



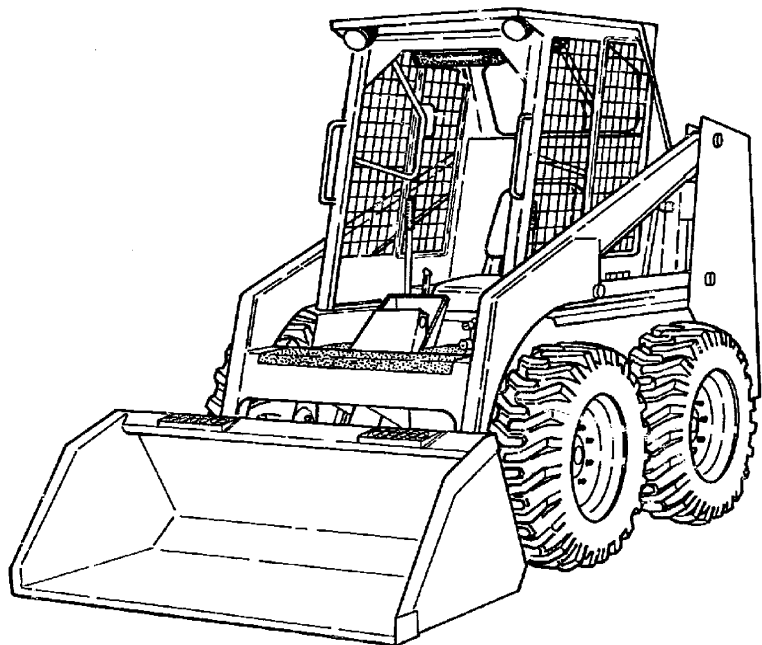
Service Manual

5

4

2

B



MELROE
INGERSOLL-RAND

6570791 (5-88)

Printed in U.S.A.

 **bobcat**[®]

© Melroe Company 1988

Product: Bobcat 542B Skid Steer Loader Service Repair Workshop Manual
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Sample of manual. Download All 214 pages at:
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MAINTENANCE SAFETY



WARNING

Instructions are necessary before operating or servicing machine. Read and understand the Operation & Maintenance Manual, Operator's Handbook and signs (decals) on machine. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Untrained operators and failure to follow instructions can cause injury or death.

W-2003-0903



Safety Alert Symbol: This symbol with a warning statement, means: "Warning, be alert! Your safety is involved!" Carefully read the message that follows.

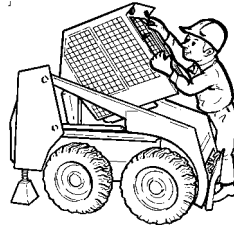
CORRECT



B-10731a

- Never service the Bobcat Skid-Steer Loader without instructions.

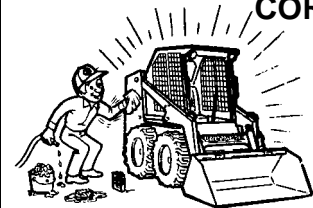
CORRECT



B-12365

- Use the correct procedure to lift or lower operator cab.

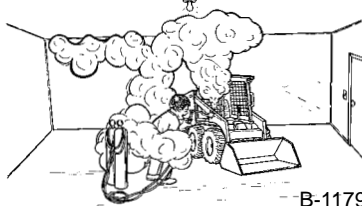
CORRECT



B-7469

- Cleaning and maintenance are required daily.

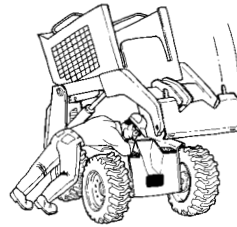
WRONG



B-11799

- Have good ventilation when welding or grinding painted parts.
- Wear dust mask when grinding painted parts. Toxic dust and gas can be produced.
- Avoid exhaust fume leaks which can kill without warning. Exhaust system must be tightly sealed.

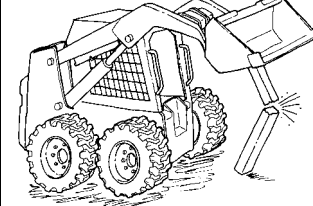
WRONG



B-15231

- Disconnecting or loosening any hydraulic tubeline, hose, fitting, component or a part failure can cause lift arms to drop. Do not go under lift arms when raised unless supported by an approved lift arm support device. Replace it if damaged.

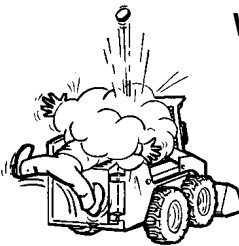
WRONG



B-15280

- Never work on loader with lift arms up unless lift arms are held by an approved lift arm support device. Replace if damaged.
- Never modify equipment or add attachments not approved by Bobcat Company.

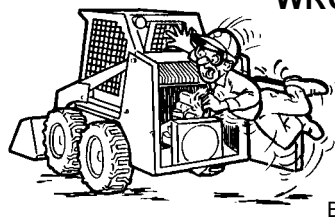
WRONG



B-6590

- Stop, cool and clean engine of flammable materials before checking fluids.
- Never service or adjust loader with the engine running unless instructed to do so in the manual.
- Avoid contact with leaking hydraulic fluid or diesel fuel under pressure. It can penetrate the skin or eyes.
- Never fill fuel tank with engine running, while smoking or when near open flame.

WRONG



B-6580

- Keep body, jewelry and clothing away from moving parts, electrical contact, hot parts and exhaust.
- Wear eye protection to guard from battery acid, compressed springs, fluids under pressure and flying debris when engines are running or tools are used. Use eye protection approved for type of welding.
- Keep rear door closed except for service. Close and latch door before operating the loader.

WRONG



B-6589

- Lead-acid batteries produce flammable and explosive gases.
- Keep arcs, sparks, flames and lighted tobacco away from batteries.
- Batteries contain acid which burns eyes or skin on contact. Wear protective clothing. If acid contacts body, flush well with water. For eye contact flush well and get immediate medical attention.

Maintenance procedures which are given in the Operation & Maintenance Manual can be performed by the owner/operator without any specific technical training. Maintenance procedures which are **not** in the Operation & Maintenance Manual must be performed **ONLY BY QUALIFIED BOBCAT SERVICE PERSONNEL**. Always use genuine Bobcat replacement parts. The Service Safety Training Course is available from your Bobcat dealer.



Bobcat®

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**PREVENTIVE
MAINTENANCE**

**HYDRAULIC
SYSTEM**

**HYDROSTATIC
SYSTEM**

**DRIVE
SYSTEM**

**MAIN
FRAME**

**ELECTRICAL
SYSTEM**

**ENGINE
SERVICE**

**TECHNICAL
DATA**

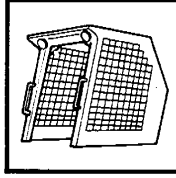


FOREWORD

This manual is for the Bobcat loader mechanic. It provides necessary servicing and adjustment procedures for the Bobcat loader and its component parts and systems. Refer to the Operator's Manual for operating instructions, starting procedure, daily checks, etc.

A general inspection of the following items must be made after the loader has had service or repair:

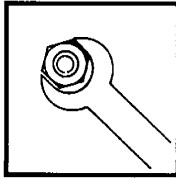
1. Check that the ROPS/FOPS (Including sidescreens) is in good condition and is not modified.



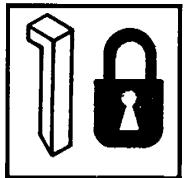
9. Enclosure door latches must open and close freely.



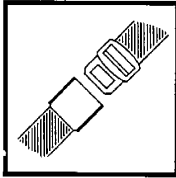
2. Check that ROPS mounting hardware is tightened and is Melroe approved.



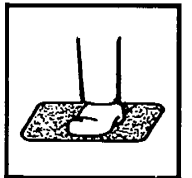
10. Bob-Tach wedges and linkage must function correctly and be in good condition.



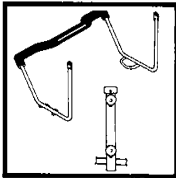
3. The seat belt must be correctly installed, functional and in good condition.



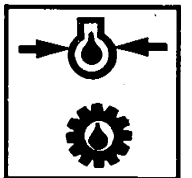
11. Safety treads must be in good condition.



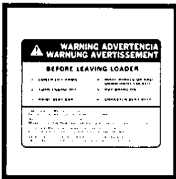
4. The seat bar and pedal locks must be correctly adjusted, clean and lubricated.



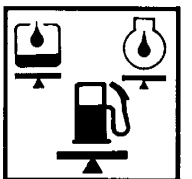
12. Check for correct function of indicator lamps (Optional on some models).



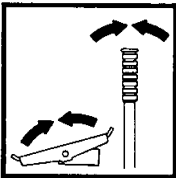
5. Machine signs must be legible and in the correct location.



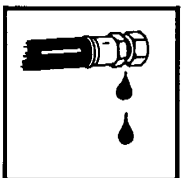
13. Check hydraulic fluid level, engine oil level and fuel supply.



6. Steering levers and foot pedals must return to neutral.



14. Inspect for fuel, oil or hydraulic fluid leaks.



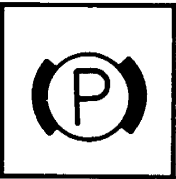
7. Check for correct function of the work lights.



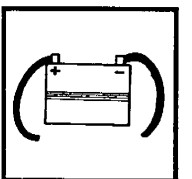
15. Lubricate the loader.



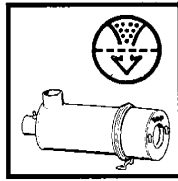
8. The parking brake must function correctly.



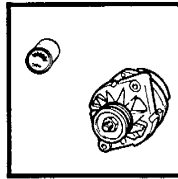
16. Check the condition of the battery and cables.



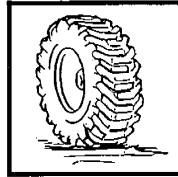
17. Inspect the air cleaner for damage or leaks. Check the condition of the element.



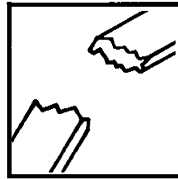
18. Check the electrical charging system.



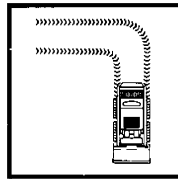
19. Check tires for wear and pressure.



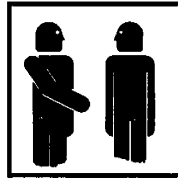
20. Inspect for loose or broken parts or connections.



21. Operate the loader and check all functions.



Recommend to the owner that all necessary corrections be made before the machine is returned to service.

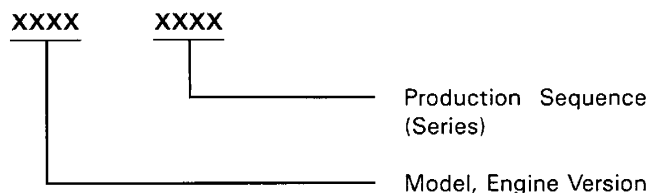


SERIAL NUMBER LOCATIONS

Always use the serial number of the loader when requesting service information or when ordering parts. Early or later models (identification made by serial number) may use different parts, or it may be necessary to use a different procedure in a specific service operation.

LOADER SERIAL NUMBER

The Bobcat loader serial number plate location is inside the left upright, above the grill **A**.

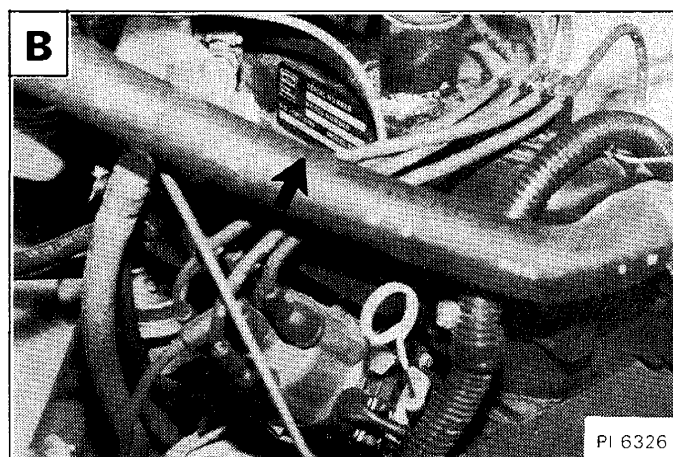
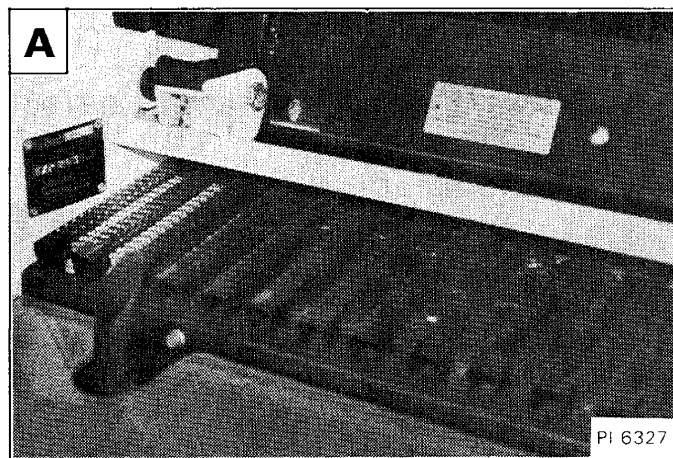


ENGINE SERIAL NUMBER LOCATION

The engine serial number is located on the rocker arm cover **B**.

NOTE: The five main bearing VSG-411 first production date was April 21, 1992. This date code is 2D21. Any engines with this date code or later has five main bearings.

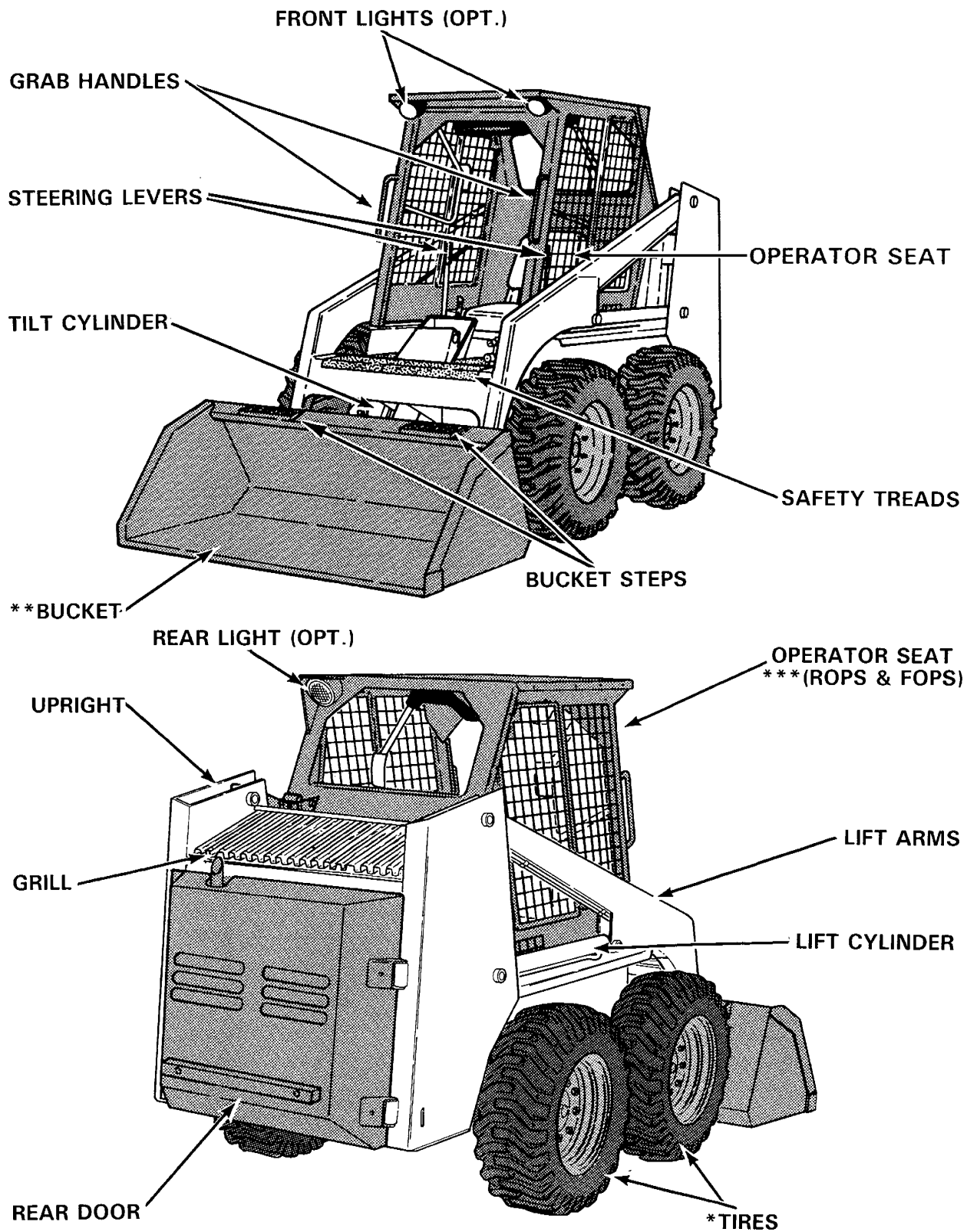
EXAMPLE: 2D21
 2-1992
 D-Spril (E-May, F-June, etc.)
 21- 21st Day



DELIVERY REPORT

The Delivery Report must be filled out by the dealer and signed by the owner or operator when the Bobcat loader is delivered **C**. An explanation of the form should be given to the owner. Make sure it is filled out completely.

BOBCAT LOADER IDENTIFICATION



B-7377
B-12388

- * TIRES — Flotation tires (Optional) are shown. Bobcats are base-equipped with standard tires.
- ** BUCKET — Several different buckets and other attachments are available for the Bobcat loader.
- *** ROPS, FOPS — Roll-Over Protective Structure, Falling Object Protective Structure.

PREVENTIVE MAINTENANCE

PREVENTIVE MAINTENANCE

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SERVICE SCHEDULE

Maintenance work must be done at regular intervals. Failure to do so may result in excessive wear and early failures. The Service Schedule is a guide for correct maintenance of the Bobcat loader.



WARNING

Instructions are necessary before operating or servicing machine. Read Operator's Manual, Handbook and signs (decals) on machine. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Failure to follow instructions can cause injury or death.

W-2003-1285

SERVICE SCHEDULE		HOURS					
ITEM	SERVICE REQUIRED	8-10	50	100	250	500	1000
Engine Oil	Check oil level and add oil as needed.	■					
Engine Air Cleaner	Empty the dust cup and replace the filter element, as needed.	■					
Engine Coolant System	Clean debris from shrouds and grills. Check coolant level in recovery tank and add coolant as needed.	■					
Tires	Check for damaged tires and correct air pressure.	■					
Seat Belt & Seat Bar	Check the condition of seat belt. Check the seat bar for correct operation.	■					
Safety Signs & Safety Tread	Check for damaged signs (decals) and safety tread. Replace if worn or damaged.	■					
Indicator & Lights	Check for correct operation of all indicators and lights.	■					
Operator Cab	Check the fastening bolts, washer and nuts. Check the condition of cab.	■					
Lift Arm & Bob-Tach Pivot Pins	Add grease to the fittings until the extra grease shows.	■					
Engine Oil & Filter	Replace oil and filter.		■				
Battery	Check cables and water level.		■				
Hydraulic Fluid, Tubelines & Hoses	Check fluid level and add as needed. Check for damage, leaks and repair or replace as needed.		■				
Control Pedals & Steering	Check for correct operation. Make repairs or adjustments as needed.		■				
Wheel Nuts	* Check for loose wheel nuts and tighten to 105-115 ft.-lbs. (142-156 Nm) torque.		■				
Parking Brake	Check operation. Make adjustment as needed.		■				
Alternator Belt	Check tension and adjust as needed.		■				
Spark Arrestor Muffler	Clean the spark chamber.			■			
Governor Oil Level	Check level, if low, add oil.			■			
Seat Bar	Grease pivot as needed.				■		
Steering Shaft Pivots	Grease two fittings. Add oil to steering shaft.				■		
Hydraulic/Hydrostatic Filter	# Replace the filter element.				■		
U-Joint	Grease three fittings with correct grease.				■		
Final Drive Trans. (Chaincase)	Check fluid level and add as needed.				■		
Engine Ignition System	Check the timing. Replace the spark plugs.				■		
Fuel Filter	Replace the filter element.					■	
Hydraulic/Hydrostatic Reservoir	Replace the reservoir breather cap.					■	
Final Drive Trans. (Chaincase)	Replace the fluid.						■
Hydraulic/Hydrostatic Reservoir	Replace the fluid.						■

* Check wheel nut torque every 8 hours for the first 24 hours.

Also replace hydraulic/hydrostatic filter element when the transmission warning light stays on for five minutes after the fluid is at operating temperature.

■ Or every 12 Months



WARNING

Instructions are necessary before operating or servicing machine. Read Operator's Manual, Handbook and signs (decals) on machine. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Failure to follow instructions can cause injury or death.

W-2003-1285

LIFTING AND BLOCKING THE BOBCAT LOADER

Procedure

Always park the loader on a level surface.



WARNING

Put jack stands under the front axles and rear corners of the frame before running the engine for service. Failure to use jack stands can allow the machine to fall or move and cause injury or death.

W-2017-0286

Put the floor jack under the rear of the loader.

Lift the rear of the loader and install jack stands **B**.

Put the floor jack under the front of the loader.

Lift the front of the loader and put jack stands under the axle tubes **C**.

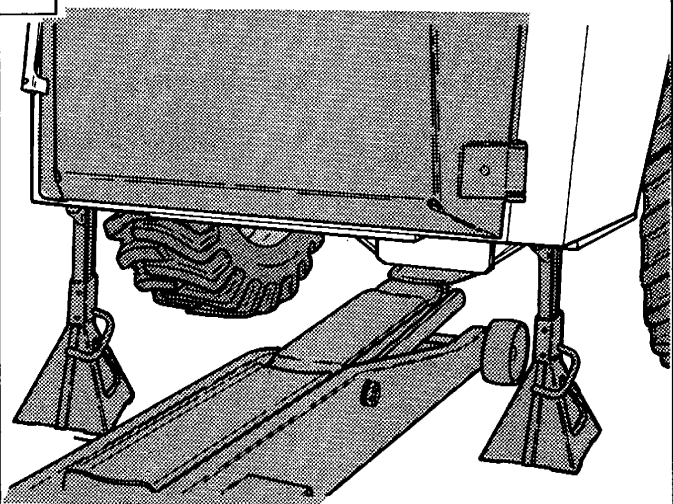
NOTE: Make sure the jack stands do not touch the tires.

A



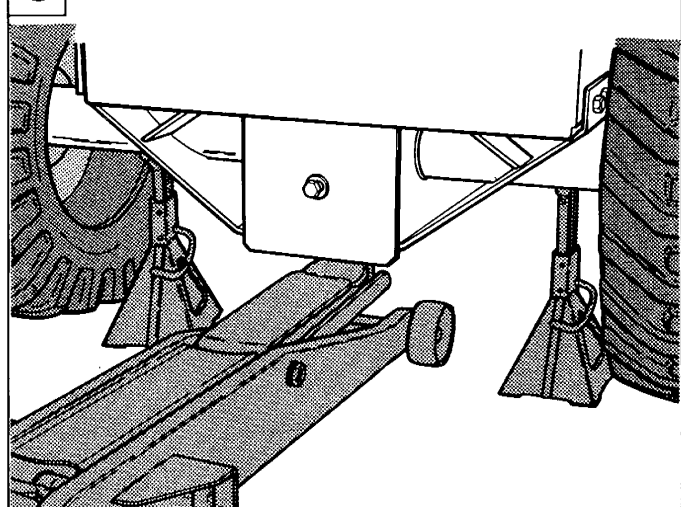
B-7023

B



B-9331

C



B-9843

LIFT ARM STOP

Procedure

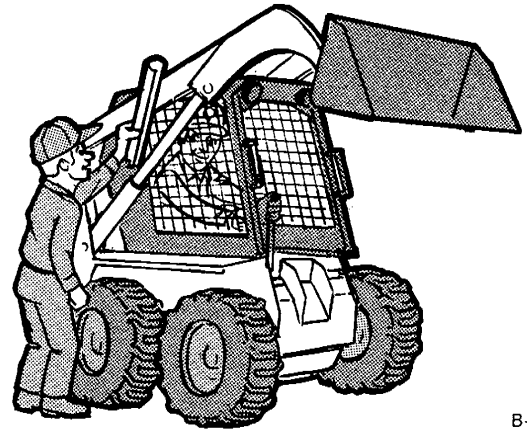


WARNING

Before the cab or the lift arms are raised for service, jack stands must be put under the rear corners of the frame. Failure to use jack stands may allow the machine to tip backwards causing injury or death.

W-2014-1285

A



B-6581

One person must stay in the operator cab with the seat belt fastened and the seat bar lowered, while the second person installs a Melroe approved lift arm stop over the rod of one lift cylinder **A**.

Start the engine and raise the lift arms. Have a second person install the lift arm stop over the rod of one lift cylinder.

The lift arm stop must be tight against the cylinder rod.

Lower the lift arms slowly until the stop is held between the lift arm and the lift cylinder.



WARNING

Never work on a machine with the lift arms up unless the lift arms are secured by a lift arm stop. Failure to use an approved lift arm stop can allow the lift arms or attachment to fall and cause injury or death.

W-2059-0487

TRANSPORTING THE BOBCAT LOADER

Procedure

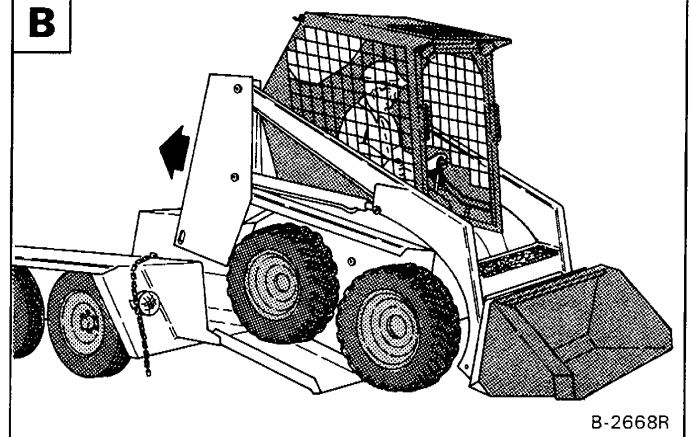


WARNING

Steel loading ramps are needed to support the weight of the machine when loading onto a transport vehicle. Wood ramps can break and cause personal injury.

W-2058-0887

B



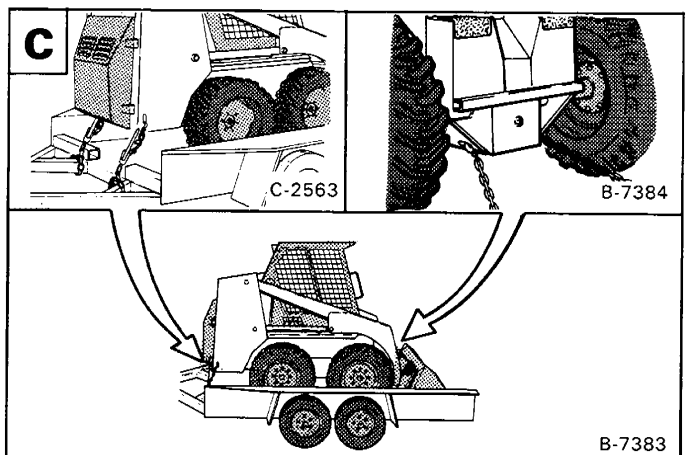
B-2668R

A loader with an empty bucket or no attachment must be driven backwards onto the transport vehicle **B**.

Use the following procedure to fasten the loader to the transport vehicle to prevent the loader from moving during sudden stops or when going up and down slopes **C**.

1. Lower the attachment (or bucket) to the floor of the transport vehicle.
2. Engage the parking brake. Install the chains to the front and rear of the loader as shown in figure **C**.

C



B-7383

OPERATOR CAB

Operator Cab Fasteners

The Bobcat loader has an operator cab (ROPS and FOPS) as standard equipment to protect the operator from rollover and falling objects.

Check with your dealer if the operator cab has been damaged.



WARNING

Never modify operator cab by welding, grinding, drilling holes or adding attachments unless instructed to do so by Melroe Company. Changes to the cab can cause loss of operator protection from rollover and falling objects, and result in injury or death.

W-2069-1285

The operator cab fastening bolts and nuts must be tight **A**. Tighten the bolts and nuts to 65-70 ft.-lbs. (89-94 Nm) torque.

Raising and Lowering the Operator Cab

Stop the loader on a level surface. Put the lift arms down. If the lift arms are up while raising the cab, install a lift arm stop (Page 1-3).



WARNING

Before the cab or the lift arms are raised for service, jack stands must be put under the rear corners of the frame. Failure to use jack stands may allow the machine to tip backwards causing injury or death.

W-2014-1285

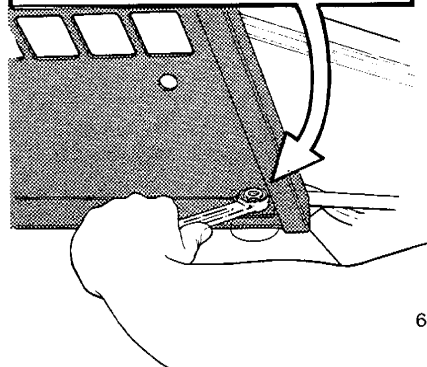
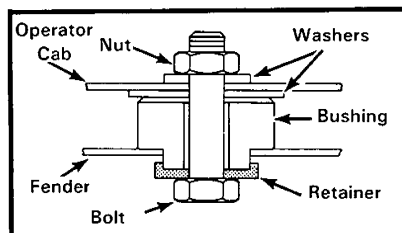
Remove the two fasteners (including the washers and plates) at the front corners of the operator cab **A**.

Installation: Tighten the bolts and nuts to 65-70 ft.-lbs. (89-94 Nm) torque.

If the lift arms are down, stand beside the loader and lift on the top of the cab and the handle. Slowly lift until the cab is all the way up **B**. Reverse the procedure to lower the operator cab.

If the lift arms are held up by a lift arm stop, stand in front of the loader. Lift on the handle and the bottom of the operator cab slowly until the cab is all the way up **C**. Reverse the procedure to lower the operator cab.

A



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C-2599

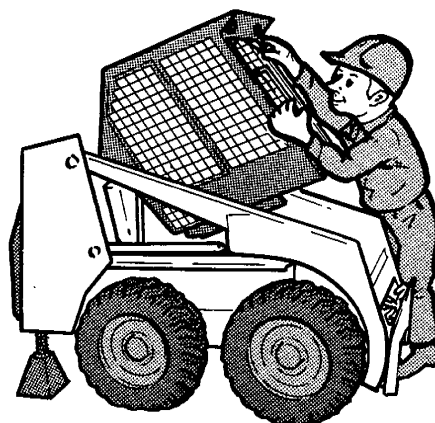


WARNING

Both sets of fasteners at the front of the operator cab (ROPS) must be assembled as shown in this Service Manual. Failure to secure ROPS correctly can cause injury or death.

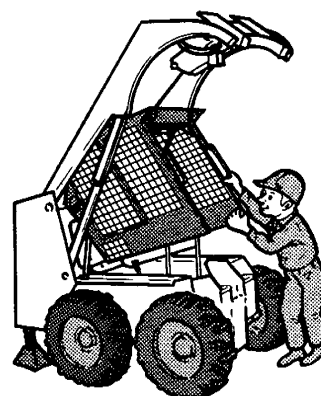
W-2005-1285

B



B-12365

C



B-7463

SEAT BAR SYSTEM

Seat Bar Description

The seat bar system has a pivoting seat bar with arm rests and has spring loaded latches for the lift and tilt control pedals. The seat bar in the down position helps to keep the operator in the seat and unlocks the foot pedals. When the seat bar is up, the lift and tilt pedals are locked in neutral position.

Seat Bar Inspection

Sit in the seat and fasten the seat belt snugly. Engage the parking brake. Pull the seat bar all the way down and start the engine.

Operate each foot pedal to check both the lift arm and tilt functions. Raise the lift arms until the bucket is about two feet (600 mm) off the ground.

Raise the seat bar. Try to move each foot pedal. Pedals must be firmly locked in the neutral position. There must be no motion of the lift arms or tilt (bucket) when the pedals are pushed.

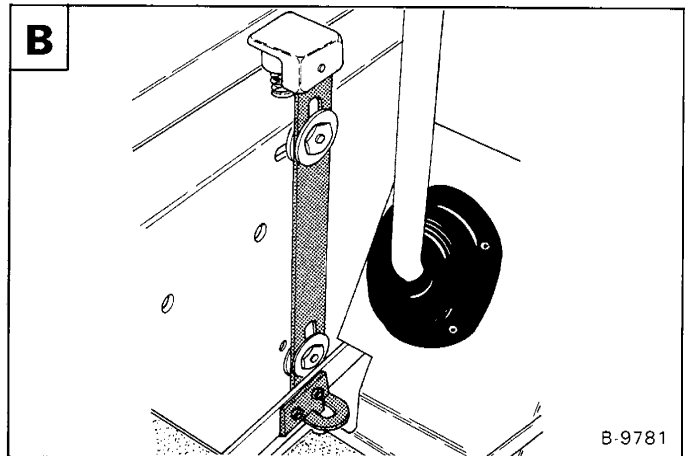
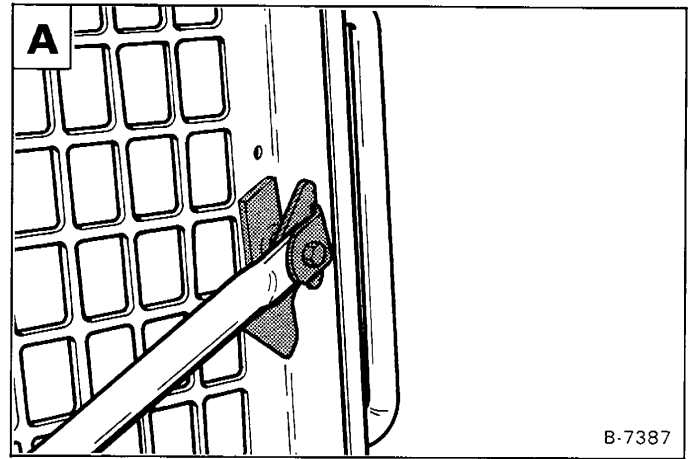
Pull the seat bar down, lower the lift arms fully and put the bucket flat on the ground. Stop the engine. Raise the seat bar and operate the foot pedals to be sure that the pedals are firmly locked in the neutral position. Unfasten the seat belt.

Seat Bar Maintenance

Clean any debris or dirt from moving parts **A** **B**.

Inspect the linkage bolts and nuts for being tight. The correct torque is 25-28 ft.-lbs. (34-38 Nm).

Use general purpose grease to lubricate the seat bar pivot points at each side of the cab **A**. If the seat bar system does not function correctly, check for free movement of each linkage part. Check for excessive wear. Adjust the pedal control linkages. Replace parts that are worn or damaged. Use only Melroe replacement parts.



WARNING

AVOID INJURY OR DEATH

The seat bar system must lock the lift and tilt control pedals in neutral when the seat bar is up. Service the system if pedals do not lock correctly.

W-2105-1285

USING AN EXTRA BATTERY (JUMP STARTING)

Procedure

If it is necessary to use an extra battery to start the engine, **BE CAREFUL!** There must be one person in the operator's seat with the seat belt fastened and seat bar lowered and one person to connect and disconnect the battery cables.



WARNING

Batteries contain acid which burns eyes and skin on contact. Wear goggles, protective clothing and rubber gloves to keep acid off body. In case of acid contact, wash immediately with water for several minutes and get medical attention in case of eye contact.

W-2065-1286

1. The ignition must be in the "OFF" position. The battery to be used must be of the same voltage.
2. Connect the end of the first cable to the positive (+) terminal of the extra battery. Connect the other end of the same cable to the battery positive (+) terminal **A**.
3. Connect the end of the second cable to the negative (-) terminal of the extra battery. Connect the other end of the second cable to the engine for ground **A**.
4. Keep the cables away from moving parts.
5. Start the engine (See "Cold Starting" procedure in the Operator's Manual).
6. After the engine is running. Remove the negative (-) cable from the engine first.
7. Then remove the cable connected to the positive (+) terminal of the battery.

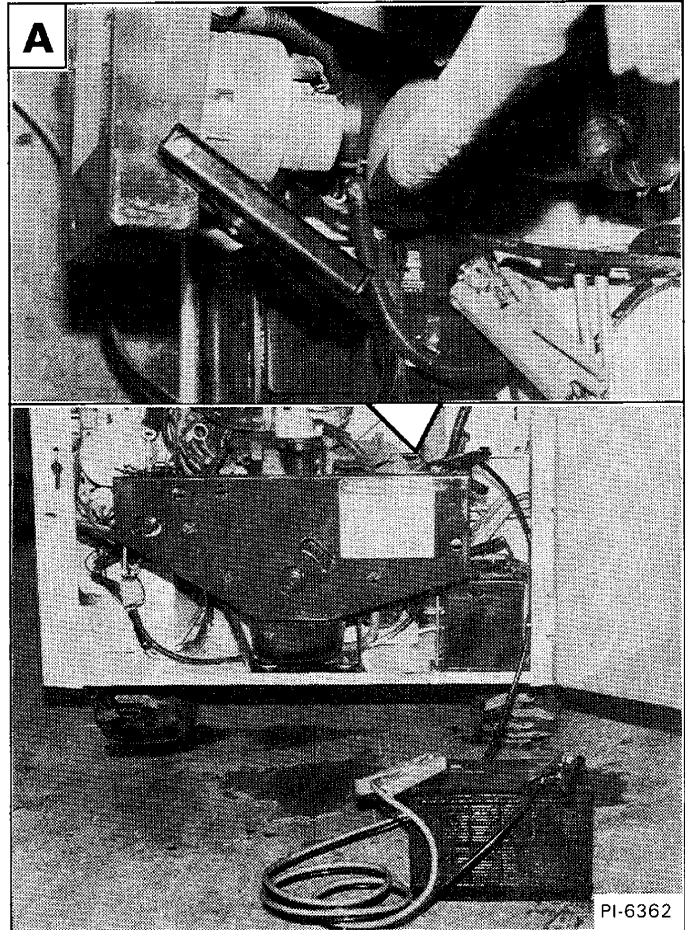
IMPORTANT

Damage to the alternator can occur if:

- Engine is operated with battery cables disconnected.
- Battery cables are connected when using a fast charger or when welding on the loader (Remove both cables from the battery).
- Extra battery cables (booster cables) are connected wrong.

I-2023-1285

A



WARNING

Keep arcs, sparks, flames and lighted tobacco away from batteries. When "jumping" from an extra battery make final connection (negative) at engine frame.

Do not jump start or charge a frozen battery. Warm battery to 60°F (16°C) before connecting to a charger. Unplug charger before connecting or disconnecting cables at battery.

Battery gas can explode and cause serious injury.

W-2066-1285

AIR CLEANER

Replacement of Filter Element

See the Service Schedule (Page 1 – 1) for the correct interval to service the air cleaner.



WARNING

AVOID INJURY OR DEATH

Stop, cool and clean engine of flammable material.
Never service or adjust loader with engine running
unless instructed to do so in manual.

W-2061-0887

To replace the filter element, use the following procedure:

Loosen the clamp on the air cleaner cup.

Remove the dust cup **A**.

Remove the wing nut **B**.

Remove the filter element **C**.

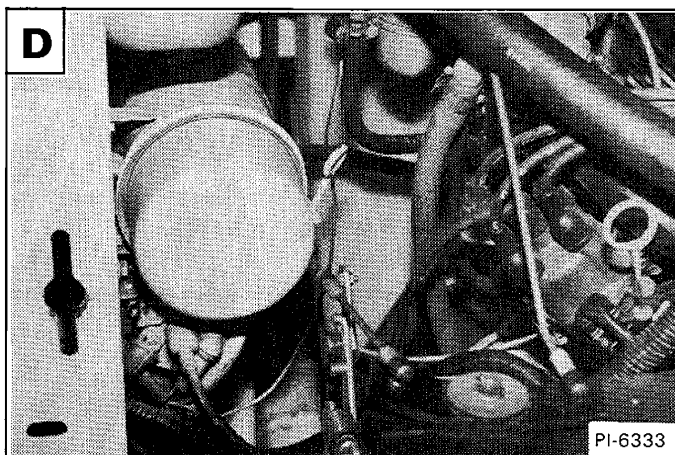
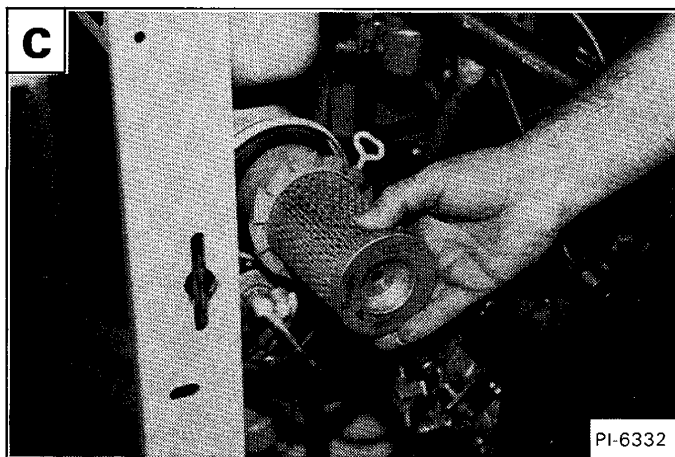
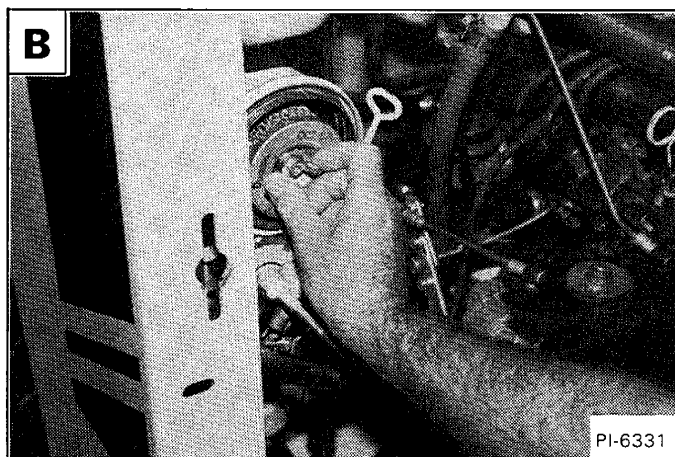
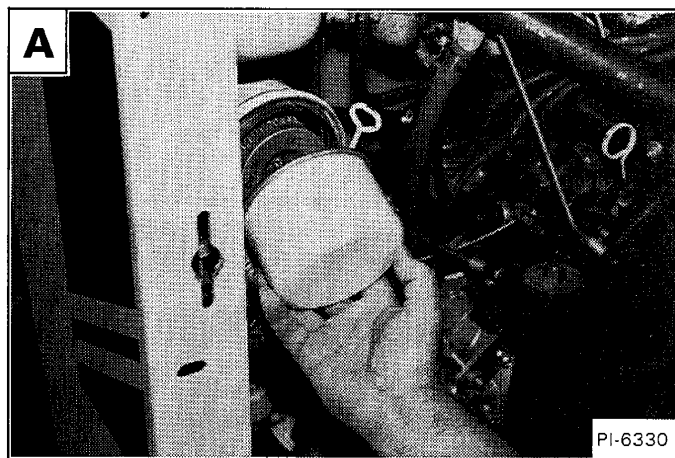
Check the air cleaner housing for holes from corrosion.

Install the new filter element.

Install and tighten the wing nut.

Install the dust cup so the arrow on the cup is up **D**. Tighten the clamp.

Check that all the air cleaner hose clamps are tight.



FUEL SYSTEM

Filling the Fuel Tank

Use unleaded or leaded gasoline in the engine.



WARNING

Stop and cool the engine before adding fuel. **NO SMOKING!** Failure to obey warnings can cause an explosion or fire.

W-2063-0887

Remove the filler cap (Item 1) **B**.

Use a clean, approved safety container to add fuel to the tank.

The key switch must be in the "OFF" position and the engine cool.

Add fuel only in an area that has a free movement of air and no open flames or sparks. **NO SMOKING!**

After fuel has been added, install and tighten the filler cap.

Fuel Filter

See the Service Schedule (Page 1 — 1) for the correct interval to service the fuel filter.

Close the fuel shut-off valve (Item 1) **C**.

Loosen the hose clamps and remove the fuel filter (Item 1) **D**.

Install the new fuel filter element and tighten the hose clamps. Open the fuel shut-off valve.



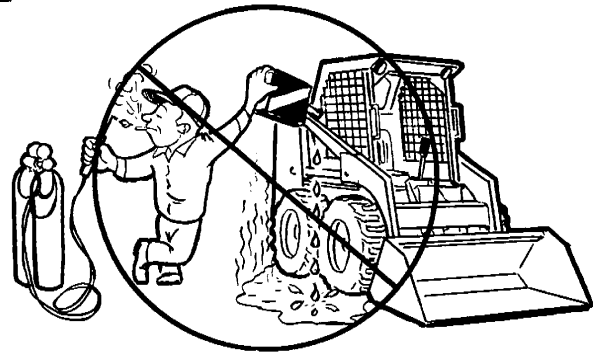
WARNING

Always clean up spilled fuel or oil. Keep heat, flames, sparks or lighted tobacco away from fuel and oil. Failure to use care around combustibles can cause explosion or fire which can result in injury or death.

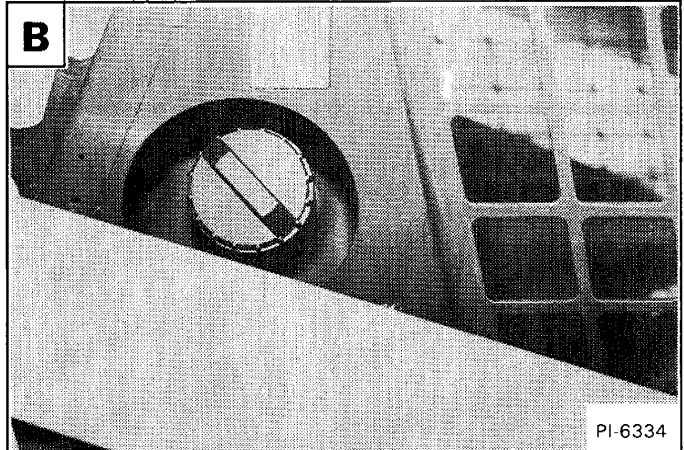
W-2103-1285

A

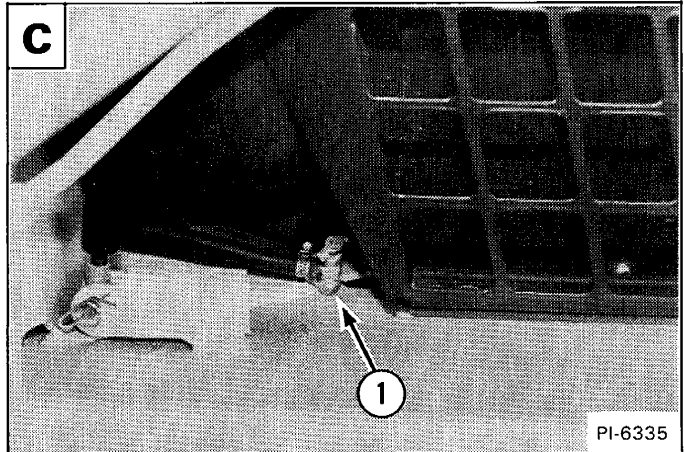
WRONG



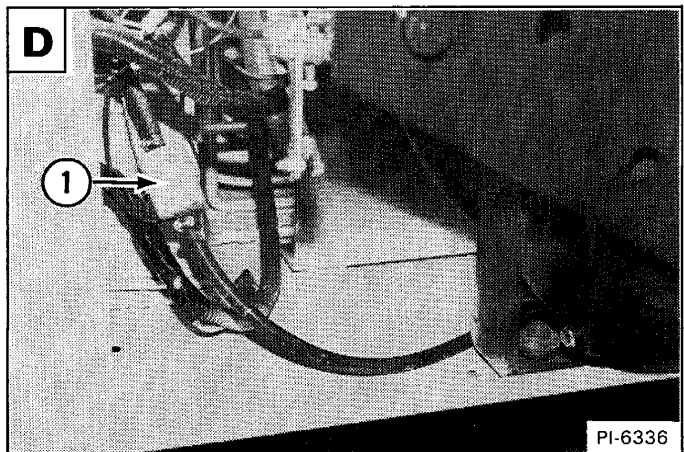
B



C



D



ENGINE LUBRICATION SYSTEM

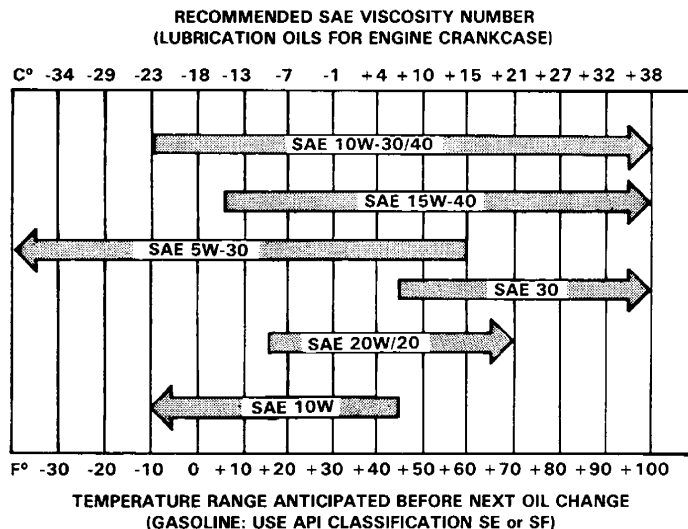
Checking Engine Oil

Check the engine oil level every day.

Stop the engine. Open the rear door and remove the dipstick **A**.

Keep the oil level between the marks on the dipstick.

Use a good quality motor oil that meets API Service Classification of SE or SF (See the Oil Chart below).



Replacement of Engine Oil and Filter

See the Service Schedule (Page 1 — 1) for the service interval for replacing the engine oil and filter.

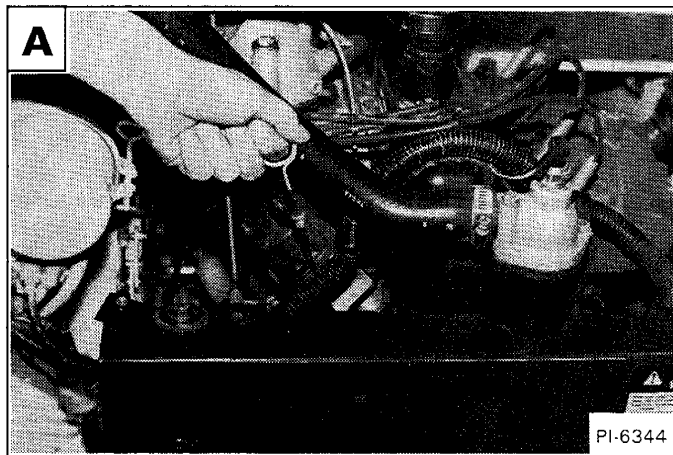
1. Run the engine until it is at operating temperature. Stop the engine.
2. Open the rear door.
3. Remove the drain plug and drain the oil into a container **B**.
4. Remove the oil filter **C**.
5. Clean the filter housing surface. Put clean oil on the new oil filter gasket. Install the filter and hand tighten only.
6. Install and tighten the oil plug. Remove the filler cap. Put 3.5 quarts (3,3 L) of oil in the engine (See the Oil Chart) **D**.
7. Start the engine and let it run for several minutes. Stop the engine. Check for leaks and check the oil level. Add oil as needed if it is not at the top mark on the dipstick.



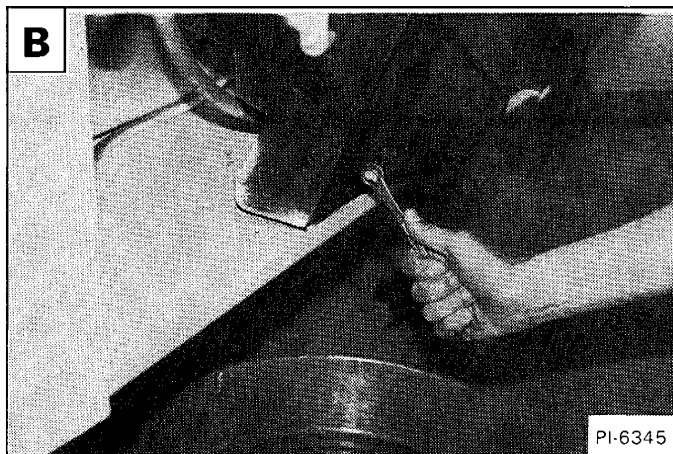
WARNING

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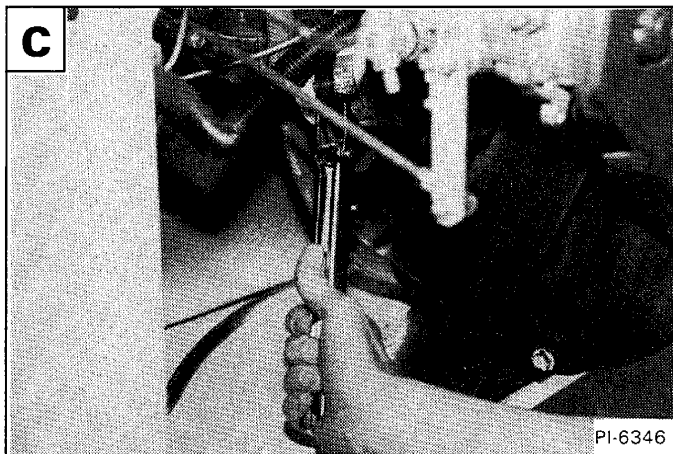
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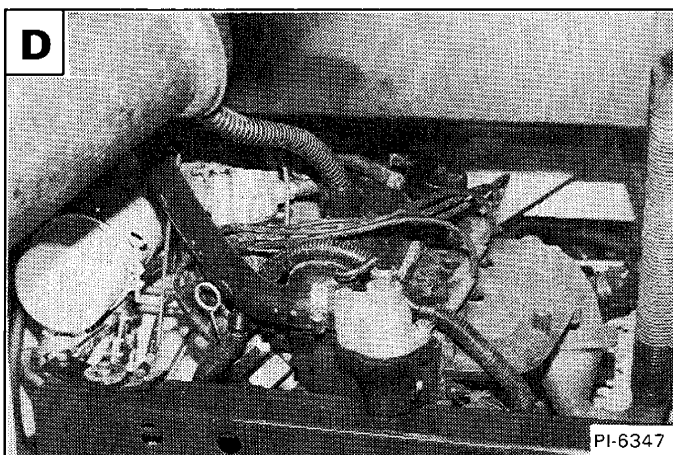
PI-6344



PI-6345



PI-6346



PI-6347

COOLING SYSTEM

Rear Grill

Keep the rear grill free of debris or overheating will result **A**.



WARNING

Wear safety glasses to prevent eye injury when any of the following conditions exist:

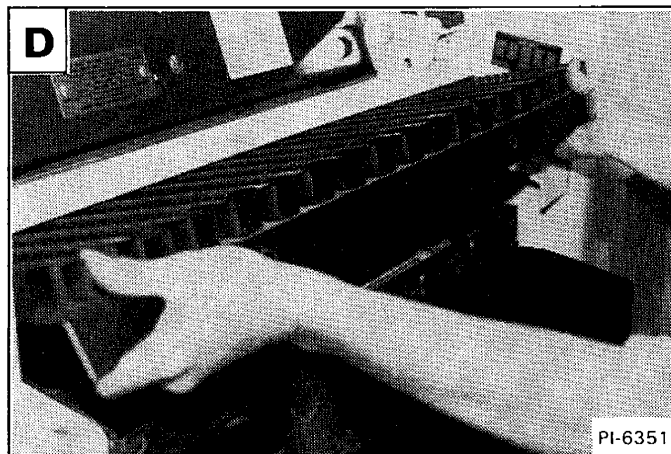
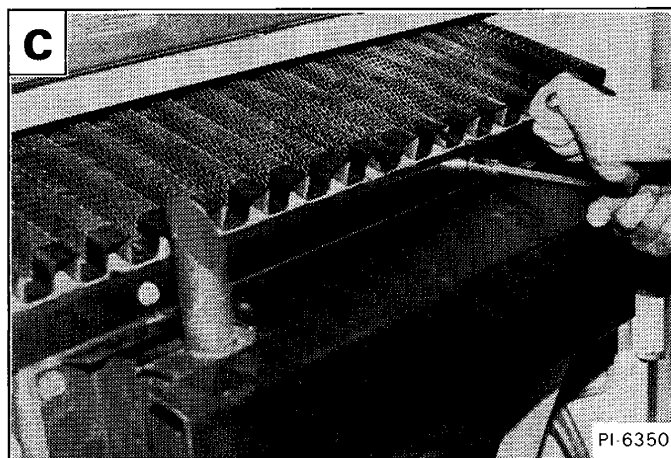
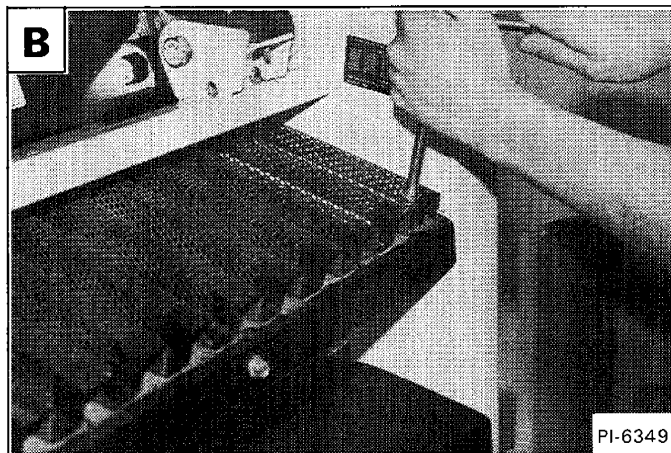
- When fluids are under pressure.
- Flying debris or loose material is present.
- Engine is running.
- Tools are being used.

W-2019-1285

To remove the rear grill from the loader, use the following procedure:

Remove the four bolts from the rear grill **B** **C**.

Lift the grill up and remove from the loader **D**.



COOLING SYSTEM (Cont'd)

Coolant Level

The coolant recovery tank is located in the engine compartment at the left side **A**.

When the engine is cool, the coolant recovery tank must be 1/3 full. Add coolant to the recovery tank when the coolant level is low **B**.

Removing Coolant from the Cooling System



WARNING

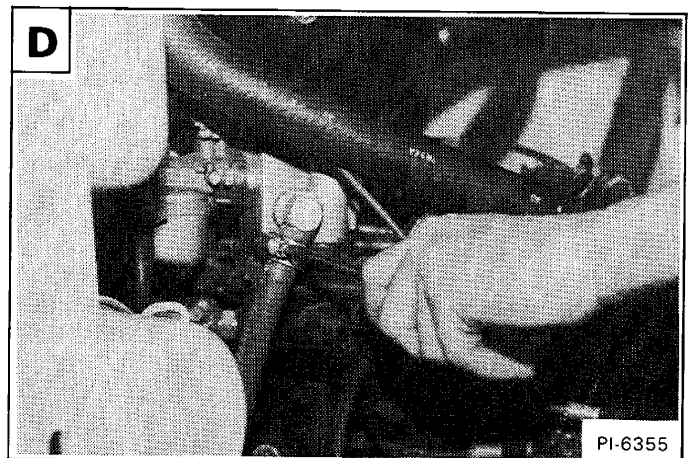
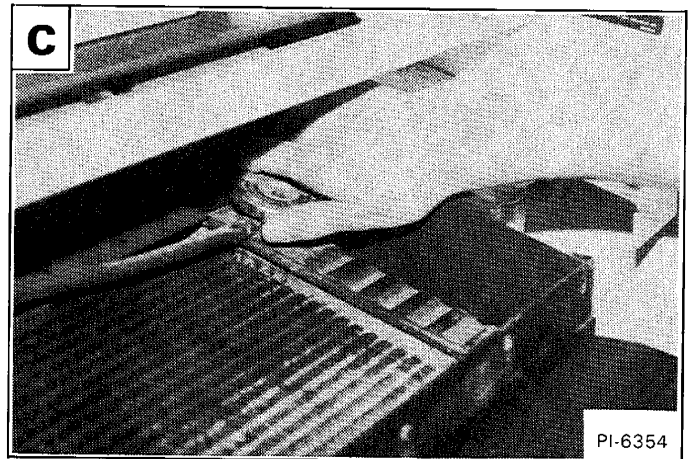
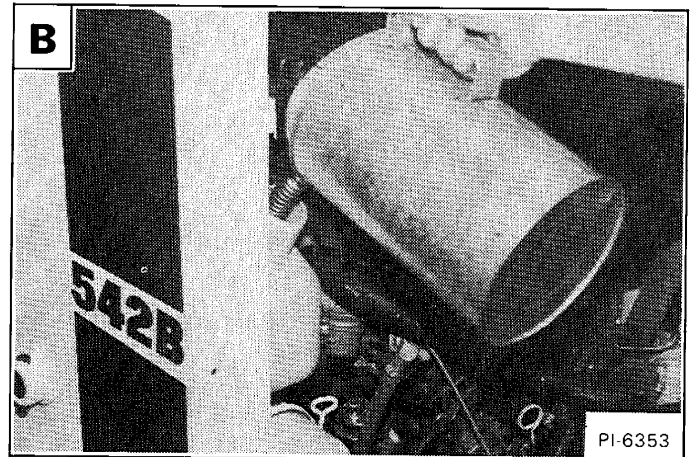
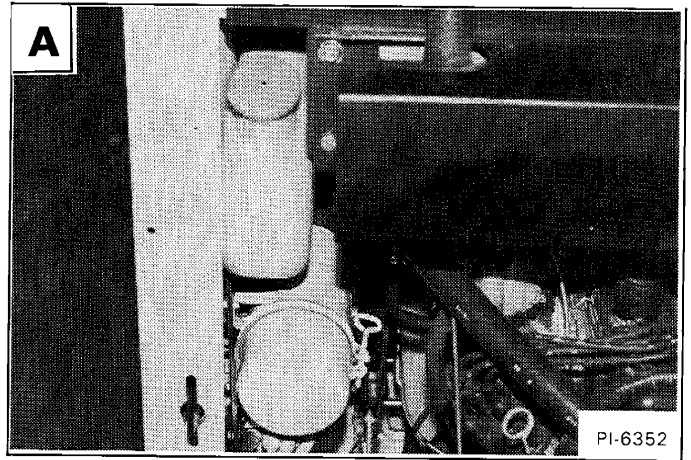
Do not remove radiator cap when the engine is hot. You can be seriously burned.

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1. Open the rear door. Remove the rear grill (Page 1—10).
2. Remove the radiator cap **C**.
3. Remove the hose at the carburetor mounting housing **D**. Drain the coolant into a container.
4. After all the coolant is removed, connect the hose and tighten the clamp **D**.
5. Mix the coolant in a separate container (See Specifications for correct capacity).

NOTE: Protect the cooling system by adding pre-mixed 50% ethylene glycol and 50% water to the system. This mixture will protect the cooling system to -34°F (-36°C).

6. Fill the radiator with the pre-mixed coolant. Install the radiator cap. Install the rear grill.
7. Fill the coolant recovery tank 1/3 full.
8. Run the engine until it is at operating temperature. Stop the engine. Check the coolant level in the recovery tank and add coolant as needed after the engine is cool.



HYDRAULIC/HYDROSTATIC SYSTEM

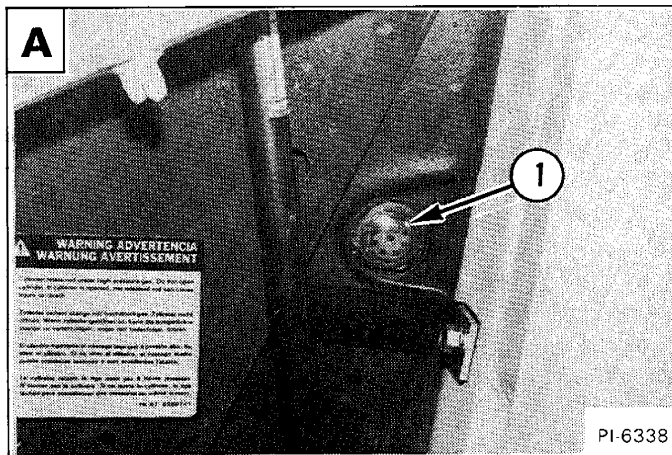
Checking and Adding Fluid

Use only recommended fluid in the hydraulic/hydrostatic system (See Specifications Section, for the correct fluid).

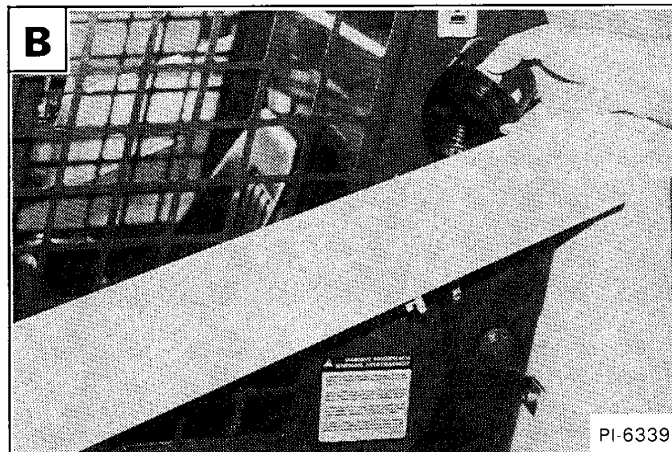
To check the fluid in the reservoir, use the following procedure:

Put the Bobcat loader on a level surface. Lower the lift arms and tilt the Bob-Tach fully backwards. Stop the engine.

Hydraulic fluid must show in the sight glass (Item 1) **A**.

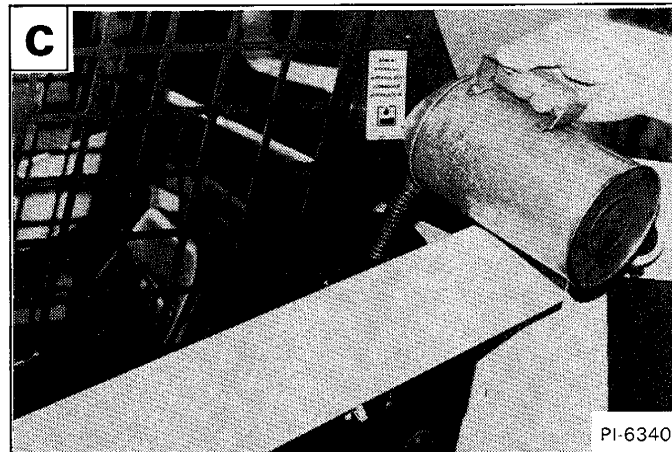


If the fluid is not seen in the sight glass, remove the filler cap **B**.



NOTE: Before adding fluid, make sure the screen is in position and not damaged in the filler neck of the hydraulic reservoir.

Add fluid to the reservoir until it shows in the sight glass **C**. Replace the filler cap.

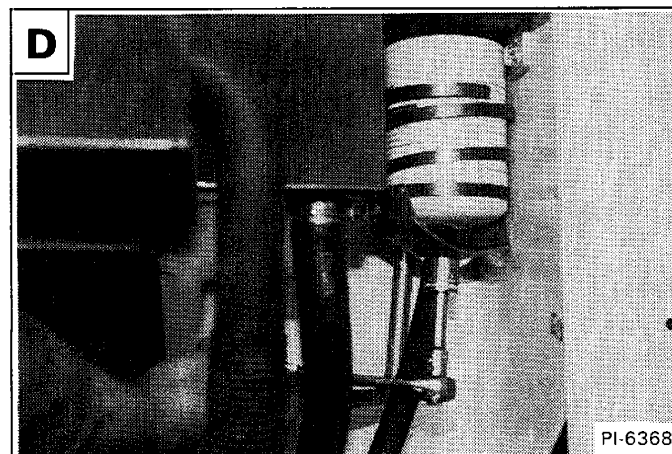


Replacement of the Hydraulic Filter Element

See the Service Schedule (Page 1 — 1) for the correct service interval.

Stop the engine. Open the rear door. Remove the filter element **D**.

Clean the surface of the filter housing head where the filter element seal contacts the filter housing. Lubricate the new filter gasket with grease. Install the filter element and hand tighten only. Operate the loader and check for leaks at the filter. Check the fluid level in the reservoir and add as needed.

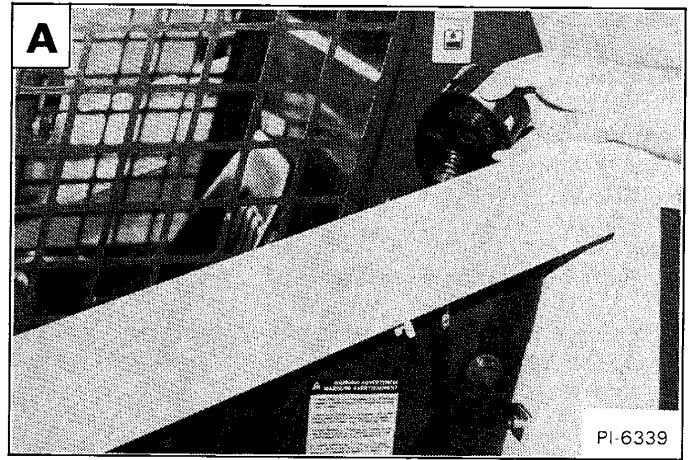


HYDRAULIC/HYDROSTATIC SYSTEM (Cont'd)

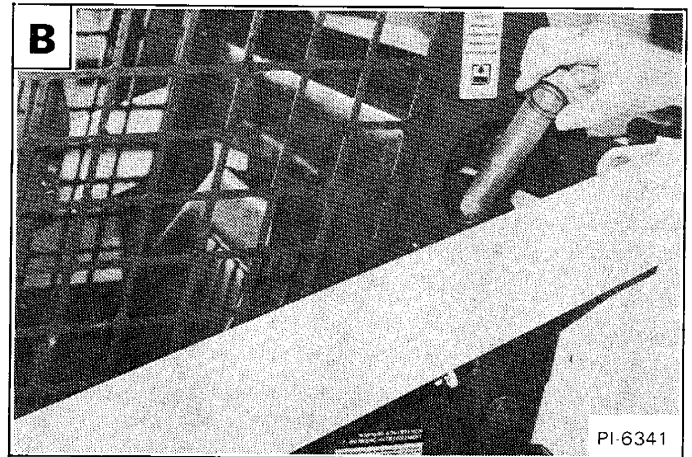
Removing the Hydraulic Fluid

See the Service Schedule (Page 1 — 1) for the service interval to replace the fluid in the reservoir. The fluid must also be replaced if it becomes contaminated and after any major repairs.

Remove the filler cap from the reservoir **A**.



Remove the screen from the fill pipe **B**. After the fluid is removed from the reservoir, install the screen.

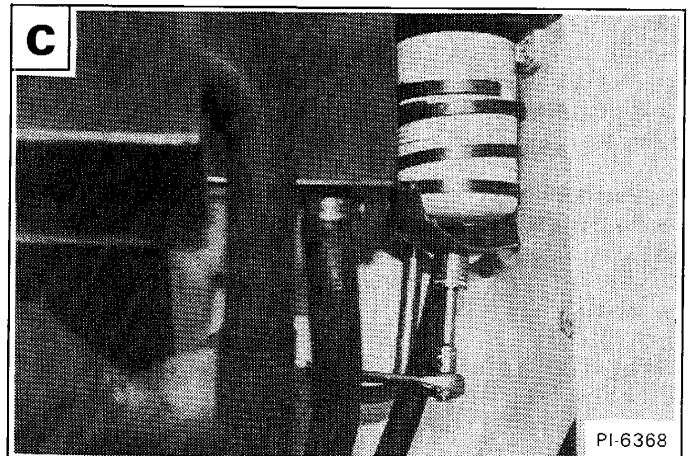


WARNING

Always clean up spilled fuel or oil. Keep heat, flames, sparks or lighted tobacco away from fuel and oil. Failure to use care around combustibles can cause explosion or fire which can result in injury or death.

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Remove and replace the hydraulic filter element with a new element **C**.

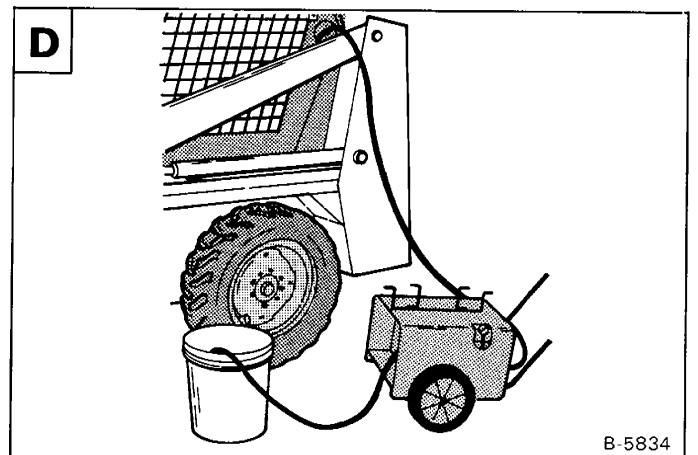


Remove the fluid from the reservoir with a hydraulic transfer pump or a hand operated suction pump **D**.

Add fluid to the hydraulic/hydrostatic reservoir (See Specifications Section, for the correct fluid). DO NOT fill above the sight glass.

Operate the loader and hydraulic functions. Stop the engine. Check the fluid level in the sight glass.

Add fluid as needed.

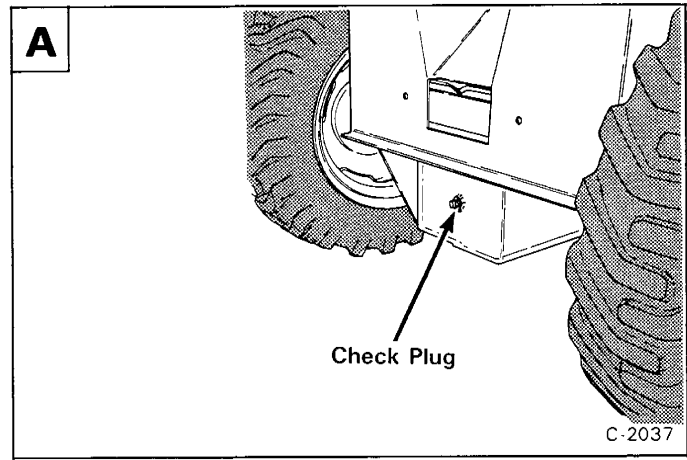


FINAL DRIVE TRANSMISSION (CHAINCASE)

Checking Oil Level

The chaincase contains the final drive sprockets and the chains. The chaincase uses the same type of fluid as the hydraulic system. To check the chaincase oil level, use the following procedure:

1. Put the loader on a level surface.
2. Remove the plug at the front of the chaincase **A**. If the oil can be reached with the tip of the finger through the hole, the level is correct.
3. Add fluid through the check plug hole until the oil flows from the hole. Install and tighten the plug.



TIRE MAINTENANCE

Wheel Nuts

See the Service Schedule (Page 1 – 1) for the service interval to check the wheel nuts. The correct torque is 105-115 ft.-lbs. (142-156 Nm) torque **B**.

Tire Rotation

Check the tires regularly for wear, damage and pressure (See Specifications Section for the correct tire pressure).

It is important to keep the same size tires on each side of the loader to avoid excessive wear. If different sizes are used, each tire will be turning at a different speed and cause excessive wear. When tire wears, always install two new tires on the same side of the loader. The tread bars of all the tires must face in the same direction.

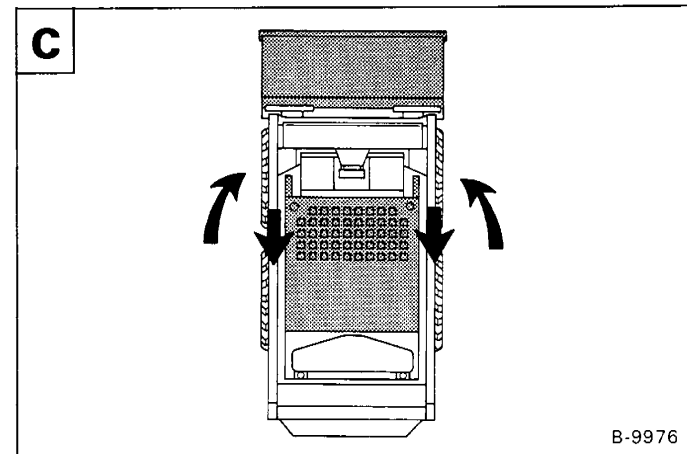
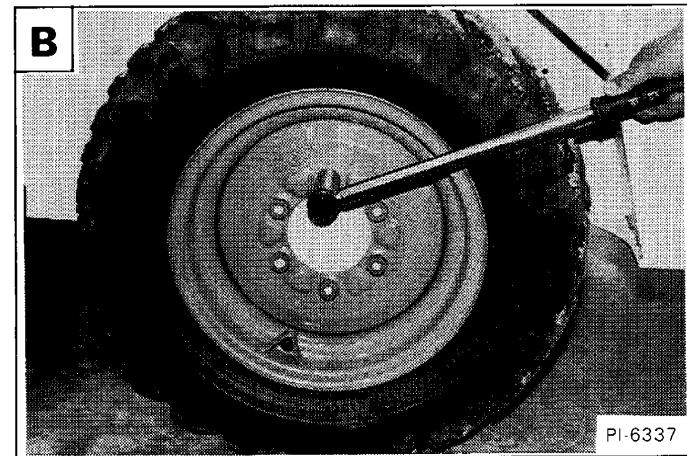
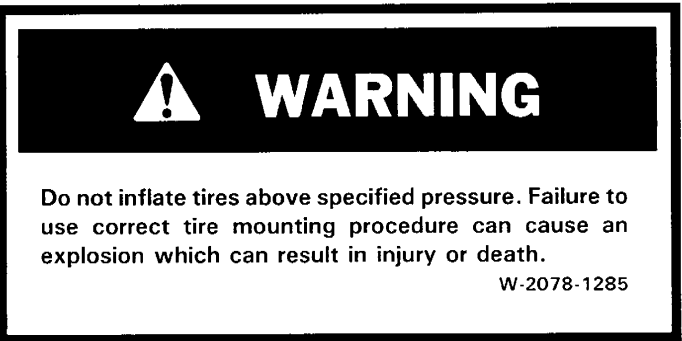
Recommended tire pressure must be maintained to avoid excessive tire wear and loss of stability and handling capacity. Tires are sometimes inflated above or below operating pressure for shipping. Check for the correct pressure before operating the loader.

When installing a tire on a rim, use only tires of correct size, check rim and tire bead for damage.

Tire Inflation

Tires are to be repaired only by an authorized person using the proper procedures and safety equipment. Tires and rims must always be checked for proper size before mounting.

The rim flange must be cleaned and free of rust. The tire bead and rim flange must be lubricated with a rubber lubricant before mounting the tire to avoid damage to the rim or tire. When inflating a tire, avoid excess pressure which can rupture the tire and cause serious injury. During inflation of the tire, check the tire pressure frequently to avoid over-inflation.



LUBRICATION OF THE LOADER

Procedure

Lubricate the Bobcat loader as specified in the Service Schedule (Page 1 – 1) for the best performance of the loader **A**.

Always use a good quality lithium based multi-purpose grease when you lubricate the loader. Apply the lubricant until the extra grease shows.

See the Service Schedule (Page 1 – 1) for the service interval when to grease the U-joints.

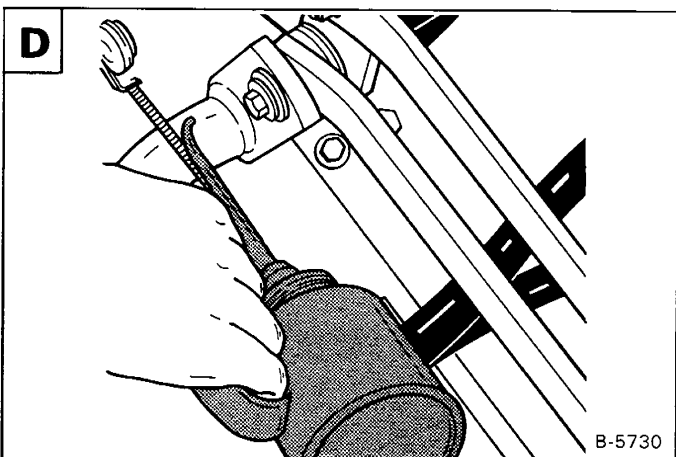
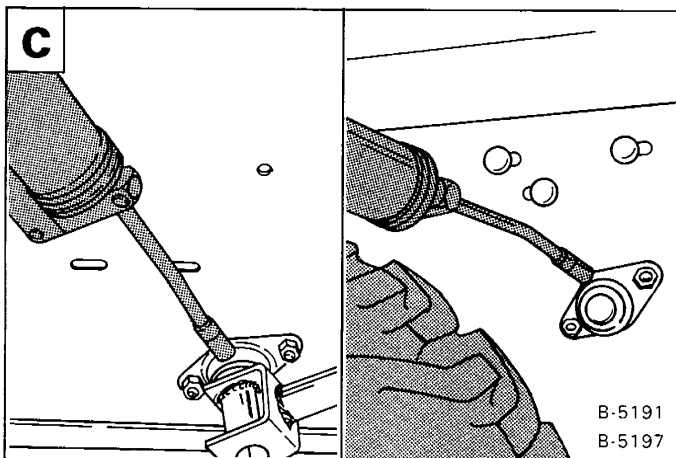
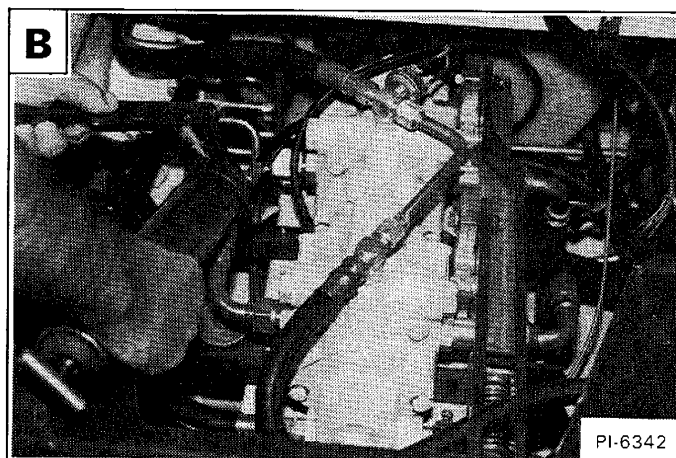
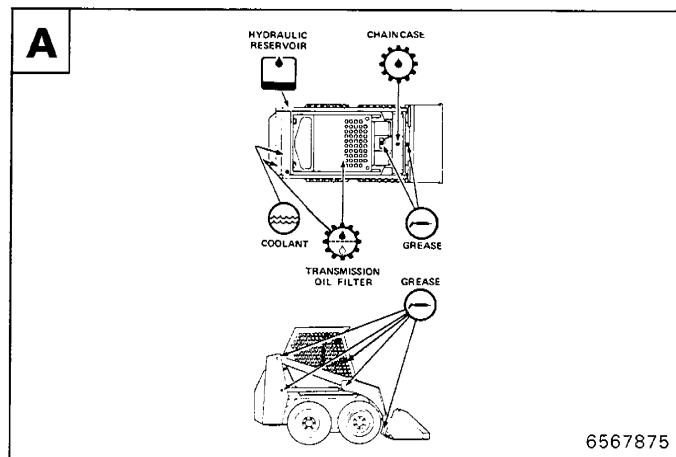
Raise the operator cab (Page 1 – 4).

Use a special U-joint grease (P/N 6599719) to assure correct lubrication of the U-joints **B**.

See the Service Schedule (Page 1 – 1) for the interval when to grease the steering lever pivot bearings and shaft.

Grease the pivot bearings for the steering levers (both sides) **C**.

Add oil as needed to the steering control shaft **D**.



REMOTE START SWITCH

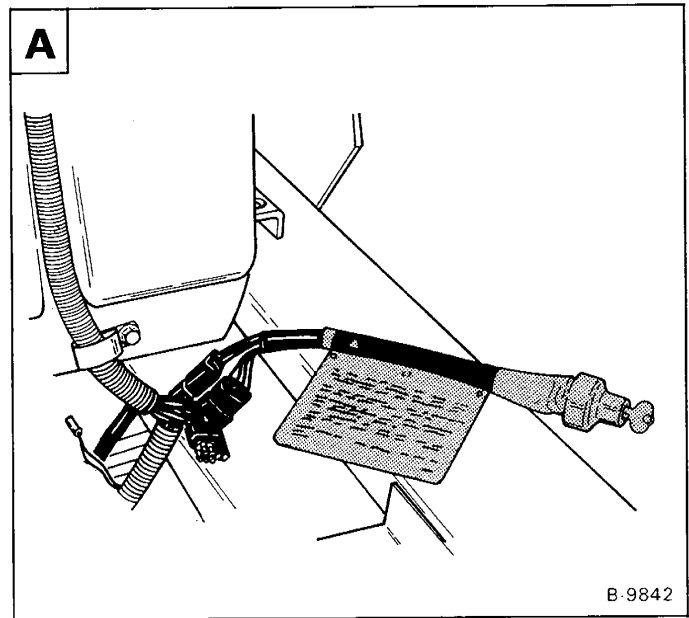
Procedure

The tool listed will be needed to do the following procedure:

MEL-1138A — Remote Start Switch

The remote start switch is required when the operator cab is in the raised position for service and the serviceman needs to start the engine. The wire harness must be separated at the operator cab and engine wiring harness connectors and the remote start switch connected **A**.

This remote start switch is required when the serviceman is adjusting the steering linkage or check the hydraulic/hydrostatic system.



WARNING

Put jackstands under the front axles and rear corners of the frame before running the engine for service. Failure to use jackstands can allow the machine to fall or move and cause injury or death.

W-2017-0286

HYDRAULIC SYSTEM

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**TIGHTEN ALL HARDWARE PER SIZE TO GRADE 5 TORQUE (SEE
STANDARD TORQUE SPECIFICATION FOR BOLTS, SECTION 8)
UNLESS OTHERWISE SPECIFIED.**

HYDRAULIC SYSTEM

Product: Bobcat 542B Skid Steer Loader Service Repair Workshop Manual
Full Download: <https://www.arepairmanual.com/downloads/bobcat-542b-skid-steer-loader-service-repair-workshop-manual/>



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