP

Ensure that all safety information, warnings, and instructions are read and understood before any operation or any maintenance procedures are performed. The user is responsible for the performance of maintenance, including all adjustments, the use of proper lubricants, fluids, filters, and the installation of new components due to normal wear and aging. The performance of this product may be diminished if proper maintenance intervals and procedures are not followed. Components may experience accelerated wear if proper maintenance intervals and procedures are not followed.

Use fuel consumption, mileage, service hours, or calendar time, WHICH EVER OCCURS FIRST, in order to determine the maintenance intervals. Products that operate in severe operating conditions may require more frequent maintenance.

Before each consecutive interval is performed, all maintenance from the previous intervals must be performed.

When Required

Air Dryer - Check
Battery - Replace
Battery or Battery Cable - Disconnect
Cooling System Coolant Sample (Level 1) - Obtain
Engine - Clean
Engine Air Cleaner Element (Dual Element) - Clean/Replace
Engine Air Cleaner Element - Clean/Replace
Engine Oil Level Gauge - Calibrate
Engine Storage Procedure - Check
Diesel Particulate Filter - Clean
Fuel System - Prime
Fuel Tank Water and Sediment - Drain
Severe Service Application - Check

Daily

Cooling System Coolant Level - Check
Engine Air Cleaner Service Indicator - Inspect
Engine Oil Level - Check
Fuel System Water Separator - Inspect/Drain
Walk-Around Inspection

Initial 17 700 km (11 000 miles) or 4150 L (1100 US gal) of Fuel or 250 Service Hours or 6 Months

Engine Valve Lash - Inspect/Adjust

PM Level 1 - Every 17 700 km (11 000 miles) or 4150 L (1100 US gal) of Fuel or 250 Service Hours or 6 Months

Aftercooler Core - Clean/Test
Battery Electrolyte Level - Check
Belts - Inspect/Adjust/Replace
Cooling System Coolant Sample (Level 1) - Obtain
Cooling System Coolant Sample (Level 2) - Obtain
Cooling System Supplemental Coolant Additive (SCA) - Test/Add
Cylinder Head Grounding Stud - Inspect/Clean/Tighten
Engine Crankcase Breather - Clean
Engine Oil Sample - Obtain
Engine Oil and Filter - Change
Fan Drive Bearing - Lubricate
Fuel System Primary Filter - Replace
Fuel System Secondary Filter - Replace
Fuel Tank Water and Sediment - Drain
Hoses and Clamps - Inspect/Replace
Radiator - Clean

Initial 500 Hours (for New Systems, Refilled Systems, and Converted Systems)

Cooling System Coolant Sample (Level 2) - Obtain

Every 80 500 km (50 000 miles) or 1500 Service Hours

ARD Nozzle - Clean

Every 144 800 km (90 000 mi) or 1500 Service Hours

ARD Spark Plug - Inspect/Replace
Crankcase Fumes Fitting - Inspect/Clean

PM Level 2 - Every 161 000 km (100 000 miles) or 56 850 L (15 000 US gal) of Fuel or 2000 Service Hours or 2 Years

Air Compressor - Inspect
Alternator - Inspect
Cooling System Water Temperature Regulator - Replace
Crankshaft Vibration Damper - Inspect
Engine Valve Lash - Inspect/Adjust
Starting Motor - Inspect
Water Pump - Inspect

PM Level 3 - Every 483 000 km (300 000 miles) or 190 000 L (50 000 US gal) of Fuel or 6000 Service Hours or 3 Years

Turbocharger - Inspect

Every Year

Cooling System Coolant Sample (Level 2) - Obtain
Engine Air Cleaner Element - Clean/Replace

Every 3 Years or 322 000 km (200 000 miles)

Cooling System Coolant (DEAC) - Change

Every 6 Years or 966 000 km (600 000 miles)

Cooling System Coolant (ELC) - Change

Every 483 000 km (300 000 miles) or 3 Years

Cooling System Coolant Extender (ELC) - Add

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ARD Nozzle - Clean

SMCS - 1050-070

The liquid cleaner that is used to clean the nozzle for the Aftertreatment Regeneration Device (ARD) is available at your Caterpillar dealer. The cleaner is already measured into a dispenser.

Turn off the engine.

Use an square drive in order to remove the access plug from the cleaning port. Inspect the access plug for damage. An undamaged plug may be reused.

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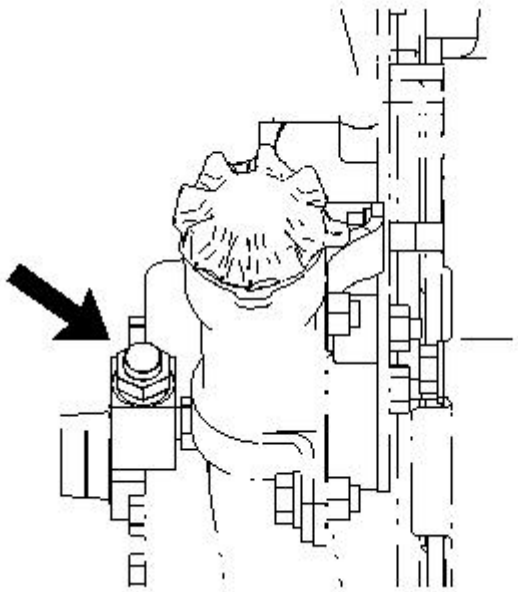

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Illustration 1

The cleaning port is located on the left side of the engine next to the oil filler tube on the C7 Engine.

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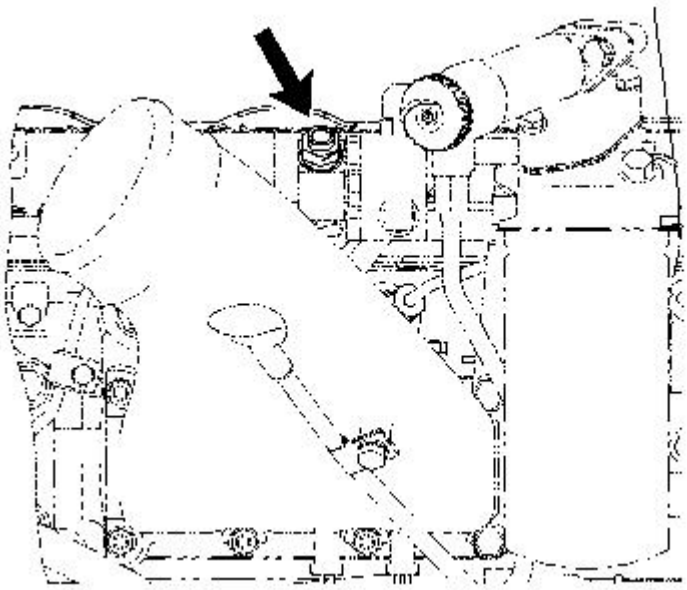

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Illustration 2

The cleaning port is located on the left side of the engine to the left of the fuel filter on the C9 Engine. The priming pump that is shown is optional.

Note: Remove the red cap from the dispenser immediately before use. Ensure that no debris is present on the dispenser. Make sure that the cleaning port is free of debris.

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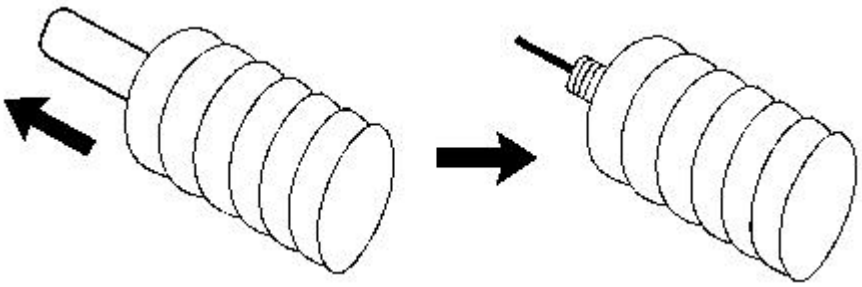

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Illustration 3

Insert the tip of the dispenser completely into the cleaning port.

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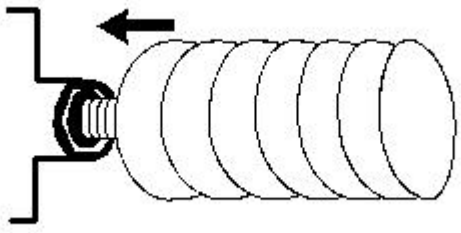

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Illustration 4

Squeeze the container in order to dispense the fluid. All of the fluid should be dispensed before the dispenser is removed from the cleaning port. Remove the dispenser and ensure that all of the liquid was dispensed. Inspect the cleaning port in order to ensure that no part of the dispenser remains in the cleaning port.

Insert an undamaged access plug into the cleaning port. Torque the plug to 10 ± 1 N·m (7.38 ± 0.7 lb ft). Start the engine and run the engine for at least five minutes at low idle.

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ARD Spark Plug - Inspect/Replace

SMCS - 1555-040; 1555-510

Removing the Spark Plug

NOTICE

If the engine is running or the key is in the ON position the ARD plug will continue to fire. Turn the key to the OFF position before servicing the ARD plug.

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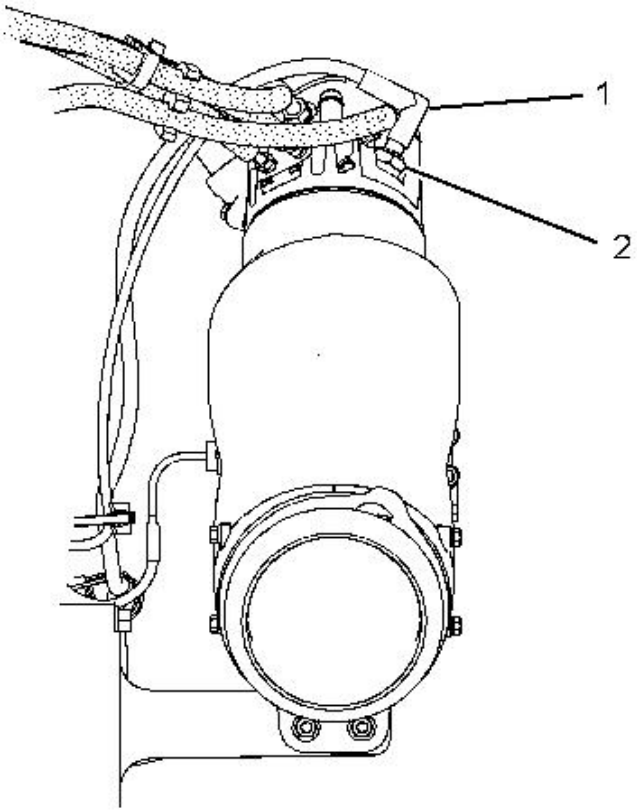

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Illustration 1

(1) Wiring harness

(2) Spark plug

1. Remove wire harness (1) from spark plug (2) .

WARNING

Personal injury can result from air pressure.

Personal injury can result without following proper procedure. When using pressure air, wear a protective face shield and protective clothing.

The maximum air pressure for cleaning purposes must be reduced to 205 kPa (30 psi) when the air nozzle is deadheaded.

2. Debris may have collected in the spark plug well. Thoroughly remove any debris. Use compressed air. The maximum air pressure for cleaning purposes must be below 205 kPa (30 psi). Ensure that the area around the spark plug is clean and free of dirt and debris.

3. Use a deep well socket and a breaker bar to loosen the spark plug. If necessary, see your Caterpillar dealer for the part number of the socket. After the spark plug has been loosened, use the socket to remove the spark plug by hand in order to detect problems with the threads. After the spark plug has been removed, inspect the used spark plug and the gasket.

If the spark plug could not be removed by hand, clean the threads with a **305-2389** brush . This tool scrapes debris from the seat and from the threads.

NOTICE

Do not use a thread tap. A thread tap will remove metal unnecessarily. The threads could be stripped and the combustion group could be damaged.

Inspecting the Spark Plug

Inspect the spark plug closely for damage. The condition of the spark plug can indicate the operating condition of the engine.

The terminal post must not move. If the terminal post can be moved by hand, discard the spark plug.

Inspect the insulator for cracks. If a crack is found, discard the spark plug.

Inspect the shell for damage. Cracks can be caused by overtightening the spark plug. Overtightening can also loosen the shell. Discard any spark plug that has a shell that is cracked or loose.

Inspect the electrode for excessive wear. Flat surfaces with sharp edges provide the best conditions for creating a spark. An electrode will become worn from use. The surfaces erode. A higher voltage is required in order to produce a spark.

Installing the Spark Plug

Note: Do not use anti-seize compound on the spark plug. Most of the heat is transferred through the threads and the seat area of the spark plug. Contact of the metal surfaces must be maintained in order to provide the heat transfer that is required.

1. Ensure that the spark plug is clean and free of dirt and oil.

NOTICE

Do not overtighten the spark plug. The shell can be cracked and the gasket can be deformed. The metal can deform and the gasket can be damaged. The shell can be stretched. This will loosen the seal that is between the shell and the insulator, allowing combustion pressure to blow past the seal. Serious damage to the engine can occur.

Use the proper torque.

2. Install the spark plug by hand until the spark plug contacts the ARD. Torque the spark plug to the proper specification. Refer to Specifications, "Spark Plug" for the proper torque specification.

3. Connect the wiring harness.

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Crankcase Fumes Fitting - Inspect/Clean

SMCS - 1317-040; 1317-070

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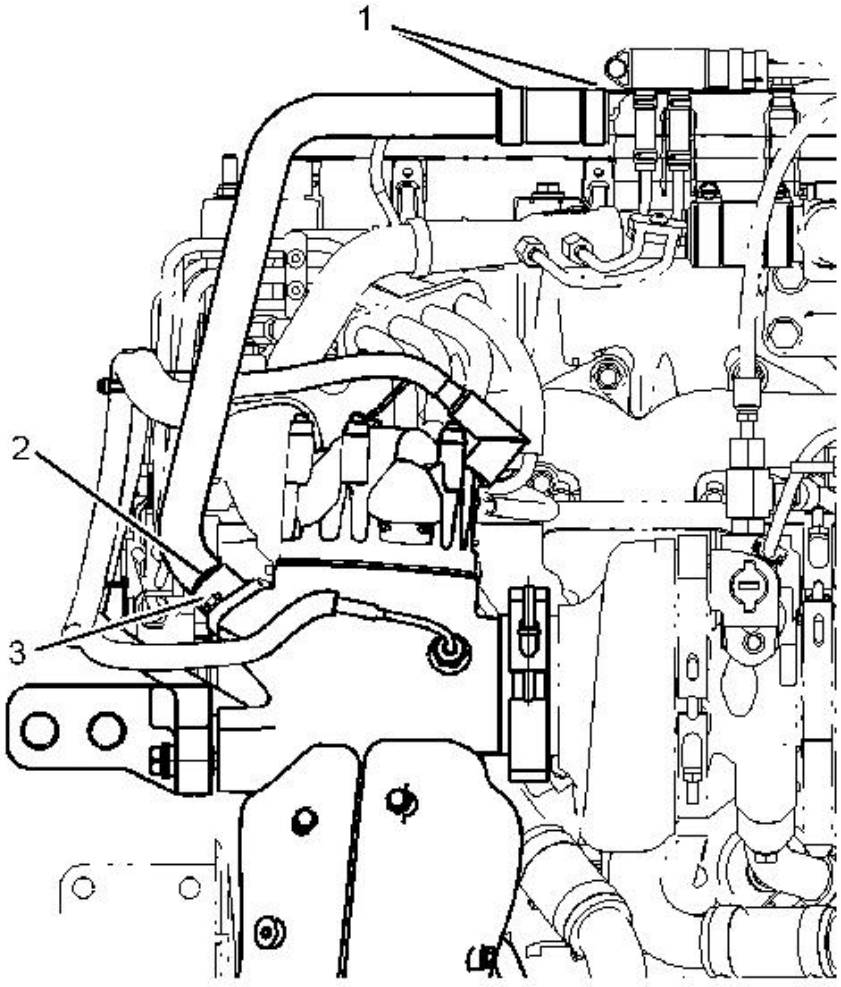

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Illustration 1

(1) Clamps

(2) Nut

(3) Fitting

1. Loosen the clamps that attach the tube that carries fumes from the engine crankcase breather to the aftertreatment regeneration device (ARD). Remove the end of the tube from the breather.

2. Remove the nut at the end of the tube from the fitting and move the tube to one side. The fitting will remain in the ARD.

3. If fitting (3) is accessible, this procedure may be performed with the fitting on the combustion head. If the fitting is not accessible, remove the fitting and use a vise to hold the fitting.

4. Install a **6V-7092** Brush into a drill and clean the fitting.

5. Reinstall the nut onto the tube and tighten the nut. Refer to the engine's Specifications manual for the proper torque.

6. Reinstall the end of the tube through the hose into the breather. Reinstall the hose clamps. Refer to Specifications, SENR3130 for the proper torque for the hose clamp.