

**Service
Manual
888
Excavator**

8-66552

**Service
Manual
888
Excavator**

8-66552

All Binders
4.75 in



Large Binder
2.85 in

Small Binder
1.63 in

888 EXCAVATOR

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The full manual is available for immediate download.

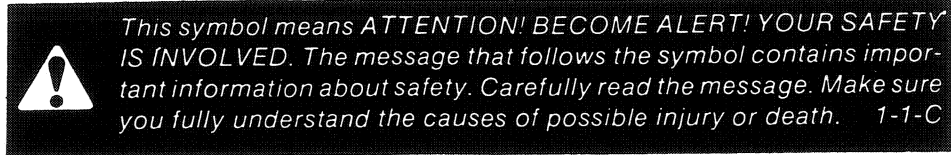
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Section

1001

**SAFETY RULES,
SERVICE MANUAL INTRODUCTION,
AND TORQUE SPECIFICATIONS**

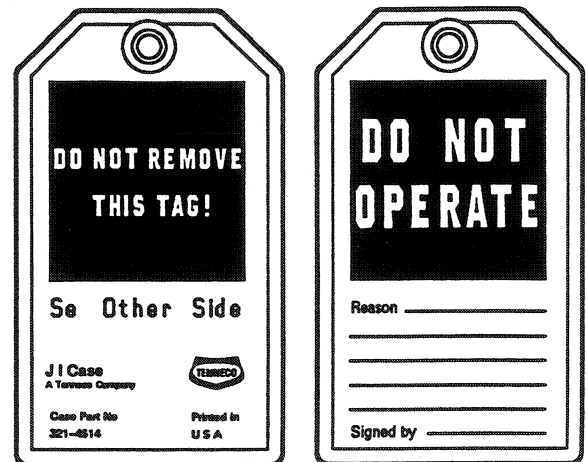
SAFETY RULES



NOTE: To prevent injury on 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 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.



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

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

This is one man machine, no riders allowed.

Before starting engine, study operator's manual safety messages. Read all safety signs on machine. Clear the area of other persons. Learn and practice safe use of controls before operating.

It is your responsibility to understand and follow manufacturer's instructions on machine operation, service, and to observe pertinent laws and regulations. Operator's and service manuals may be obtained from your J I Case dealer.

If you Wear clothing that is too loose or do not use the correct safety equipment for your job,

Lep 8-67631

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.

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

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

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

Use insulated gloves or mittens when working with hot parts.

SAFETY RULES



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

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.

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.

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).

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.

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.

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



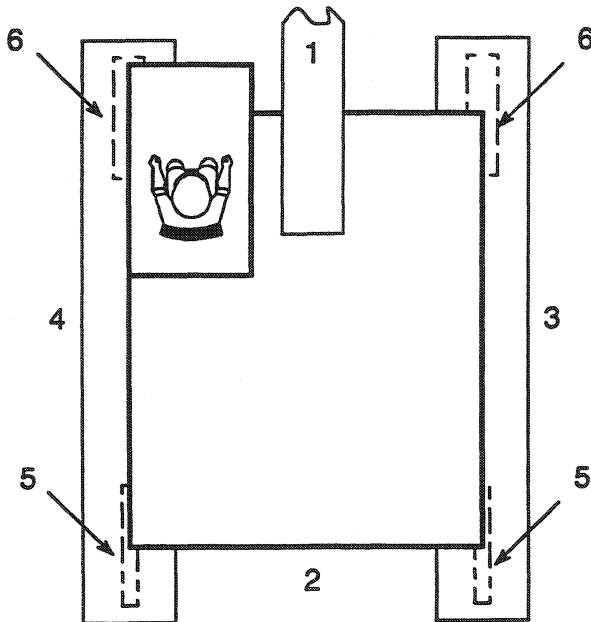
Engine exhaust fumes can cause death. If it is necessary to start the engine in a closed place, remove the exhaust fumes from the area with an exhaust pipe extension. If you do not have exhaust pipe extension, open the doors and get outside air into the area.

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 with the cab over the idler wheels.



- | | |
|---------------|-------------------|
| 1. Front | 4. Left Side |
| 2. Rear | 5. Drive Sprocket |
| 3. Right Side | 6. Idler Wheel |

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 also have a Table of Contents.

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

Illustrations are put as near as possible to the text and are to be used as part of the text.

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 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 tools 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
Owatanna, Minnesota 55060

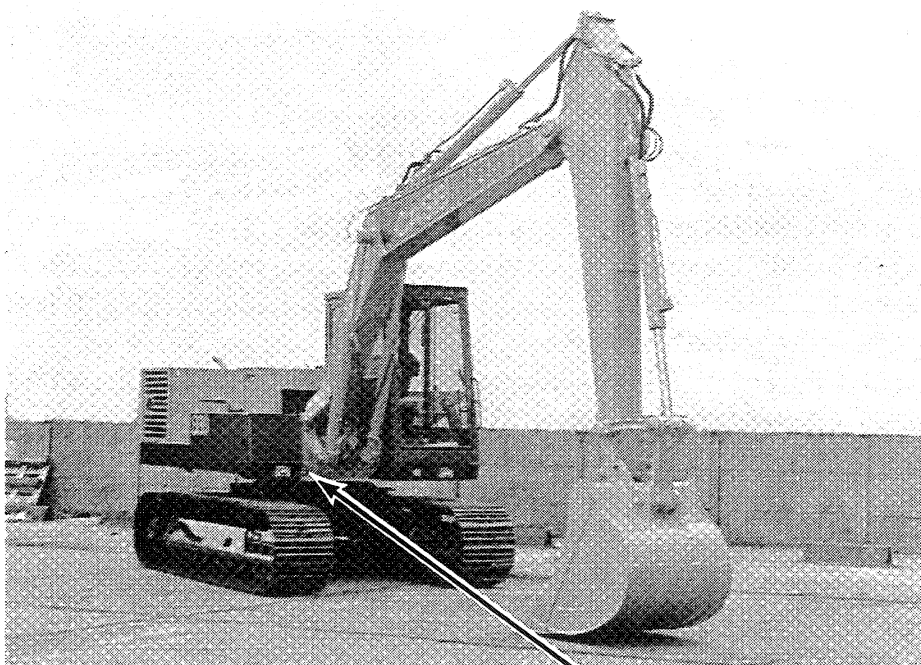
Jobborn Manufacturing Co.
97 Frid Street
Hamilton, Ontario L8P 4M3
Canada

PRODUCT IDENTIFICATION AND SERIAL NUMBER

Write your machine Model number, Product Identification Number (P.I.N), and serial number on the lines provided. If needed, give these numbers to your Case dealer when you need parts or information for your machine.

Make a record of the numbers. Keep the record and your Manufacturer's Statement of Origin in a safe place. If the machine is stolen, report the numbers to your local law enforcement agency.

Machine



880149

Model Number _____

Product Identification Number _____

Case	J I Case A Tenneco Company	
Made in France by: Case Poulain S.A. La Flesche-Bellefleur 60330 France Distributed by: J I Case Company, Racine Wisconsin 53404 U. S. A.		
Model Number	lg	
Product Identification Number		

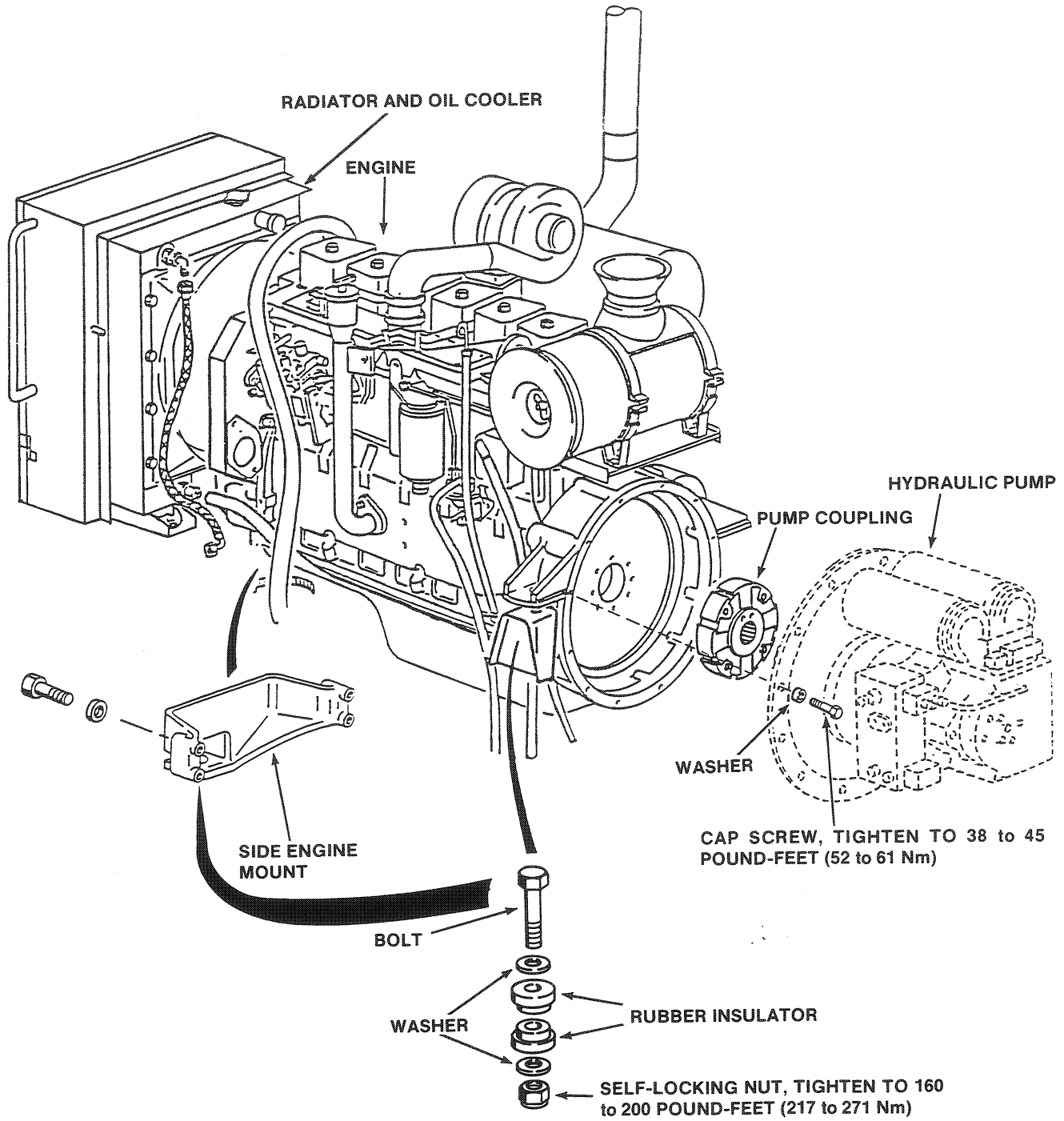
2000

ENGINE REMOVAL AND INSTALLATION AND RADIATOR REMOVAL AND INSTALLATION

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Illustration of Engine Installation	2000-2	Illustration of Radiator Installation	2000-18
Removal	2000-3	Removal	2000-19
Installation	2000-10	Installation	2000-22

ENGINE



B871303

Removal

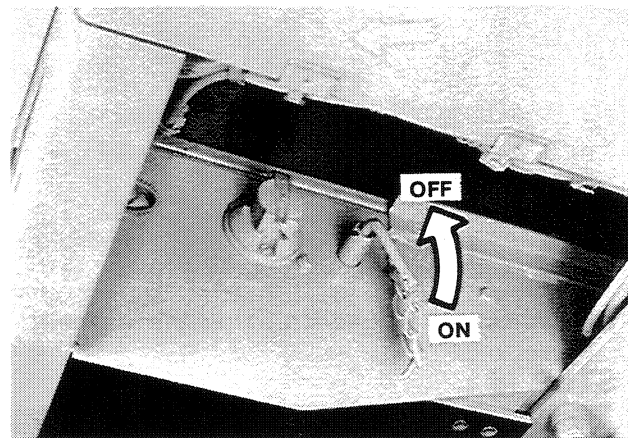
STEP 1

Park the machine on a level surface.

STEP 2

Lower the attachment to the floor and stop the engine.

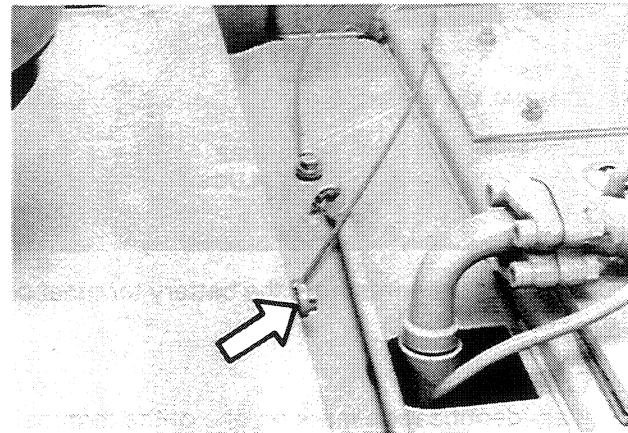
STEP 3



867040

Move the master disconnect switch to the OFF position.

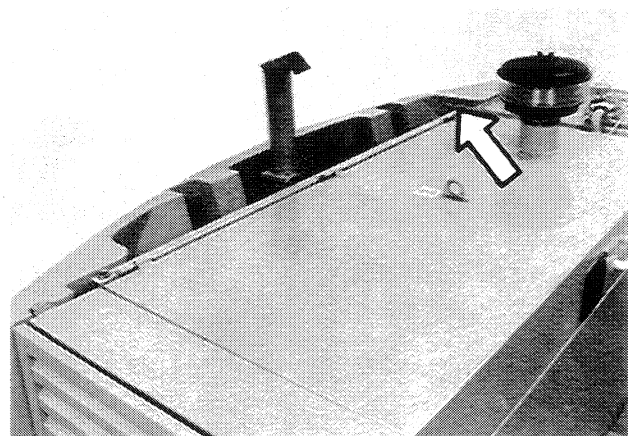
STEP 4



877279

Loosen and remove the cap screw and washer that fastens the support cable to the engine cover.

STEP 5



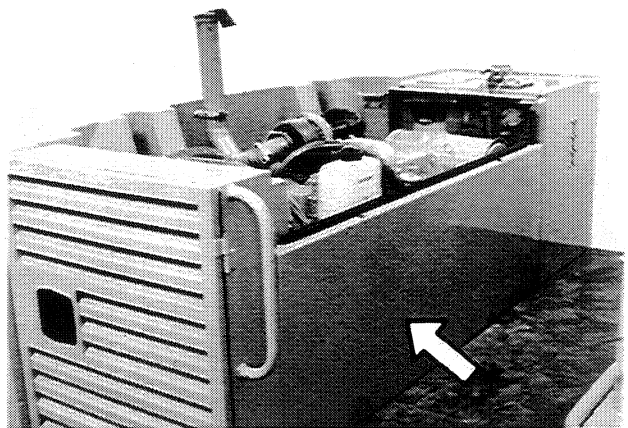
877280

Loosen and remove the bolts, washers, and self-locking nuts that fasten the engine cover to the frame.

STEP 6

Remove the engine cover from the machine.

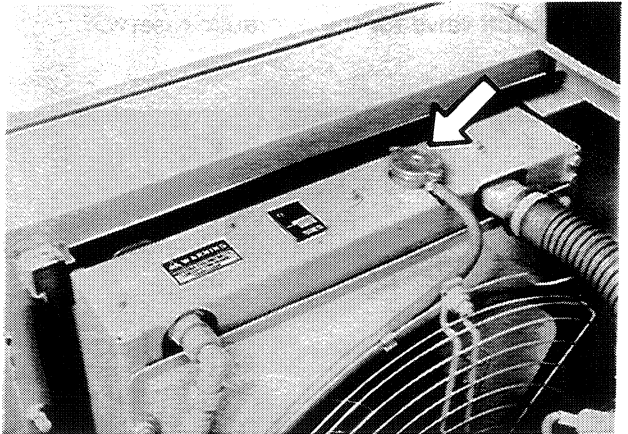
STEP 7



877281

Remove the front panel from the machine.

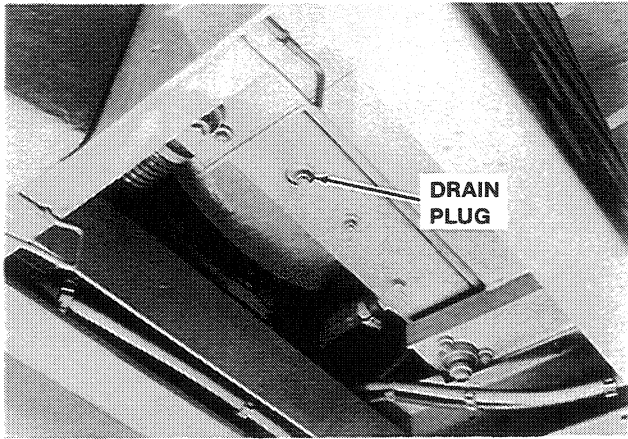
STEP 8



877035

Remove the radiator cap from the radiator.

STEP 9



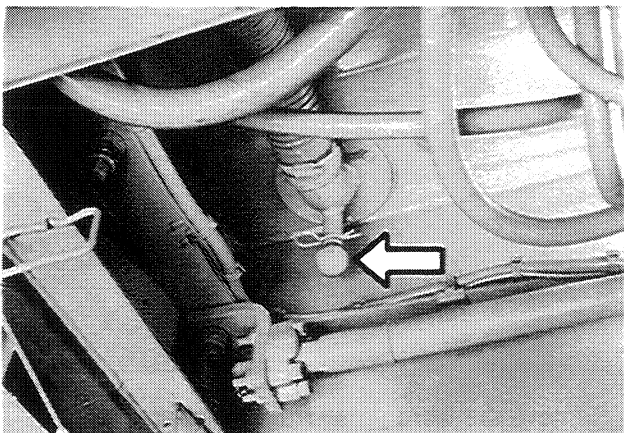
877027

Remove the drain plug and drain the coolant from the radiator. The radiator capacity is approximately 36 quarts (34 litres).

STEP 10

Remove the access doors for the engine, the hydraulic reservoir, and the radiator from under the upper structure.

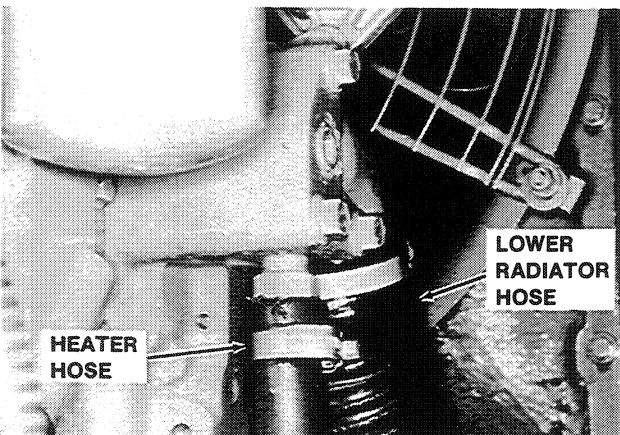
STEP 11



866962

Remove the clip and pull the knob down to close the shutoff valve for the hydraulic reservoir.

STEP 12



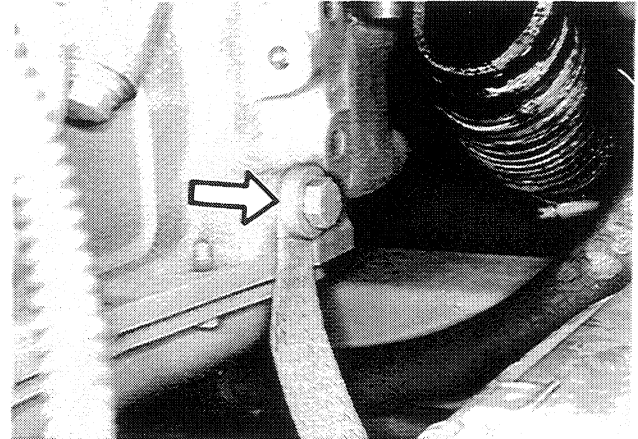
877317

Disconnect the heater hose from the engine.

STEP 13

Disconnect the lower radiator hose from the engine.

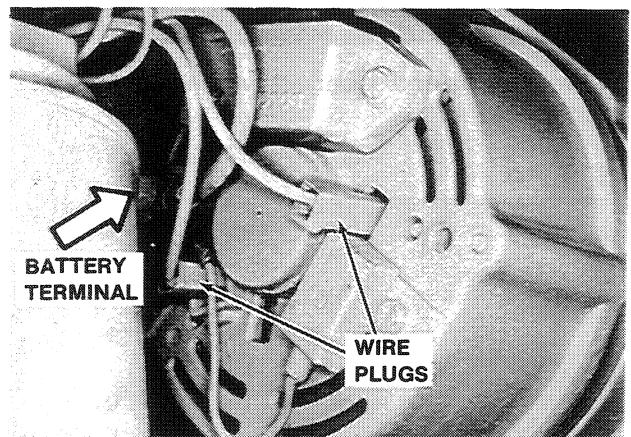
STEP 14



877316

Disconnect the ground strap from the engine.

STEP 15



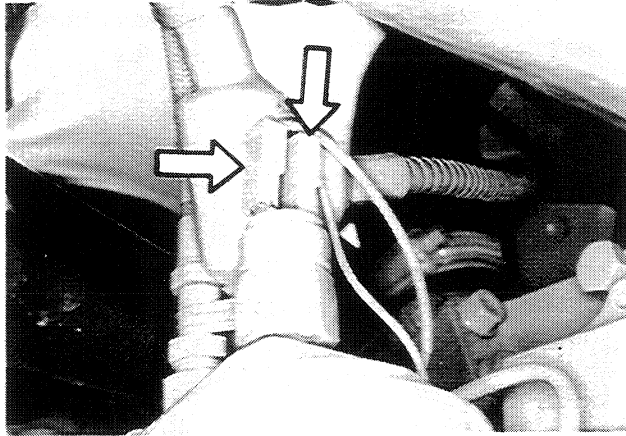
877315

Disconnect the wires from the battery terminal on the alternator.

STEP 16

Put an identification mark on one of the terminals and on the alternator for use during installation. Disconnect the wire plugs from the terminals on the alternator.

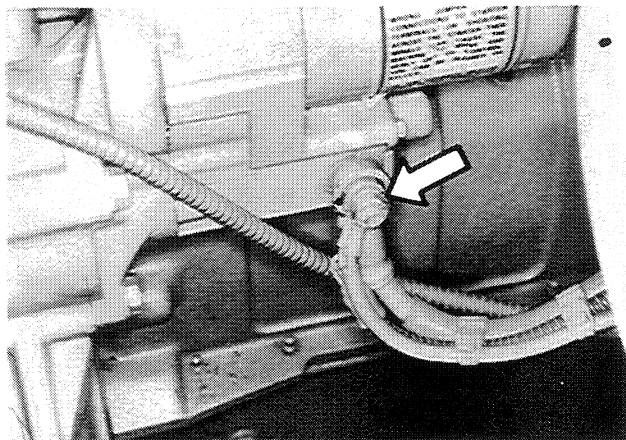
STEP 17



877314

Disconnect the wires from the engine oil pressure switch.

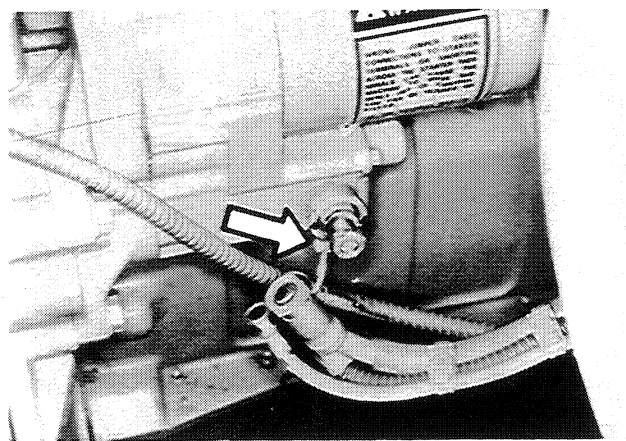
STEP 18



877313

Disconnect the wires and cable from the battery terminal on the starter.

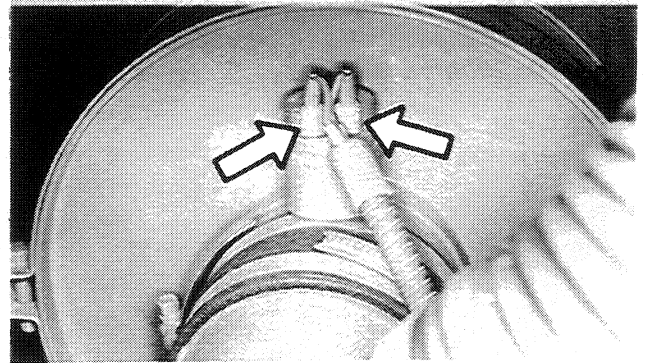
STEP 19



877312

Disconnect the wire from the starter solenoid.

STEP 20



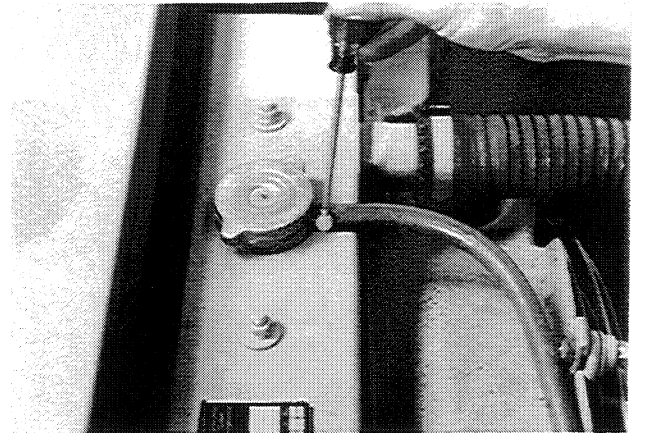
877311

Disconnect the wires from the terminals on the air cleaner.

STEP 21

Remove the tie straps that fasten the engine wiring harness to the rear of the engine.

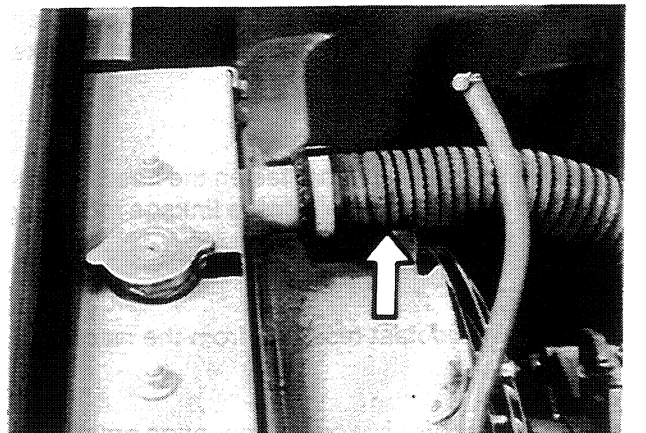
STEP 22



877286

Disconnect the hose for the coolant reservoir from the radiator. Remove the coolant reservoir.

STEP 23

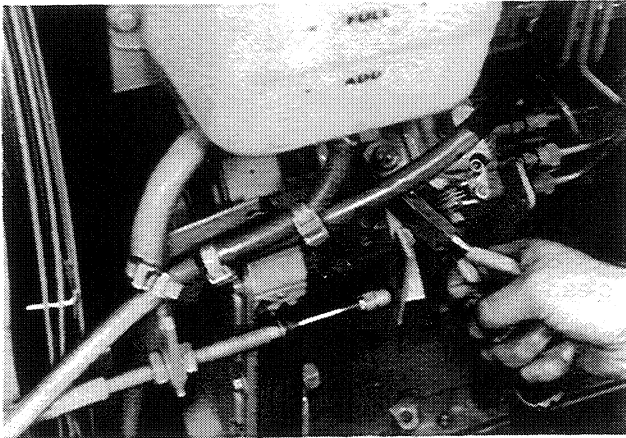


877287

Disconnect the top radiator hose from the radiator.

NOTE: If the coolant recovery bottle is located on the front of the engine, the machine is an early production machine, do steps 24 through 28. If the coolant recovery bottle is located on the hydraulic reservoir, the machine is a late production machine, do steps 29 through 32.

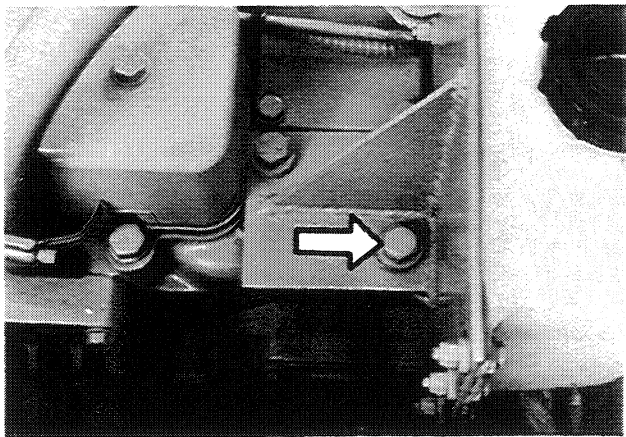
STEP 24



877288

Disconnect the spring from the lever on the fuel injection pump.

STEP 25



877295

Loosen and remove the cap screws and washers that fasten the mounting bracket for the coolant reservoir and the throttle linkage mounting bracket to the engine.

STEP 26

Remove the tie straps that fasten the hoses for the coolant reservoir to the throttle linkage mounting bracket and the oil cooler hose.

STEP 27

Remove the coolant reservoir from the machine.

STEP 28

Move the throttle linkage and mounting bracket out of the way.

STEP 29

Move the hose for the coolant reservoir out of the way.

STEP 30

Disconnect the spring from the arm on the throttle cable mounting bracket.

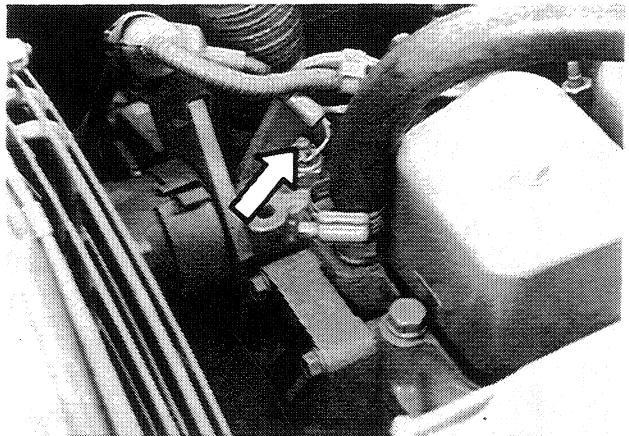
STEP 31

Loosen and remove the cap screws and washers that fasten the throttle cable mounting bracket to the engine.

STEP 32

Move the throttle cable mounting bracket and throttle cable out of the way.

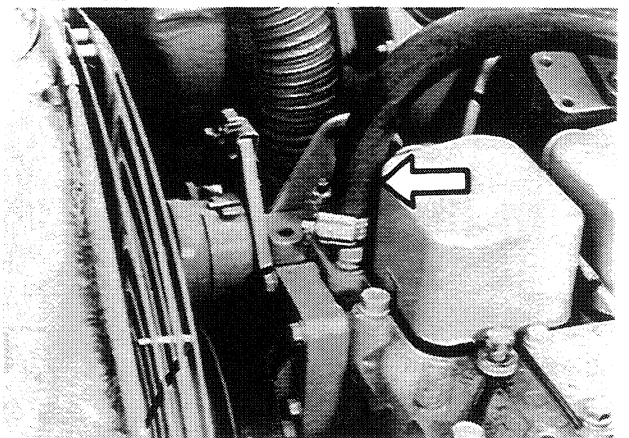
STEP 33



877284

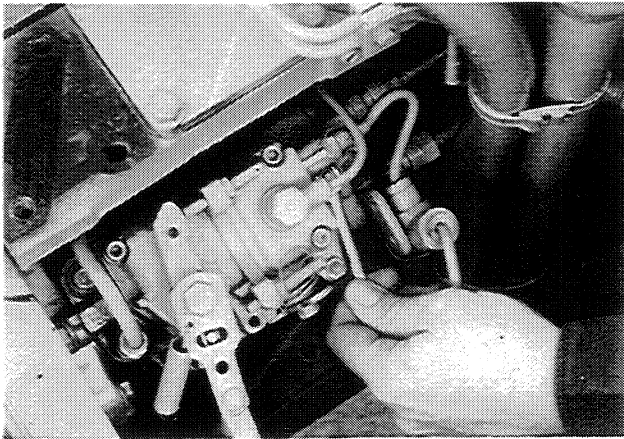
Disconnect the wire for the engine temperature switch.

STEP 34



877289

Disconnect the heater hose from the engine.

STEP 35

875072

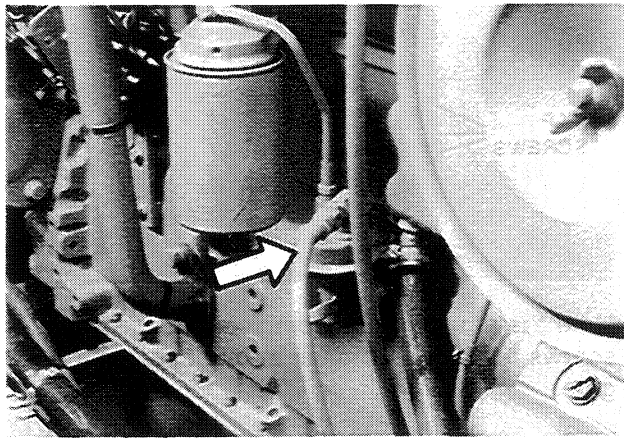
Disconnect the wire for the fuel shutoff solenoid from the fuel injection pump.

STEP 36

Remove the tie straps that fasten the wiring harness to the top and front of the engine. Move the engine wiring harness out of the way.

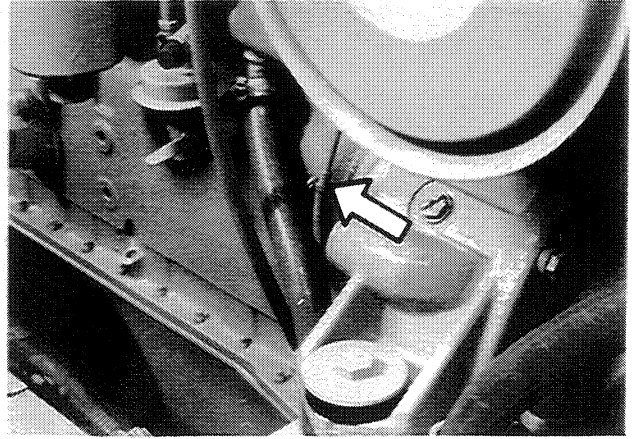
STEP 37

Remove the tie straps that fasten the heater hose to the oil fill tube on the engine. Move the heater hose out of the way.

STEP 38

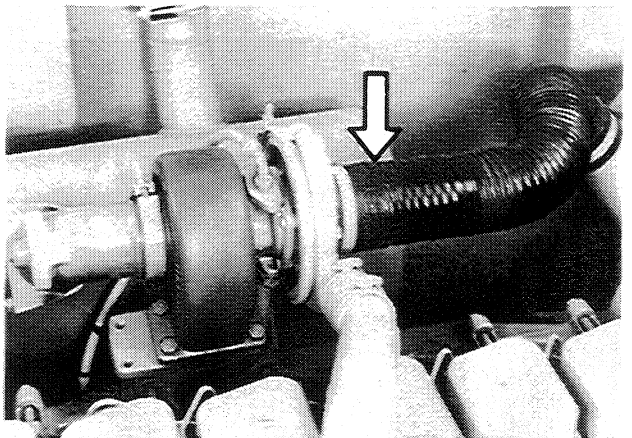
877276

Disconnect the hose from the fitting on the hand primer pump. Install a plug in the hose.

STEP 39

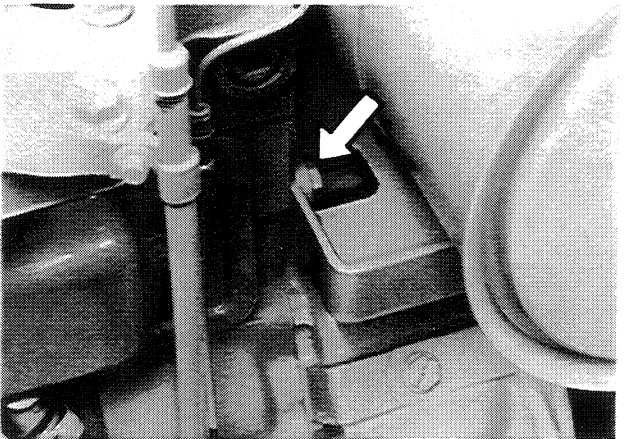
877278

Disconnect the hose from the tube for the fuel injectors. Install a plug in the hose.

STEP 40

877290

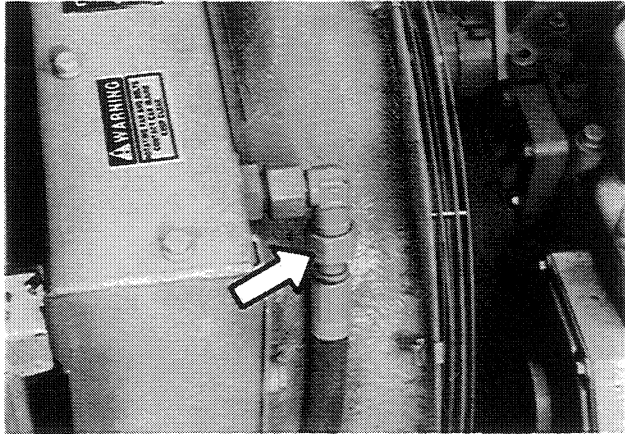
Disconnect the hose for the air cleaner from the turbocharger.

STEP 41

877300

Loosen and remove the cap screws and washers that fasten the air cleaner and mounting bracket to the engine. Remove the air cleaner from the machine.

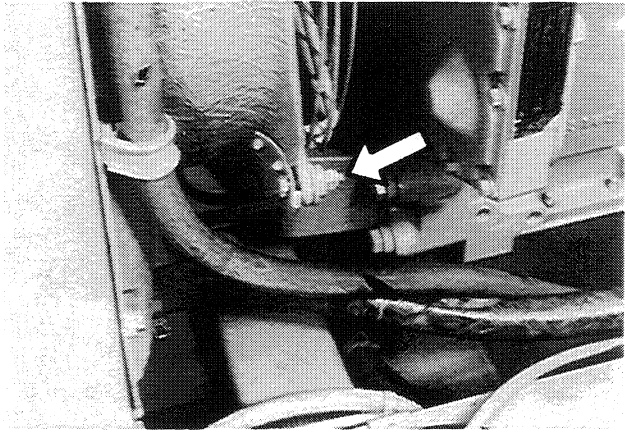
STEP 42



877291

Disconnect the top oil cooler hose from the fitting on the oil cooler. Install a cap on the fitting and a plug in the hose.

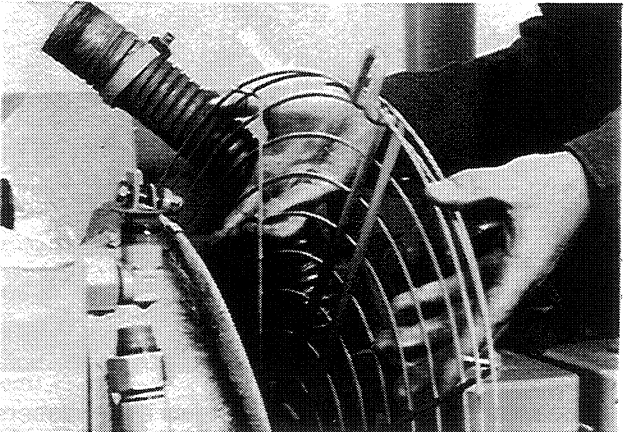
STEP 43



877292

Loosen and remove the bolts, washers, and self-locking nuts that fasten the fan guard to the fan shroud.

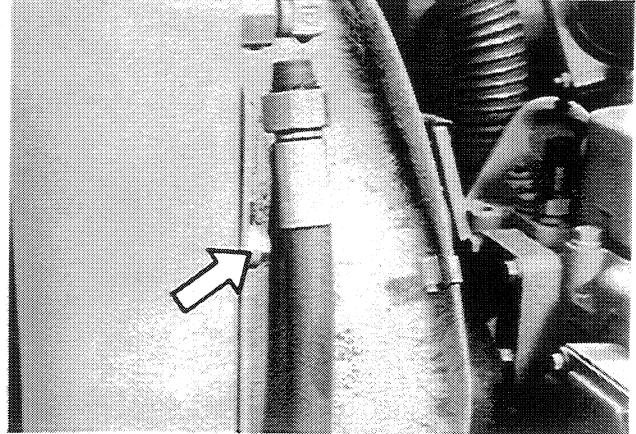
STEP 44



877272

Remove the fan guard from the engine.

STEP 45



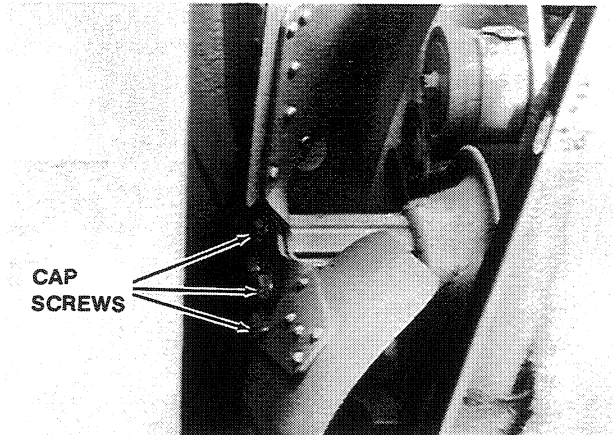
877273

Loosen and remove the cap screws and washers that fasten the fan shroud to the radiator.

STEP 46

Move the fan shroud away from the radiator for access to the cap screws that fasten the fan and adapter to the engine.

STEP 47



877274

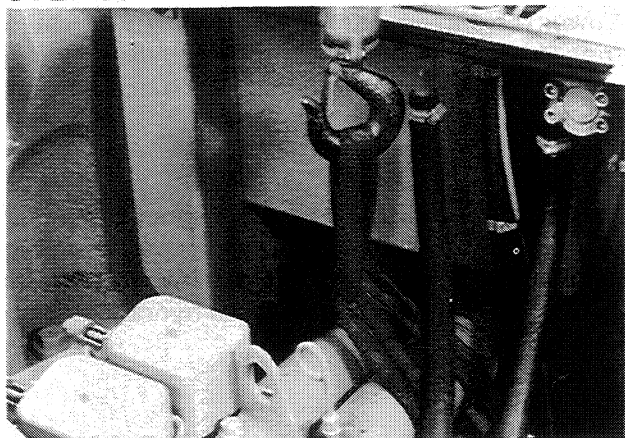
Hold the fan in place. Completely loosen the cap screws that fasten the fan and adapter to the engine.

STEP 48

Remove the cap screws, lock washers, and adapter, and the fan as an assembly from the engine.

STEP 49

Remove the fan shroud from the engine.

STEP 50

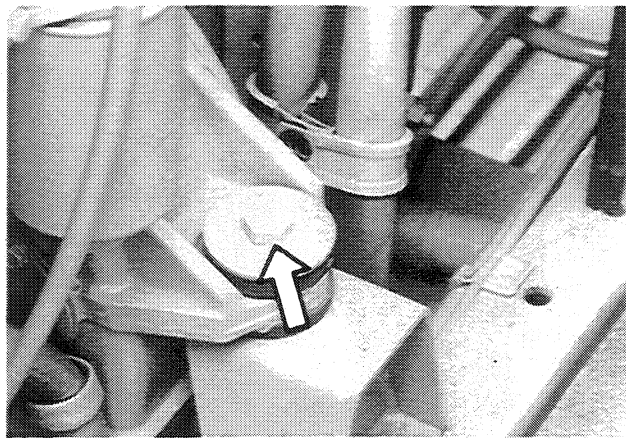
Connect acceptable lifting equipment to the hydraulic pump that will hold the hydraulic pump in position when the engine is removed. The weight of the hydraulic pump is approximately 250 pounds (113 kg).

STEP 51

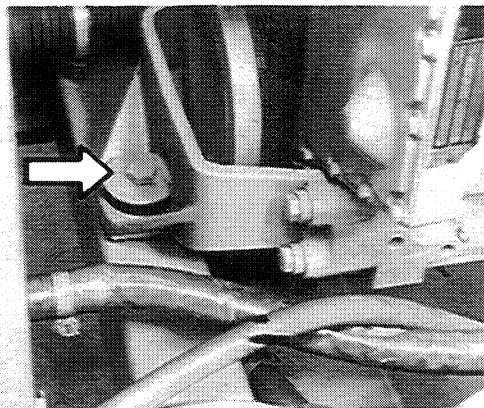
Loosen and remove the cap screws and washers that fasten the hydraulic pump to the engine.

STEP 52

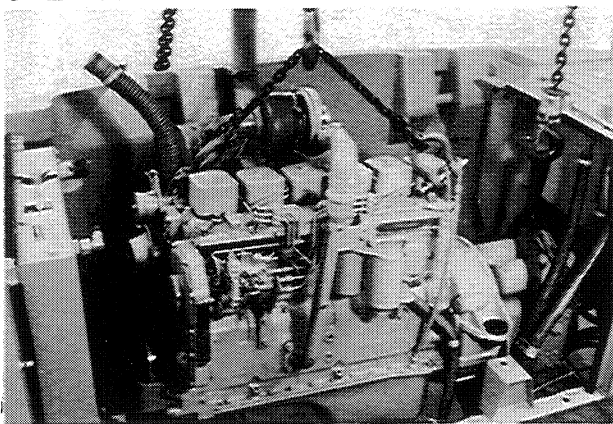
Connect acceptable lifting equipment to the engine.

STEP 53

Loosen and remove the bolts, hardened washers, and the self-locking nuts that fasten the front and rear engine mounts to the frame.

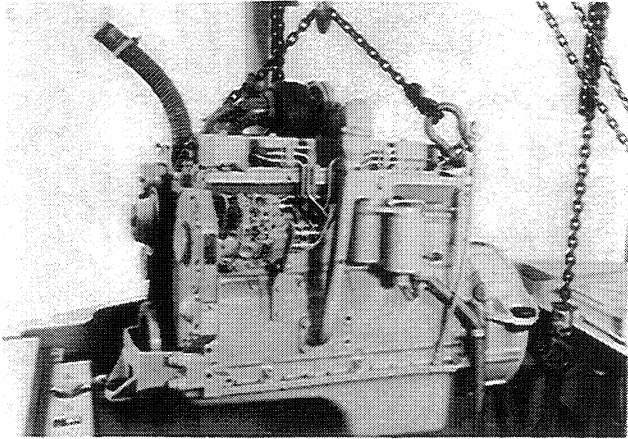
STEP 54

Loosen and remove the bolt, hardened washers, and the self-locking nut that fasten the side engine mount to the frame.

STEP 55

Raise the engine a small amount and move the engine toward the radiator until the hydraulic pump coupling disengages the engine coupling. If necessary, a prybar can be used to separate the engine from the hydraulic pump. Be careful not to damage the radiator or the hydraulic pump coupling.

STEP 56

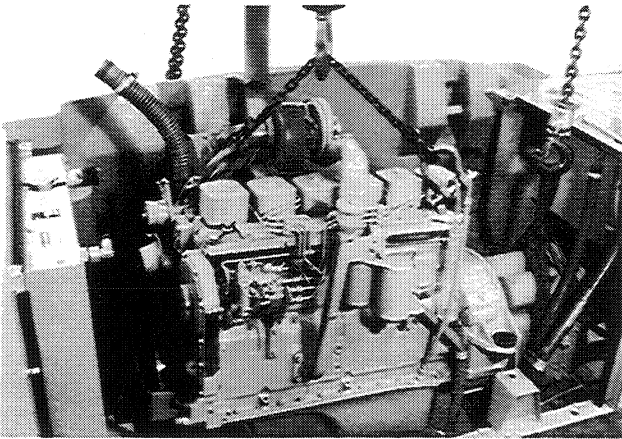


877297

Remove the engine from the machine.

Installation

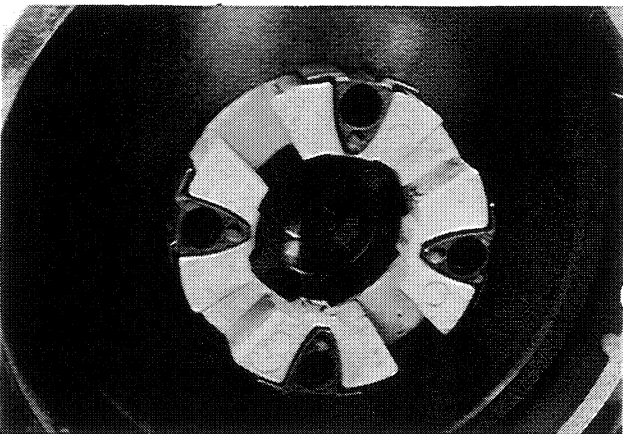
STEP 57



877298

Put the engine in position over the frame.

STEP 58



877307

Make sure that the engine coupling will be in alignment with the hydraulic pump coupling when the engine is in position for installation.

STEP 59

Lower the engine into the machine. Move the engine toward the hydraulic pump until the coupling on the hydraulic pump engages the coupling on the engine.

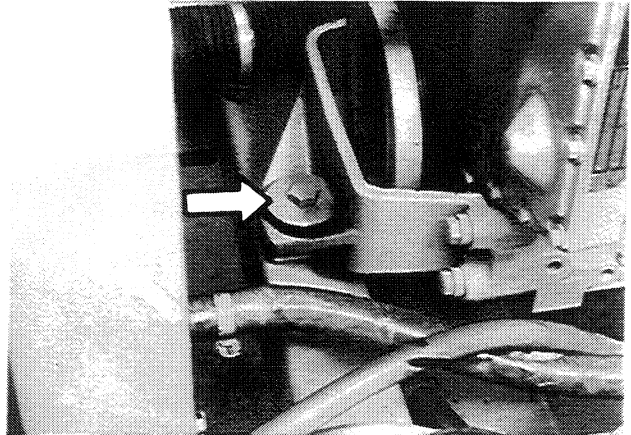
STEP 60

Move the hydraulic pump or the engine as required to align the holes in the hydraulic pump mounting with the holes in the engine. Install two cap screws and lock washers that fasten the hydraulic pump to the engine.

STEP 61

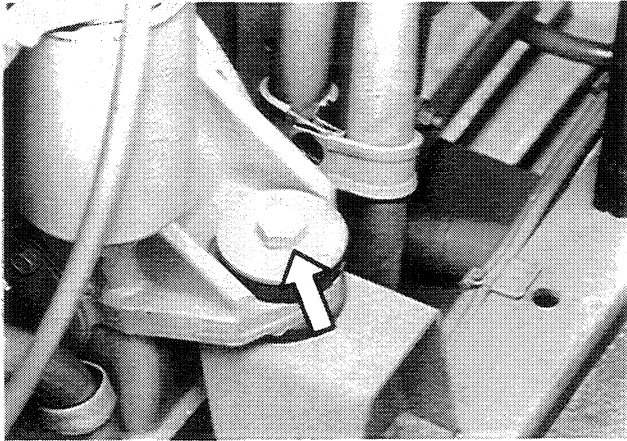
Make sure that the rubber insulators are in position between the engine mounts and the frame.

STEP 62



877275

Align the hole in the side engine mount with the hole in the frame. Make sure that the rubber insulator is in position on the top of the side engine mount. Install the bolt, hardened washers, and self-locking nut at this time. See the illustration on page 2000-2.

STEP 63

875070

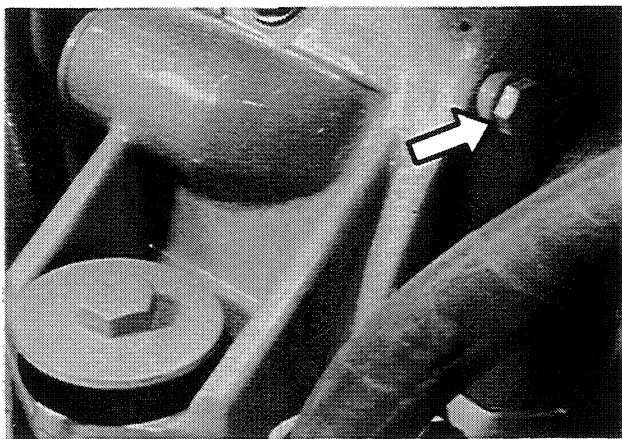
Align the holes in the front and rear engine mounts with the holes in the frame. Make sure that the rubber insulators are in position on top of the front and rear engine mounts. Install the bolts, hardened washers, and self-locking nuts that fasten the front engine mounts to the frame. Tighten the self-locking nuts to 160 to 200 pound-feet (217 to 271 Nm).

STEP 64

Tighten the self-locking nut on the bolt for the side engine mount to 160 to 200 pound-feet (217 to 271 Nm).

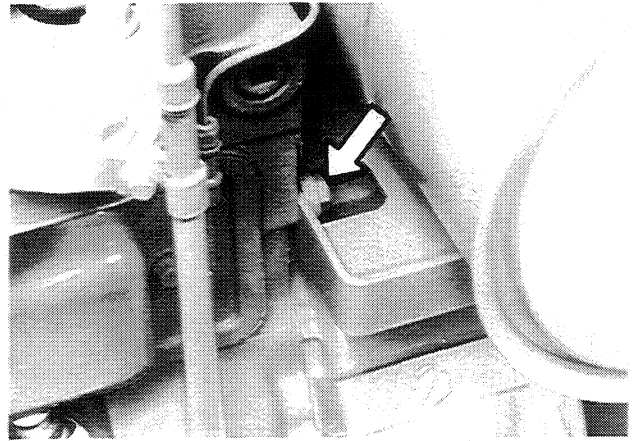
STEP 65

Remove the lifting equipment from the engine and from the hydraulic pump.

STEP 66

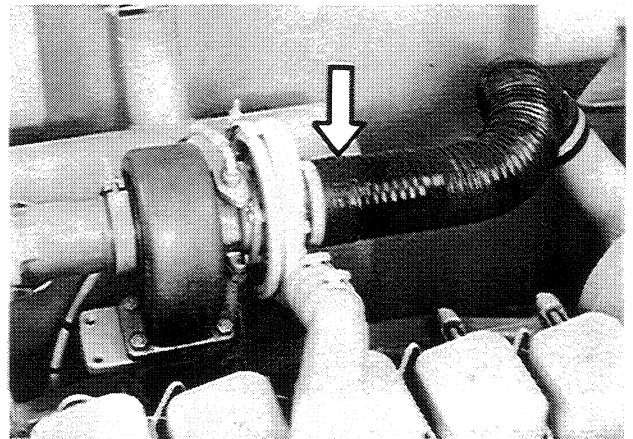
877278R

Install the remaining cap screws that fasten the hydraulic pump to the engine. Make sure that the hose clamps are in position on the engine. Tighten the cap screws to 38 to 45 pound-feet (52 to 61 Nm).

STEP 67

877300

Put the air cleaner and mounting bracket in position on the engine. Install the cap screws and washers that fasten the air cleaner to the engine. Tighten the cap screws to 66 to 79 pound-feet (90 to 107 Nm).

STEP 68

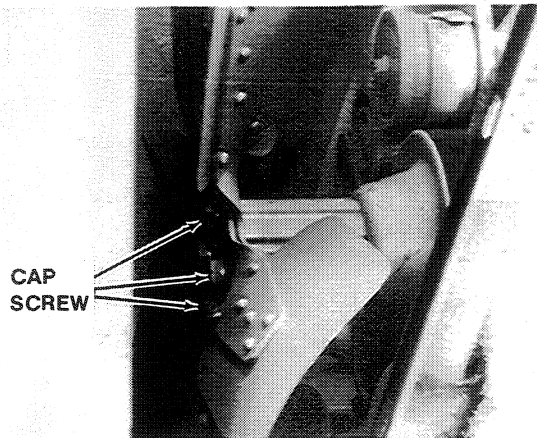
877290

Connect the hose for the air cleaner to the turbocharger.

STEP 69

Put the fan shroud in position on the engine. Make sure that the fan shroud is not on top of the side engine mount or the fan shroud will not move over the fan when the fan is installed.

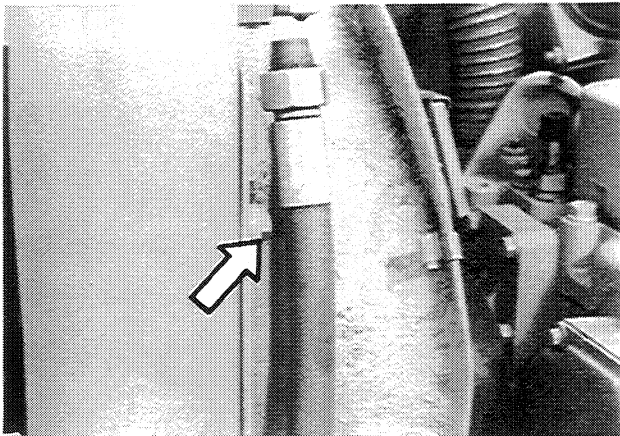
STEP 70



877274

Put the fan assembly in position on the engine. Tighten the cap screws that fasten the fan and adapter to the engine to 38 to 45 pound-feet (52 Nm).

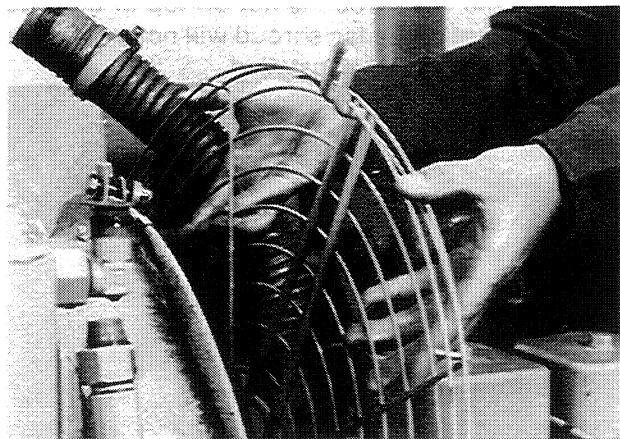
STEP 71



877273

Move the fan shroud into position on the radiator. Install the cap screws and washers that fasten the fan shroud to the radiator. Make sure that the hose and hose clamps for the top oil cooler hose are in position on the fan shroud.

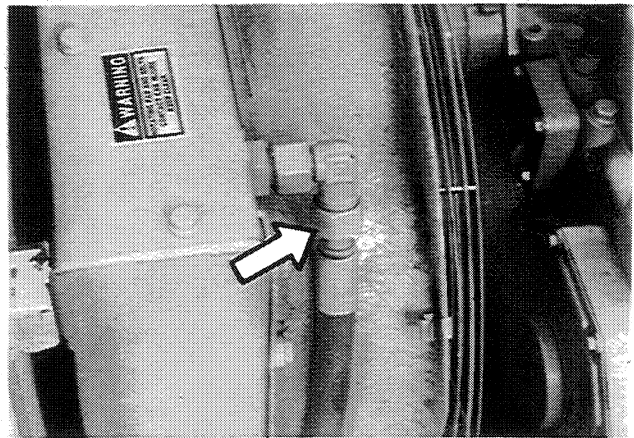
STEP 72



877272

Put the fan guard in position on the fan shroud. Install the bolts, washers, and self-locking nuts that fasten the fan guard to the fan shroud.

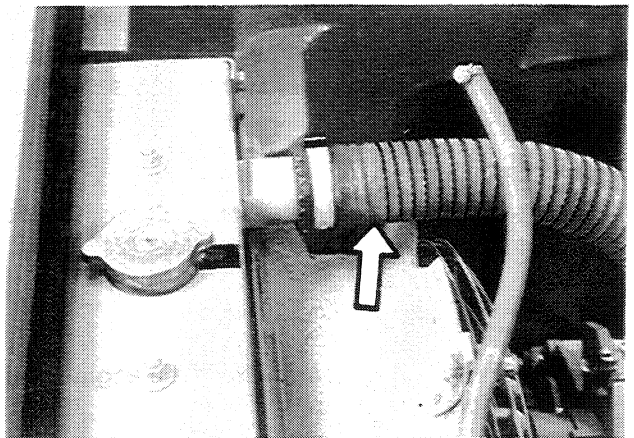
STEP 73



877291

Connect the top oil cooler hose to the radiator.

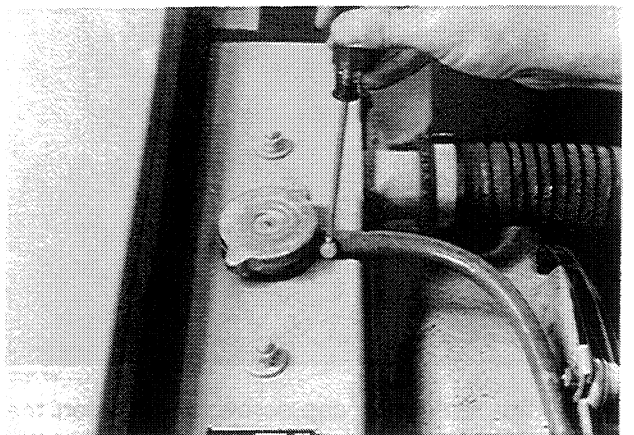
STEP 74



877287

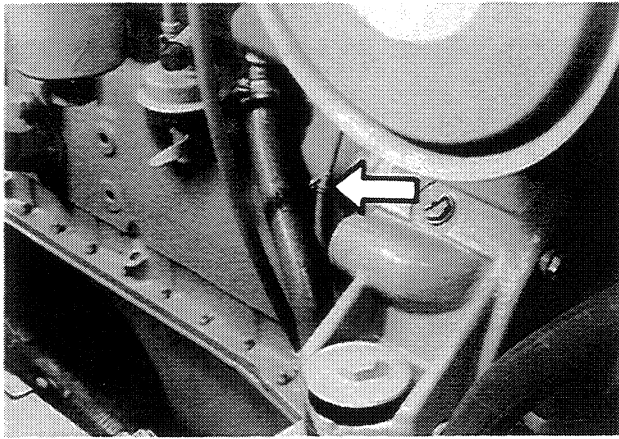
Connect the top radiator hose to the radiator.

STEP 75



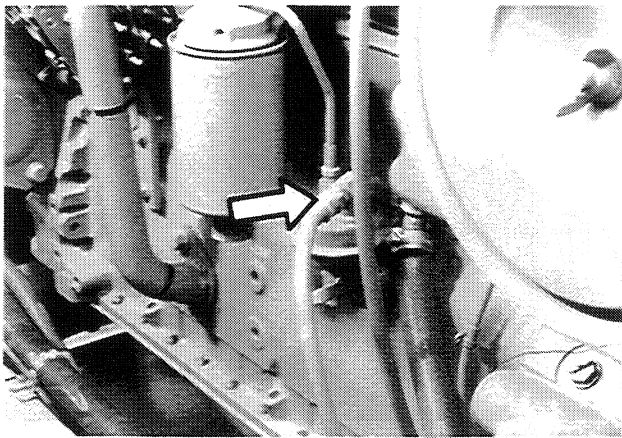
877286

Connect the coolant reservoir hose to the radiator. Fasten the coolant reservoir hose in the clamps on the fan shroud.

STEP 76

877278

Connect the hose to the tube for the fuel injectors.

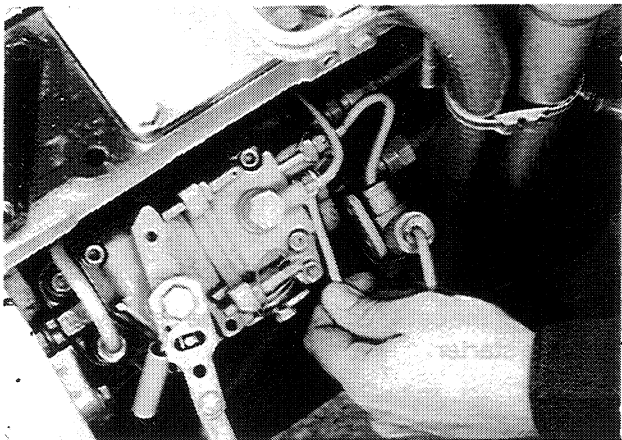
STEP 77

877276

Connect the hose to the fitting on the hand primer pump.

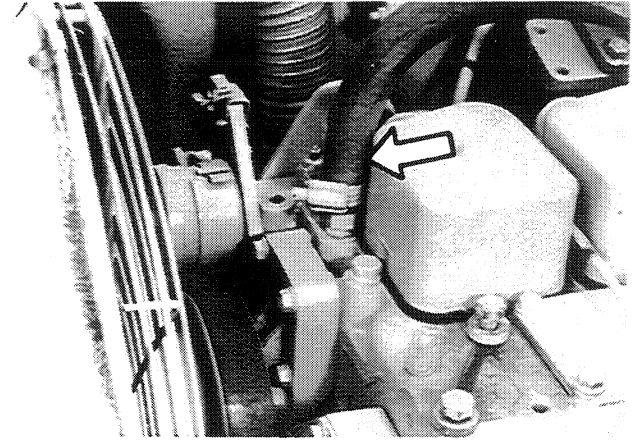
STEP 78

Put the wiring harness in position on the engine.

STEP 79

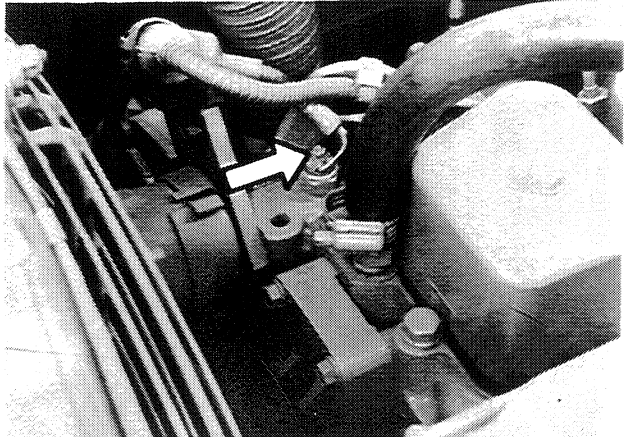
875072

Connect the wire for the fuel shutoff solenoid to the fuel injection pump.

STEP 80

877289

Connect the heater hose to the fitting on the engine.

STEP 81

877284

Connect the wire for the engine temperature switch.

STEP 82

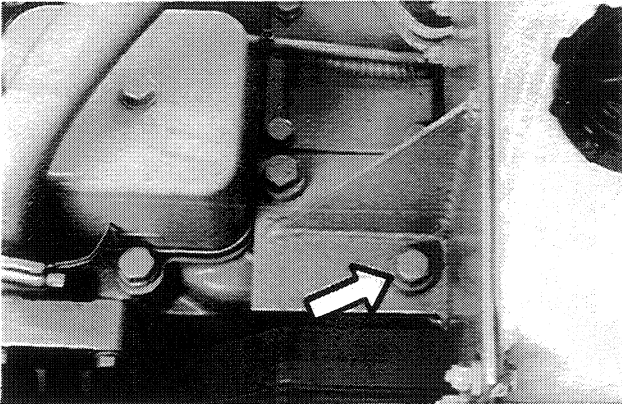
Install the tie straps to fasten the heater hose to the oil fill tube.

STEP 83

Install the tie straps that fasten the wiring harness to the engine and the mounting bracket on the fuel injection pump.

NOTE: If the coolant recovery bottle is located on the front of the engine, the machine is an early production machine, do steps 84 through 86. If the coolant recovery bottle is located on the hydraulic reservoir, the machine is a late production machine, do steps 87 through 89.

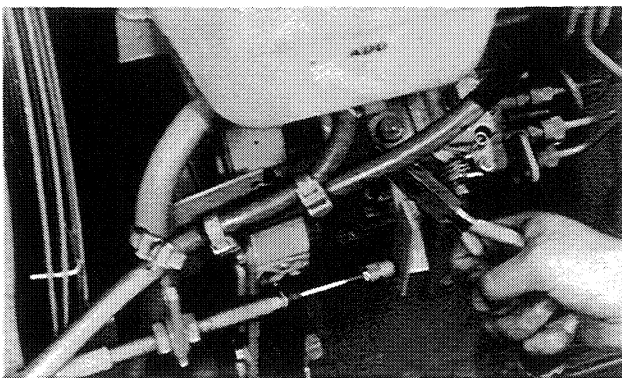
STEP 84



877295

Put the throttle linkage mounting bracket and the mounting bracket for the coolant reservoir in position on the engine. Install the cap screws and washers that fasten the coolant reservoir and the throttle linkage mounting bracket to the engine.

STEP 85



877288

Connect the spring for the lever on the fuel injection pump.

STEP 86

Install tie straps to fasten the coolant reservoir hose to the arm on the throttle linkage mounting bracket.

STEP 87

Put the throttle cable mounting bracket in position on the engine. Install the cap screws and washers that fasten the throttle cable mounting bracket to the engine.

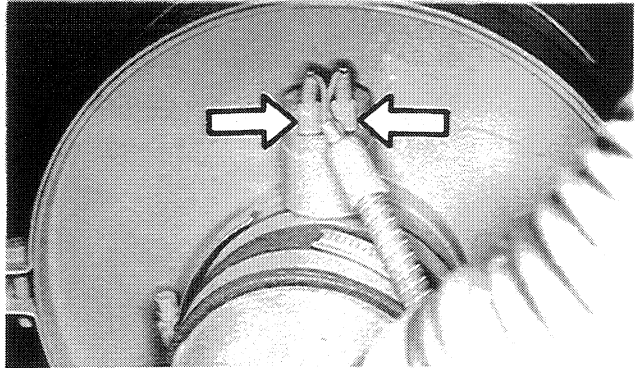
STEP 88

Connect the spring to the arm on the throttle cable mounting bracket.

STEP 89

Put the hose for the coolant reservoir in position on the engine.

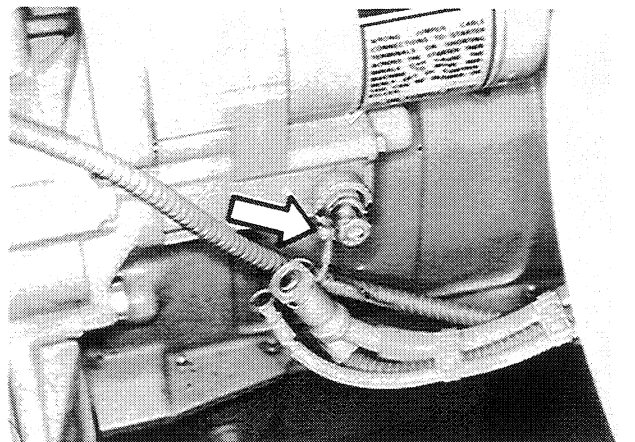
STEP 90



877311

Connect the wires to the terminals on the air cleaner.

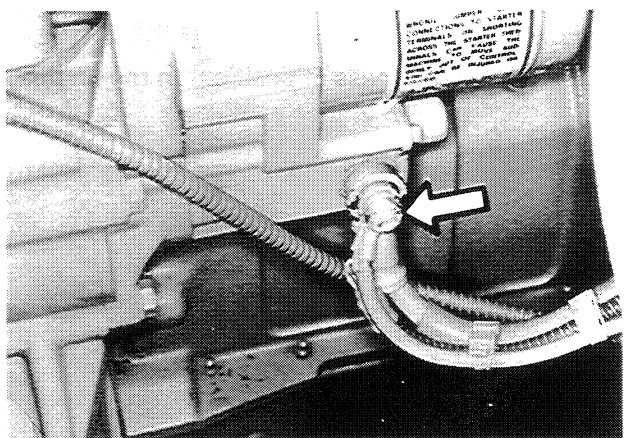
STEP 91



877312

Connect the wire to the starter solenoid terminal.

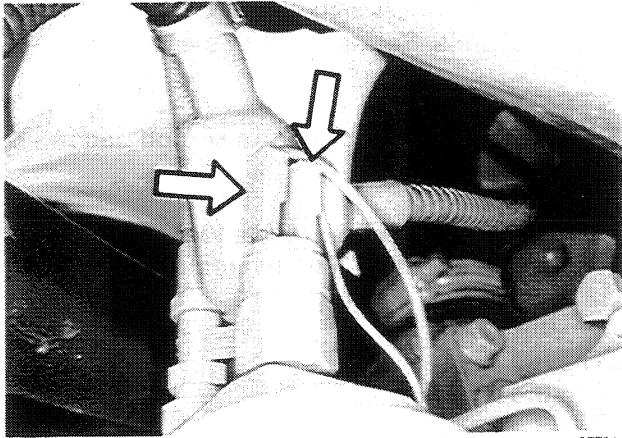
STEP 92



877313

Connect the cable and wires to the battery terminal on the starter.

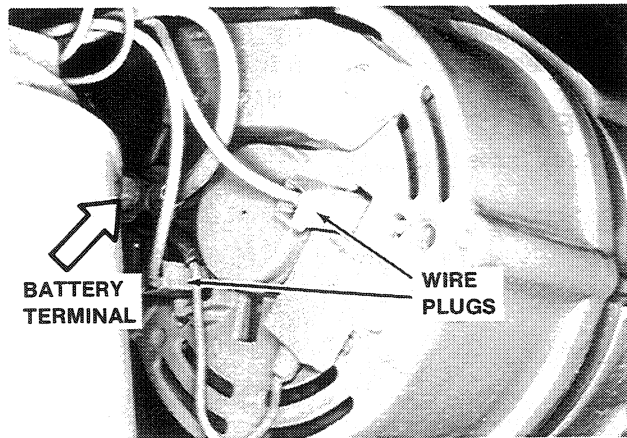
STEP 93



877314

Connect the wires to the engine oil pressure switch.

STEP 94



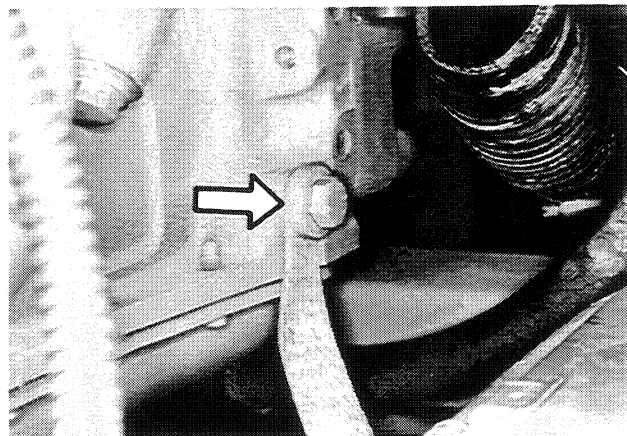
877315

Connect the wire plugs to the terminals on the alternator.

STEP 95

Connect the wires to the battery terminal on the alternator.

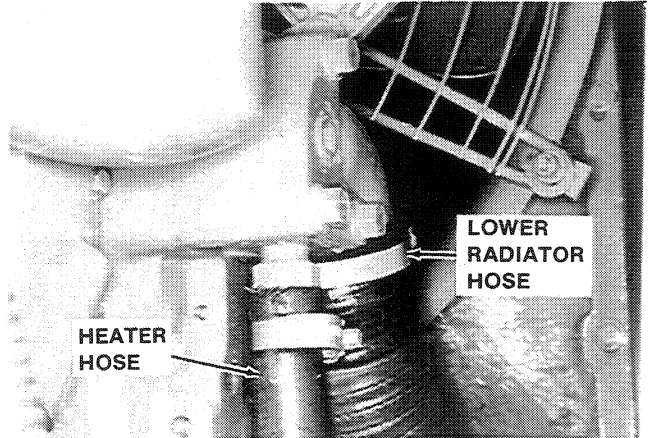
STEP 96



877316

Connect the ground strap to the engine.

STEP 97



877317

Connect the lower radiator hose to the engine.

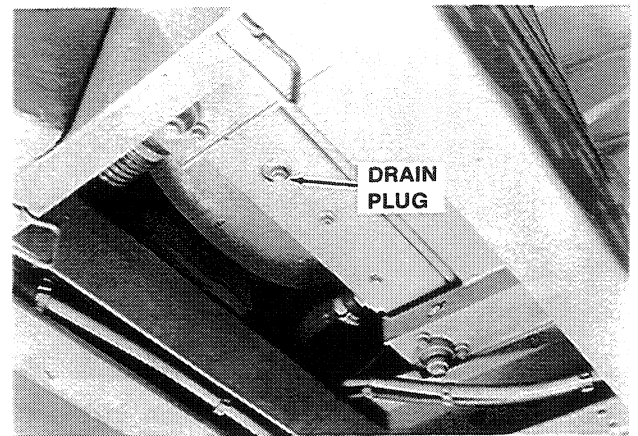
STEP 98

Connect the heater hose to the engine.

STEP 99

Install tie straps to fasten the engine wiring harness to the rear of the engine.

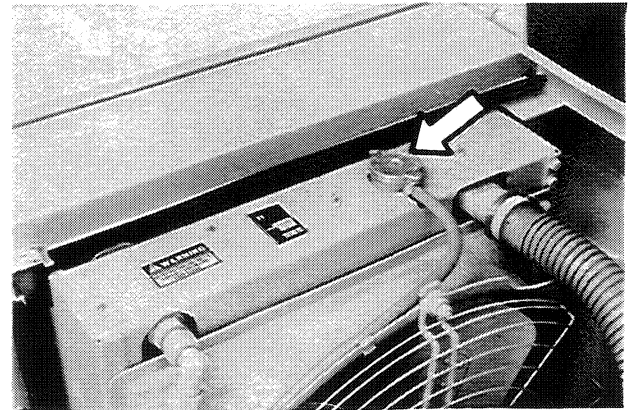
STEP 100



877027

Install the drain plug in the radiator.

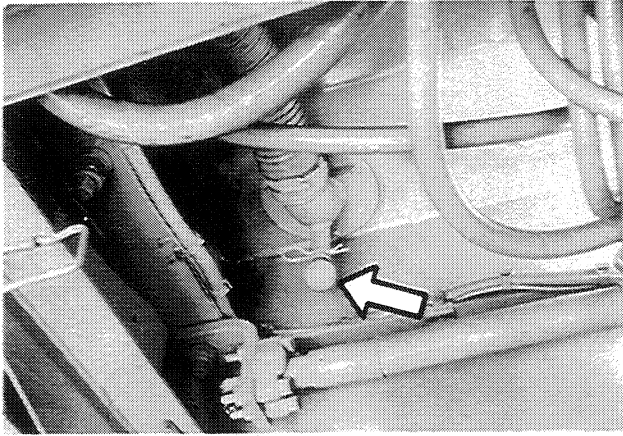
STEP 101



877035

Fill the radiator with coolant and install the radiator cap on the radiator. Make sure the coolant level in the coolant reservoir is correct. See Section 1212 for engine coolant specifications.

STEP 102



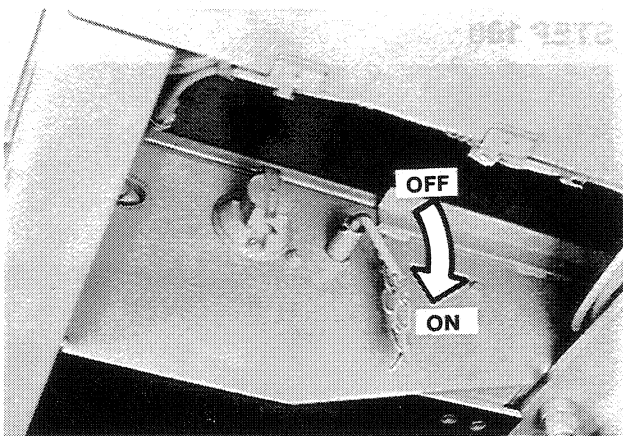
866962

Push the knob up and install the clip to open the shutoff valve for the hydraulic reservoir.

STEP 103

Check the engine oil level. Add oil as required. See Section 1212 for engine oil specifications.

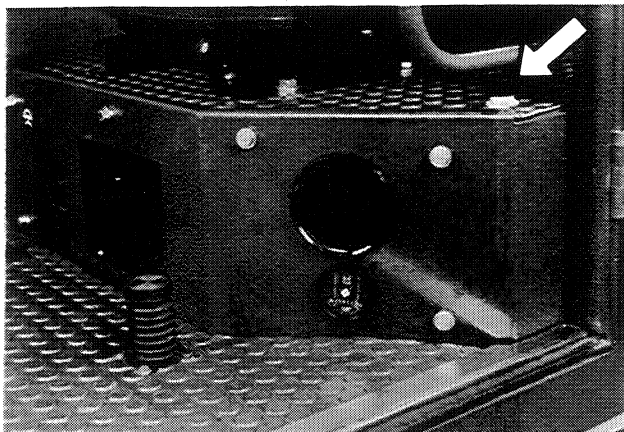
STEP 104



867040

Move the master disconnect switch in the ON position.

STEP 105



866929

Push in and hold the emergency shutoff button.

STEP 106

Turn the key switch to the START position and hold for 15 seconds. Release the key switch.

STEP 107

Release the emergency engine shutoff button.

STEP 108

Start and run the engine at idle for two minutes. If required, see Section 3001 and remove the air from the fuel system.

STEP 109

Stop the engine.

STEP 110

Check the coolant level in the coolant reservoir. Add coolant as required.

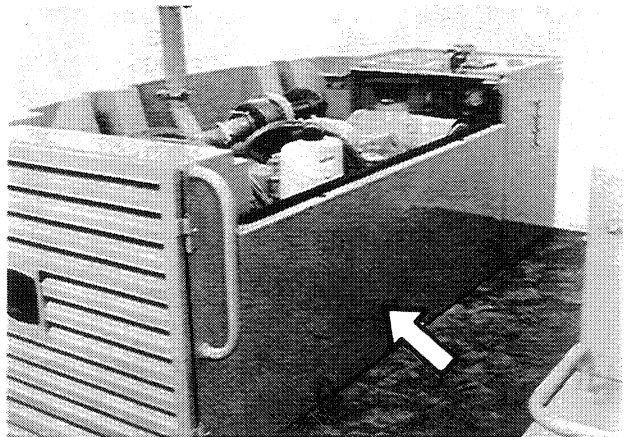
STEP 111

Check the oil level in the hydraulic reservoir. Add oil as required. See Section 8001 for specifications.

STEP 112

Check for leaks.

STEP 113



877281

Install the front panel on the machine.

STEP 114

Put the engine cover in position on the machine.



Suggest:

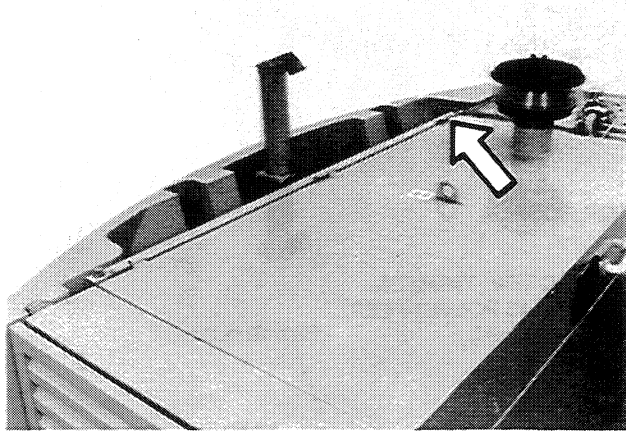
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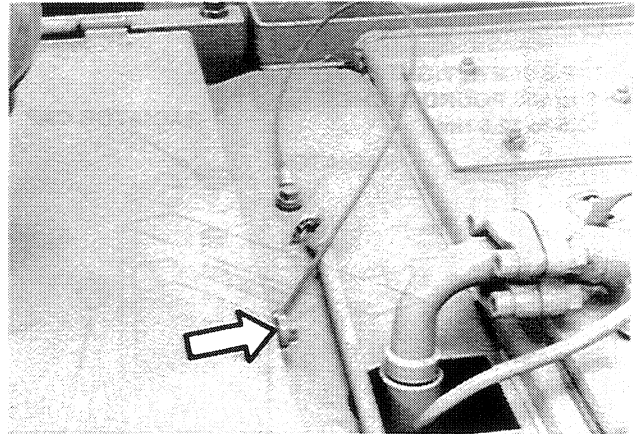
to download the complete manual.

Thank you so much for reading

STEP 115

877280

Install the bolts, washers, and self-locking nuts that fasten the engine cover to the frame.

STEP 116

877279

Install the cap screw and washer that fasten the support cable to the engine cover.

STEP 117

Install the access doors for the engine, the hydraulic reservoir, and the radiator under the upper structure.

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