

1845C SKID STEER

Service Manual

8-42913

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NOTE: Case Corporation reserves the right to make improvements in design or changes in specifications at any time without incurring any obligation to install them on units previously sold.

1001

SAFETY RULES SERVICE MANUAL INTRODUCTION AND TORQUE SPECIFICATIONS

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SAFETY RULES

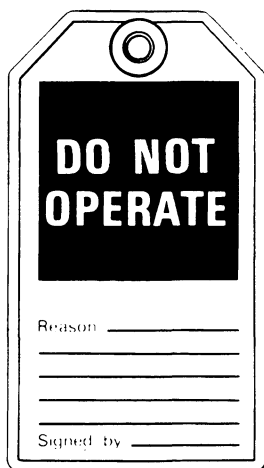


This symbol means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED.** The message that follows the symbol contains important information about safety. Carefully read the message. Make sure you fully understand the causes of possible injury or death. 1-1-C

IMPORTANT: To prevent injury on the job, follow the Warning, Caution, and Danger notes in this section and other sections throughout this manual. Follow the instructions carefully.

The procedures recommended and shown in this manual are good, effective service methods. However, all possible procedures and service hazards may not be covered. Therefore, if you use a tool or procedure not recommended, you must make sure that the method you select is a safe method.

Put the warning tag shown below on the key for the key switch when you are servicing or repairing this machine. One warning tag is on every new machine. You can buy additional warning tags, part number 331-4614, from Service Parts Supply.



780449



WARNING: Read operator's manual to familiarize yourself with control lever functions.

46-27



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

48-55



WARNING: This is a one man machine, no riders allowed.

35-8



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.

45-3-A



750213



DANGER: 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. If you do not have an exhaust pipe extension, open the doors and get outside air into the area.

48-56



WARNING: Operate controls from the operator's seat only.

35-7



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

35-4



WARNING: Whenever the bucket must be raised to aid in servicing, block the loader arms in place with lift cylinder support strut or a suitable safety stand.

23-7-B



1. Lift Cylinder Support Strut

855871



WARNING: When doing checks and tests on the equipment hydraulics, follow the procedures as they are written. DO NOT change the procedure. 47-44



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. 47-45



WARNING: Use insulated gloves or mittens when working with hot parts.

47-41A



CAUTION: 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. 40-6-A



CAUTION: 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. 46-17



CAUTION: 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). 46-13



CAUTION: 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. 40-8



CAUTION: Use suitable floor (service) jacks or chain hoists to raise wheels or track off the floor. Always block machine in place with suitable safety stands. 40-7-A



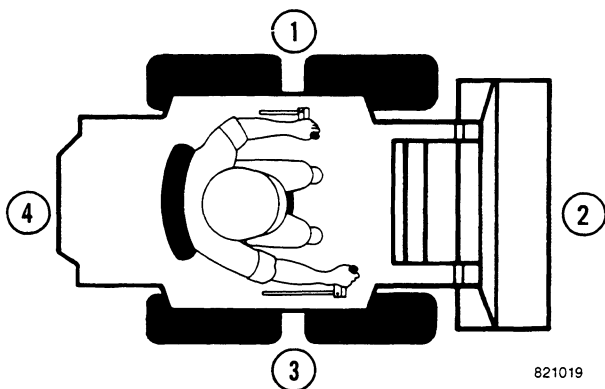
CAUTION: Some components of this machine are very heavy. Use suitable lifting equipment or additional help as instructed in this service manual. 40-10

SERVICE MANUAL INTRODUCTION

This service manual has been prepared with the latest service information available. Troubleshooting, removal, disassembly, inspection and installation procedures, and complete specifications and tightening references can be found in most sections. Some sections have drawings but no written procedure because the job is so easily done. This service manual is one of the most important tools available to the service technician.

Right, Left, Front, and Rear

The terms right-hand and left-hand and front and rear as used in this manual indicate the right and left sides, and front and rear of the machine as seen from the operator's seat for correct operation of the machine or attachment.



- | | |
|--------------|---------------|
| 1. Left Side | 3. Right Side |
| 2. Front | 4. Rear |

Text

If the service manual is for more than one machine or different models of components (planetary axles, gear boxes, control valves, etc.) the procedures have the steps necessary to service each model.

Table of Contents

A Table of Contents is in the front of this manual. The Table of Contents shows the main divisions and the sections that are in each division. The individual sections, where necessary, have a Table of Contents on the cover or second page of that section.

Page Numbers

All page numbers are made of two numbers separated by a dash, such as 4002-9. The number before the dash is the section number. The number following the dash is the page number in that section. Page numbers will be found at the upper right or left of each page.

Illustrations and Photos

Illustrations are put as near as possible to the text and are to be used as part of the text. Photos normally are put below the step to which they apply.

Clear and Simple English

This manual is written in C.A.S.E. (Clear and Simple English). C.A.S.E. is easier to read and understand than "regular" English because C.A.S.E. uses a small number of common words and has special rules for writing.

Special Tools

Special tools are needed to remove and install, disassemble and assemble, check, and adjust some component parts of this machine. Some special tools can be easily made locally and the necessary information to make the tool is in this service manual. Other special tools are more difficult to make locally and are available from Service Tools in the U.S. and from Jobborn Manufacturing in Canada. Use these tools according to the instructions in this service manual for your personal safety and to do the job correctly.

Order special tools from either of the following companies:

Service Tools
P.O. Box 314
Owatonna, Minnesota 55060

Jobborn Manufacturing Co.
97 Frid Street
Hamilton, Ontario L8P 4M3
Canada

2000

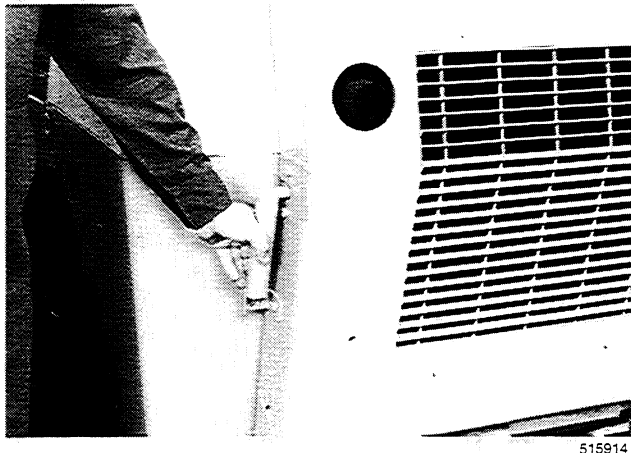
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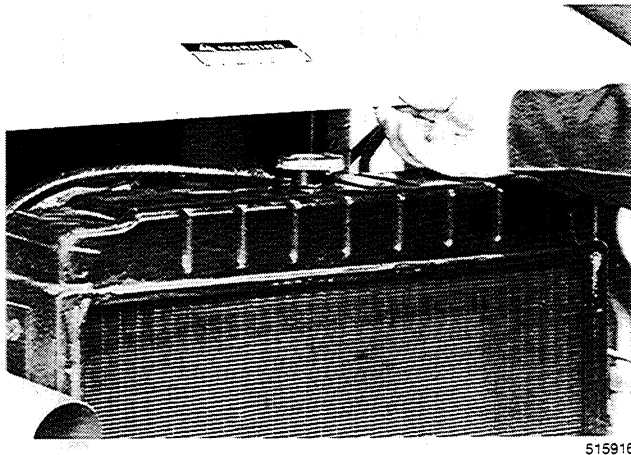
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ENGINE REMOVAL

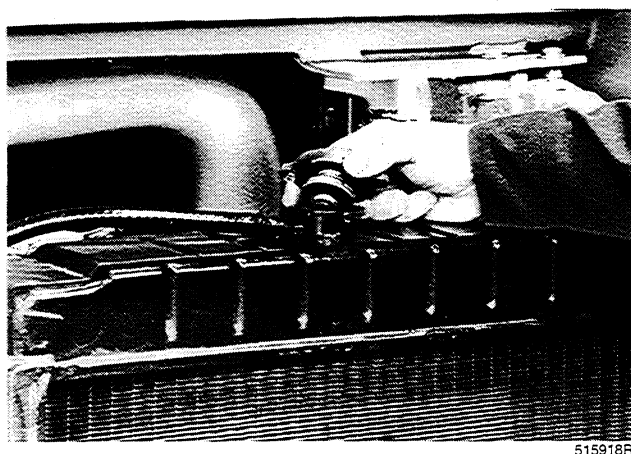
1. Open the rear door.



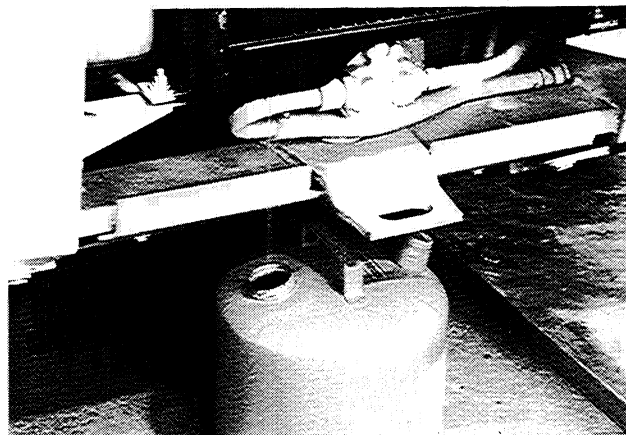
2. Raise the rear cover.



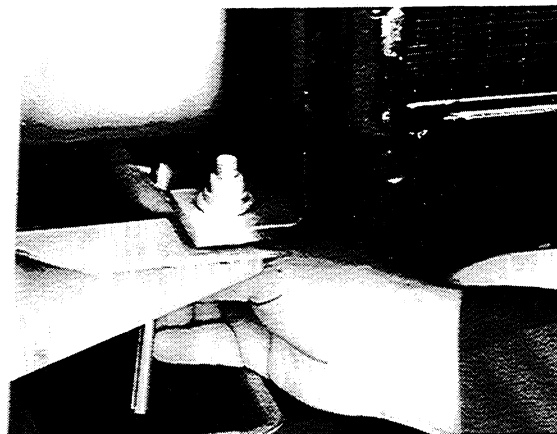
3. Loosen and remove the radiator cap.



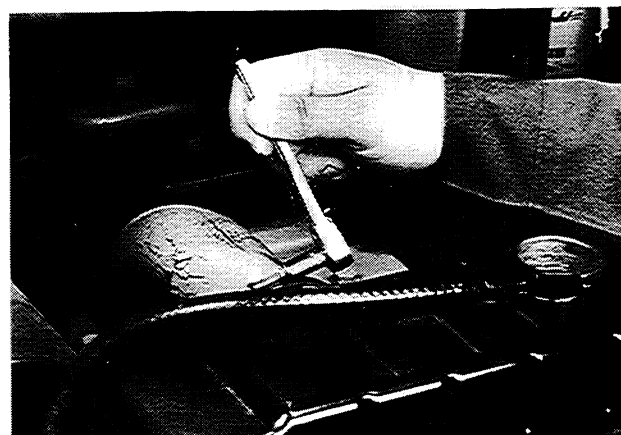
4. Open the drain valve at the LH bottom side of the radiator and drain the cooling system. The cooling system contains approximately 18.2 quarts (17.2 litres) of coolant.



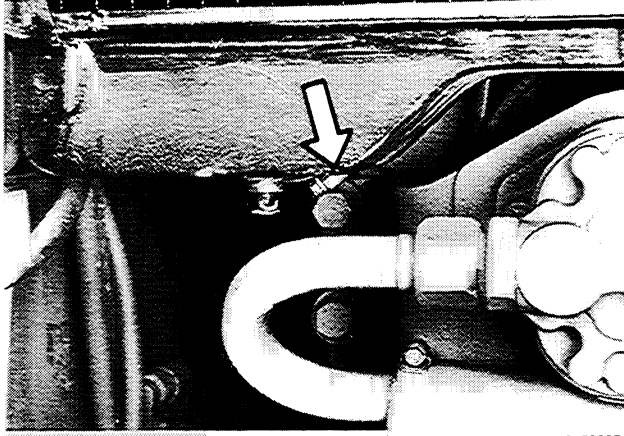
5. Drain the coolant reservoir. Loosen the clamp for the hose on the coolant reservoir and disconnect the hose to drain the coolant reservoir.



6. Loosen the clamp on the top radiator hose and disconnect the hose.

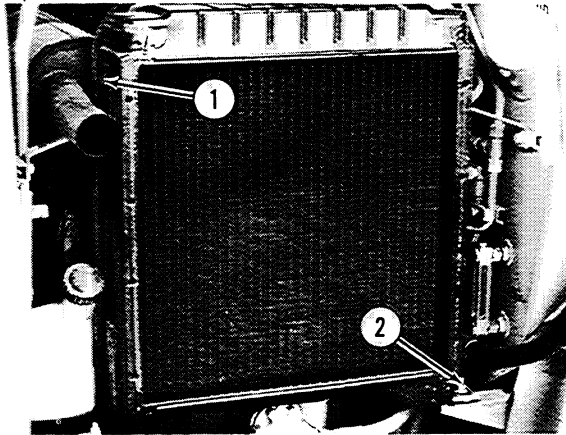


7. Loosen the clamp on the bottom radiator hose.



515926R

8. Loosen and remove the cap screws, bolts, lock washers, flat washers, and nuts that hold the radiator in place.



1. Cap Screws
2. Bolts

515928R

9. Pull the radiator to the rear to disconnect the bottom radiator hose, and remove the radiator from the machine.

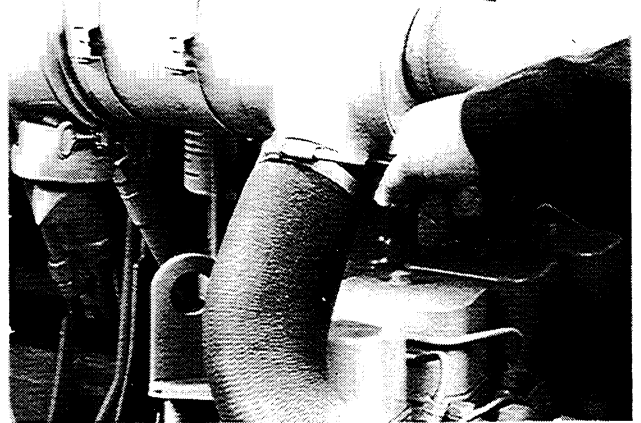


515930R

10. Move the operators compartment forward according to the instructions in Section 9003.

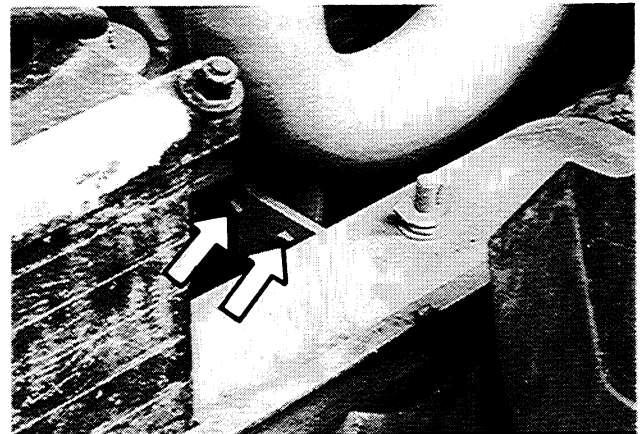
11. If equipped with a precleaner:

- a. Loosen the clamp and disconnect the hose for the precleaner.



515932

- b. Loosen and remove the nuts, lock washers, and bolts that hold the tube for the pre-cleaner to the frame. Remove the hose, tube, and pre-cleaner.



515934

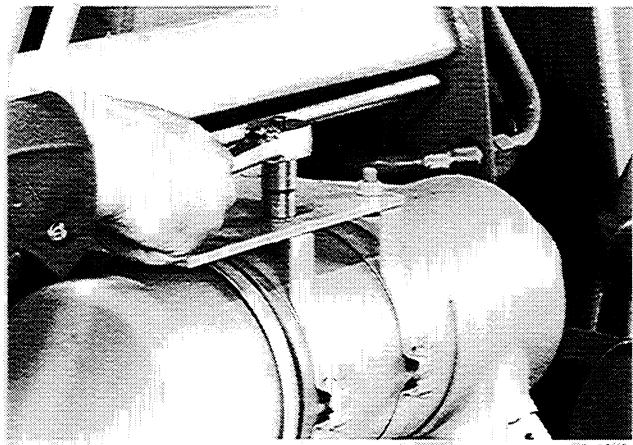
12. Loosen the clamp on the hose at the intake manifold. Remove the hose.



515938

13. Cover or close the opening in the intake manifold.

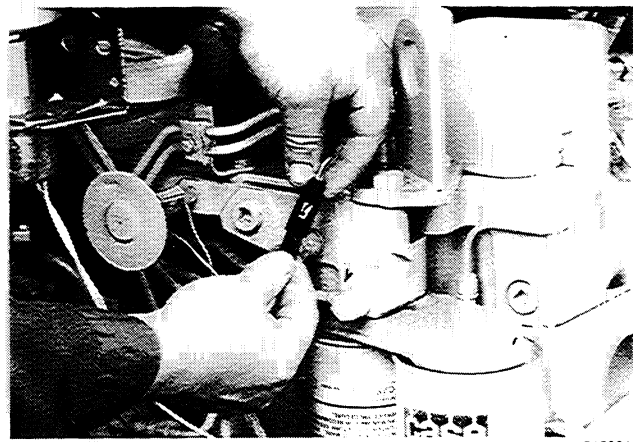
14. Loosen and remove the nuts and bolts that fasten the air cleaner to the bracket. Remove the air cleaner.



15. If equipped with ether injection:

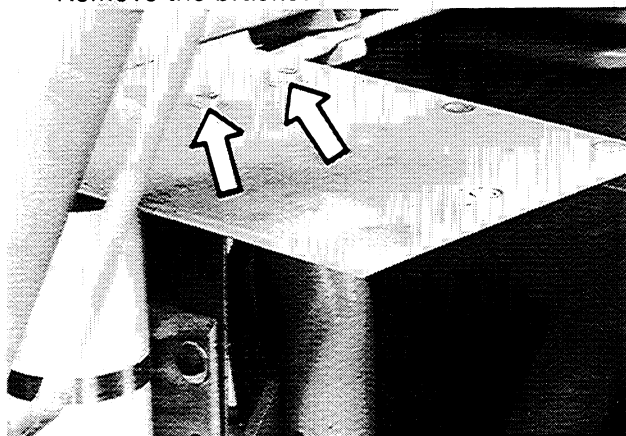
a. Disconnect the tube from the intake manifold.

b. Disconnect the wire for the thermostat.

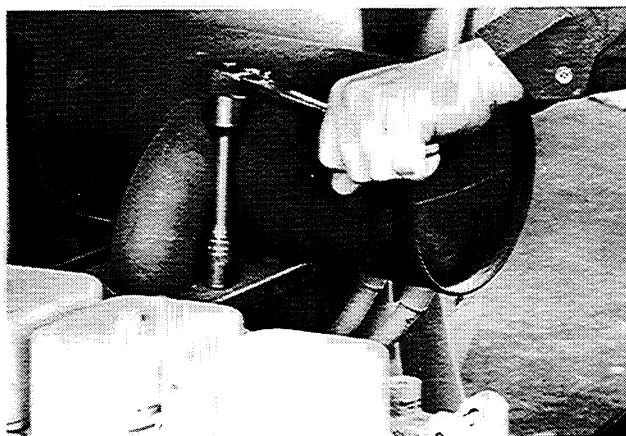


c. Disconnect the wire to the valve assembly.

d. Loosen and remove nuts, lock washers, bolts, and flat washers that fasten the bracket. Remove the bracket.



16. Loosen and remove the cap screws and lock washers that hold the muffler to the exhaust manifold. Remove the muffler.



17. Cover or close the opening in the exhaust manifold.

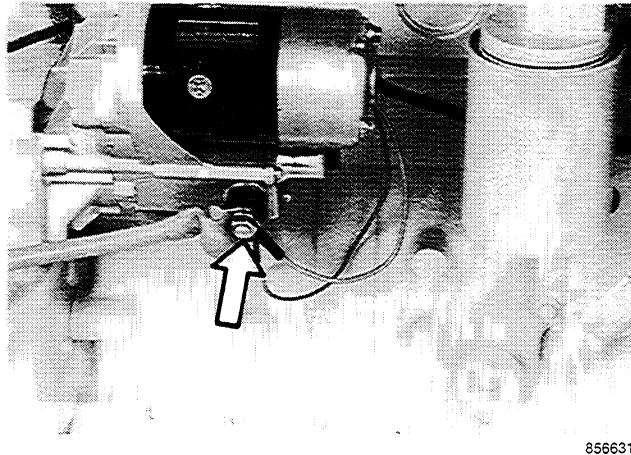
18. Disconnect the ground cable from the battery.



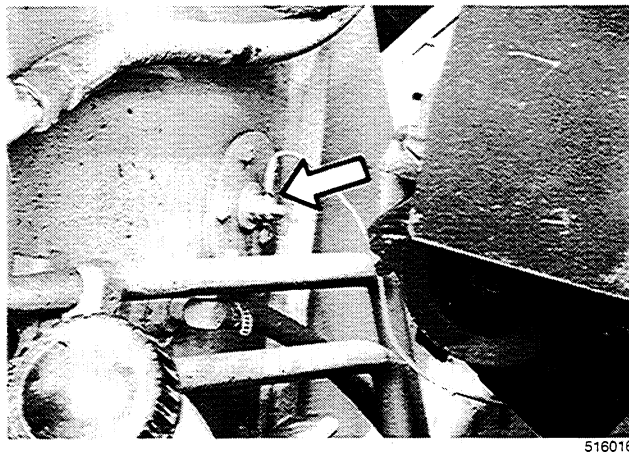
19. Loosen and remove the cap screw and lock washers that fasten the wiring harness, and ground cable to the cover on the flywheel housing. Remove the ground cable.



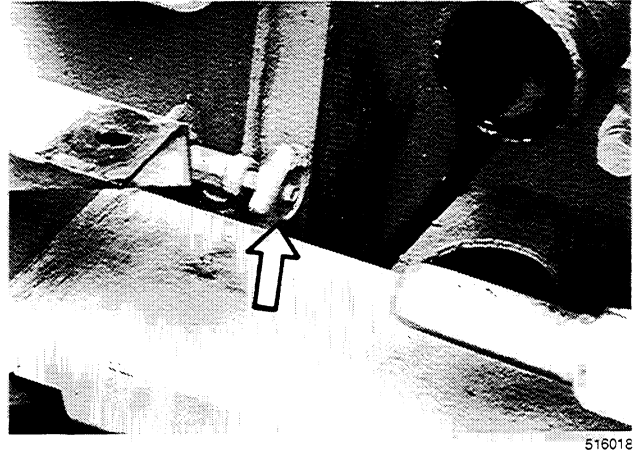
20. Disconnect the positive cable from the battery terminal on the starter solenoid.



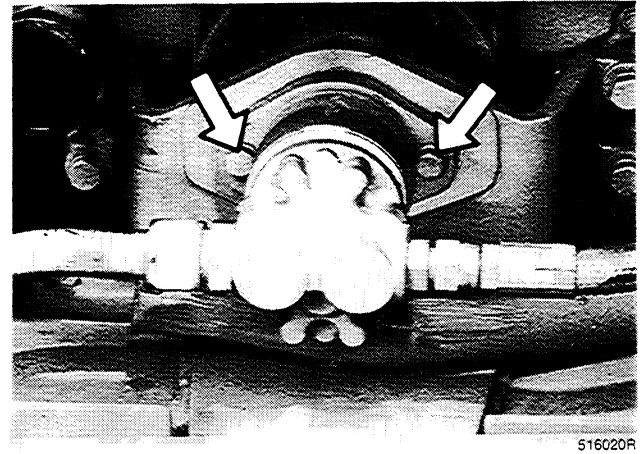
21. Disconnect the wire from the fuel level sender.



22. Close the shutoff valve for the fuel supply line.



23. Loosen and remove the cap screws and lock washers that hold the equipment pump to the rear engine mount.

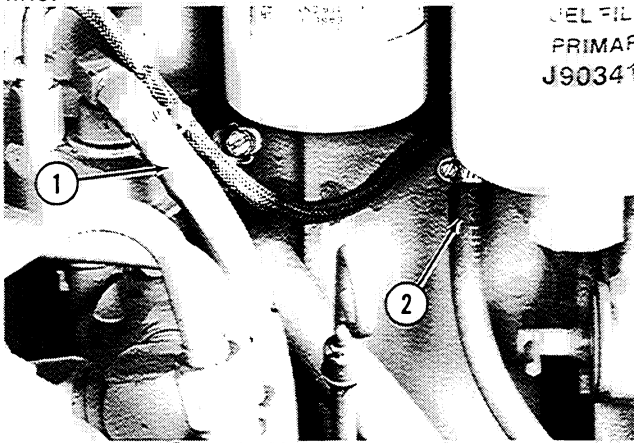


24. Pull the equipment pump away from the rear engine mount to disengage the drive shaft of the equipment pump from the coupling on the crankshaft pulley.

25. Disconnect the wire from the hydraulic oil filter.



26. Loosen the clamp and disconnect the fuel supply hose from the hand primer pump. Loosen the clamp and disconnect the hose from the fuel return line.

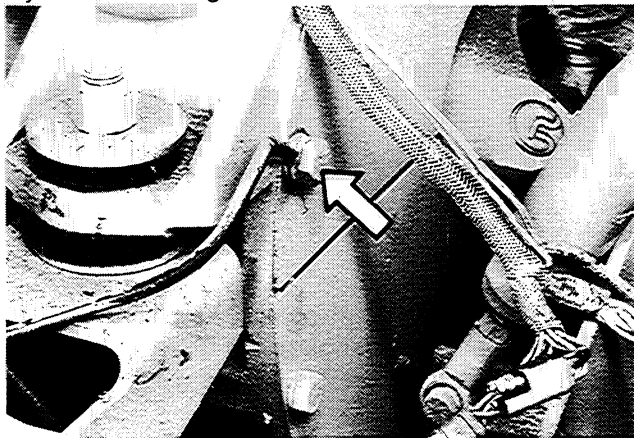


1. Fuel Supply Hose
2. Fuel Return Hose

516024

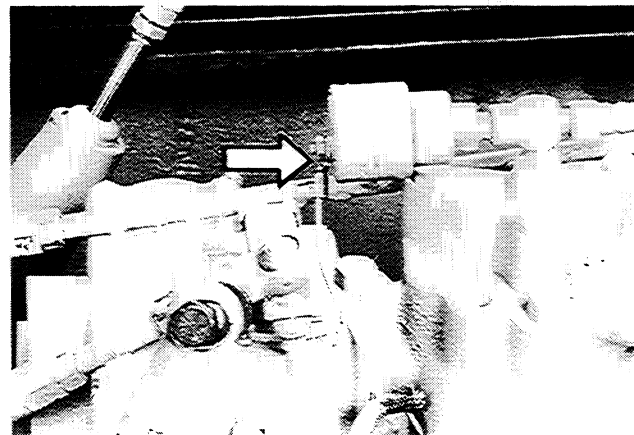
27. Install plugs in the hoses.

28. Loosen and remove the cap screw, lock washer, and flat washer that fasten the ground wire from the bracket for the loader valve to the cover on the flywheel housing.



516026

29. Disconnect the wire from the charge pressure switch.



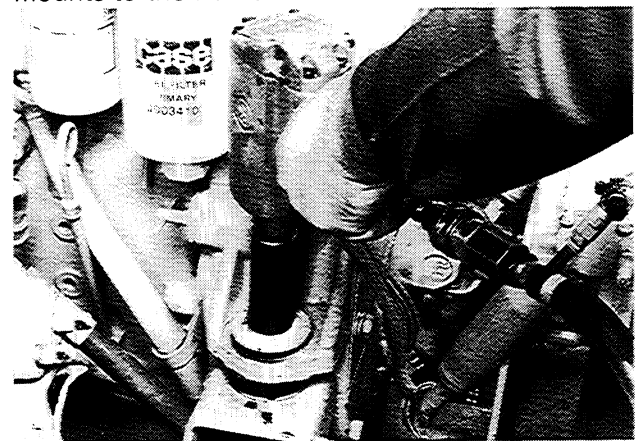
516028

30. Disconnect the wire from the oil temperature switch.



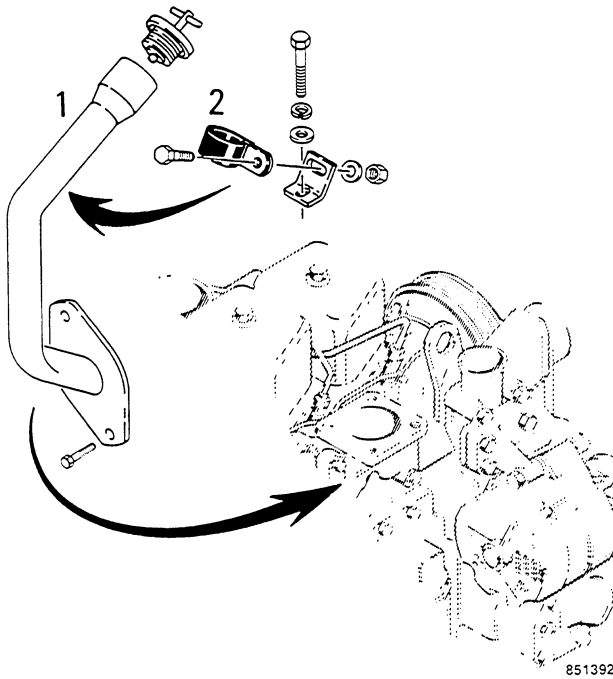
516030

31. Loosen and remove the self-locking nuts, flat washers, and bolts that hold the front engine mounts to the frame.



516223

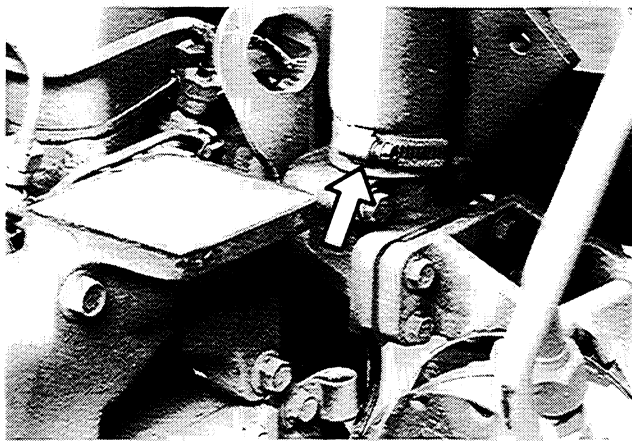
32. Loosen and remove the cap screws, self-locking nut, flat washer, and bolt that fasten the oil fill tube and the clamp for the oil fill tube to the engine. Remove the oil fill tube.



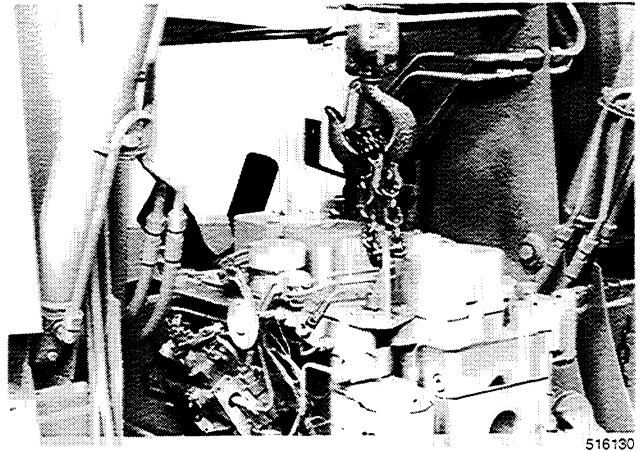
1. Oil Fill Tube

2. Clamp

33. Loosen the clamp for the top radiator hose. Remove the hose.

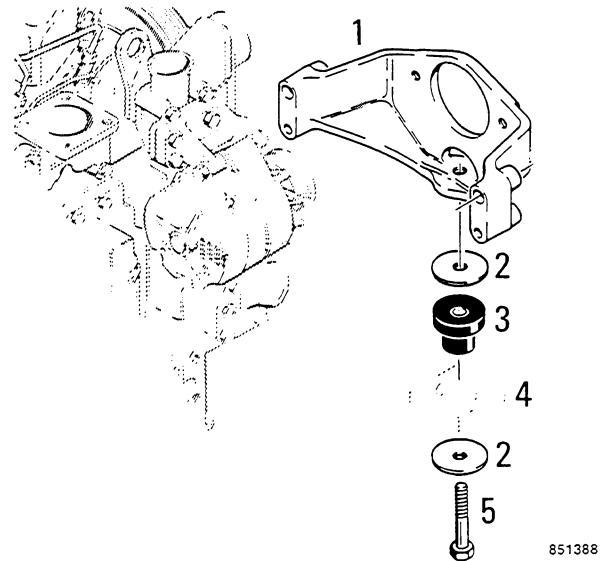


34. Connect acceptable lifting equipment to the lifting eyes on the engine.



35. Remove the access cover from the guard below the rear engine mount.

36. Loosen and remove the cap screw and flat washer that hold the rear engine mount to the frame.

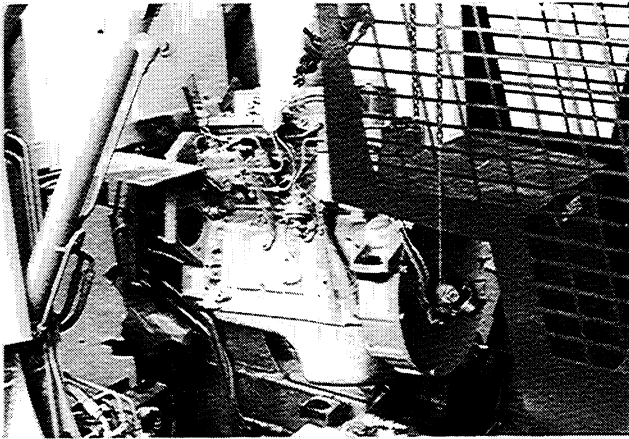


1. Rear Engine Mount
2. Flat Washer
3. Insulator

4. Frame
5. Cap Screw

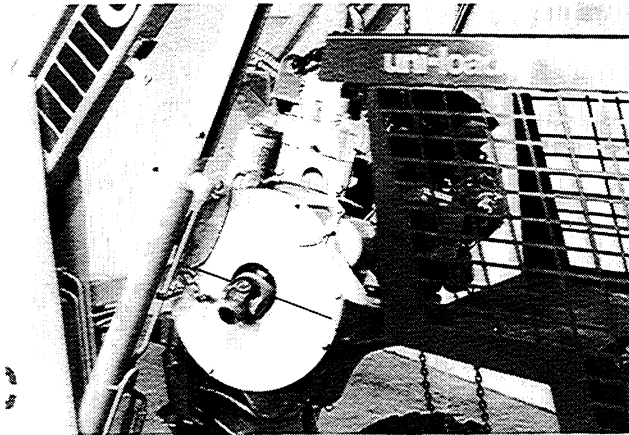
37. Move the engine toward the rear to disengage the drive coupling on the flywheel from the drive shaft on the tandem pump.

38. Raise the engine.



516215

39. Turn the engine in the direction shown and carefully raise the engine.



516213

40. Turn the engine toward the rear of the machine.



516106

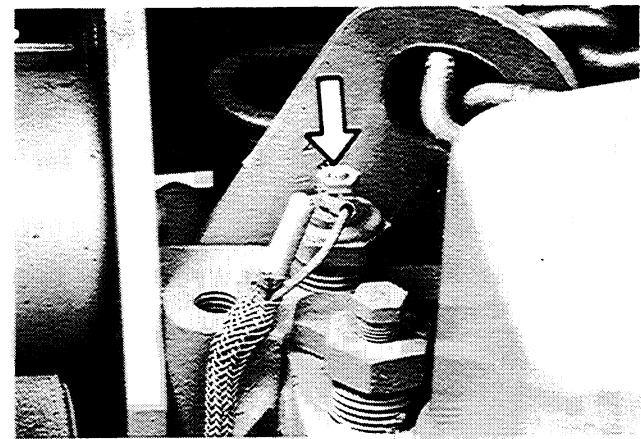
41. Remove the engine from the machine.



516104

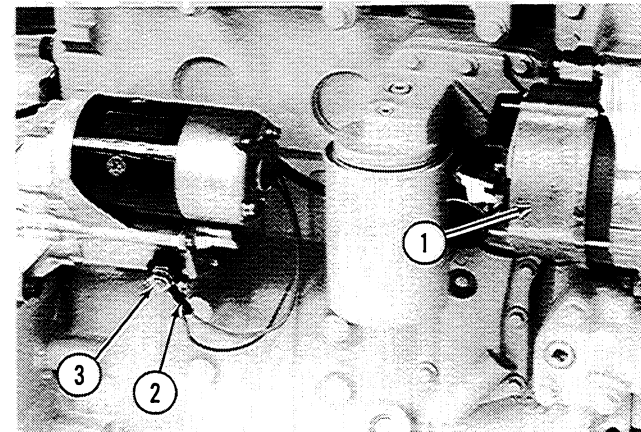
42. If necessary, remove the wiring harness from the engine.

a. Disconnect the wire from the water temperature switch at the top rear of the engine.



516137

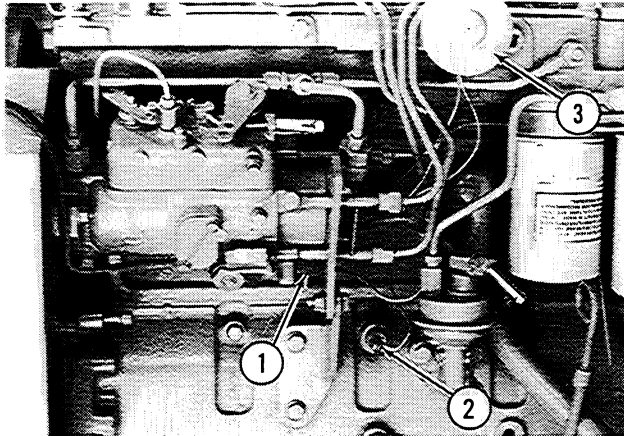
b. Disconnect the wires from the alternator. Disconnect the plug from the alternator. Disconnect the wire from the Switch terminal and disconnect the wire from the Battery terminal on the starter solenoid.



856630

1. Alternator
2. Switch Terminal
3. Battery Terminal

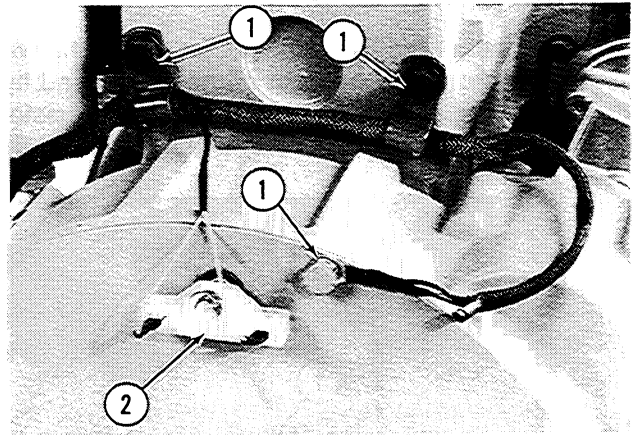
c. Disconnect the wire from the fuel injection solenoid on the fuel injection pump. Disconnect the wire from the engine oil pressure switch. Disconnect the wires from the restriction indicator switch.



1. Fuel Injection Solenoid
2. Engine Oil Pressure Switch
3. Restriction Indicator Switch

516134

d. Loosen and remove the cap screws that fasten the wiring harness to the rear of the engine and flywheel cover. Disconnect the wires from the resistor on the flywheel cover.



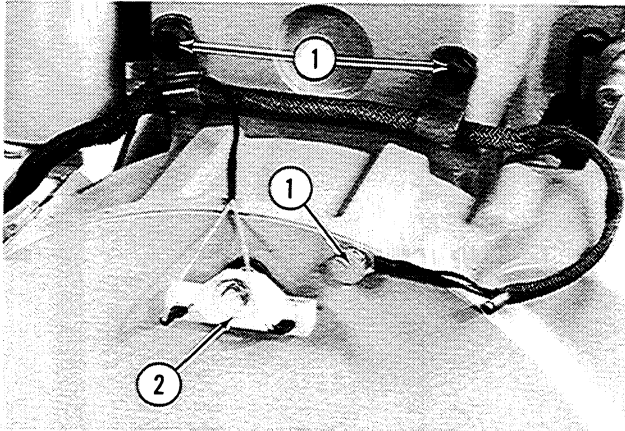
1. Cap Screw
2. Resistor

856632

ENGINE INSTALLATION

1. If the wiring harness was removed from the engine, install the wiring harness.

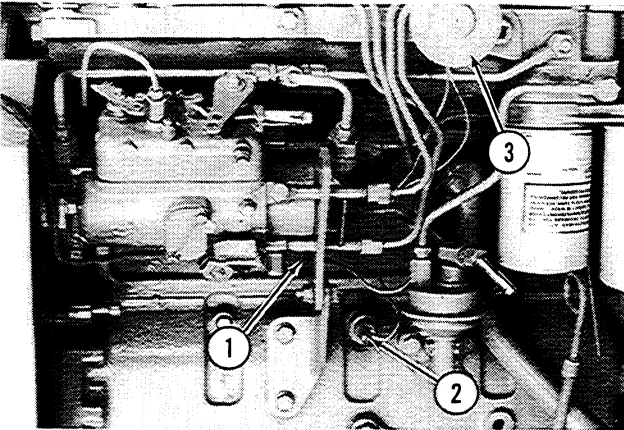
a. Install the cap screws that fasten the wiring harness to the front of the engine and fly-wheel cover. Connect the wires to the resistor. Tighten the two cap screws at the front of the engine.



1. Cap Screw
2. Resistor

856632

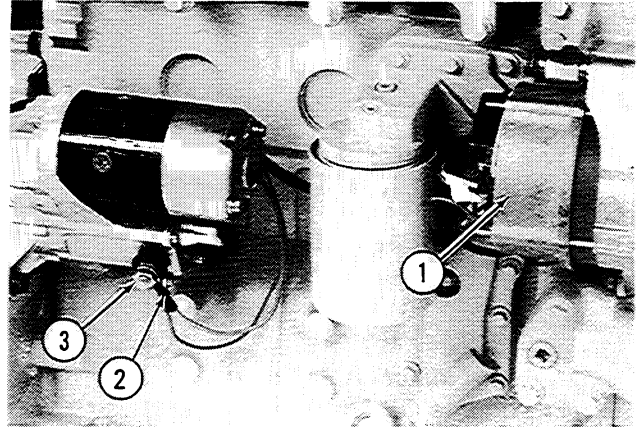
b. Connect the wire to the fuel injection solenoid on the fuel injection pump. Connect the wire to the engine oil pressure switch. Connect the wires to the restriction indicator switch.



1. Fuel Injection Solenoid
2. Engine Oil Pressure Switch
3. Restriction Indicator Switch

516134

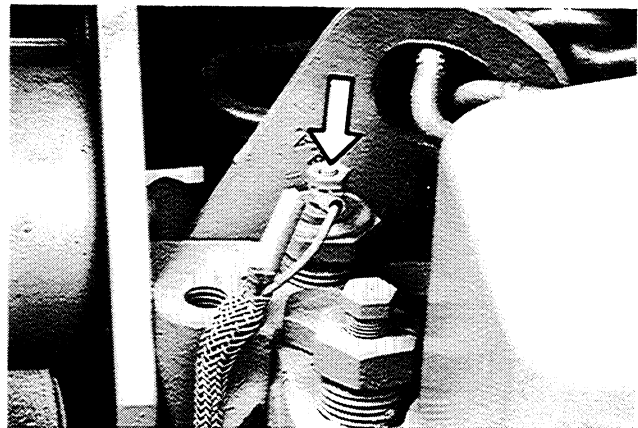
c. Connect the wires to the alternator. Connect the plug to the alternator. Connect the wire to the Switch terminal and connect the wire to the Battery terminal on the starter solenoid.



1. Alternator
2. Switch Terminal
3. Battery Terminal

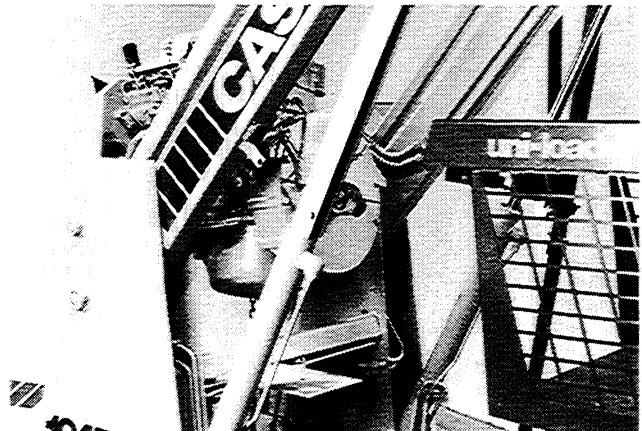
856630

d. Connect the wire to the water temperature switch at the top rear of the engine.



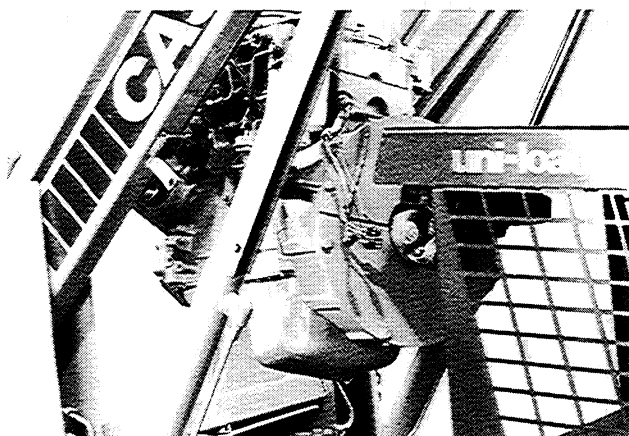
516137

2. Lift the engine over the machine.



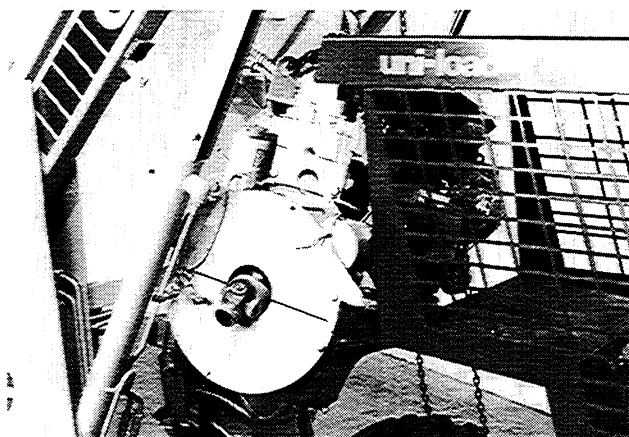
516104

3. Push the engine toward the front of the machine.



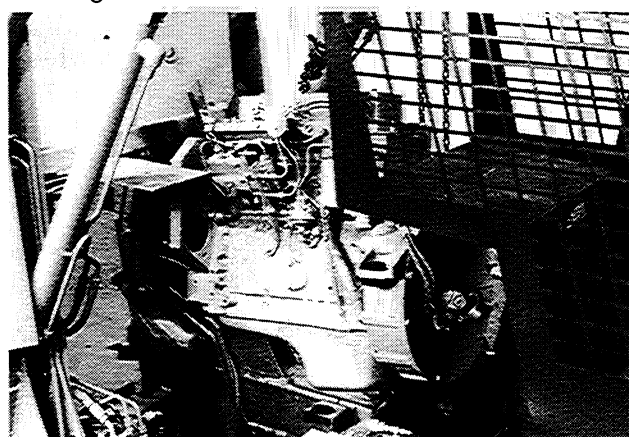
516106

4. Lower the engine and turn the engine in the direction shown.



516213

5. Lower the engine into the machine, and move the engine toward the rear.

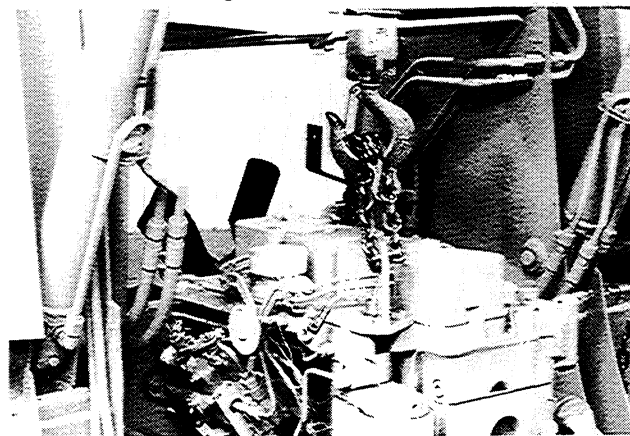


516215

6. Engage the drive coupling on the flywheel with the drive shaft on the tandem pump and push the engine forward.

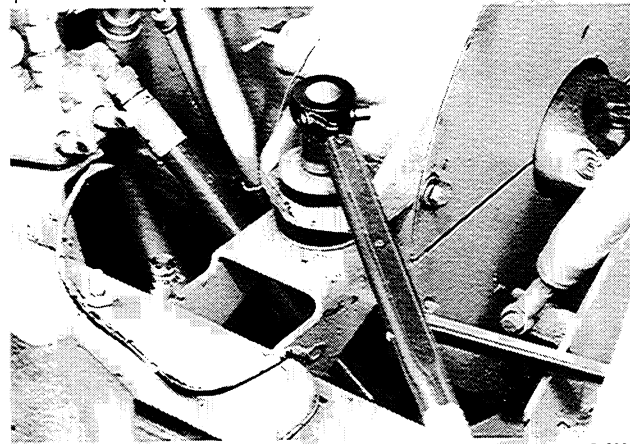
7. Make sure the flat washers are installed between the frame and the front and rear engine mounts.

8. Lower the engine into place.



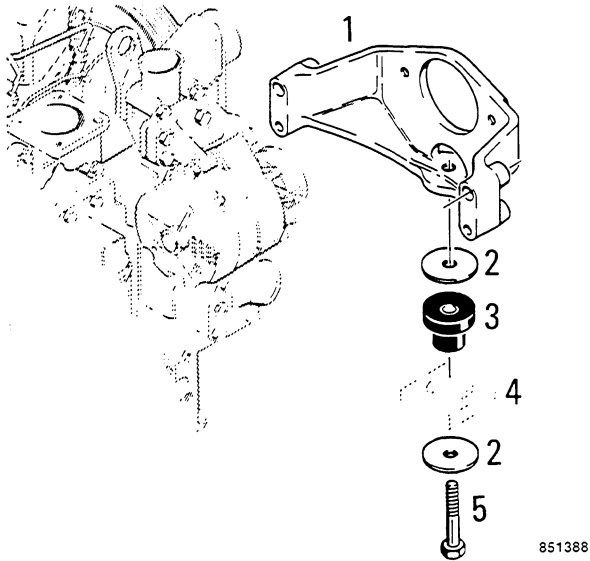
516130

9. Install the bolts, flat washers, and self-locking nuts that hold the front engine mounts to the frame. Tighten the self-locking nuts to 150 to 180 pound-feet (203 to 244 N m, 20.8 to 24.9 kg/m).



516032

10. Install the cap screw and flat washer that holds the rear engine mount to the frame. Tighten the cap screw to 200 to 240 pound-feet (270 to 325 N m, 27.6 to 33.2 kg/m).



- | | |
|----------------------|--------------|
| 1. Rear Engine Mount | 4. Frame |
| 2. Flat Washer | 5. Cap Screw |
| 3. Insulator | |

11. Install the access cover in the guard below the rear engine mount.

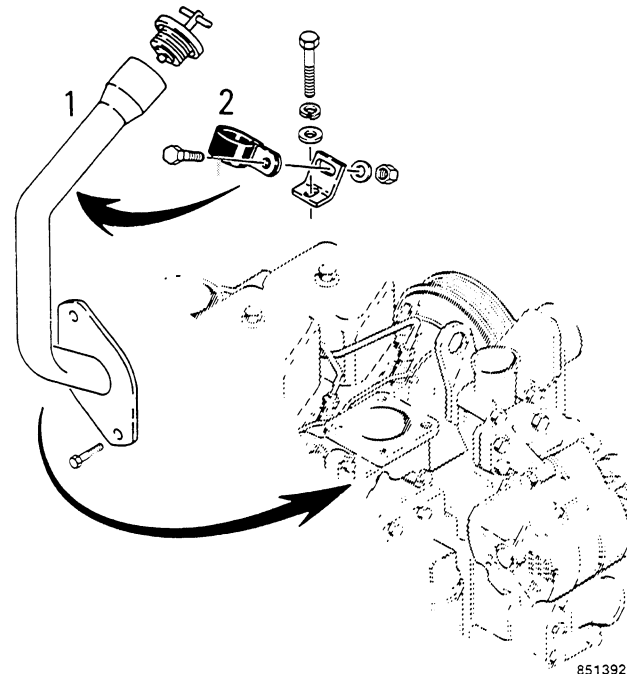
12. Disconnect the lifting equipment from the engine.

13. Install the top radiator hose and tighten the clamp.



516039

14. Install the oil fill tube. Install the cap screws, bolt, flat washer, and self-locking nut that fasten the oil fill tube and the clamp for the oil fill tube to the engine. Tighten the cap screws and self-locking nut.



- | | |
|------------------|----------|
| 1. Oil Fill Tube | 2. Clamp |
|------------------|----------|

15. Connect the wire to the oil temperature switch.



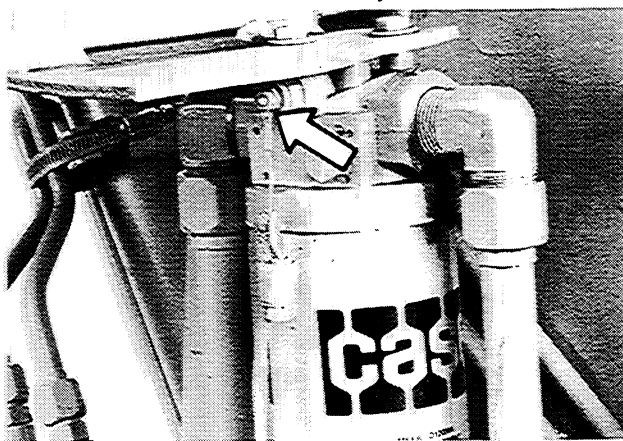
516030

16. Connect the wire to the charge pressure switch.



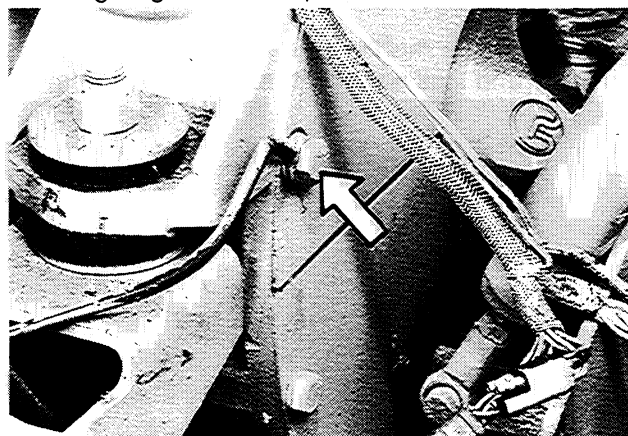
516028

19. Connect the wire to the hydraulic oil filter.



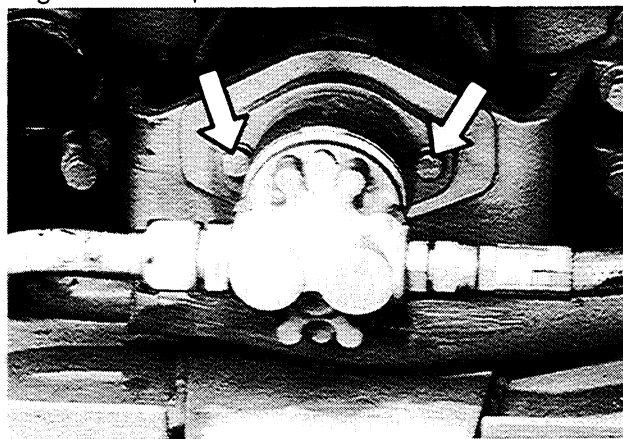
516022R

17. Install the cap screw, lock washer, and flat washer that fasten the ground wire from the bracket for the loader valve to the cover on the flywheel housing. Tighten the cap screw.



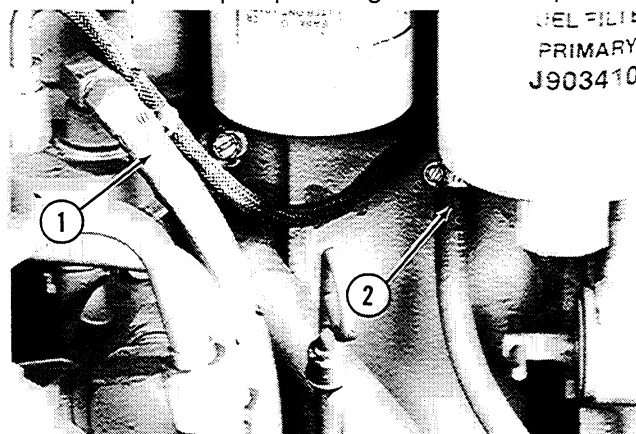
516026

20. Engage the drive shaft of the equipment pump with the coupling on the crankshaft pulley. Push the equipment pump against the rear engine mount and install the cap screws and lock washers. Tighten the cap screws.



516020R

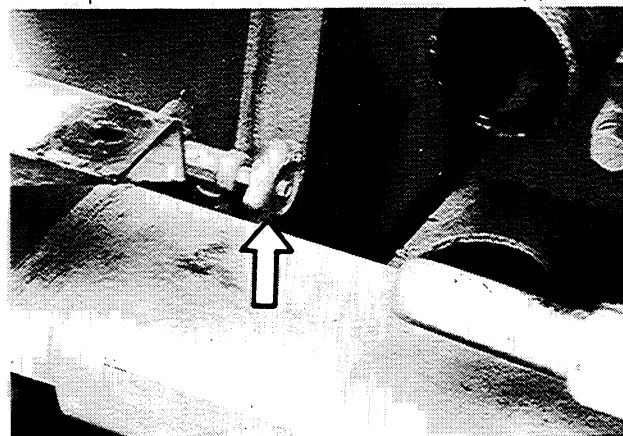
18. Connect the hose to the fuel return line and tighten the clamp. Connect the fuel supply hose to the hand primer pump and tighten the clamp.



516024

1. Fuel Supply Hose
2. Fuel Return Hose

21. Open the shutoff valve for the fuel supply line.



516018



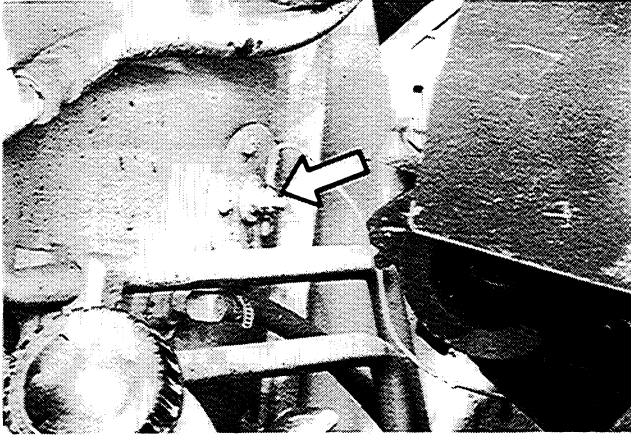
Suggest:

If the above button click is invalid.

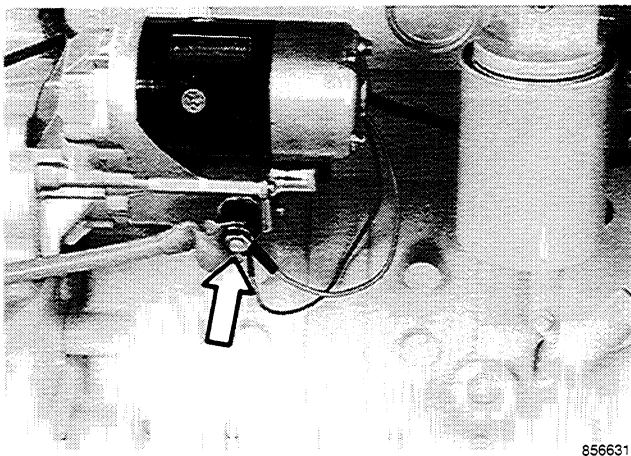
Please download this document first, and then click the above link to download the complete manual.

Thank you so much for reading

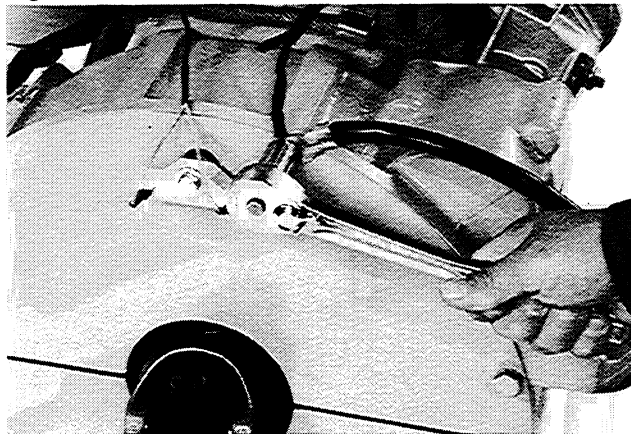
22. Connect the wire to the fuel level sender.



23. Connect the positive cable to the Battery terminal on the starter solenoid.



24. Remove the cap screw from the flywheel cover and install the ground cable and wiring harness in place. Install the cap screw and lock washer and tighten the cap screw.



25. Connect the ground cable to the battery.



26. Remove the tape or cover from the opening for the exhaust manifold.

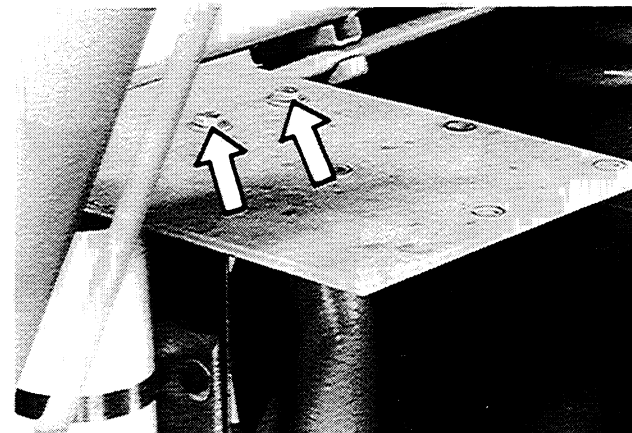
27. Check the condition of the gasket for the muffler and install a new gasket as required.

28. Install the muffler. Install and tighten the cap screws and lock washers that hold the muffler.



29. If equipped with ether injection:

- a. Install the bracket. Install the bolts, flat washers, lock washers, and nuts. Tighten the nuts.



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