

SAFETY.CAT.COM™

MAINTENANCE INTERVALS

Operation and Maintenance
Manual Excerpt

Operation and Maintenance Manual

RM-250C Reclaimer Mixer

AWG1-Up (Machine)

i01431557

Maintenance Interval Schedule

SMCS Code: 1000; 7000

When Required

Battery - Recycle	67
Battery, Battery Cable or Battery Disconnect Switch - Replace	67
Circuit Breakers - Reset	69
Engine Air Filter Primary Element - Clean/Replace	75
Engine Air Filter Secondary Element - Replace ...	75
Engine Air Filter Service Indicator - Inspect	76
Engine Air Precleaner - Clean	76
Fuel System - Prime	80
Oil Filter - Inspect	84
Radiator Core - Clean	86

Every 10 Service Hours or Daily

Air Tank Moisture and Sediment - Drain	66
Backup Alarm - Test	66
Cooling System Coolant Level - Check	71
Engine Oil Level - Check	76
Hydraulic Oil Cooler - Clean	81
Hydraulic System Oil Level - Check	82
Indicators and Gauges - Test	83
Rotor Bearing Reservoir Oil Level - Check	87
Rotor Chain Drive Bearing - Lubricate	87
Rotor Chain Drive Case Oil Level - Check	88
Rotor Cutter Bits - Inspect/Replace	89
Seat Belt - Replace	94
Tire Inflation - Check	95
Walk-Around Inspection	96

Initial 50 Service Hours

Final Drive Planetary Oil - Change	79
Final Drive Planetary Oil Sample - Obtain	79

Every 50 Service Hours or Weekly

Differential Oil Level - Check	74
Final Drive Planetary Oil Level - Check	79
Fuel Tank Water and Sediment - Drain	81
Mixing Chamber Door Cylinder Ends - Lubricate ..	83
Mixing Chamber Lift Cylinder Ends - Lubricate ...	83
Mixing Chamber Linkage - Lubricate	84
Mixing Chamber Torque Tube - Lubricate	84
Propel Transmission Oil - Check	85
Rotor Depth Control - Lubricate	89
Rotor Drive Differential Oil Level - Check	90
Rotor Drive Shaft Universal Joints - Lubricate	91
Rotor Shear Disc - Lubricate	91
Rotor Transmission Oil - Check	92
Steering Cylinder Ends (Rear) - Lubricate	94
Steering Cylinder Ends - Lubricate	94
Steering Knuckle - Lubricate	95
Steering Legs (Rear) - Lubricate	95

Steering Linkage - Lubricate	95
------------------------------------	----

Every 125 Service Hours or 2 Weeks

Pump Drive Universal Joint - Lubricate	86
Rotor Drive Clutch Bearings - Lubricate	90
Rotor Torque Limiter Coupling - Inspect	92

Every 250 Service Hours or Monthly

Belts - Inspect/Adjust/Replace	68
Cooling System Coolant Sample - Obtain	72
Engine Oil Sample - Obtain	76
Engine Oil and Filter - Change	77
Fan Drive Bearing and Belt Tightener - Lubricate ..	78
Rotor Shear Disc Bolts - Inspect/Replace	91
Rotor Transmission Oil Filter - Clean/Replace	93

Every 500 Service Hours or 3 Months

Differential Oil - Change	74
Differential Oil Sample - Obtain	74
Final Drive Planetary Oil - Change	79
Final Drive Planetary Oil Sample - Obtain	79
Fuel Inlet Screen - Clean/Inspect/Replace	79
Fuel System Primary Filter - Clean/Inspect/Replace	80
Fuel System Secondary Filter - Replace	80
Hydraulic System Oil - Change	81
Hydraulic System Oil Filters - Replace	82
Hydraulic System Oil Sample - Obtain	82
Propel Transmission Control Cable - Lubricate ...	85
Propel Transmission Oil - Change	85
Propel Transmission Oil Sample - Obtain	86
Rotor Bearing Reservoir Breather - Replace	87
Rotor Chain Drive Case Oil - Change	88
Rotor Chain Drive Hub Breather - Replace	88
Rotor Drive Axle Breather - Replace	89
Rotor Drive Differential Oil - Change	90
Rotor Drive Differential Oil Sample - Obtain	91
Rotor Transmission Oil - Change	92
Rotor Transmission Oil Sample - Obtain	93
Rotor Transmission Oil Tank Breather - Replace ..	93
Rotor Transmission Shift Linkage - Lubricate	93
Wheel Hub - Lubricate	97

Every 1000 Service Hours or 1 Year

Battery - Clean	66
Battery Hold-Down - Tighten	67
Cooling System Coolant Extender (ELC) - Add ...	70
Cooling System Pressure Cap - Clean/Replace ...	72
Rollover Protective Structure (ROPS) - Inspect ...	86

Every 2000 Service Hours or 1 Year

Engine Valve Lash - Check	78
Engine Valve Rotators - Inspect	78

Every 3000 Service Hours or 2 Years

Cooling System Coolant (ELC) - Change	69
---	----

Cooling System Water Temperature Regulator -
Replace 73

i01432378

Air Tank Moisture and Sediment - Drain

SMCS Code: 4272-543-M&S

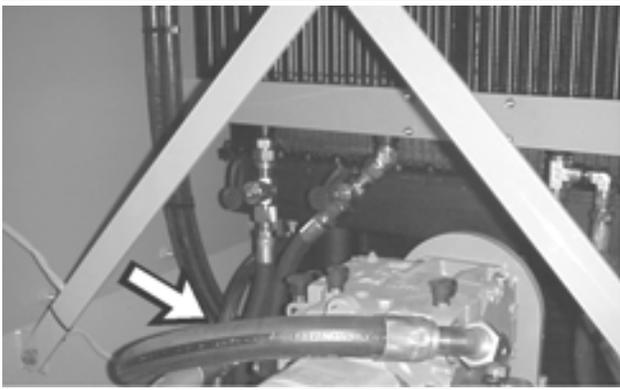


Illustration 109

g00757317

Open the drain valves. Drain the moisture from the tanks.

Backup Alarm - Test

SMCS Code: 7406-081

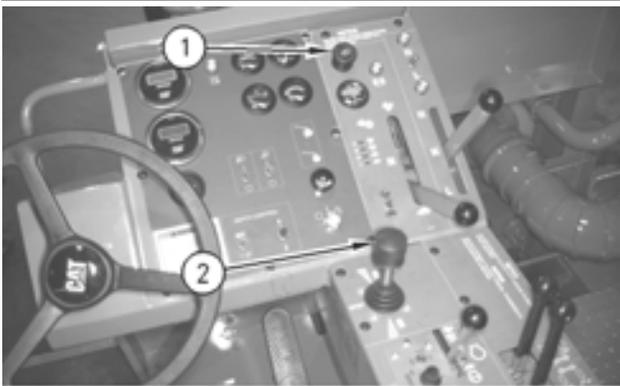


Illustration 110

g00754337

1. Start the engine.
2. Engage the parking brake (1).
3. Slowly move the propel lever (2) toward the REVERSE position. Do not move the propel lever to the FULL REVERSE. Do not move the machine.

The back up alarm should sound. The back up alarm will sound until the travel lever is moved to the STOP or until the travel lever is moved to the FORWARD position.

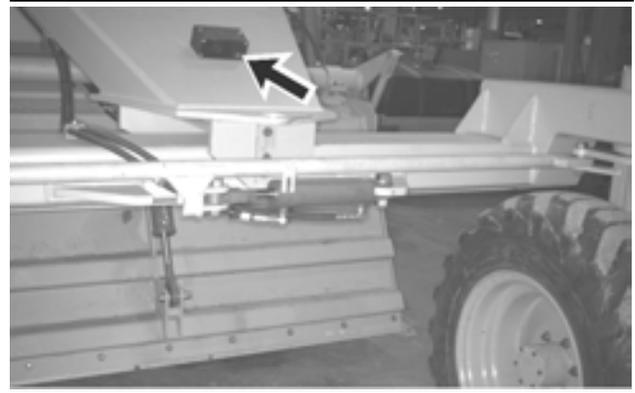


Illustration 111

g00754339

The backup alarm is located at the rear of the machine.

i01423895

Battery - Clean

SMCS Code: 1401-070

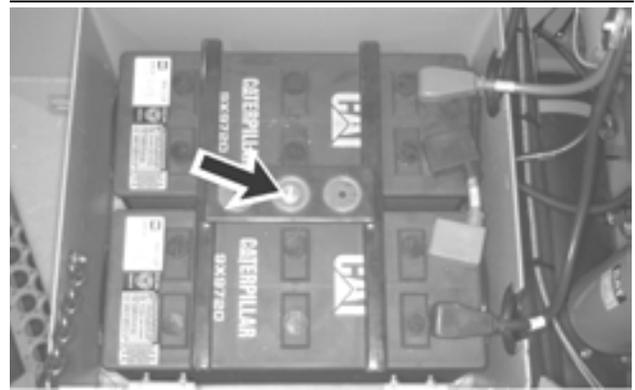


Illustration 112

g00754346

The battery is located on the right side at the front of the machine.

Note: Maintenance free batteries are included with a new machine. You do not need to check the electrolyte level in the maintenance free batteries.

1. Every 1000 hours tighten the retainers on the battery.
2. Clean the top of the batteries with a clean cloth for every 1000 hours of operation.
3. The battery terminals must be cleaned and coated with petroleum jelly for every 1000 hours of operation.

i00836435

i01423923

Battery - Recycle

SMCS Code: 1401-561

Always recycle a battery. Never discard a battery.

Always return used batteries to one of the following locations:

- A battery supplier
- An authorized battery collection facility
- Recycling facility

i01423915

Battery Hold-Down - Tighten

SMCS Code: 7257-527



Illustration 113

g00754348

The battery is located on the right side at the front of the machine.

Every 1000 hours tighten the retainers on the battery.

Battery, Battery Cable or Battery Disconnect Switch - Replace

SMCS Code: 1401-510; 1402-510; 1411-510

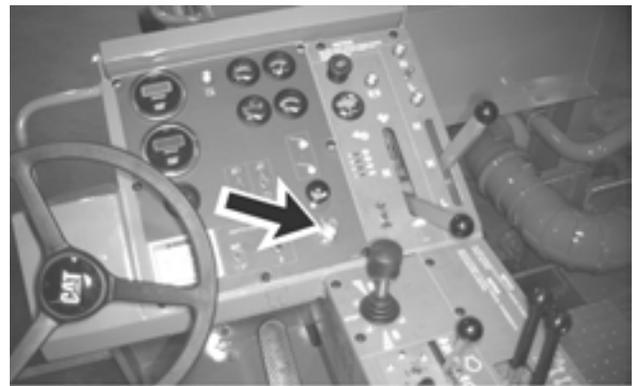


Illustration 114

g00755736

1. Turn the engine start switch to the OFF position. Turn all of the switches to the OFF position.

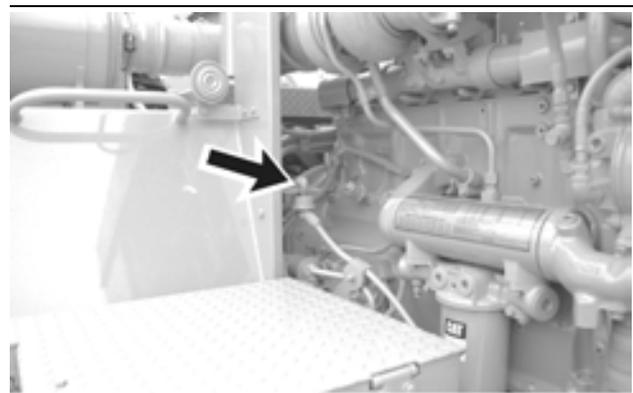


Illustration 115

g00755697

2. Turn the key for the battery disconnect switch to the OFF position. Remove the key.
3. Disconnect the negative battery cable at the battery disconnect switch. The negative battery cable is connected to the frame of the machine.

Note: Do not allow the battery cable that is disconnected to touch the disconnect switch.

4. Disconnect the negative battery cable at the battery.
5. Make any repairs that are required. Replace the battery.
6. Connect the negative battery cable to the battery.

7. Connect the battery to the battery disconnect switch.
8. Install the key. Turn the battery disconnect switch to the ON position.

i01426845

Belts - Inspect/Adjust/Replace

SMCS Code: 1357-025; 1357-040; 1357-510

Inspect Belts

You should inspect the belts in your engine in order to get the maximum performance out of your engine. The belts should be inspected for wear and for cracks. Check the belt tension. If the belts are loose, the belts will slip. Belts that slip will cause poor performance of the alternator.

1. Inspect the belts.
2. Inspect the tension of the alternator belt.

To check the belt tension, apply 110 N (25 lb) of force to the belt. The force must be applied midway between the pulleys. If the belts are properly adjusted, the belts will deflect 10 to 15 mm (.4 to .6 inch).

Check the adjustment on new belts after the new belts have operated for 30 minutes. For multiple belt drive applications, replace the belts in matched sets.

If only one belt of a matched set is replaced, the new belt will carry more load than the old belts. The old belts will be stretched. The additional load on the new belt could cause the new belt to break.

Adjust the Alternator Belt

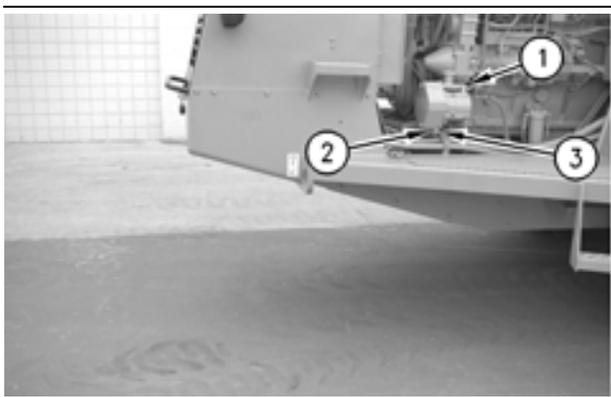


Illustration 116

g00754360

1. Loosen bolt (1).
2. Loosen jam nut (2).

3. To get the proper adjustment, turn nut (3).
4. Tighten jam nut (2).
5. Tighten bolt (1).

Adjust the Fan Drive Belt



Illustration 117

g00754361

1. Loosen bolts (1).
2. To adjust the tension on the belts, turn bolt (2).
3. Tighten the mounting bolts when the correct belt tension is obtained.
4. Check the belt adjustment.

Belt Adjustment for the Lubrication Pump on the Transmission

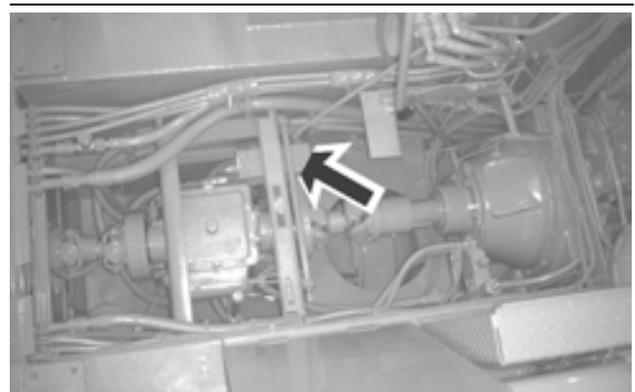


Illustration 118

g00754363

1. Loosen bolts.
2. Use a prybar to hold the tension on the lubrication pump.
3. Tighten the mounting bolts when the correct belt tension is obtained.

4. Check the belt adjustment.

i01428754

Circuit Breakers - Reset

SMCS Code: 1420-529

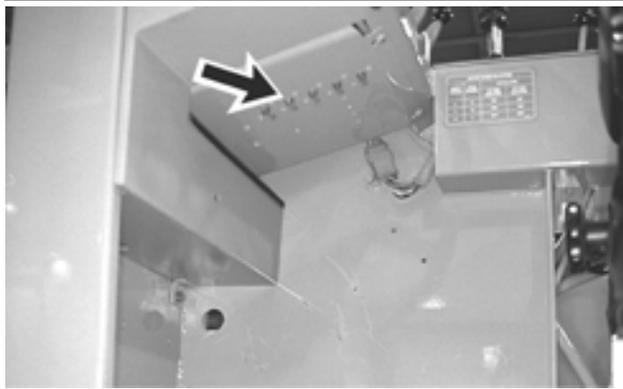


Illustration 119

g00752210

A junction box is located under the operator control panel.

Push in the reset button. in. This will reset the circuit breakers. If the system is operating properly, the button will stay depressed. If the button does not stay depressed, you should check the electrical circuits.

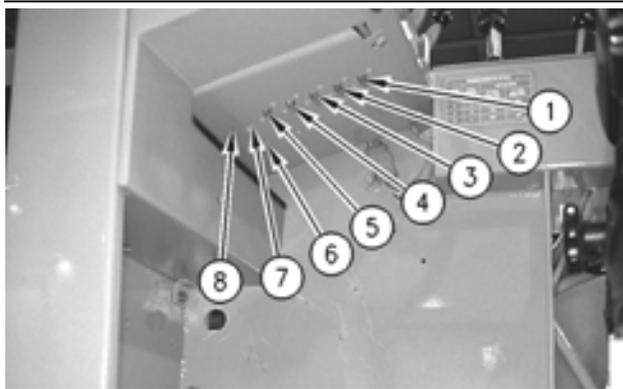


Illustration 120

g00752213

1. **Basic Machine CB4 (1)** - 15 amperes
2. **Cab CB6 (2)** - 30 amperes
3. **FPM, Additive System CB7 (3)** - 15 amperes
4. **Work Lights CB8 (4)** - 15 amperes
5. **Fuel/Horn/Alarm (5)** - 10 amperes
6. **Engine Start(6)** - 10 amperes
7. **Main (7)** - 80 amperes

8. **Alternator (8)** - 80 amperes
9. **Windshield Wiper (9)** - 15 amperes
10. **Fan (10)** - 15 amperes

i01429093

Cooling System Coolant (ELC) - Change

SMCS Code: 1395-044-NL

WARNING

Personal injury can result from hot coolant, steam and alkali.

At operating temperature, engine coolant is hot and under pressure. The radiator and all lines to heaters or the engine contain hot coolant or steam. Any contact can cause severe burns.

Remove cooling system pressure cap slowly to relieve pressure only when engine is stopped and cooling system pressure cap is cool enough to touch with your bare hand.

Do not attempt to tighten hose connections when the coolant is hot, the hose can come off causing burns.

Cooling System Coolant Additive contains alkali. Avoid contact with skin and eyes.

NOTICE

Do not change the coolant until you read and understand the material in the Cooling System Specifications section.

NOTICE

Mixing Extended Life Coolant (ELC) with other products reduces the effectiveness of the coolant and shortens coolant life. Use only Caterpillar products or commercial products that have passed the Caterpillar EC-1 specifications for premixed or concentrate coolants. Use only Caterpillar Extender with Caterpillar ELC. Failure to follow these recommendations could result in the damage to cooling systems components.

If ELC cooling system contamination occurs, refer to Operation and Maintenance, "Extended Life Coolant (ELC)" under the topic ELC Cooling System Contamination.

Drain the coolant whenever the coolant is dirty or whenever foaming is observed.

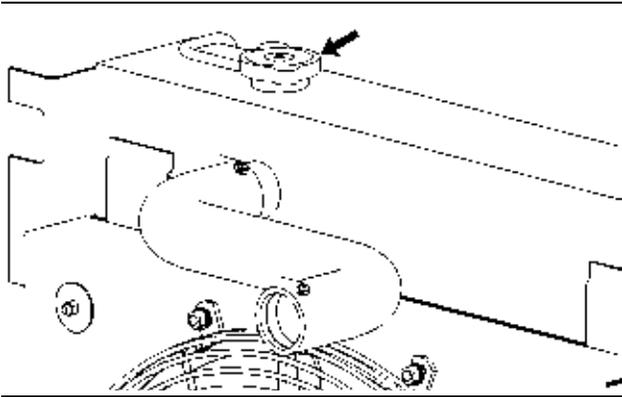


Illustration 121

g00748348

1. Slowly loosen the radiator cap in order to relieve the pressure. Slowly remove the radiator cap.
 2. Open the drain valve. Allow the coolant to drain.
 3. Close the drain valve. Fill the system with a mixture of clean water and a 6% to 10% concentration of cleaner.
 4. Start the engine. Operate the engine for 90 minutes. Stop the engine. Drain the cleaning solution.
 5. Stop the engine. Flush the system. The water that drains from the system must be clear.
 6. Close the drain valve.
 7. Add the coolant solution. See Cooling System Specifications, Lubricant Viscosities and Refill Capacities.
- Note:** Do not add the supplemental coolant additive at this time or change the element at this time unless you are using Caterpillar Antifreeze.
8. Start the engine. Operate the engine with the radiator cap off the engine. The thermostat must open and the coolant level must stabilize.
 9. Maintain the level of the coolant to 13 mm (0.5 inch) of the bottom of the fill pipe.
 10. Install the radiator cap.
 11. Stop the engine.

Cooling System Coolant Extender (ELC) - Add

SMCS Code: 1352-544-NL

WARNING

At operating temperature, the engine coolant is hot and under pressure.

Steam can cause personal injury.

Check the coolant level only after the engine has been stopped and the fill cap is cool enough to touch with your bare hand.

Remove the fill cap slowly to relieve pressure.

Cooling system conditioner contains alkali. Avoid contact with the skin and eyes to prevent personal injury.

NOTICE

Care must be taken to ensure that fluids are contained during performance of inspection, maintenance, testing, adjusting and repair of the product. Be prepared to collect the fluid with suitable containers before opening any compartment or disassembling any component containing fluids.

Refer to Special Publication, NENG2500, "Caterpillar Tools and Shop Products Guide" for tools and supplies suitable to collect and contain fluids on Caterpillar products.

Dispose of all fluids according to local regulations and mandates.

When a Caterpillar Extended Life Coolant (ELC) is used, an Extender must be added to the cooling system. See the Cooling System Specifications in the Operation and Maintenance Manual for all cooling system requirements.

Use a 8T-5296 Coolant Test Kit to check the concentration of the coolant.

For additional information about the addition of Extender, see the Operation and Maintenance Manual, "Cooling System Specifications" or consult your Caterpillar dealer.

i01407060

NOTICE

Mixing ELC with other products that do not meet Caterpillar EC-1 specifications reduces the effectiveness of the coolant and shortens coolant service life.

Use only Caterpillar products or commercial products that have passed the Caterpillar EC-1 specification for pre-mixed or concentrate coolants. Use only Caterpillar Extender with Caterpillar ELC.

Failure to follow these recommendations can result in shortened cooling system component life.

1. Stop the engine. Allow the cooling system to completely cool.
2. Open the engine compartment.
3. Slowly loosen the cooling system pressure cap in order to relieve system pressure. Remove the cooling system pressure cap.
4. If necessary, drain enough coolant from the radiator in order to allow the addition of the Extender.
5. Add the recommended amount of extender to the coolant system. Refer to the Operation and Maintenance Manual, "Extended Life Coolant (ELC)" for the proper amount.
6. Maintain the coolant level to 1 cm of the bottom of the fill pipe.
7. Inspect the gasket on the cooling system pressure cap. Replace the cooling system pressure cap if the gasket is damaged.
8. Install the cooling system pressure cap.
9. Close the engine compartment.

For additional information on the addition of extender, see Operation and Maintenance Manual, "Coolant Recommendations" or consult your Caterpillar dealer.

Cooling System Coolant Level - Check

SMCS Code: 1350-535-FLV

WARNING

At operating temperature, the engine coolant is hot and under pressure.

Steam can cause personal injury.

Check the coolant level only after the engine has been stopped and the fill cap is cool enough to touch with your bare hand.

Remove the fill cap slowly to relieve pressure.

Cooling system conditioner contains alkali. Avoid contact with the skin and eyes to prevent personal injury.

1. Open the access door on the right side of the machine.

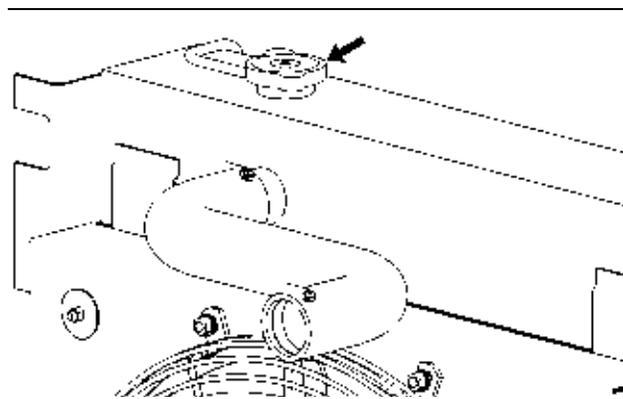


Illustration 122

g00748348

2. Loosen the radiator filler cap slowly in order to relieve pressure. After pressure is relieved, remove the radiator cap.
3. Maintain the coolant level to 1 cm of the bottom of the fill pipe.
4. Inspect the radiator filler cap and the radiator cap seal for damage. Clean the cap with a clean cloth or replace the cap.
5. Install the cap.
6. Close the engine access cover.

i01407069

Cooling System Coolant Sample - Obtain

SMCS Code: 1395-008

WARNING

At operating temperature, the engine coolant is hot and under pressure.

Steam can cause personal injury.

Check the coolant level only after the engine has been stopped and the fill cap is cool enough to touch with your bare hand.

Remove the fill cap slowly to relieve pressure.

Cooling system conditioner contains alkali. Avoid contact with the skin and eyes to prevent personal injury.

NOTICE

Care must be taken to ensure that fluids are contained during performance of inspection, maintenance, testing, adjusting and repair of the product. Be prepared to collect the fluid with suitable containers before opening any compartment or disassembling any component containing fluids.

Refer to Special Publication, NENG2500, "Caterpillar Tools and Shop Products Guide" for tools and supplies suitable to collect and contain fluids on Caterpillar products.

Dispose of all fluids according to local regulations and mandates.

1. Stop the engine. Allow the cooling system to completely cool.
2. Open the engine compartment.
3. Carefully loosen the cooling system pressure cap in order to relieve system pressure.
4. Open the radiator drain valve. Allow some coolant to drain into a suitable container before the sample is taken. Excessive sediment can drain away, and a more accurate sample results. Obtain a sample in an appropriate container. Close the radiator drain valve.
5. Send the coolant sample to an appropriate lab for analysis. See the Operation and Maintenance Manual, "S-O-S Coolant Analysis" section.

6. Refill the cooling system with coolant, as required. See Operation and Maintenance Manual, "Cooling System Specifications".

7. Tighten the cooling system pressure cap.

8. Close the engine compartment.

i01407083

Cooling System Pressure Cap - Clean/Replace

SMCS Code: 1382-070; 1382-510

WARNING

Personal injury can result from hot coolant, steam and alkali.

At operating temperature, engine coolant is hot and under pressure. The radiator and all lines to heaters or the engine contain hot coolant or steam. Any contact can cause severe burns.

Remove cooling system pressure cap slowly to relieve pressure only when engine is stopped and cooling system pressure cap is cool enough to touch with your bare hand.

Do not attempt to tighten hose connections when the coolant is hot, the hose can come off causing burns.

Cooling System Coolant Additive contains alkali. Avoid contact with skin and eyes.

1. Open the engine compartment.
2. Remove the cooling system pressure cap slowly in order to relieve pressure.
3. Inspect the cooling system pressure cap for foreign material, for deposits, and for damage. Clean the cooling system pressure cap with a clean cloth. If the cooling system pressure cap is damaged, replace the cooling system pressure cap.
4. Install the cooling system pressure cap.
5. Close the engine compartment.

i01407090

Cooling System Water Temperature Regulator - Replace

SMCS Code: 1355-510; 1393-010

WARNING

At operating temperature, the engine coolant is hot and under pressure.

Steam can cause personal injury.

Check the coolant level only after the engine has been stopped and the fill cap is cool enough to touch with your bare hand.

Remove the fill cap slowly to relieve pressure.

Cooling system conditioner contains alkali. Avoid contact with the skin and eyes to prevent personal injury.

Replace the water temperature regulator on a regular basis in order to reduce the chance of unscheduled downtime and of problems with the cooling system.

The water temperature regulator should be replaced after the cooling system has been cleaned. Replace the water temperature regulator while the cooling system is completely drained. Replace the water temperature regulator while the cooling system coolant is drained to a level below the water temperature regulator housing.

NOTICE

Failure to replace the engine's water temperature regulator on a regularly scheduled basis could cause severe engine damage.

Note: If you are only replacing the water temperature regulator, drain the cooling system coolant to a level that is below the water temperature regulator housing.

1. Remove the cooling system pressure cap in order to relieve the pressure in the cooling system.

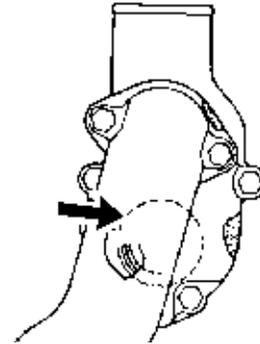


Illustration 123

g00755464

2. Remove the gasket and remove the water temperature regulator.

NOTICE

The water temperature regulators may be reused if the water temperature regulators are within test specifications, are not damaged, and do not have excessive buildup of deposits.

NOTICE

Since Caterpillar engines incorporate a shunt design cooling system, it is mandatory to always operate the engine with a water temperature regulator.

Depending on load, failure to operate with a water temperature regulator could result in either an overheating or an overcooling condition.

NOTICE

If the water temperature regulator is installed incorrectly, it will cause the engine to overheat.

3. Install a new water temperature regulator.

4. Add the cooling system coolant. Maintain the level of the coolant to 1 cm from the bottom of the fill pipe.

5. Inspect cooling system pressure cap and the gasket for damage. Replace the pressure cap if the pressure cap or the gasket are damaged.

6. Install the cooling system pressure cap.

i01456891

Differential Oil - Change

SMCS Code: 3258-044-OC

WARNING

Hot oil and components can cause personal injury.

Do not allow hot oil or components to contact skin.

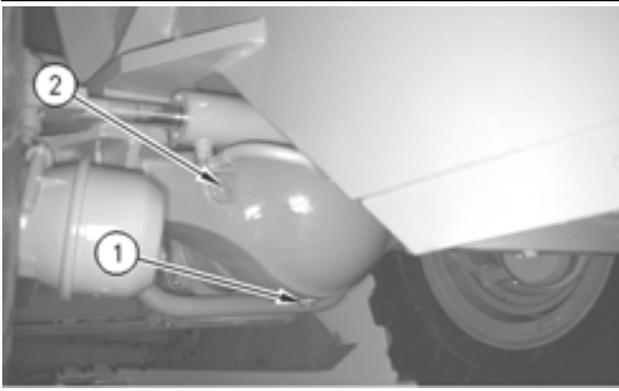


Illustration 124

g00761598

1. Remove drain plug (1).
2. Remove check/fill plug (2).
3. Allow the oil to drain.
4. Install drain plug (1).
5. Fill the differential with lubricant. The lubricant must meet the requirements in the Reference Literature, SEBU6250, "Lubricant Specifications".
6. Install check/fill plug (2).

i01456869

Differential Oil Level - Check

SMCS Code: 3258-535-FLV

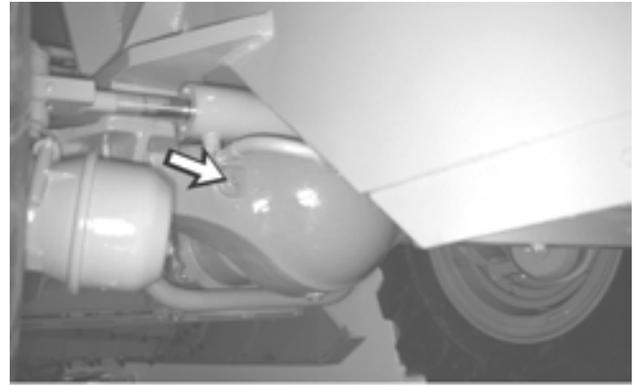


Illustration 125

g00761578

1. Remove the check/fill plug.
2. If lubricant does not flow from the plug port, add lubricant until the level of the check/fill plug is reached.
3. Install the check/fill plug.

i01432384

Differential Oil Sample - Obtain

SMCS Code: 3258-008; 7542-008

Note: Refer to the Operation and Maintenance Manual, "Differential Oil - Change" for information on changing the oil in the differential.

Obtain a sample of the oil when you change the oil.

Send the oil sample to your dealer for analysis.

i01429507

Engine Air Filter Primary Element - Clean/Replace

SMCS Code: 1054-070-PY; 1054-510-PY

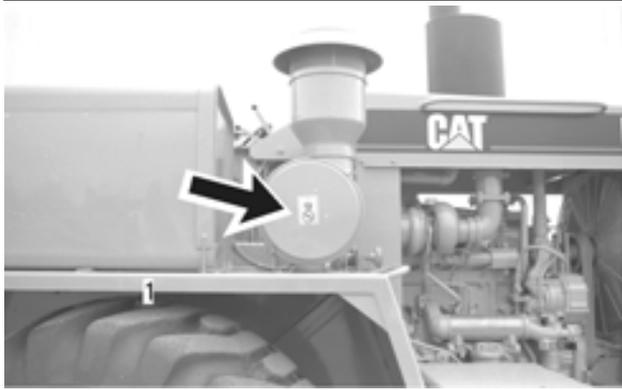


Illustration 126

g00754849

NOTICE

Do not clean the filter elements by bumping or tapping them. Do not use filter elements with damaged pleats, gaskets or seals. Engine damage can result.

Make sure the cleaned filter elements are completely dry before installing into the filter housing. Water remaining in the elements can cause false indications of contamination in Scheduled Oil Sampling test results.

You can use 205 kPa (30 psi) air pressure or 280 kPa (40 psi) water pressure to clean the filter element.

The element can be washed in warm water and nonsudsing household detergent. Rinse inside the pleats and rinse outside the pleats. Dry the element with air.

1. Use air or water along the pleats on the inside of the filter element. Use air or water along the pleats on the outside of the filter element.
2. Inspect the filter elements after the filter elements are cleaned. Do not use a filter element that has damaged pleats, damaged gaskets or damaged seals.
3. Wrap the filter elements and store the filter elements in a place that is clean and dry.

i01429792

Engine Air Filter Secondary Element - Replace

SMCS Code: 1054-510-SE

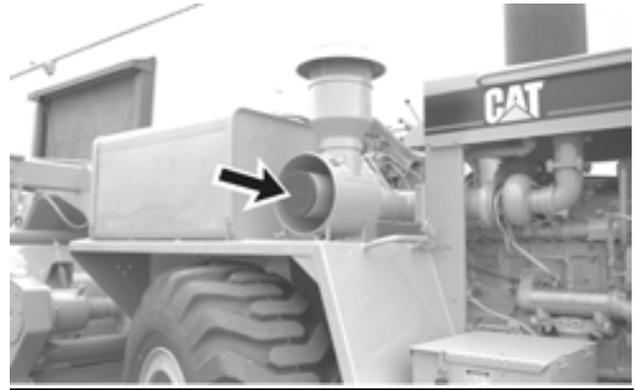


Illustration 127

g00752205

NOTICE

Always replace the secondary filter element. Never attempt to reuse it by cleaning.

The secondary filter element should be replaced at the time the primary element is serviced for the third time.

The secondary filter element should also be replaced if the yellow piston in the filter element indicator enters the red zone after installation of a clean primary element, or if the exhaust smoke is still black.

1. Remove the cover. Remove the primary element.
2. Remove the secondary element.
3. Cover the opening for the air inlet. Clean the inside of the housing for the air cleaner.
4. Remove any dust in the filter outlet. Remove any debris from the filter outlet.
5. Uncover the opening for the air inlet. Install a new secondary element.
6. Install the primary element. Install the cover for the primary element.

i01429808

Engine Air Filter Service Indicator - Inspect

SMCS Code: 7452-040

NOTICE

Service the air cleaner only with the engine stopped. Engine damage could result.

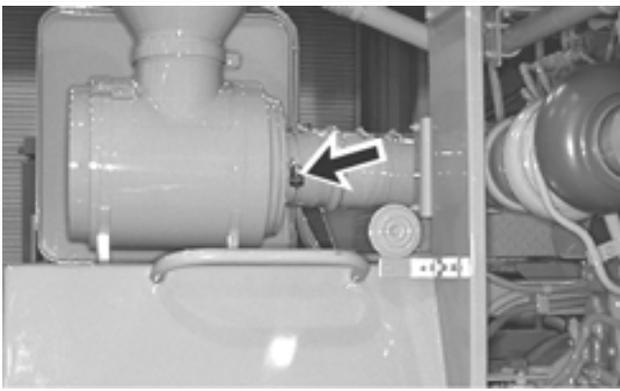


Illustration 128

g00752207

Service the air cleaner when the yellow piston that is in the indicator for the filter element moves to the red zone. The engine should be running at high idle. Stop the engine.

i01429836

Engine Air Precleaner - Clean

SMCS Code: 1055-070

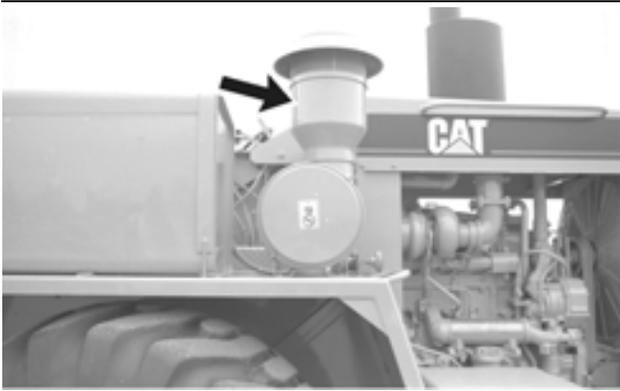


Illustration 129

g00754857

1. Check the air inlet screen for trash. Check the air inlet screen for dirt.
2. Remove the screen if the screen is dirty. Clean the screen with air pressure. Install the screen.

i01429861

Engine Oil Level - Check

SMCS Code: 1348-535-FLV

NOTICE

Do not overfill the crankcase. Engine damage can result.

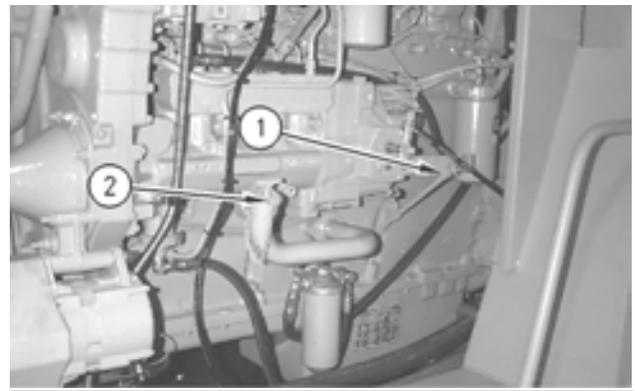


Illustration 130

g00754863

1. When the engine is stopped, maintain the oil level between the "L" and the "F" on the side of dipstick (1) that reads "ENGINE STOPPED".
2. When the engine is running, maintain the oil level between the "L" and the "F" on the side of dipstick (1) that reads "LOW IDLE".
3. Remove oil filler cap (2). Add oil if it is necessary.
4. Clean filler cap (2). Install filler cap (2).

i01450775

Engine Oil Sample - Obtain

SMCS Code: 1000-008

WARNING

Hot oil and hot components can cause personal injury. Do not allow hot oil or hot components to contact the skin.

Obtain the Sample and the Analysis

In addition to a good preventive maintenance program, Caterpillar recommends using S-O-S oil analysis at regular scheduled intervals in order to monitor the condition of the engine and the maintenance requirements of the engine.

Each oil sample should be taken when the oil is warm and when the oil is well mixed. The sample should be taken at this time in order to ensure that the sample is representative of the oil in the crankcase.

Obtain the S-O-S Sample

Obtain the engine oil sample when the oil is changed.

i01430067

Engine Oil and Filter - Change

SMCS Code: 1318-510

WARNING

Hot oil and components can cause personal injury.

Do not allow hot oil or components to contact skin.

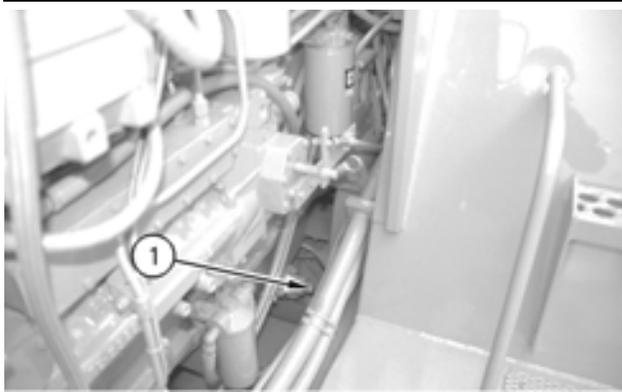


Illustration 131

g00754869

1. Remove crankcase drain valve (1). Allow the oil to drain to a suitable container.

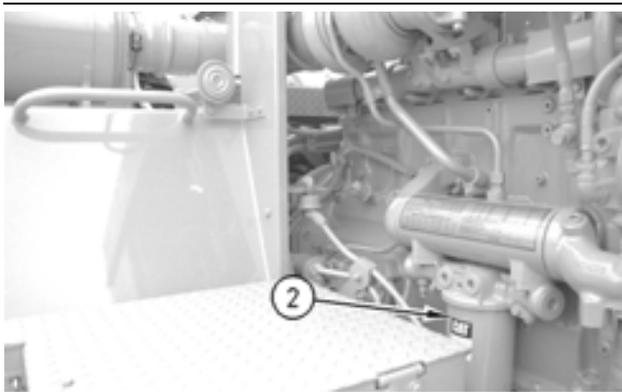


Illustration 132

g00754874

2. Remove filter element (2). Discard element (2) for the filter. You should use a strap wrench to remove the element.
3. Clean the base for the filter housing. Remove the gasket from the old filter.
4. Apply a light coat of engine oil to the gasket on the new filter.
5. You should use your hand to install the new 1R-0716 Engine Oil Filter. When the gasket contacts the filter base, you should tighten the oil filter. The filter should be tightened three quarters of a turn.

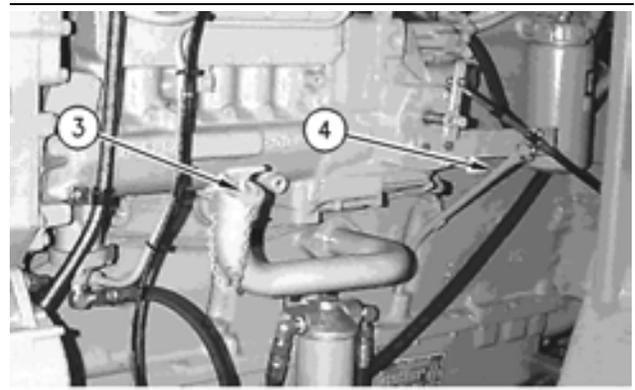


Illustration 133

g00754882

6. Remove oil filler plug (3). Fill the crankcase with new oil. The capacity of the crankcase is 34 L (9 US gal). Clean oil filler plug (3) and install oil filler plug (3).
7. Start the engine. Allow the oil in the engine to get warm. Check for oil leaks. When the engine is running, maintain the oil level between the "L" and the "F" on the side of dipstick (4) that reads "LOW IDLE".
8. Stop the engine.
9. Wait until the oil drains to the crankcase. Check the oil level. When the engine is stopped, maintain the oil level between the "L" and the "F" on the side of dipstick (4) that reads "ENGINE STOPPED".

i01442024

Engine Valve Lash - Check

SMCS Code: 1105-535

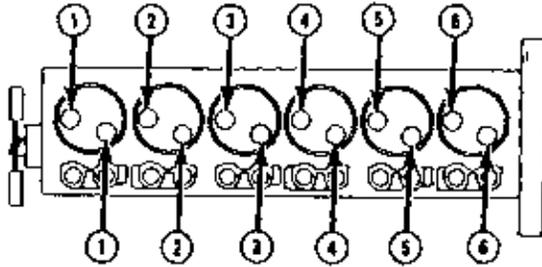


Illustration 134

g00755446

Adjust the clearance within 0.08 mm (0.003 inch) of the setting that is in the chart.

Table 13

Valve Clearance Setting	
Intake	0.38 mm (0.015 inch)
Exhaust	0.76 mm (0.030 inch)

Refer to the Service Manual or refer to your Caterpillar dealer in order to perform the procedure for the valve adjustment.

Note: After you set the valve clearance and before you install the valve covers, check the valve rotators.

i01430256

Engine Valve Rotators - Inspect

SMCS Code: 1109-040

WARNING

When inspecting the valve rotators, protective glasses or face shield and protective clothing must be worn, to prevent being burned by hot oil or spray.

1. Start the engine.
2. Operate the engine at low idle.

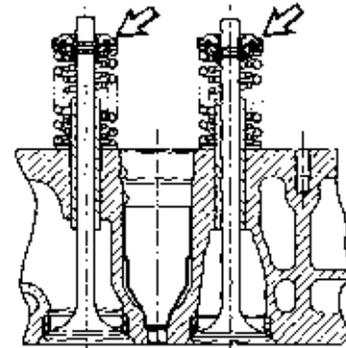


Illustration 135

g00755444

3. Watch the top surface of each valve rotator. Each valve rotator should turn slightly when the valve closes.
4. If a valve fails to rotate, contact your Caterpillar dealer.

i01430269

Fan Drive Bearing and Belt Tightener - Lubricate

SMCS Code: 1358-086-BD; 1359-086-BD

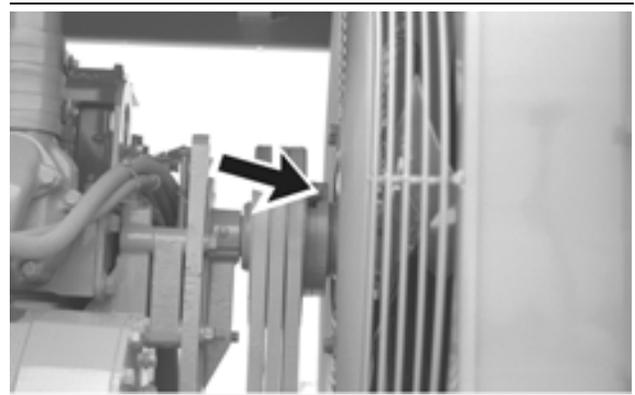


Illustration 136

g00754922

Lubricate one fitting.

i01430271

Final Drive Planetary Oil - Change

SMCS Code: 4050-044-OC

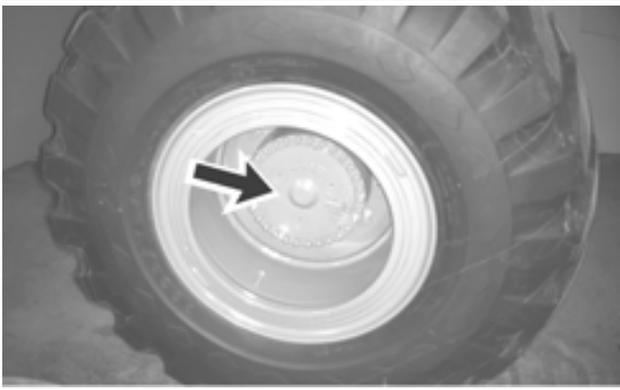


Illustration 137

g00754935

1. Position the machine so that the drain plug is at the lowest level. This position will allow all of the oil to drain. Remove the drain plug.
2. When the oil is drained, install the drain plug.
3. When the machine is on a level surface, the line for the oil level should be parallel with the ground.
4. Remove the check/fill plug. Add lubricant. The capacity is 3.3 L (0.9 US gal).
5. Repeat steps 1 through 4 for the other planetary ends.

i01430291

Final Drive Planetary Oil Level - Check

SMCS Code: 4050-535-FLV



Illustration 138

g00754955

1. With the machine on a level surface, the line for the oil level should be parallel with the ground.
2. Remove the check/fill plug. Add lubricant if it is necessary.

i00700745

Final Drive Planetary Oil Sample - Obtain

SMCS Code: 4050-008

Note: Refer to the Operation and Maintenance Manual, "Final Drive Planetary Oil - Change" for information on changing the oil in the final drive planetary.

Obtain a sample of the oil when you change the oil.

Send the oil sample to your dealer for analysis.

i01430304

Fuel Inlet Screen - Clean/Inspect/Replace

SMCS Code: 1250-510-Z3; 1250-571-Z3

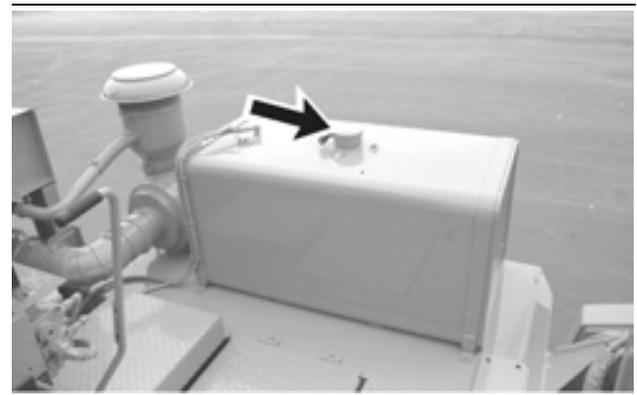


Illustration 139

g00754956

1. Clean the fuel tank cap.
2. Clean the fuel fill screen for the fuel tank.

i01430312

Fuel System - Prime

SMCS Code: 1250-548

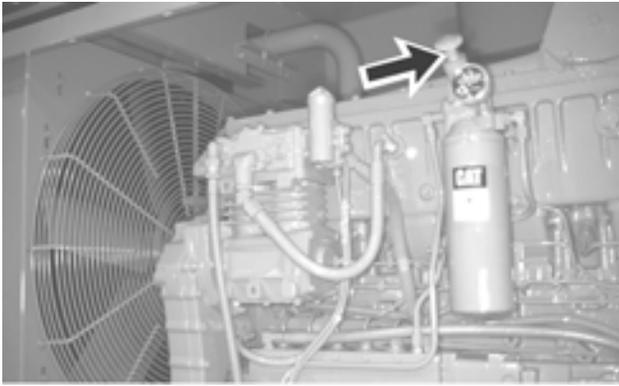


Illustration 140

g00754958

1. Unlock the plunger for the priming pump. Pull the plunger for the priming pump.
2. Operate the pump. This will fill the new filters with fuel. Continue to pump until you feel resistance. Resistance indicates that the new filters are full of fuel.
3. Push down on the plunger for the priming pump. Lock the plunger for the priming pump.
4. Start the engine. Look for leaks.

Further pumping is required if the engine fails to start.
Further pumping is required if the engine misfires.
Further pumping is required if the engine smokes.
If you operate the engine or if you use the priming pump, loosen the nuts for the fuel line one at a time. Loosen the nuts several times and allow fuel to flow until the fuel lines are free of air bubbles. Use two wrenches so that you do not break the fuel lines. Tighten the nuts for the fuel line.

i01430374

Fuel System Primary Filter - Clean/Inspect/Replace

SMCS Code: 1260-040; 1260-070; 1260-510

1. Close the shutoff valve for the fuel. The valve is located under the fuel tank.

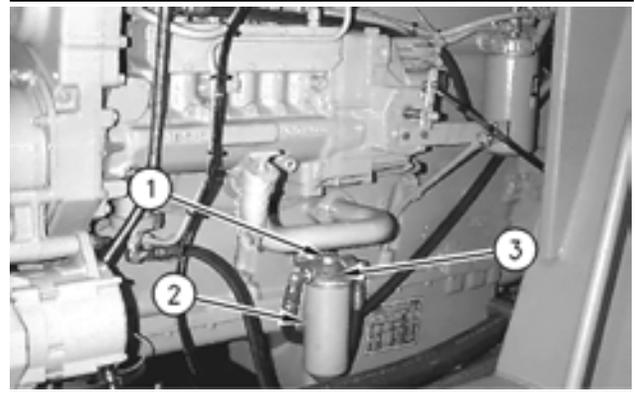


Illustration 141

g00754964

2. Loosen retaining nut (1) for the filter housing.
3. Remove case (2). Remove the element from the case.
4. Wash the element in a clean, nonflammable solvent. Wash the case in a clean, nonflammable solvent.
5. Use 205 kPa (30 psi) of air pressure to dry the element.
6. Clean base (3) for the filter case.
7. Inspect the seal. Replace the seal if the seal is damaged.
8. Insert the clean element in case (2).
9. Install case (2) on base (3). Install the element on base (3).
10. Tighten retaining nut (1) to a torque of 24 ± 4 N·m (18 ± 3 lb ft).

i01430404

Fuel System Secondary Filter - Replace

SMCS Code: 1261-510-SE

1. Remove the filter element. Discard the filter element.

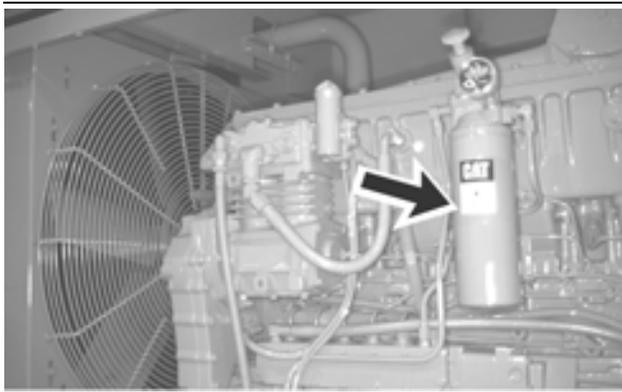


Illustration 142

g00754980

2. Clean the mounting base for the filter. Remove the old seal.
3. Use diesel fuel to coat the seal on the new filter. When the gasket contacts the filter base, you should tighten the oil filter. The filter should be tightened three quarters of a turn.
4. Use your hand to install the new filter.

There are rotation index marks that are 90° on the filter. Use the rotation index marks as a guide to tighten the filter.

5. Open the shutoff valve for the fuel. The shutoff valve is located under the fuel tank. Prime the fuel system.

i01430488

Fuel Tank Water and Sediment - Drain

SMCS Code: 1273-543-M&S

Note: Dispose of drained material according to local regulations.

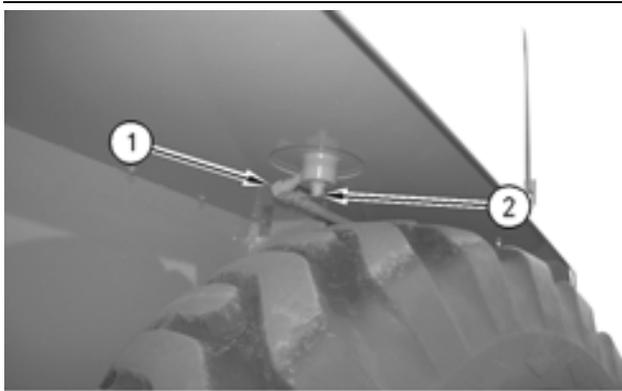


Illustration 143

g00754988

1. Close valve (1). Valve (1) is located under the fuel tank on the right side of the machine.
2. Remove plug (2). Allow the water to drain. Allow the sediment to drain.
3. Install plug (2).
4. Open valve (1).

i01430504

Hydraulic Oil Cooler - Clean

SMCS Code: 1374-070

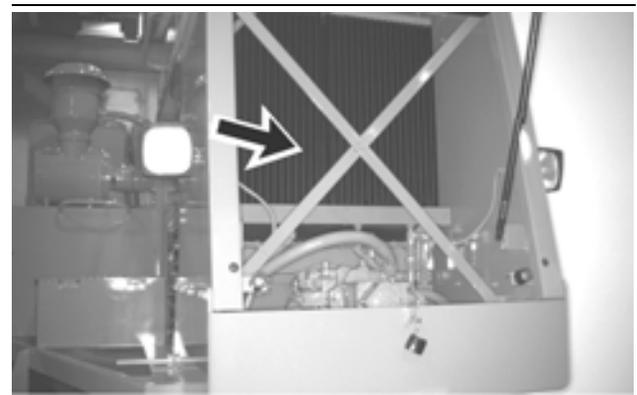


Illustration 144

g00754990

The hydraulic oil cooler is located at the front of the machine.

You can use compressed air, water, or steam to remove dust and debris from the core. The condition of the core will determine the necessity of cleaning the core.

You should refer to Special Publication, SEBD0518 for the cleaning procedure.

i01430708

Hydraulic System Oil - Change

SMCS Code: 5056-044; 5095-044

Cleanliness must be a priority when you change the hydraulic oil. Change the oil in a clean work area. Use clean tools. Make sure that you have clean hands. Clean the outside of the hydraulic tank before you start to operate the machine.

WARNING

Hot oil and hot components can cause personal injury. Do not allow hot oil or hot components to contact skin.



Illustration 145

g00754993

1. Remove the drain plug from the bottom of the hydraulic tank. Open the valve. Drain the oil to a suitable container. Allow the oil to drain until the hydraulic tank is empty.
2. Pour a small amount of hydraulic oil in the tank. Clean the bottom of the tank.
3. Install the drain plug. Close the valve.
4. Fill the hydraulic tank with clean, approved hydraulic oil.

i01430841

Hydraulic System Oil Filters - Replace

SMCS Code: 5068-510

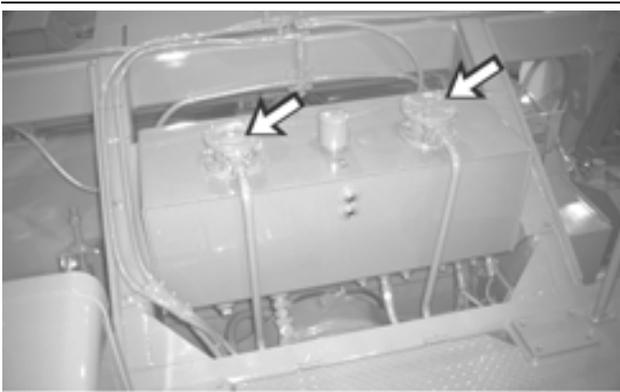


Illustration 146

g00755004

Note: Replace the two oil filters in the hydraulic system.

1. Clean the filter housings and clean the hose connections.
2. Remove the filters from the housings. Dispose of the filters in a proper manner.

3. Inspect the gaskets and clean the gaskets. Replace the gaskets if the gaskets are damaged.
4. Position the new gaskets and lower the new filters into the housings.
5. Start the engine. Allow the engine to run for several minutes. Check the hydraulic system for leaks.
6. Repair any leaks before you operate the machine.

i01430847

Hydraulic System Oil Level - Check

SMCS Code: 5050-535-FLV; 5095-535-FLV

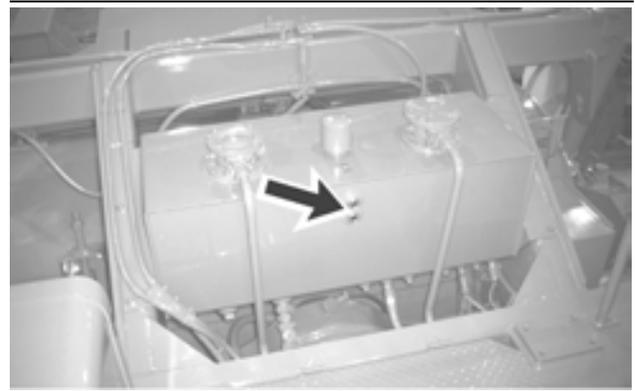


Illustration 147

g00755010

Maintain the oil level between the two sight gauges.

Note: Allow space for the hydraulic oil to expand. Do not overfill the hydraulic tank.

i01430865

Hydraulic System Oil Sample - Obtain

SMCS Code: 5095-008; 7542-008

1. Start the engine. Allow the engine to warm-up for at least ten minutes.
2. Stop the engine.

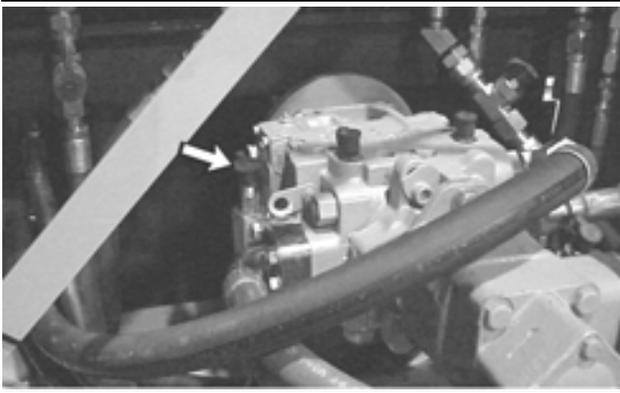


Illustration 148

g00755439

3. Use sampling valve (1) that is located next to the propel pump to obtain the sample of the hydraulic oil.

i01430870

Indicators and Gauges - Test

SMCS Code: 7450-081

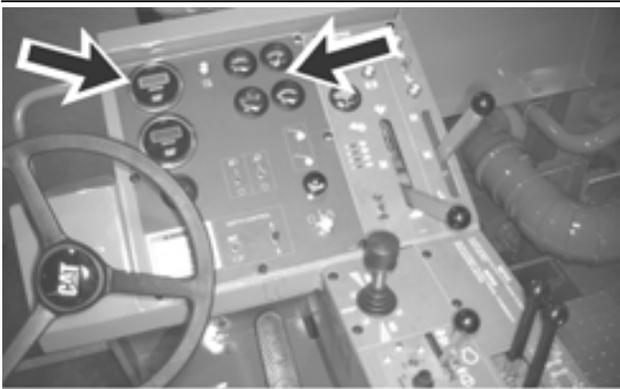


Illustration 149

g00755017

1. Check for broken lenses in the gauges.
2. Check for broken indicator lights.
3. Check for broken switches.
4. Start the engine.
5. Check for gauges that do not operate.
6. Turn on all of the lights for the machine.
7. Check for the proper operation of the lights.
8. Push in on the horn button in order to check the horn.
9. Stop the engine.

10. Make any repairs before you operate the machine.

i01430954

Mixing Chamber Door Cylinder Ends - Lubricate

SMCS Code: 5102-086

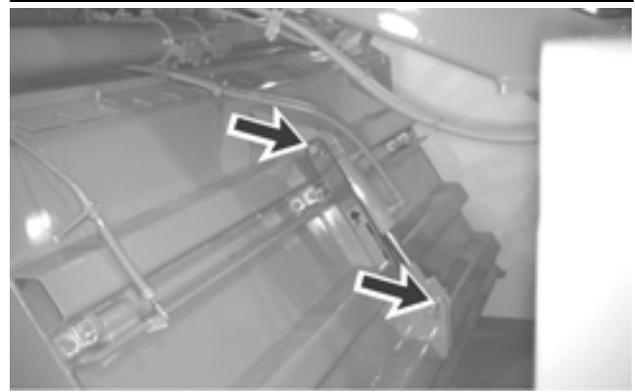


Illustration 150

g00755026

Lubricate two fittings.

i01430963

Mixing Chamber Lift Cylinder Ends - Lubricate

SMCS Code: 5102-086

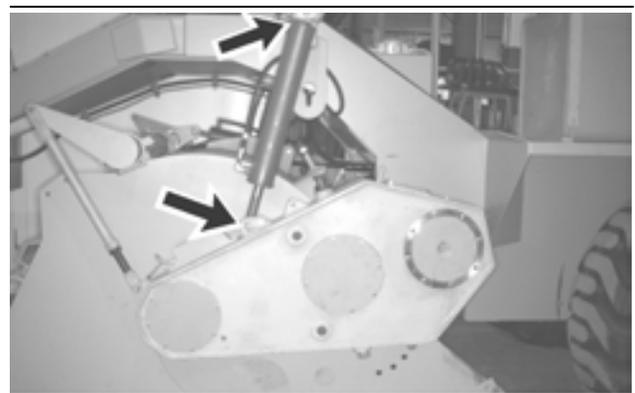


Illustration 151

g00755042

Lubricate one fitting at each end of each cylinders.

i01430968

Mixing Chamber Linkage - Lubricate

SMCS Code: 6635-086-KL

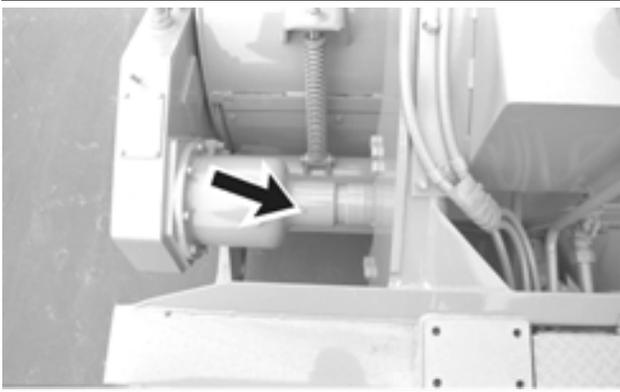


Illustration 152

g00755077

Lubricate two fittings. Lubricate one fitting at each end.

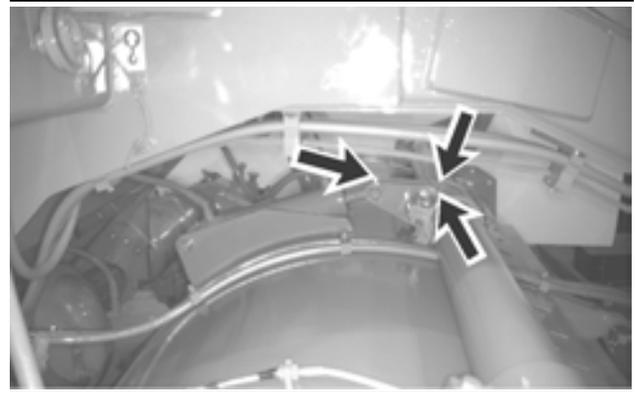


Illustration 154

g00755140

Lubricate three fittings.

i00052234

Oil Filter - Inspect

SMCS Code: 1308-507; 3004-507; 3067-507;
5068-507

Inspect A Used Filter for Debris

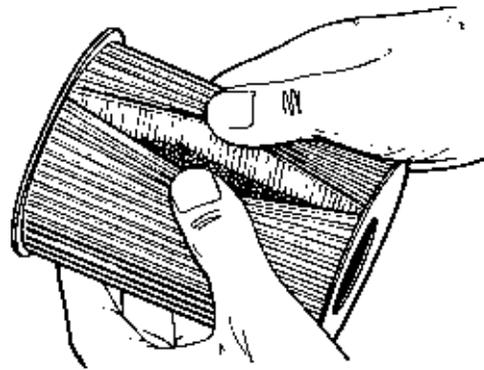


Illustration 155

g00100013

The element is shown with debris.

Use a 4C-5084 Filter Cutter to cut the filter element open. Spread apart the pleats and inspect the element for metal and for other debris. An excessive amount of debris in the filter element can indicate a possible failure.

If metals are found in the filter element, a magnet can be used to differentiate between ferrous metals and nonferrous metals.

Ferrous metals can indicate wear on steel parts and on cast iron parts.

Nonferrous metals can indicate wear on the aluminum parts of the engine such as main bearings, rod bearings, or turbocharger bearings.

i01430957

Mixing Chamber Torque Tube - Lubricate

SMCS Code: 6635-086-JF

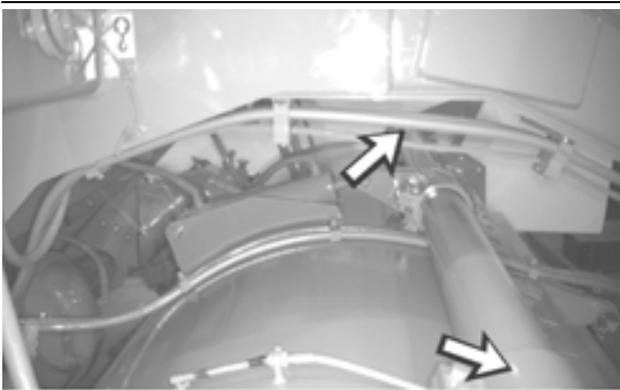


Illustration 153

g00759056

Lubricate one fitting at each end of the torque tube.

Small amounts of debris may be found in the filter element. This could be caused by friction and by normal wear. Consult your Caterpillar dealer in order to arrange for further analysis if an excessive amount of debris is found.

Using an oil filter element that is not recommended by Caterpillar can result in severe engine damage to engine bearings, to the crankshaft, and to other parts. This can result in larger particles in unfiltered oil. The particles could enter the lubricating system and the particles could cause damage.

i01431013

Propel Transmission Control Cable - Lubricate

SMCS Code: 3065-086-KA



Illustration 156

g00755226

Lubricate two fittings.

i01429133

Propel Transmission Oil - Change

SMCS Code: 3080-044



Hot oil and components can cause personal injury.

Do not allow hot oil or components to contact skin.

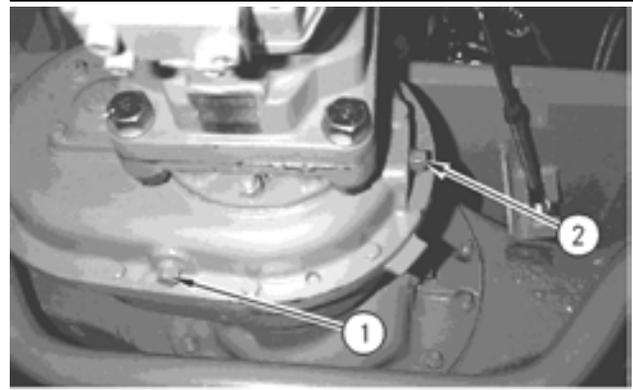


Illustration 157

g00754847

1. Remove drain plug (1). Remove check/fill plug (2). Allow the oil to drain.
2. Install drain plug (1). Fill the gearbox with lubricant. The lubricant should be specified in this manual.
3. Install check/fill plug (2).

i01429184

Propel Transmission Oil - Check

SMCS Code: 3081-535

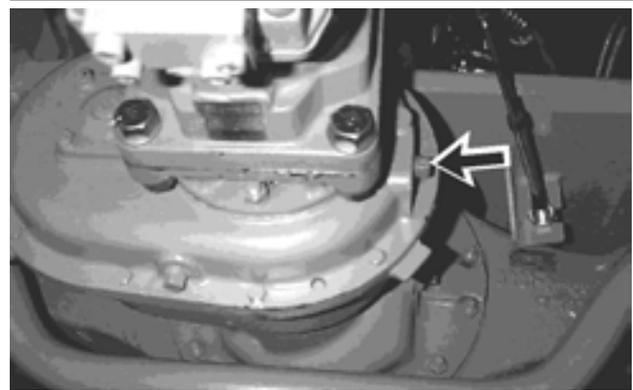


Illustration 158

g00754848

1. Remove the check/fill plug.
2. If lubricant does not flow from the plug port, add lubricant until the correct lubricant level is reached.
3. Install the check/fill plug.

i01456860

Propel Transmission Oil Sample - Obtain

SMCS Code: 3080-008

Note: Refer to the Operation and Maintenance Manual, "Propel Transmission Oil - Change" for information on changing the oil in the propel transmission.

Obtain an oil sample when you change the oil.

Send the oil sample to your dealer for analysis.

i01430978

Pump Drive Universal Joint - Lubricate

SMCS Code: 3108-086-UJ

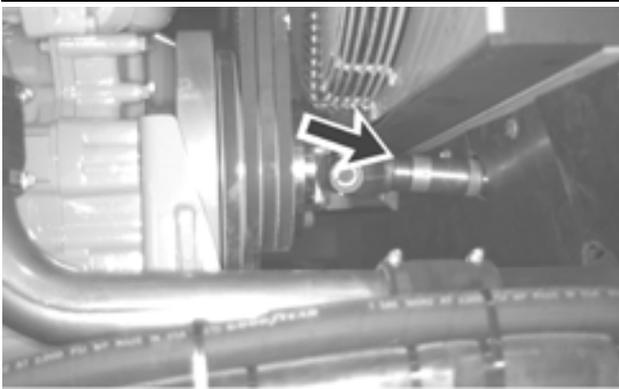


Illustration 159

g00755231

Lubricate three fittings.

i01431021

Radiator Core - Clean

SMCS Code: 1353-070-KO

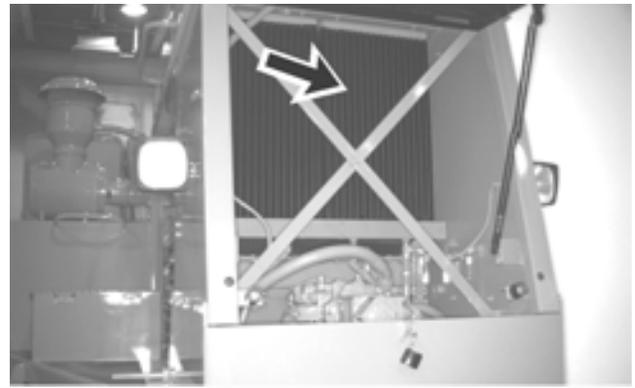


Illustration 160

g00755232

Inspect the radiator core for debris. If necessary, clean the radiator.

Compressed air is preferred, but high pressure water or steam can be used to remove dust and general debris from a radiator. Clean the radiator according to the condition of the radiator.

See Special Publication, SEBD0518, "Know Your Cooling System" for more detailed information about cleaning radiator fins.

i01405783

Rollover Protective Structure (ROPS) - Inspect

SMCS Code: 7323-040; 7325-040

Inspect the rollover protective structure (ROPS) for any loose bolts or damaged bolts. Replace the damaged bolts with original equipment parts only.

Replace the ROPS mounting support if the ROPS rattles. Replace the ROPS mounting support if the ROPS makes noise.

Do not straighten the ROPS or repair the ROPS by welding reinforcement plates to the ROPS.

Consult your Caterpillar dealer for the repair of the ROPS.

i01442160

Rotor Bearing Reservoir Breather - Replace

SMCS Code: 751T-510-BRE

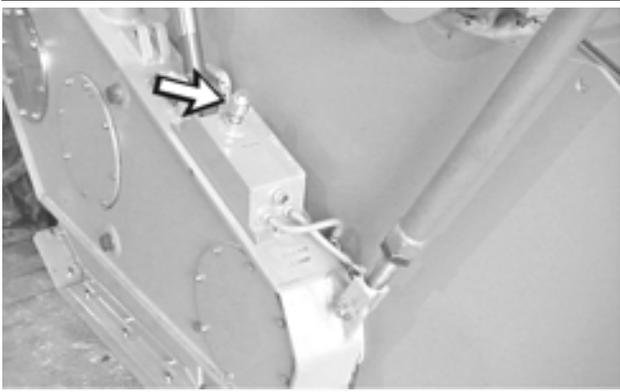


Illustration 161

g00755568

1. Remove the old breather.
2. Install the new breather.
3. Repeat the process for the other side of the machine.

i01431059

Rotor Bearing Reservoir Oil Level - Check

SMCS Code: 751T-535-FLV

1. Start the engine.
2. Raise the rotor until the rotor is in a full UP position.



Illustration 162

g00755245

3. Check the sight gauge for the level of the oil.

4. If oil does not fill the sight gauge, fill the reservoir with oil. Check the oil level.
5. Repeat steps 3 and 4 on the other chain case.

i01431146

Rotor Chain Drive Bearing - Lubricate

SMCS Code: 5631-086-BD; 5631-086-HU

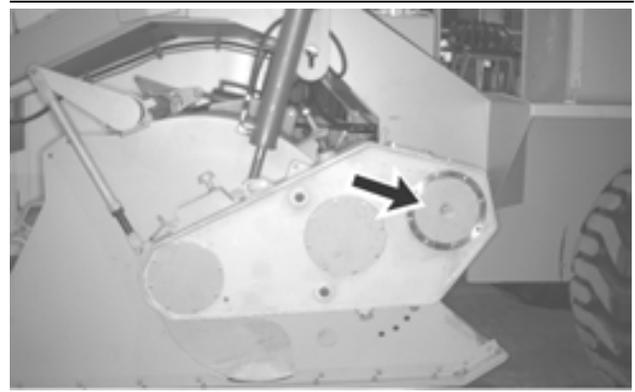


Illustration 163

g00755259

NOTICE

Do not use more lubrication than specified on the chaincase shaft bearings. Too much grease will cause a build up of sludge in the chaincase.

Lubricate one fitting on each side of the machine. Use one pump of grease or up to three pumps of grease from a manually operated grease gun. If sludge starts to build up in the chaincase, increase the service interval from 10 hours to 15 hours.

i01431038

Rotor Chain Drive Case Oil - Change

SMCS Code: 5634-044

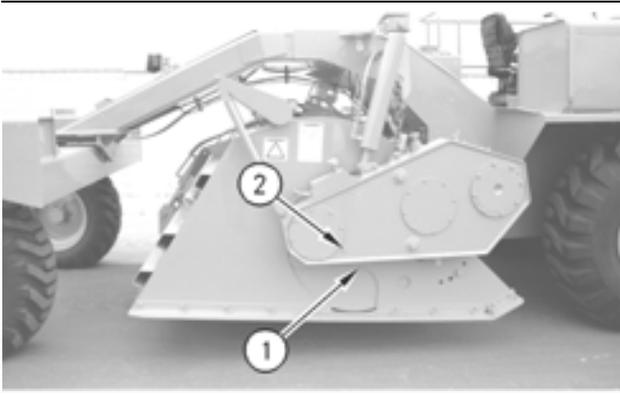


Illustration 164

g00755239

1. Raise the rotor.
2. Remove drain plug (1).
3. Drain the oil to a suitable container.
4. Install drain plug (1).
5. Lower the rotor to the ground.
6. Remove fill/check plug (2).
7. Fill with oil.
8. Install fill/check plug (2).

i01450734

Rotor Chain Drive Case Oil Level - Check

SMCS Code: 5634-535-FLV

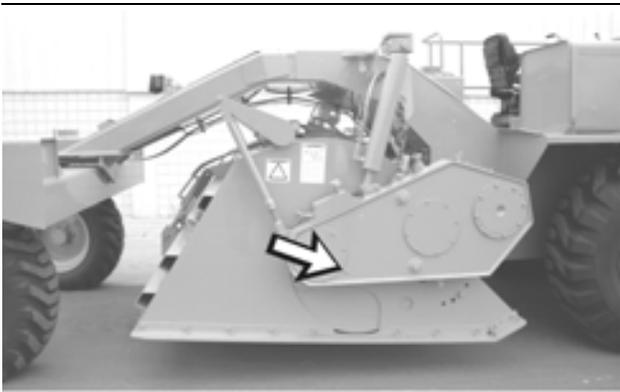


Illustration 165

g00757441

1. Start the engine. Lower the rotor to the ground.
2. Remove the oil level check plug.
3. If oil does not flow from the port for the plug, fill the chain case to the level of the oil level check plug.
4. Clean the oil level check plug. Install the oil level check plug.
5. Repeat steps 2 through 4 on the other chain case.

i01451545

Rotor Chain Drive Hub Breather - Replace

SMCS Code: 5631-510-BRE

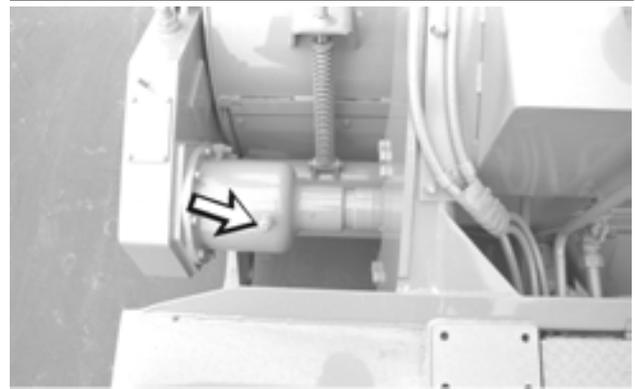


Illustration 166

g00759539

1. Remove the old breather.
2. Install the new breather.
3. Repeat the process for the other side of the machine.

i01405849

Rotor Cutter Bits - Inspect/Replace

SMCS Code: 4457-040-KT; 4457-510-KT; 6819-040; 6819-510



Illustration 167

g00755268

The bits for the rotor should be checked for wear. The bits for the rotor should be replaced if the distance from the holders of the rotor bits to the tip of the bits for the rotor is 32 mm (1.26 inch) or less. The bits for the rotor should be replaced if the distance from the exposed carbide tip is 32 mm (1.26 inch) or less.

You should check the holders for the bits for cracks. You should check the holders for the bits for breaks. You should check the holders when you check the bits.

When the bits for the rotor need to be changed the bits should be changed as a group. You should change the bits as a group so that all of the bits will be the same length. When the bits for the rotor are not the same length, the long bits will wear faster. When the bits for the rotor are not the same length, the long bits will break. You should save bits that are worn in order to replace bits that are broken. You should replace a bit that is broken with a bit that is the same length as the other bits in the rotor.

i01431179

Rotor Depth Control - Lubricate

SMCS Code: 5603-086

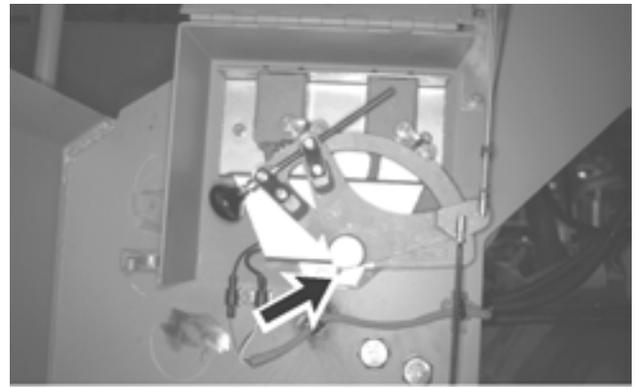


Illustration 168

g00755279

Lubricate one fitting.

i01442185

Rotor Drive Axle Breather - Replace

SMCS Code: 5630-510-BRE



Illustration 169

g00755576

1. Remove the old breather.
2. Install the new breather.

i01431197

Rotor Drive Clutch Bearings - Lubricate

SMCS Code: 3055-086-BD

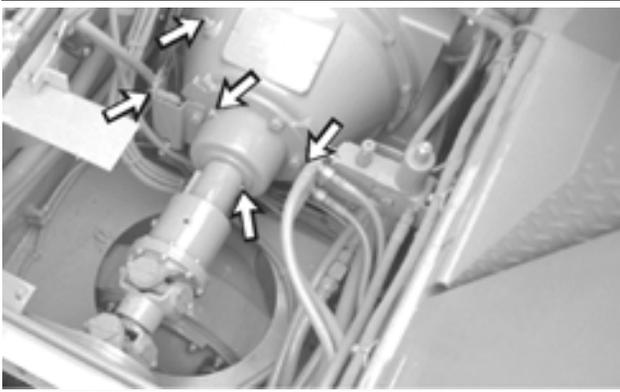


Illustration 170

g00755285

Lubricate five fittings.

i01431209

Rotor Drive Differential Oil - Change

SMCS Code: 5633-044

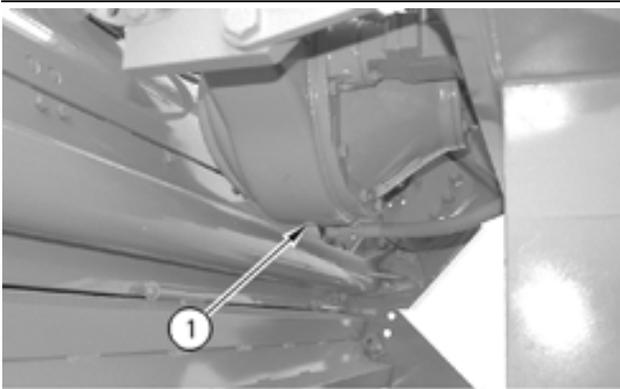


Illustration 171

g00755293

1. Remove drain plug (1).

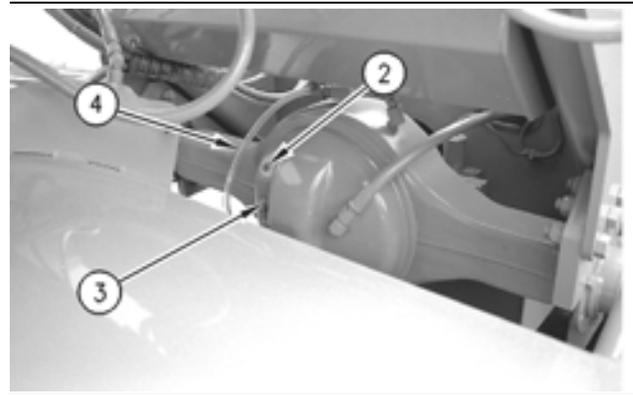


Illustration 172

g00755295

2. Allow the oil to drain to a suitable container.
3. Install drain plug (1).
4. Remove filler plug (2).
5. Remove check plug (3).
6. Use filler plug (2) to fill the axle. Fill the axle until oil starts to come out of check plug (3).
7. The oil should be visible in oil level tube (4).
8. Install the filler plug.
9. Install the check plug.

i01431284

Rotor Drive Differential Oil Level - Check

SMCS Code: 5633-535-FLV



Illustration 173

g00755308

Maintain the oil level in the tube to the centerline of the axle.

i01432391

Rotor Drive Differential Oil Sample - Obtain

SMCS Code: 5633-008

Note: Refer to the Operation and Maintenance Manual, "Rotor Drive Differential Oil - Change" for information on changing the oil in the final drive planetary.

Obtain a sample of the oil when you change the oil.

Send the oil sample to your dealer for analysis.

i01431293

Rotor Drive Shaft Universal Joints - Lubricate

SMCS Code: 5631-086-UJ

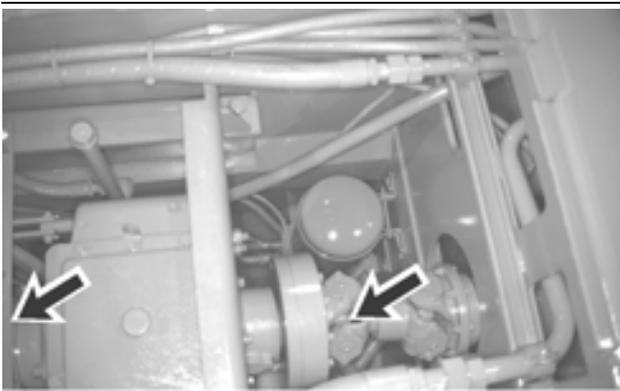


Illustration 174

g00755314

Lubricate six fittings.

i01431297

Rotor Shear Disc - Lubricate

SMCS Code: 5631-086

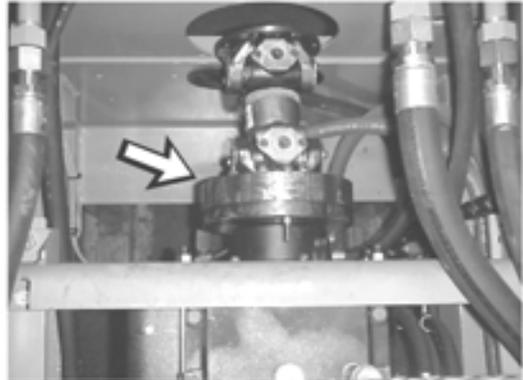


Illustration 175

g00753286

Lubricate one fitting.

i01442225

Rotor Shear Disc Bolts - Inspect/Replace

SMCS Code: 5635-040-BC; 5635-510-BC

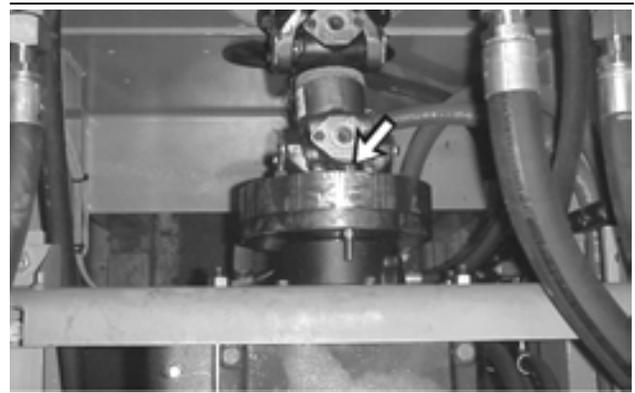


Illustration 176

g00755612

Make sure that the bolt is loose. **DO NOT** tighten the bolt if the bolt is loose. Replace the bolt if the bolt is broken.

Note: Use only the 7X-0318 Bolt. This bolt has a shank length that is not threaded. The shank length that is not threaded will not allow the bolt to be tightened against the shear disc plates. If you tighten the plates, a higher torque load will result and you could damage the rotor drive components. The 7X-0318 Bolt is designed to shear in order to protect the drive components.

i01431303

Rotor Torque Limiter Coupling - Inspect (If Equipped)

SMCS Code: 5632-040-QC

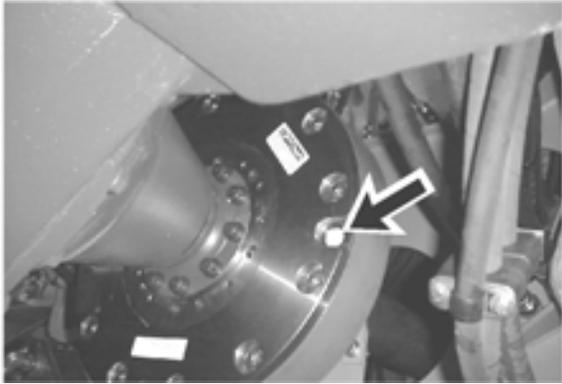


Illustration 177

g00753299

When the indicators are flush with the machined recess of the plate, you must rebuild the clutch.

i01431327

Rotor Transmission Oil - Change

SMCS Code: 5635-044

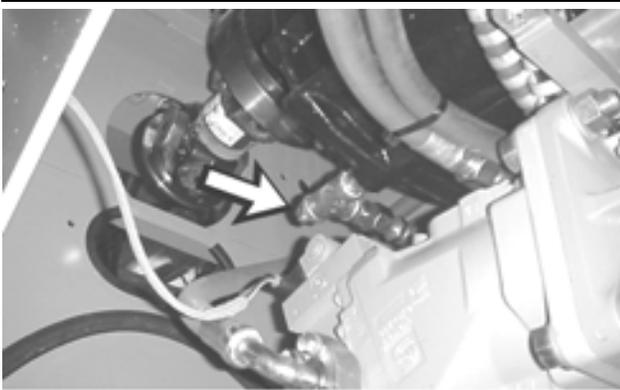


Illustration 178

g00753309

1. Remove the drain plug.
2. Drain the oil.
3. Connect the plug.

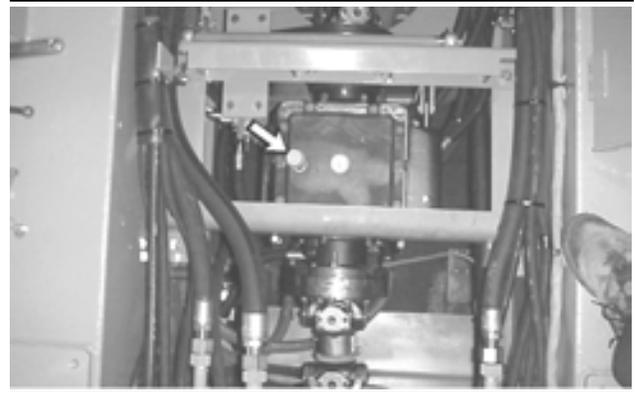


Illustration 179

g00753315

4. Fill the rotor transmission.

i01431334

Rotor Transmission Oil - Check

SMCS Code: 5635-535

1. Remove the filler cap.

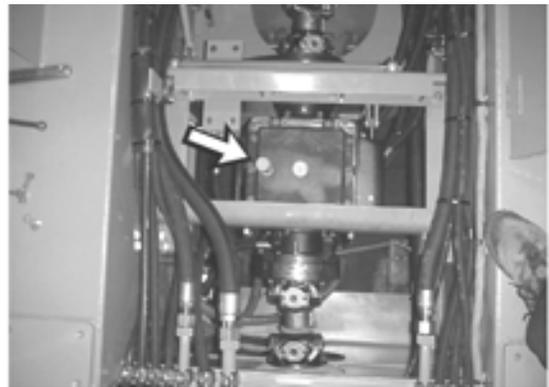


Illustration 180

g00753295

2. Use the dipstick to check the oil level.
3. The oil level should be at the FULL mark on the dipstick.
4. Add oil if the oil level is low.

i01442058

Rotor Transmission Oil Filter - Clean/Replace

SMCS Code: 5635-070-FI

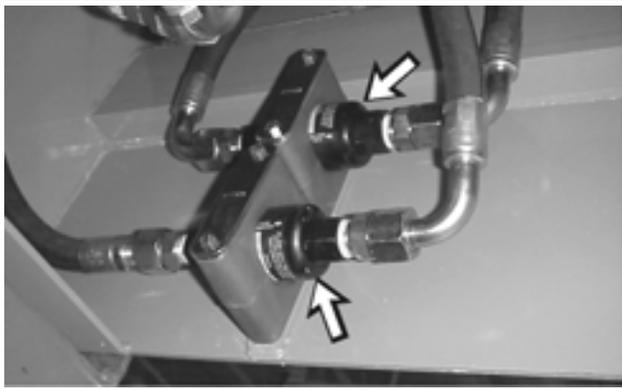


Illustration 181

g00755489

1. Loosen the clamps.
2. Remove the oil filters.
3. Check the filter in order to determine if the filter can be cleaned.
4. If the filter can be cleaned, clean the filter with solvent or clean the filter with air pressure.
5. If you cannot clean the filter, install a new filter.

i01442094

Rotor Transmission Oil Sample - Obtain

SMCS Code: 5635-008

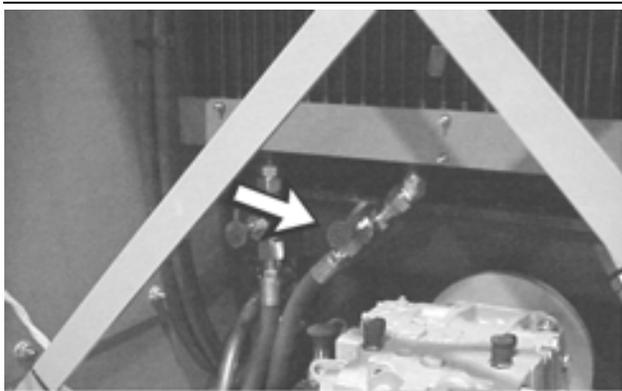


Illustration 182

g00755514

Obtain an oil sample from the oil sampling valve that is located by the oil cooler.

i01442135

Rotor Transmission Oil Tank Breather - Replace

SMCS Code: 5631-510-BRE; 5635-510-BRE

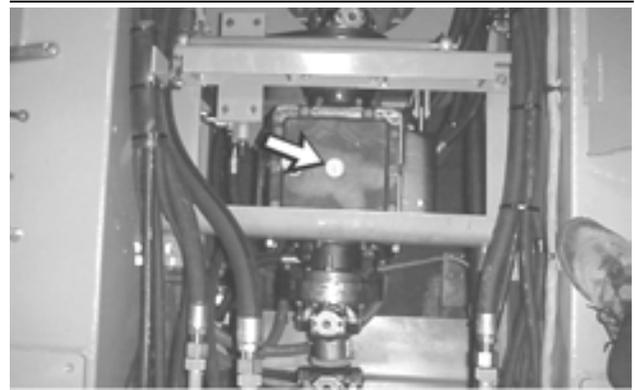


Illustration 183

g00755554

1. Remove the old breather.
2. Install the new breather.

i01431341

Rotor Transmission Shift Linkage - Lubricate

SMCS Code: 5631-086-KL; 5635-086-KL

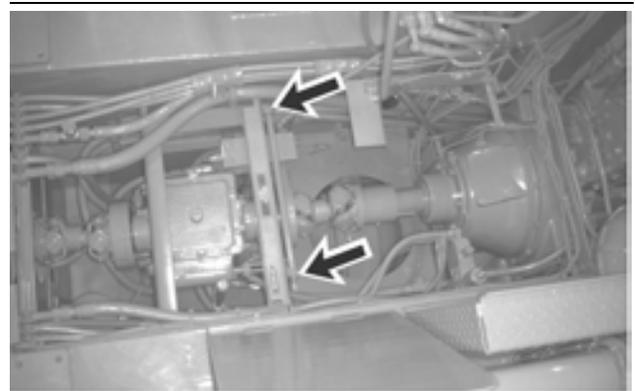


Illustration 184

g00755340

Lubricate two fittings.

i01431428

Seat Belt - Replace

SMCS Code: 7327-510



Illustration 185

g00755347

Always check the condition of the seat belt. Always check the condition of the mounting hardware. The checks must be done before operating the machine.

You must replace the seat belt once during a three year period. The belt must be replaced regardless of any damage. A date label is attached to the belt. The date label will determine the age of the belt.

Inspect the belt for worn webbing or frayed webbing.

Check for worn buckles or damaged buckles on each half of the seat belt. Replace the seat belt or replace the buckles if the belt or the buckles are damaged.

Inspect the belt mounting hardware. Replace any worn hardware or damaged hardware. Keep the mounting bolts tight.

i01431430

Steering Cylinder Ends (Rear) - Lubricate

SMCS Code: 4303-086

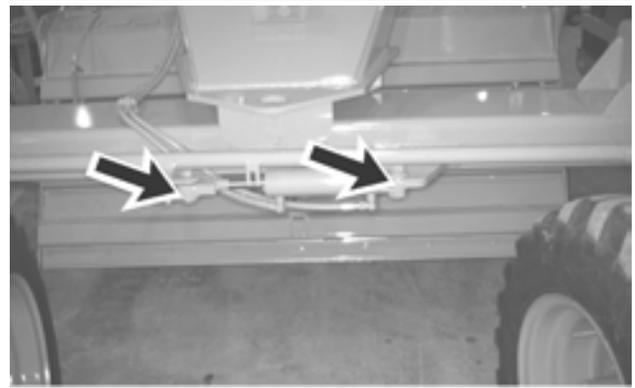


Illustration 186

g00755352

Lubricate two fittings.

i01431442

Steering Cylinder Ends - Lubricate

SMCS Code: 4303-086-BD

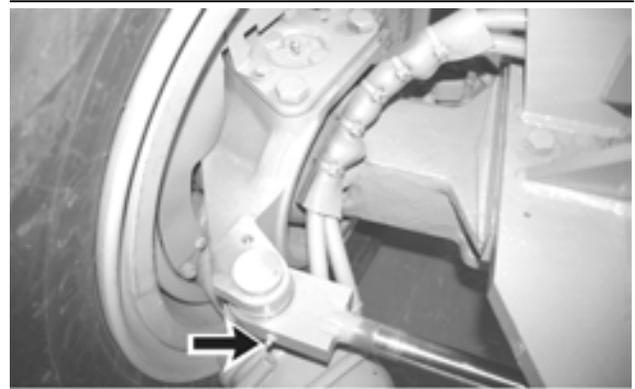


Illustration 187

g00755353

Lubricate one fitting on each side of the machine.

i01457274

Steering Knuckle - Lubricate

SMCS Code: 3020-086-QZ; 4321-086

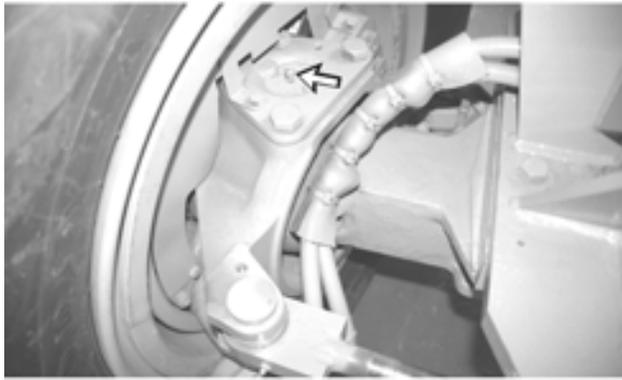


Illustration 188

g00761934

Lubricate one fitting on each side of the machine.

i01431445

Steering Linkage - Lubricate

SMCS Code: 4318-086

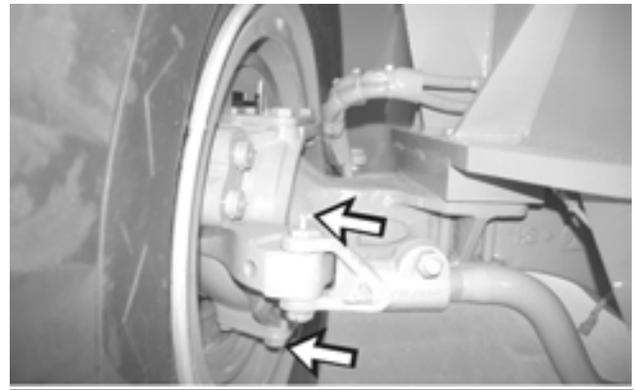


Illustration 190

g00755366

Lubricate two fittings on each side of the machine.

i01431499

Steering Legs (Rear) - Lubricate

SMCS Code: 4345-086



Illustration 189

g00755361

Lubricate one fitting on each side.

i01405798

Tire Inflation - Check

SMCS Code: 4203-535-PX

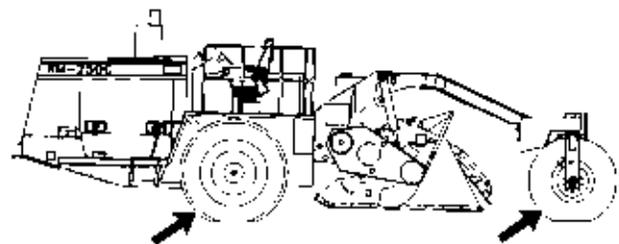


Illustration 191

g00755397

Check the tires daily for the proper inflation and for wear. Check the lug nuts for the wheel. Tighten the lug nuts if the lug nuts are loose.

Check the tires for leaks if the tire pressure is low. The pressure for the front tires should be 166 kPa (24 psi). The pressure for the rear tires should be 124 kPa (18 psi).

i01431520

Walk-Around Inspection

SMCS Code: 1000-040; 7000-040

NOTICE

Accumulated grease and oil on a machine is a fire hazard. Remove this debris with steam cleaning or high pressure water, at least every 1000 hours or each time any significant quantity of oil is spilled on the machine.

Wipe all fittings, all caps, and all plugs, before you service the machine.

Note: Keep a close watch for leaks. If any leaks are observed, find the source of the leak. Repair the leak. Check the fluid levels more frequently than the recommended interval if you suspect a leak.

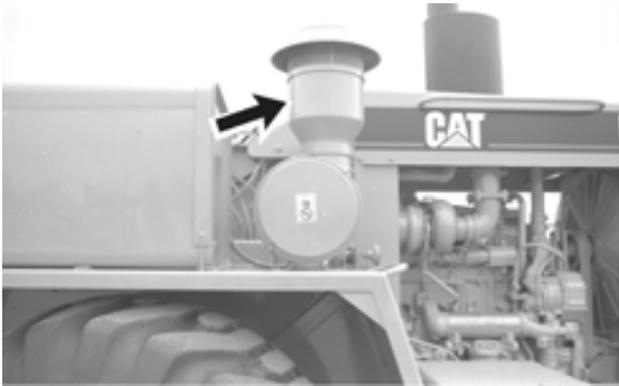


Illustration 192

g00755370

1. Inspect the precleaner for dirt buildup. Clean the precleaner if dirt has accumulated.

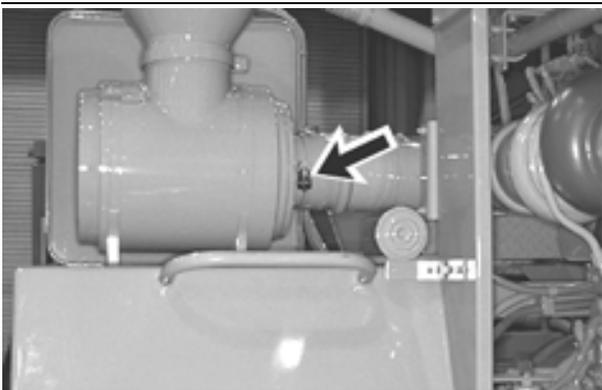


Illustration 193

g00755375

2. When the engine is at fast idle, service the air cleaner when the yellow piston is in the red zone. Stop the engine before you service the air cleaner.
3. Check the machine for loose wiring. Check the machine for frayed wiring.

4. Inspect the lights for broken bulbs. Inspect the lights for broken lenses. Replace the bulbs or the lenses if the bulbs or the lenses are broken.
5. Open all access covers. Inspect the compartments for any trash buildup. Remove any trash in the compartments.



Illustration 194

g00755383

6. Inspect the hydraulic system for leaks. Inspect the hydraulic tank, the hoses, the tubes, the plugs, and the fittings for leaks or damage. Repair any damage. Repair any leaks.
7. All covers and guards must be securely in place. Inspect all covers and guards for damage. Repair any damage.

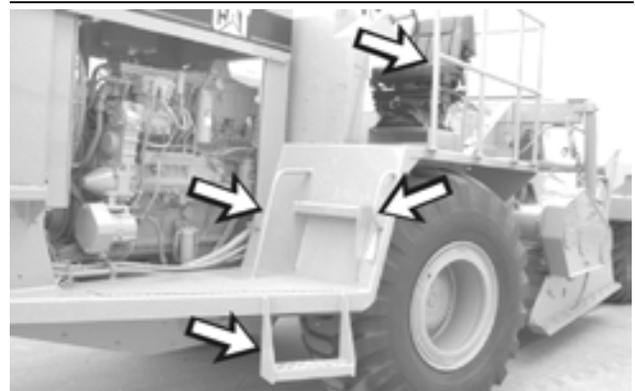


Illustration 195

g00755403

8. Inspect the steps, the walkways, and the handholds for damage or wear. Repair the components that are damaged or worn. Inspect the steps, the walkways, and the handholds for cleanliness. Clean the components.
9. Inspect the operator compartment for cleanliness. Keep the operator compartment clean.

i01427409

Wheel Hub - Lubricate

SMCS Code: 4215-086



Illustration 196

g00755394

Lubricate two fittings.