

# **1840 Uni-Loader**

## **Operators Manual**

**P.I.N. JAF0223014 and After**

**Bur 9-25053**

**Reprinted**

The CASE logo is located in the bottom right corner of the page. It consists of the word "CASE" in a bold, italicized, sans-serif font, with a horizontal line underneath the letters.

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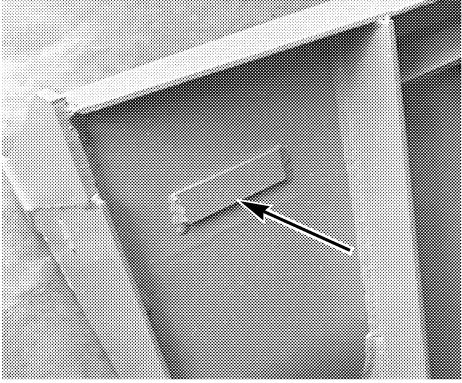


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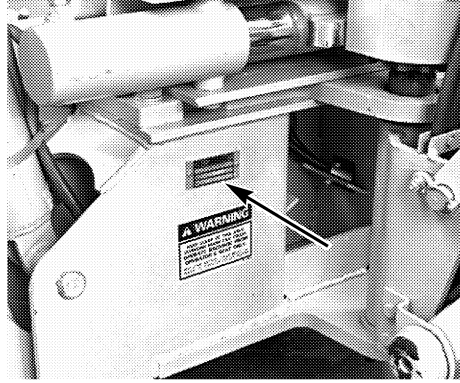
**Loader Bucket**

**Backhoe**



B4135288

Serial Number \_\_\_\_\_



B4051390

Serial Number \_\_\_\_\_

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Template Name: OM\_1\_col  
Template Date: 1995\_11\_22



## PARKING THE MACHINE





- When you park the machine and before you leave the operators seat, check the seat bar for correct operation. The seat bar, when raised, engages the parking latch and locks the loader controls. See Testing the Seat Bar, page 128 to check for correct operation. Lower the lift arms and stop the engine. Follow the instructions on Parking the Machine, page 51 for parking the machine.
- If the loader lift arms are raised, always install the support strut before you service the machine.
- Always face the machine and use the hand rails and steps when getting off. Do not rush and do not jump from the machine.



## WHEELS AND TIRES SAFETY



 **WARNING:** *DO NOT weld to wheel or rim when a tire is installed. Welding will cause an explosive air/gas mixture that will be ignited with high temperatures. This can happen to tires inflated or deflated. Removing air or breaking bead is not adequate. Tire MUST be completely removed from the rim prior to welding.* SB134

 **WARNING:** *Explosive separation of the tire and/or rim parts can cause injury or death. When tire service is necessary, have a qualified tire mechanic service the tire.* 84-113



## CAST DUCTILE IRON



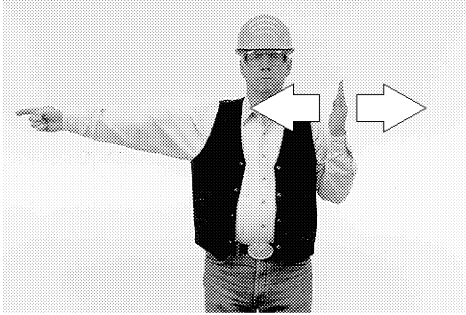
- Before you weld, cut or drill holes in a part on this machine, make sure the part is not cast ductile iron. See your dealer if you do not know if a part is cast ductile iron.
- Unauthorized modifications to cast ductile iron parts can cause injury or death. Welding, cutting, or drilling can cause cast ductile iron to break. Do not weld, cut, or drill to repair or to attach items to cast ductile iron parts on this machine.

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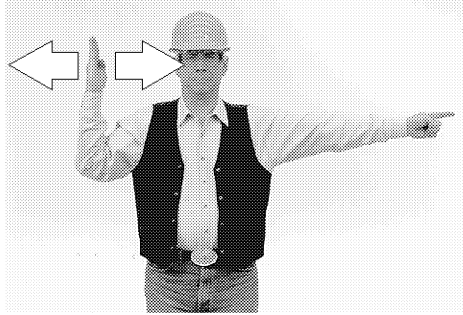
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**SAFETY/DECALS/HAND SIGNALS**



BI97D034

Turn Machine Left - (Swing Load Left)

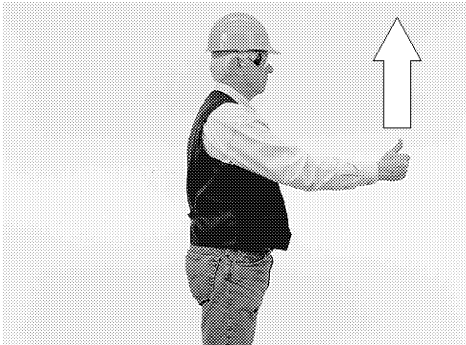


BI97D033

Turn Machine Right - (Swing Load Right)

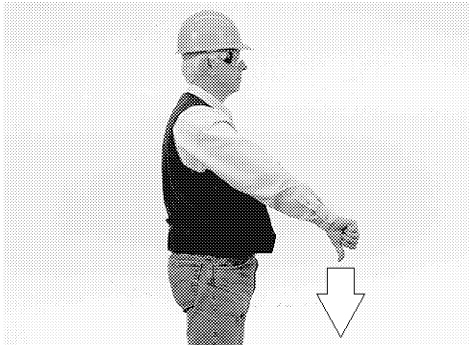
To stop movement, stop moving hand and make a fist.

To stop movement, stop moving hand and make a fist.



BI97D064

Roll Back Loader Bucket



BI97D063

Dump Loader Bucket

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BP97D057

Raise Backhoe Boom



BP97D055

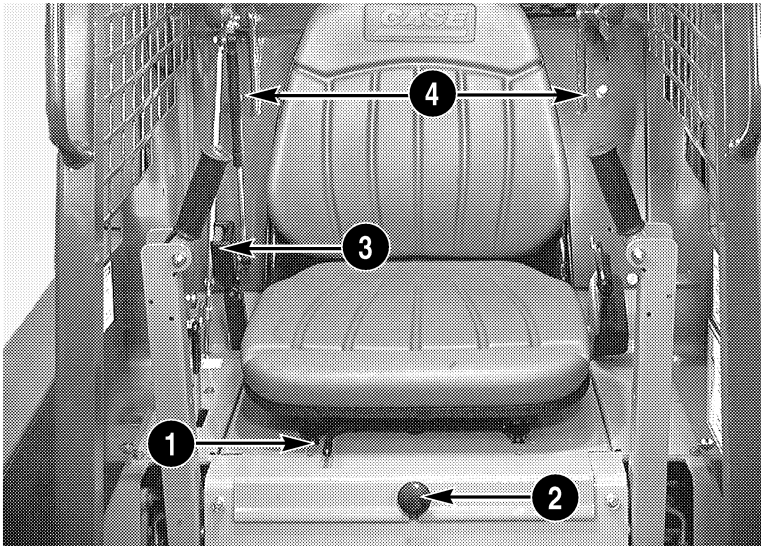
Lower Backhoe Boom

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## OPERATORS SEAT

### Standard Seat



RD98C082

1. **FORWARD/REARWARD ADJUSTMENT LEVER:** Move the lever toward the center of the seat to slide the seat forward or backward, release the lever to hold the seat in position.

**NOTE:** *Caution: If the seat can not be adjusted fore or aft per the instructions and the seat position does not allow for adequate reach to the controls, stop using the machine until the adjustment problem is corrected.*

2. **SEAT BASE KNOB:** Rotate the knob counterclockwise to loosen the seat base. To remove seat and seat base see Operators Seat Removal, page 32.
3. **SEAT BELTS** - Retractable type shown (If Equipped): See Seat Belt Procedure, page 41.
4. **RESTRAINT BAR ADJUSTMENT BOLT:** To adjust restraint bar height for personal preference, loosen the lock nut and turn bolt clockwise or counterclockwise to get desired height setting, then tighten lock nut.

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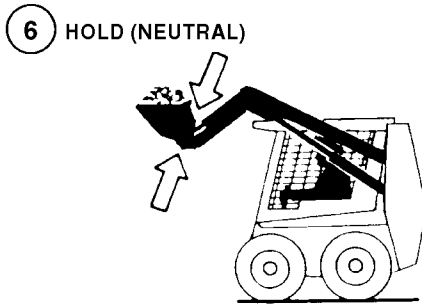
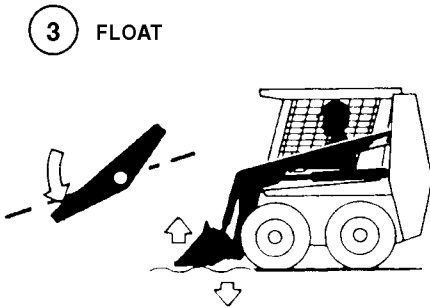
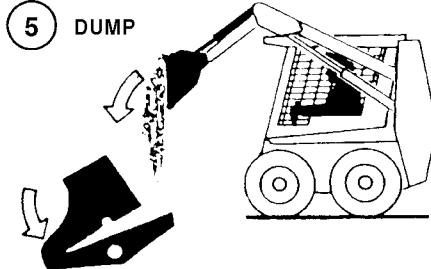
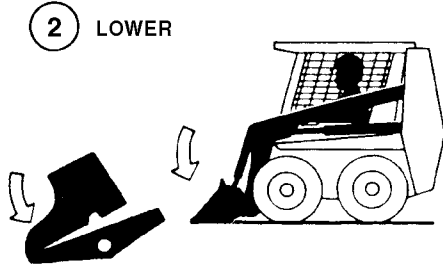
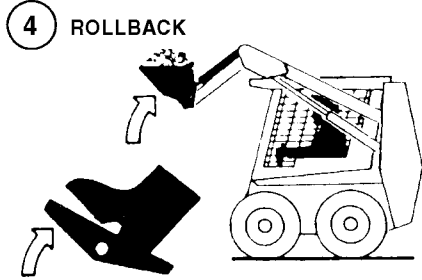
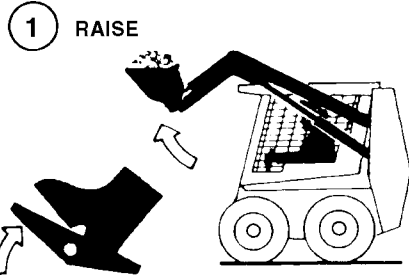
Template Name: OM\_1\_col  
Template Date: 1997\_02\_06

## LOADER CONTROLS

### Foot Pedals

LEFT CONTROL

RIGHT CONTROL



B797A069

Push the pedal completely down for FLOAT (DETENT). When in FLOAT (DETENT) the bucket or attachment can follow the level of the ground without movement of the control pedal.

The loader lift arms and bucket stop moving when both pedals are released and return to HOLD (NEUTRAL).

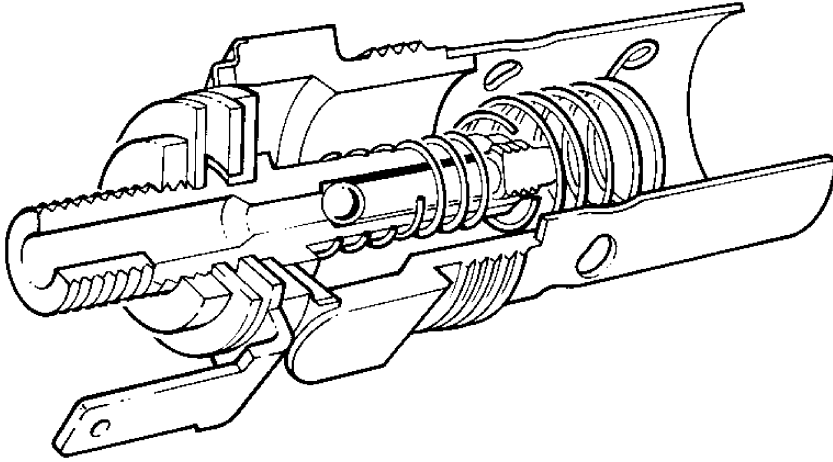
**NOTE:** FLOAT (DETENT) function occurs when moving.

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Template Date: 1997\_02\_06

## Thermostart System



184579

### Method of Operation

Turn the key to the ON position. Depress and hold the coldstart rocker switch for 20 to 25 seconds. Turn the key to the START position to start the engine.

During the heat cycle, a nichrome wire element heats the fuel control valve in the flamestart device. Differential expansion of the valve components cause the valve to open. When the engine is cranked, the transfer pump fuel pressure causes a small amount of fuel to leak through the valve and flow over the heating element. The element is hot enough to ignite the fuel and this preheats the incoming air. After the engine starts, the incoming air cools.

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Template Date: 1997\_02\_06

## OPERATING INSTRUCTIONS

### BACKHOE OPERATION



**WARNING:** Before you operate the backhoe in an area where your visibility is reduced, such as next to a building, etc., always install a guard rail and warning signs to keep other persons away from your machine.

SA062



**WARNING:** Before operating the backhoe, always be in the operators seat. Serious injury or death can result if you do not follow these instructions.

SA126

#### General

Be a careful operator; you can prevent accidents. Read the following information and the Safety section of this manual.

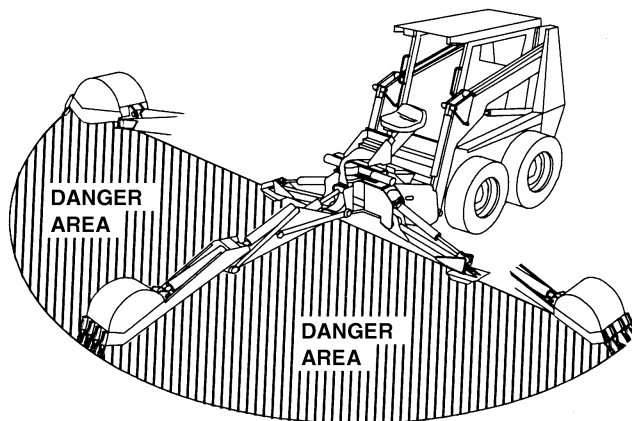
The backhoe will dig more material in less time when a smooth, short dig cycle is used. A good operator is not just a fast operator. Keep each dig cycle smooth.

**IMPORTANT:** Before you operate the backhoe for the first time, move the machine to an open area. Run the engine at 1/3 throttle. Actuate each backhoe control lever until each movement is smooth.



**WARNING:** A working backhoe can injure or kill. Before you start, always make sure that all persons are away from the DANGER AREA.

SA061



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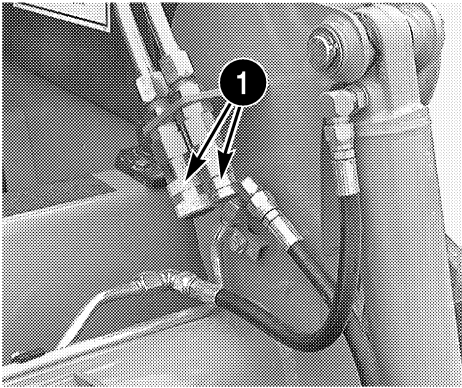
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Template Name: OM\_1\_col  
Template Date: 1997\_02\_06

## OPERATING INSTRUCTIONS

6. Raise the stabilizers to lower the backhoe mainframe to the ground. Make sure the mainframe is level.
7. Stop the engine and disconnect the two hydraulic hoses at the quick disconnect couplings.
8. Return the auxiliary control pedal to NEUTRAL. Store the lock pin in the storage hole. See Hydraulic Power for the Backhoe, page 67.

**NOTE:** For machines with foot pedal loader controls, return the right-hand control to NEUTRAL. Store the lock pin in the storage hole. See Hydraulic Power for the Backhoe, page 67.

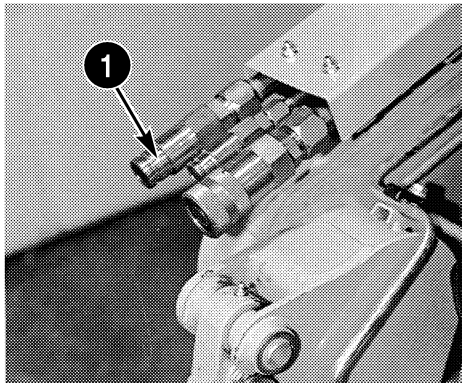


RD98C104

1. QUICK DISCONNECT COUPLINGS

## HIGH FLOW HYDRAULIC SYSTEM

The machine can be equipped with either the single or Bi-directional high flow hydraulic system. The high flow hydraulic system is an independent auxiliary hydraulic system designed to be used to power front mounted attachments (such as those powered by a hydraulic motor). The hydraulic connectors for this system are located on the right loader arm.



H02124

1. HYDRAULIC CONNECTORS

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LUBRICATION/MAINTENANCE CHARTS

**WARNING:** *Improper service or repair can cause injury or death. If you do not understand the service procedures for this machine, see your dealer or the service manual for this machine.* SC021

**GENERAL SAFETY BEFORE YOU SERVICE**

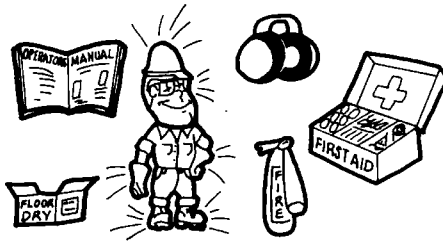
Read the safety decals and information decals on the machine. Read the operators manual and safety manual. Understand the operation of the machine before you start servicing.

Use the correct safety clothing and safety equipment. Understand how to use a fire extinguisher and first aid kit.



BS99C014

Before you service the machine, put a Do Not Operate tag on the instrument panel. One Do Not Operate tag is included with your machine. Additional tags, part number 321-4614, are available from your dealer.



BS99C015

**DO NOT OPERATE**

Reason \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Signed by \_\_\_\_\_

**DO NOT REMOVE THIS TAG!**

See Other Side

Case Part No. \_\_\_\_\_ Printed in U.S.A.

321-4614

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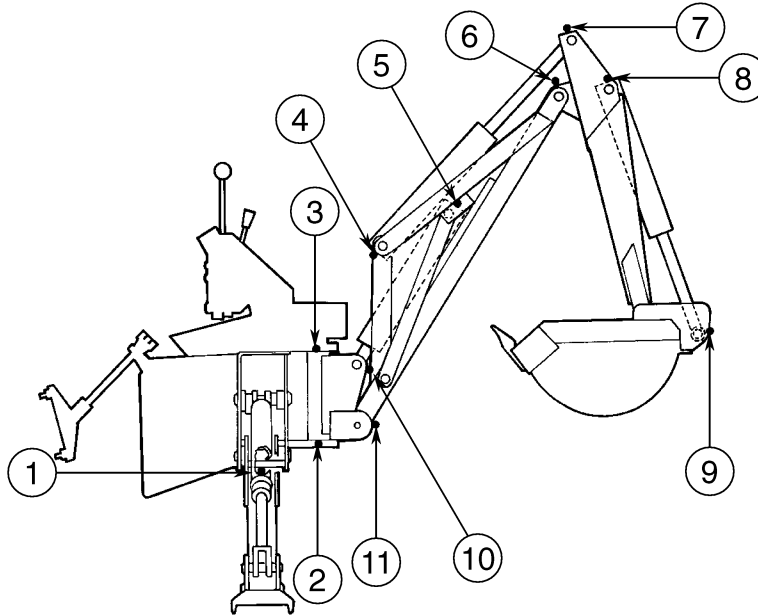
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**GREASE FITTINGS - 10 HOURS**

**D100XR Backhoe Pivots (If Equipped)**

Use Case Molydisulfide Grease.



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BS99C018

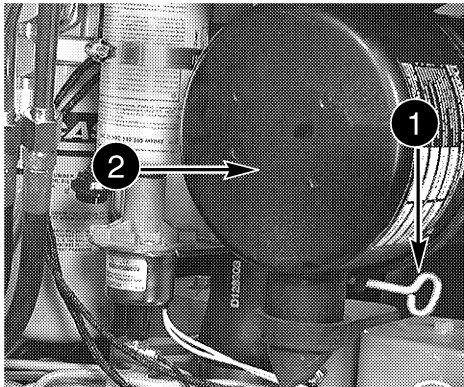
- |                                      |                            |
|--------------------------------------|----------------------------|
| 1. STABILIZER PIVOT .....            | 2 FITTINGS (ONE EACH SIDE) |
| 2. LOWER SWING PIVOT .....           | 1 FITTING                  |
| 3. UPPER SWING PIVOT .....           | 1 FITTING                  |
| 4. DIPPER CYLINDER, CLOSED END ..... | 1 FITTING                  |
| 5. BOOM CYLINDER, CLOSED END .....   | 1 FITTING                  |
| 6. DIPPER PIVOT .....                | 1 FITTING                  |
| 7. DIPPER CYLINDER, ROD END .....    | 1 FITTING                  |
| 8. BUCKET CYLINDER, CLOSED END ..... | 1 FITTING                  |
| 9. BUCKET CYLINDER, ROD END .....    | 1 FITTING                  |
| 10. BOOM CYLINDER, ROD END .....     | 1 FITTING                  |
| 11. BOOM PIVOT .....                 | 1 FITTING                  |

## Primary Element - Outer

### Early Production Machines

Replace the primary (outer) element after three washings or after the element has been in the machine for one year. To service:

1. Loosen the wing nut on the end cover retaining clamp and remove the end cap. Clean the inside of the end cap with a damp cloth.

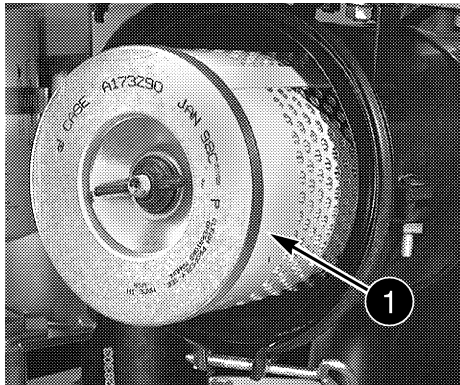


1. WING NUT      2. END CAP

RD98C037

2. Remove the wing nut and carefully remove the primary (outer) filter.

**IMPORTANT:** Always use a bright lamp to inspect a cleaned or new primary (outer) filter element before installation into the machine.



RD98C039

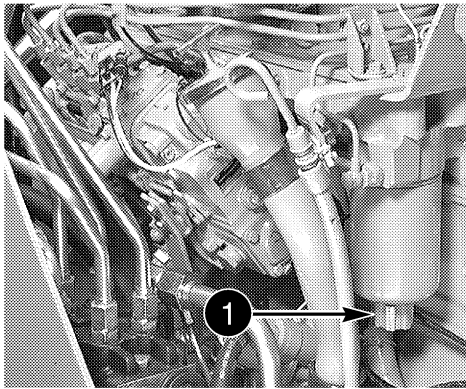
1. PRIMARY (OUTER) FILTER
3. Use a clean damp cloth and clean the inside of the filter body.
4. Install a clean or new primary (outer) element. Make sure the element has full gasket contact before you tighten the wing nut.
5. Install the end cover. Rotate the end cover so that the dust valve is at the bottom.
6. Tighten the wing nut on the end cover clamp.
7. Start the engine, run at full throttle and check the air filter warning lamp. If the lamp is still illuminated, replace the secondary (inner) element.

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## Draining Water from the Fuel System

Check the fuel filter for water and sediment every 50 hours of operation and check the fuel tank for water every 1000 hours.

To check for water, loosen the water drain valve on the bottom of the fuel filter and drain any water and sediment from the fuel filter.

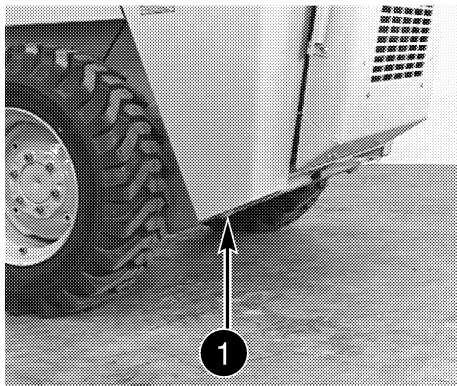


1. WATER DRAIN VALVE

## Draining Water from the Fuel Tank

To drain water and sediment from the fuel tank, place a drain pan under machine able to hold a minimum of 73.8 litres (19.5 gallons) of liquid.

Loosen the fuel tank drain plug to drain water from the tank. After all water is removed, tighten the drain plug.



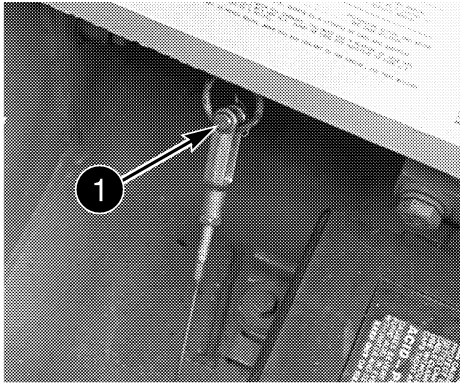
1. FUEL TANK DRAIN PLUG

**NOTE:** *If a large amount of water is removed, check your fuel storage tank or check with your fuel supplier.*

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## MAINTENANCE/ADJUSTMENTS

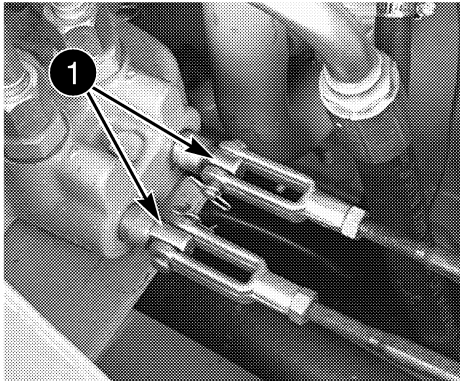
14. Disconnect the park pin cable from each spring on each side.



B4132088

1. PARK PIN CABLE

15. Disconnect the two control rods from the loader control valve.



B4132688

1. CONTROL RODS

16. Carefully pull the operators compartment forward.

**NOTE:** Carefully watch for any obstructions as the operators compartment is pulled forward (for example: the throttle rod or other items overlooked in the procedure).



A24210

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## ROLL-OVER PROTECTIVE STRUCTURE

Your machine has a roll-over protective structure (ROPS) which is also certified for falling object protection (FOPS). A ROPS label is fastened to the structure. The ROPS label shows the serial number of the ROPS, gross weight, approval, regulation, and model numbers of the machine.

### ROPS Canopy Label

**NOTE:** For location of ROPS label, see page 4 in this manual.

<b>CASE CORPORATION</b> <small>MADE IN U.S.A.</small>	FOR APPLICATION ON	TYPE—CERTIFICATION FOR ROLLOVER PROTECTIVE STRUCTURES
	ROPS SERIAL No.	FOR MAX. GROSS MACHINE WEIGHT
PERFORMANCE STANDARDS MEASURED IN ACCORDANCE WITH	APPROVAL NUMBER	

BS99C025

### Seat Belt

The seat belt is an important part of your ROPS. You must wear the seat belt at all times when you operate the machine.

Before you operate this machine, always make sure that the ROPS and operators seat belts are correctly installed.

### Maintenance and Inspection of ROPS

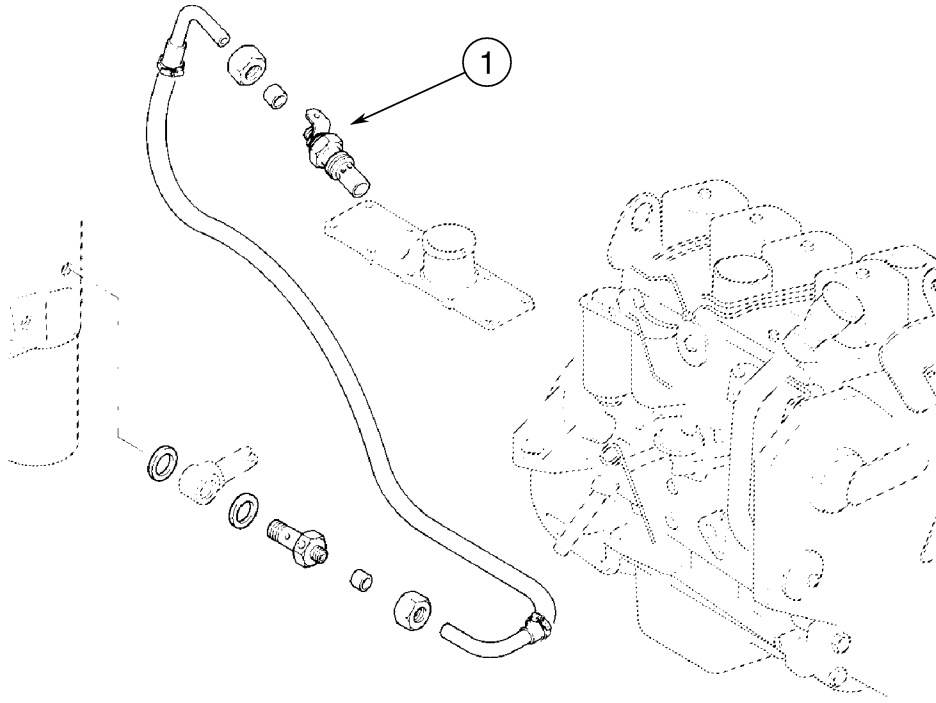
After the first 20 hours of operation and after every 500 hours of operation, do the following:

1. Check the torque of the ROPS mounting bolts. If necessary, tighten the bolts to the correct torque. See Torque Specifications for ROPS, page 137.
2. Check the operators seat and the mounting parts for the seat belt. Tighten the bolts to the correct torque. See Torque Specifications for Seat, pages 138 and 141. Replace parts that have wear or damage.
3. Check for cracks, rust, or holes in the ROPS and ROPS parts. Age, weather, and accidents can cause damage to the ROPS and ROPS parts. If you have any doubt about the ROPS system, see your Case dealer.

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## THERMOSTART SYSTEM

### Late Production Machines



1. THERMOSTART UNIT

BS97D234

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## SPECIFICATIONS

**NOTE:** All specifications are given according to SAE standards or Recommended Practices where the specification applies.

### ENGINE

Make and model .....	Case 4-390, Diesel
Firing order.....	1-3-4-2
Bore and stroke.....	102 x120 mm (4.02 x 4.72 inches)
Displacement .....	3933 cu cm (239 cu inch)
Compression ratio	
Early Production Machines .....	17.8 to 1
Late Production Machines .....	19 to 1
Horsepower	
SAE gross .....	40.3 kW at 2000 r/min (54 hp at 2000 rpm)
SAE net.....	37.3 kW at 2000 r/min (50 hp at 2000 rpm)
Engine speeds:	
Full throttle, no load .....	2125 to 2175 rpm
Rated speed - full load .....	2000 rpm
Idle speed .....	1000 rpm
Valve clearance - engine cold	
Intake valves .....	0.254 mm (.010 inch)
Exhaust valves.....	0.508 mm (.020 inch)

### COOLING SYSTEM

Radiator cap.....	103 kPa (15 psi)
Thermostat.....	82°C (180°F)
Opening range .....	83° to 95°C (181° to 203°F)
Fully open .....	94°C (202°F)

### HYDRAULIC SYSTEM

Main relief valve pressure settings	
Loader.....	16548-17237 kPa, 165-173 bar (2300-2500 psi) at 2000 rpm
Backhoe .....	16548-17237 kPa, 165-173 bar (2300-2500 psi) at 10 gpm at maximum 1/2 engine throttle

**NOTE:** (Hydraulic oil at operating temperature - pressure measured at outlet of equipment pump)

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