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**PREVENTIVE  
MAINTENANCE**

**HYDRAULIC  
SYSTEM**

**HYDROSTATIC  
SYSTEM**

**DRIVE  
SYSTEM**

**MAIN  
FRAME**

**ELECTRICAL  
SYSTEM**

**ENGINE  
SERVICE**

**SPECIFICATIONS**

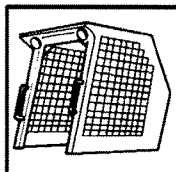


# FOREWORD

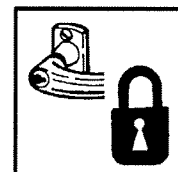
This manual is for the Bobcat loader mechanic. It provides necessary servicing and adjustment procedures for the Bobcat loader and its component parts and systems. Refer to the Operation & Maintenance Manual for operating instructions, starting procedure, daily checks, etc.

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

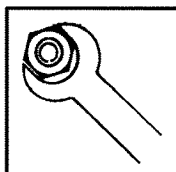
1. Check that the ROPS/FOPS (Including sidescreens) is in good condition and is not modified.



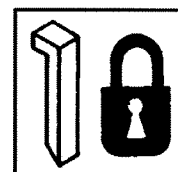
9. Enclosure door latches must open and close freely.



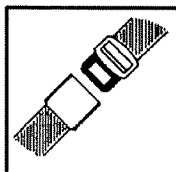
2. Check that ROPS mounting hardware is tightened and is Melroe approved.



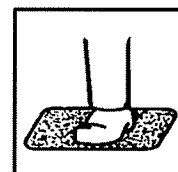
10. Bob-Tach wedges and linkages must function correctly and be in good condition.



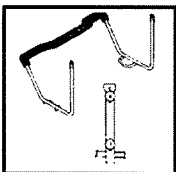
3. The seat belt must be correctly installed, functional and in good condition.



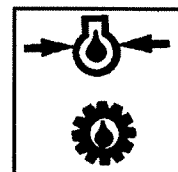
11. Safety treads must be in good condition.



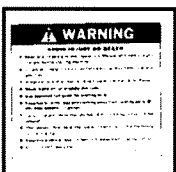
4. The seat bar and pedal interlocks must be correctly adjusted, clean and lubricated.



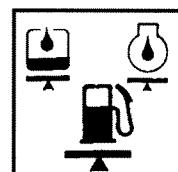
12. Check for correct function of indicator lamps (Optional on some models).



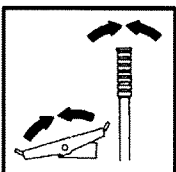
5. Machine signs must be legible and in the correct location.



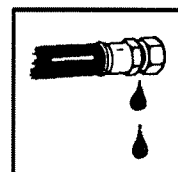
13. Check hydraulic fluid level, engine oil level and fuel supply.



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



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



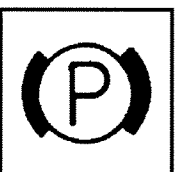
7. Check for correct function of the work lights.



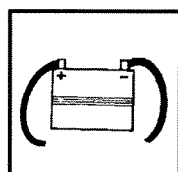
15. Lubricate the loader.



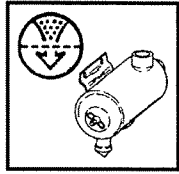
8. The parking brake must function correctly.



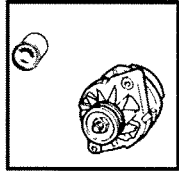
16. Check the condition of the battery and cables.



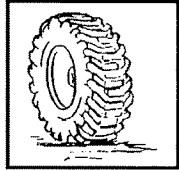
17. Inspect the air cleaner for damage or leaks. Check the condition of the element.



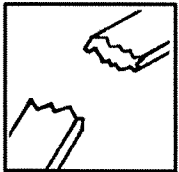
18. Check the electrical charging system.



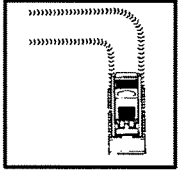
19. Check tires for wear and pressure.



20. Inspect for loose or broken parts or connections.



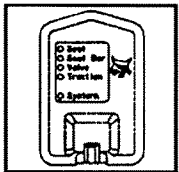
21. Operate the loader and check all functions.



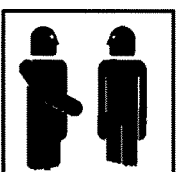
22. Check for any field modification not completed.



23. Check for correct function of the Bobcat Interlock Control System (BICS™) before the machine is returned to the customer.



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



## SAFETY INSTRUCTIONS

### **! WARNING**

Instructions are necessary before operating or servicing machine. Read Operation & Maintenance 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-2003-0797

The following publications provide information on the safe use and maintenance of the loader and attachments:

- The Delivery Report is used to assure that complete instructions have been given to the new owner and that the machine is in safe operating condition.
- The Operation & Maintenance Manual delivered with the loader gives operating information as well as routine maintenance and service procedures. It is a part of the loader and must stay with the machine when it is sold. Replacement Operation & Maintenance manuals can be reed from your Bobcat loader dealer.
- The loader has a plastic Operator's Handbook fastened to the operator cab. Its brief instructions are convenient to the operator. The handbook is available from your dealer in an English edition or one of the following languages: French, German, Italian, Dutch & spanish.
- The EMI Safety Manual (available in Spanish) delivered with the loader gives general safety information.
- The Service Manual and Parts Manual are available from your dealer for use by mechanics to do shop-type service and repair work.
- The Skid-Steer Loader Operator training Course is available through your local Bobcat dealer. This course is intended to provide rules and practices for correct operation of the Bobcat loader. The course is available in English and Spanish version.
- The Bobcat Skid-Steer Loader Safety Video is available from your Bobcat Dealer.

### **! WARNING**

Warnings on the machine and in the manuals are for your safety. Failure to obey warnings can cause injury or death.

W-2044-1285

### **IMPORTANT**

This notice identifies procedures which must be followed to avoid damage to the machine.

I-2019-0284

## FIRE PREVENTION

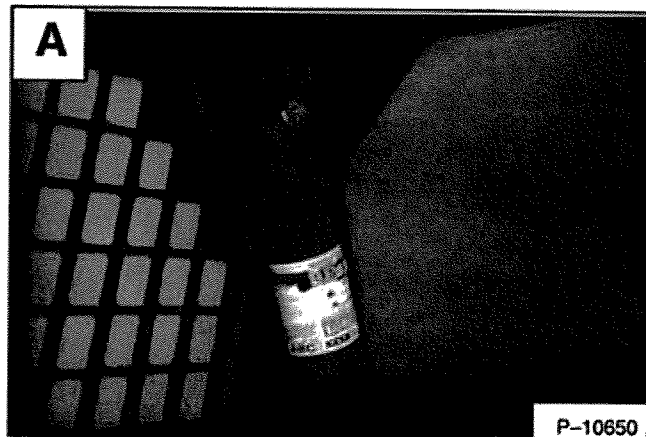
The loader has several components that are at high temperature under normal operating conditions. The primary source of high temperatures is the engine and exhaust system. The electrical system, if damaged or incorrectly maintained, can be a source of arcs or sparks.

Flammable debris (leaves, straw, etc.) must be removed regularly. If flammable debris is allowed to accumulate, it will increase the fire hazard. The loader must be cleaned as often as necessary to avoid this accumulation. Flammable debris in the engine compartment is a fire hazard when the loader is parked with a hot engine.

The spark arrestor muffler is designed to control the emission of hot particles from the engine and exhaust system, but the muffler and the exhaust gases are still hot.

- Do not use the Bobcat loader where exhaust, arcs, sparks or hot components can contact flammable material, explosive dust or gases.
- The engine compartment and engine cooling system must be inspected every day and cleaned if necessary to prevent fire hazard and overheating.
- Check all electrical wiring and connections for damage. Keep the battery terminals clean and tight. Repair or replace any damaged part.
- Check fuel and hydraulic tubes, hoses and fittings for damage and leakage. Never use open flame or bare skin to check for leaks. Tighten or replace any parts that show leakage. Always clean fluid spills. Do not use gasoline or diesel fuel for cleaning parts. Use commercial nonflammable solvents.
- Do not use ether or starting fluids on this engine. It has glow plugs. These starting aids can cause explosion and injure you or bystanders.
- Always clean the loader and disconnect the battery before doing any welding. Cover rubber hoses, battery and all other flammable parts. Keep a fire extinguisher near the loader when welding. Have good ventilation when grinding or welding painted parts. Wear dust mask when grinding painted parts. Toxic dust or gas can be produced.
- Stop the engine and let it cool before adding fuel. No smoking!
- Use the procedure in the Operation & Maintenance Manual for connecting the battery.
- Use the procedure in the Operation & Maintenance Manual for cleaning the spark arrestor muffler.
- Know where fire extinguishers and first aid kits are located and how to use them.

A fire extinguisher is available from your Bobcat dealer. The fire extinguisher can be installed in the location shown [A].



S106-0398

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843 Loader  
Service Manual

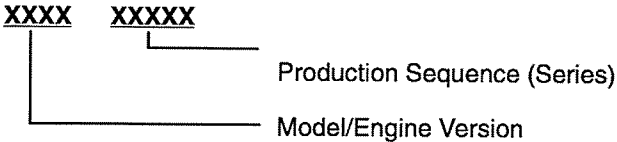
## SERIAL NUMBER LOCATIONS

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 doing a specific service operation.

### LOADER SERIAL NUMBER

The loader serial number plate is located on the inside of the left upright, above the grill [A].

Explanation of loader Serial Number:



### ENGINE SERIAL NUMBER

#### Perkins (4.154)

The engine serial number is on the left side of the engine block, above the fuel injection pump [B].

#### Perkins TK200 (4.154)

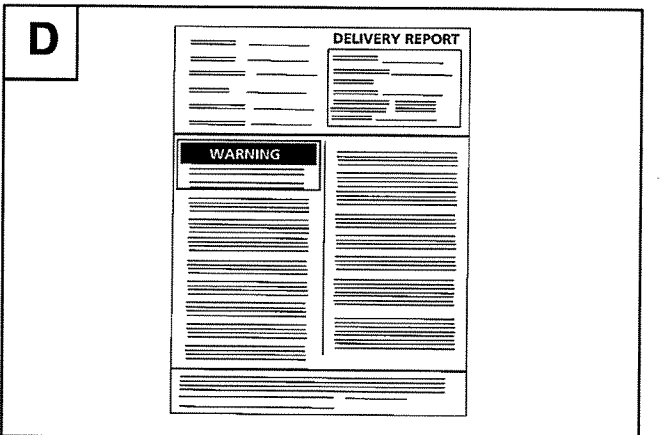
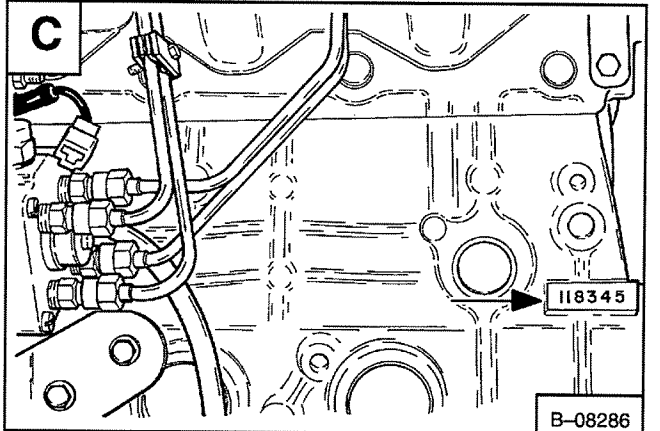
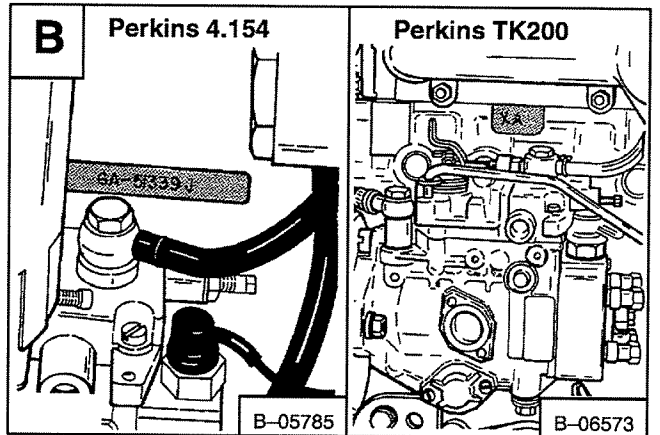
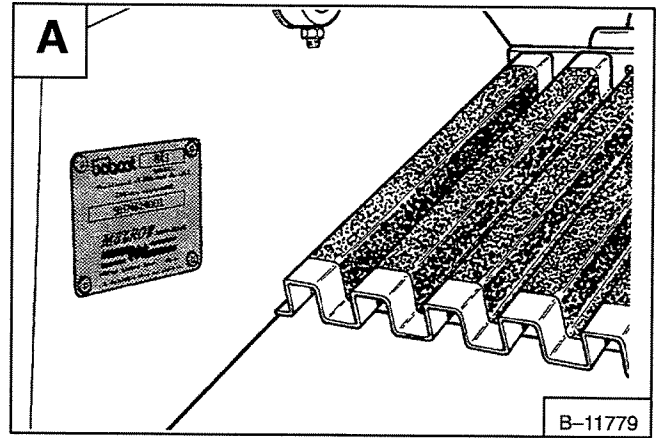
The engine serial number is on the left side of the engine block, above the fuel injection pump [B].

#### Isuzu 4JB1-PK01

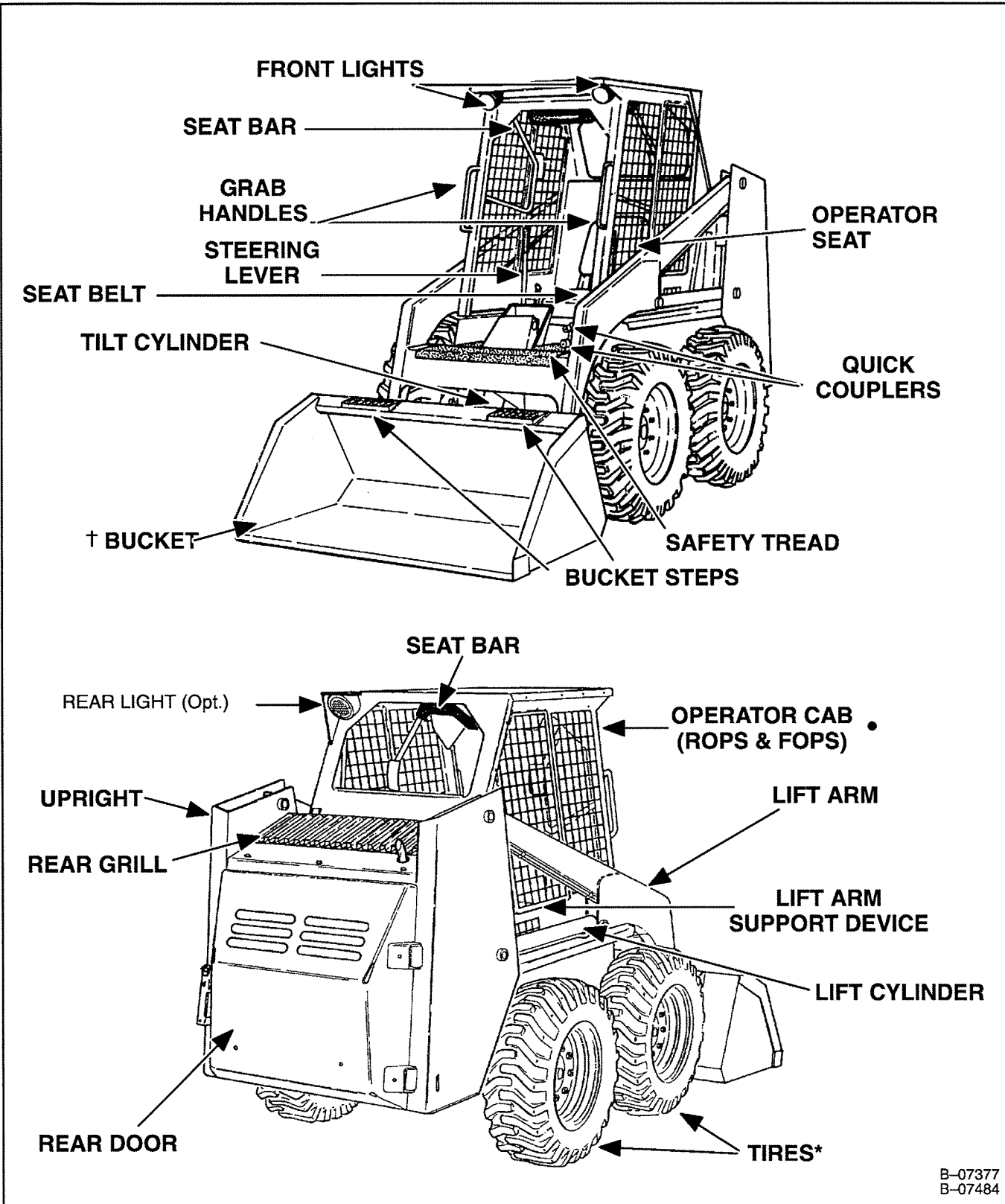
The engine serial number is located on the fuel injection pump side and at the rear of the engine block [C].

### 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. An explanation of the form must be given to the owner. Make sure it is filled out completely [D].



**BOBCAT LOADER IDENTIFICATION**



B-07377  
B-07484

- \* TIRES – Flotation tires are shown. THE Bobcat loader is 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, per SAE J1040 and SAE J1043. The Bobcat loader is base-equipped with a standard operator cab as shown.



## PREVENTIVE MAINTENANCE

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**PREVENTIVE  
MAINTENANCE**



## SERVICE SCHEDULE

The service schedule is a guide for correct maintenance of the Bobcat loader that must be done regularly. Always use these service intervals unless very hot, cold, dusty or corrosive operating conditions make it necessary to increase the frequency of service. Failure to do so will cause damage to the loader or the engine.



### 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 the oil level and add oil as needed.						
Engine Air Cleaner	Empty the dust cup. Replace the outer filter element only when the red ring shows in the indicator window. Check for leaks and damaged components.						
Engine Cooling System	Clean debris from shrouds and grills. Check coolant level in the recovery tank and add as needed.						
Tires	Check for damaged tires and correct air pressure.						
Seat Belt and Seat Bar	Check the condition of seat belt. Check the seat bar for correct operation.						
Safety Signs (Decals)	Check for damaged signs (Decals). Replace damaged signs (Decals) and signs (Decals) that are not in the correct location.						
Lift Arm and Bob-Tach Pivot Areas	Add grease to the fittings until extra grease shows.						
Engine Fuel Filter	Remove water from filter.						
Operator Cab	Check the fastening bolts, washers and nuts. Check the condition of the cab.						
Wheel Nuts	★ Check for loose wheel nuts. Tighten to correct torque if loose.						
Engine Oil and Filter	Replace the oil and the engine oil filter.						
Battery	Check the water level. Check battery cables for corrosion. Check that the battery cables are tight. Check covers.						
Hydraulic Fluid, Tubelines and Hoses	Check the fluid level and add as needed. Check for damage and leaks and replace as needed.						
Alternator Drive Belt	Check the tension and adjust as needed.						
Chaincase	Check the fluid level and add as needed.						
Controls and Brakes	Check operation and adjust as needed.						
Spark Arrestor Muffler	Remove the plug and clean the spark chamber.						
Seat Bar	Grease pivot as needed.						
Steering Shaft Pivots	Grease two (2) fittings. Add oil to steering shaft.						
Hydraulic and Hydrostatic Filters	Replace filter elements.						
U-Joint	Grease three (3) fittings with correct grease.						
Engine Fuel Filter	● Replace the filter element.						
Hydraulic/Hydrostatic Reservoir Breather Cap	Replace breather cap.						
Chaincase	Replace the fluid.						
Hydraulic Fluid Reservoir	Replace the hydraulic fluid.						

★ Check wheel nut torque every 8 hours for the first 24 hours of operation.

● Also replace hydrostatic filter element when the transmission warning light stays on for five (5) minutes after the hydrostatic fluid is at operating temperature.

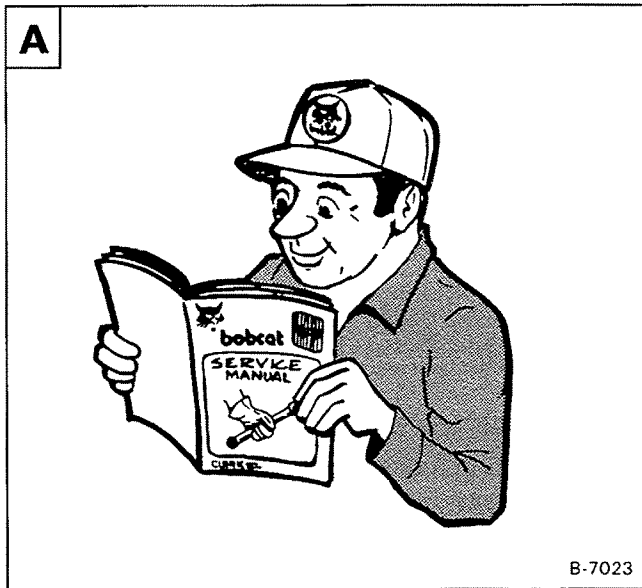
## PREVENTIVE MAINTENANCE



### 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.

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B-7023

## LIFTING AND BLOCKING THE BOBCAT LOADER

### Procedure

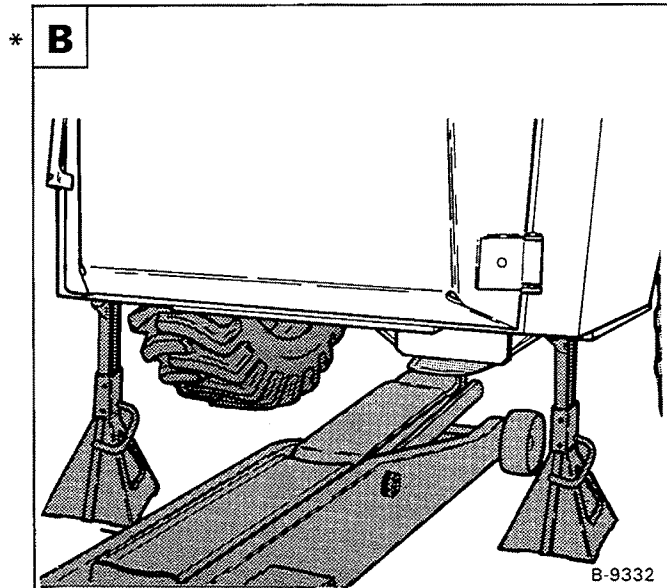
Always park the loader on a level surface.



### WARNING

Put jackstands under the front axles and rear corners of frame before raising the operator cab, raising the lift arms or when the engine is running for service. Failure to use jackstands can allow the machine to fall or move and cause injury or death.

W-2017-1285



B-9332

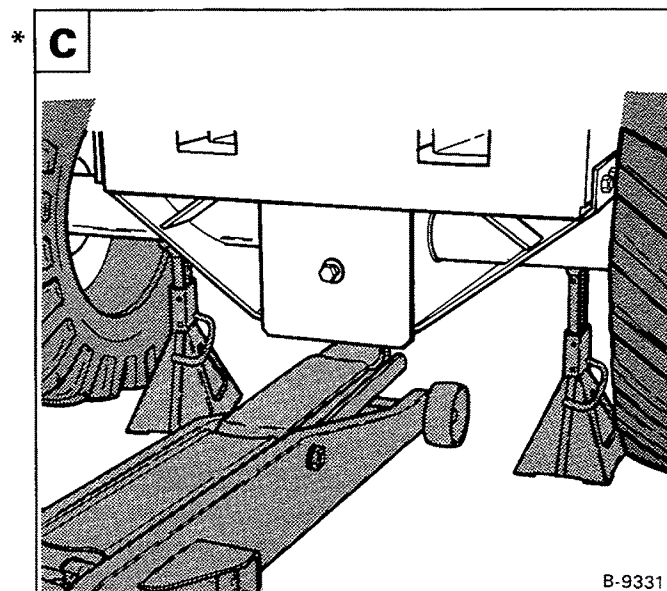
Put floor jack under the rear of the loader.

Lift the rear of the loader and install jackstands **B**.

Put floor jack under the front of the loader.

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

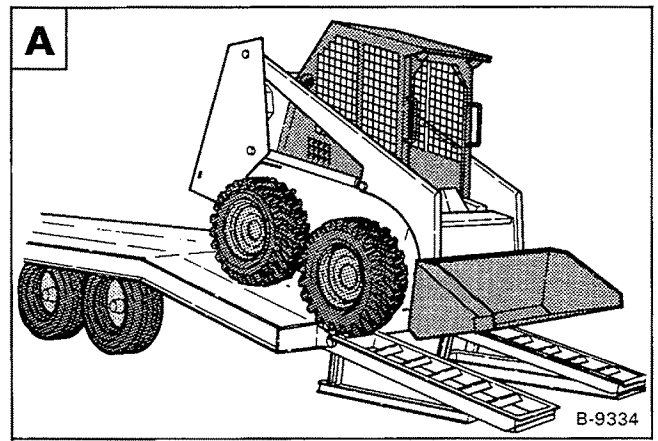
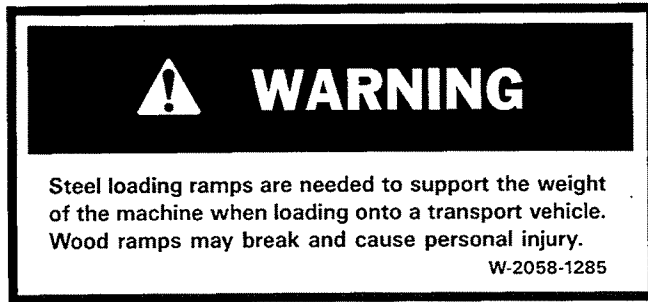
**NOTE:** Make sure the jackstands do not touch the tires.



B-9331

## TRANSPORTING THE BOBCAT LOADER

### Procedure

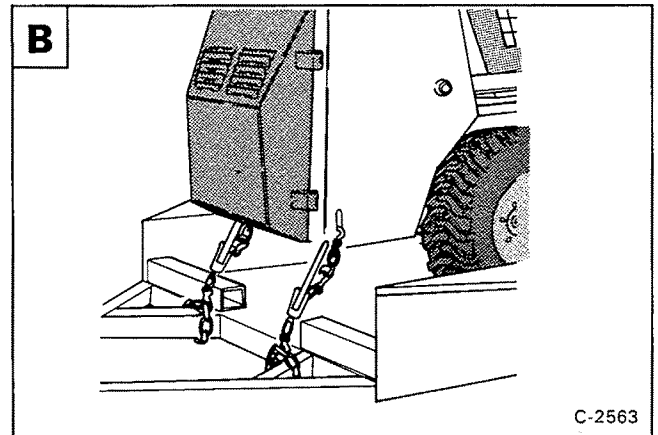


A loader with an empty bucket or no attachment must be driven backwards onto the transport vehicle **A**.

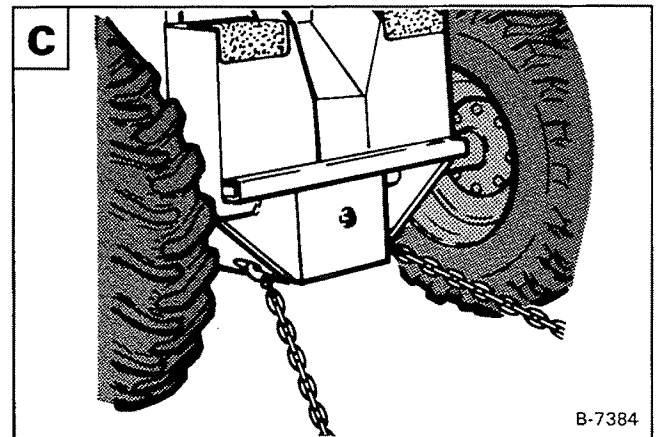
Lower the lift arms and bucket to the transport vehicle.

Stop the engine. Engage the parking brake.

Fasten chains to the uprights as shown **B**.



Fasten chains to the front as shown **C**.



## LIFT ARM STOP

### Procedure


One person must stay in the operator cab with the seat belt fastened and the seat bar lowered, while the second person installs the 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.

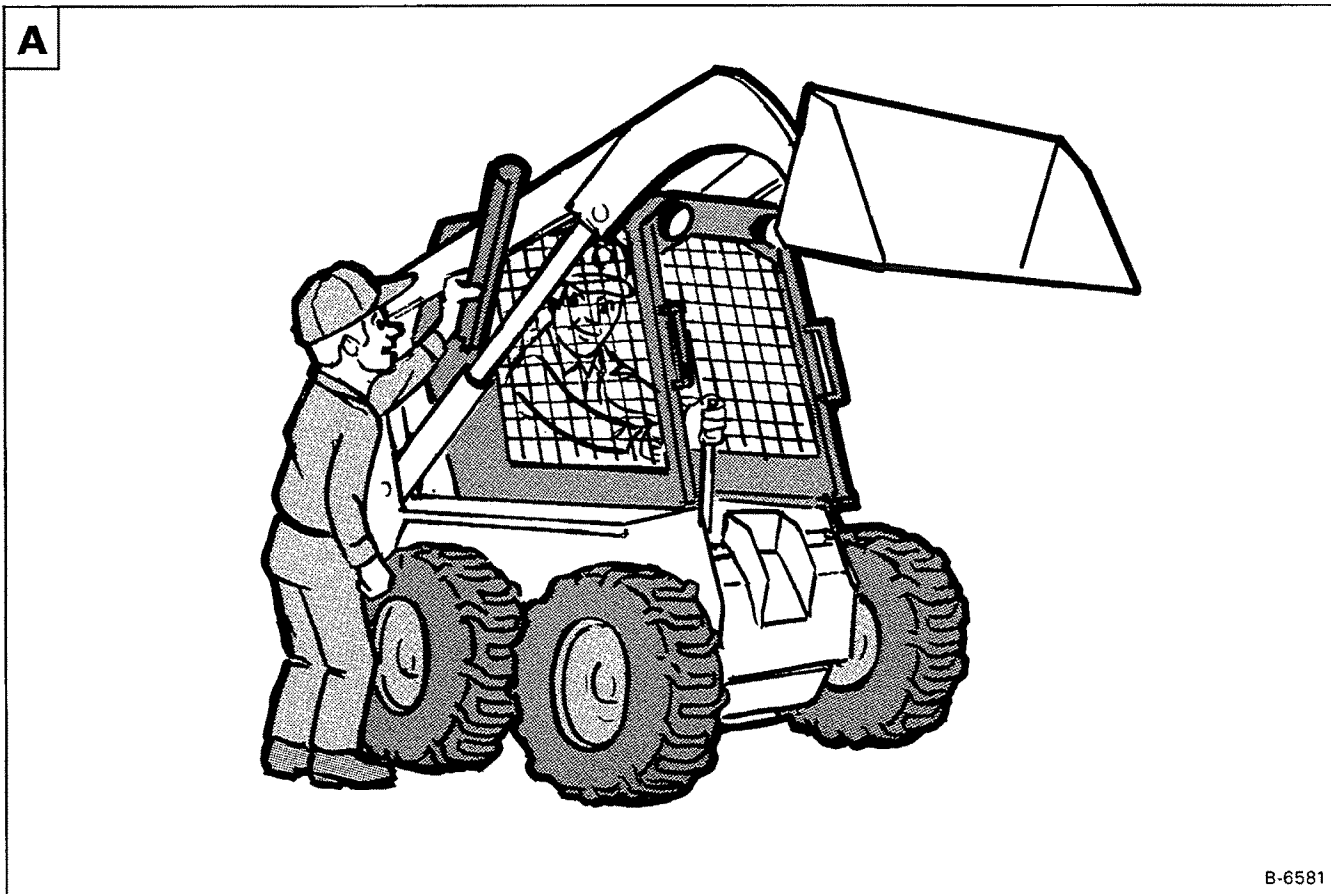
The lift arm stop must be tight against the cylinder rod.

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

 **WARNING**

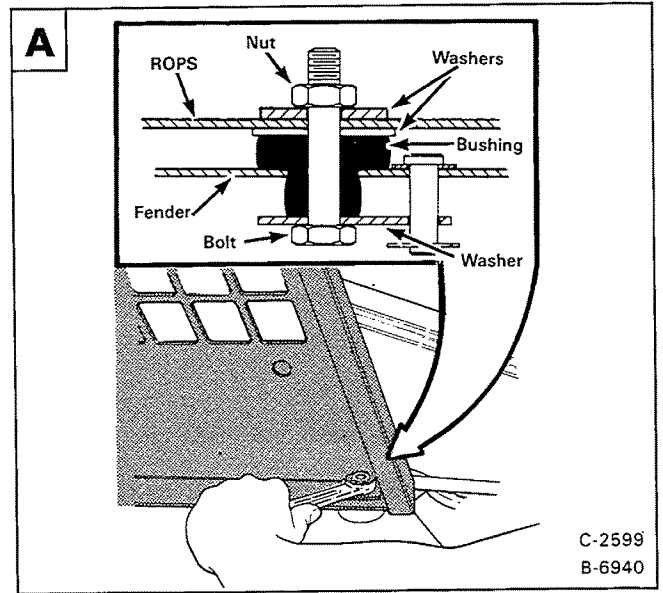
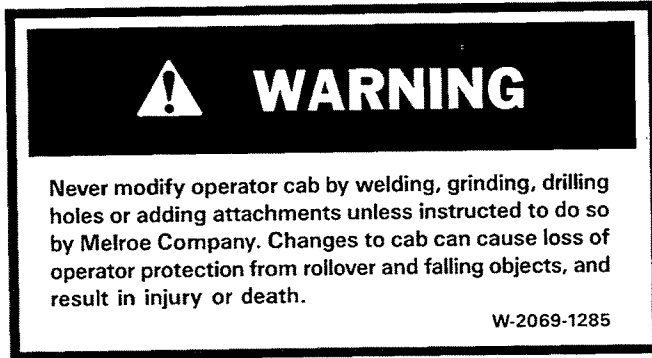
Eye and body protection is required when welding or grinding. Wear approved goggles, helmet and clothing. Failure to wear eye and body protection can result in serious injury.

W-2009-1285



## OPERATOR CAB

The loader has an operator cab (ROPS and FOPS) as standard equipment. The ROPS and FOPS protect the operator from roll-over and falling objects.



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

The operator cab fastening bolts and nuts must be tight **A**.

## Seat Bar System

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 operator controls the use of the seat bar. The seat bar in the down position keeps 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.

Pull the seat bar all the way down and start the engine.

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

## OPERATOR CAB (Cont'd)

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 all the way.

Stop the engine. Engage the parking brake. 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.

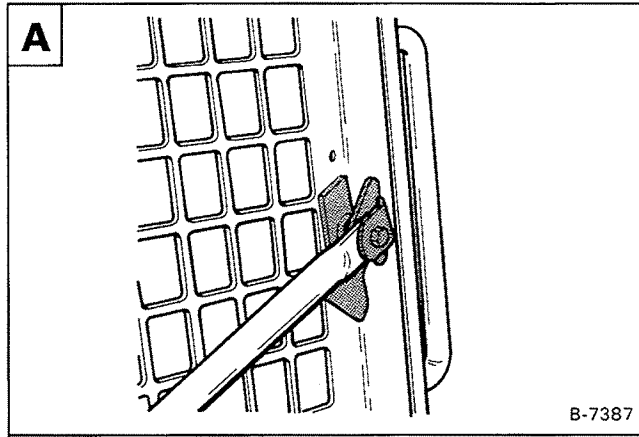
### Seat Bar Maintenance

Clean the debris or dirt from moving parts **A**.

Inspect the linkage bolts and nuts. 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 seat bar system does not function correctly, check for free movement of each linkage part. Check for excessive wear. Adjust pedal control linkages (See Page 2-62 for correct procedure). Replace parts that are worn, bent or broken.



## WARNING

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

W-2105-1285



## OPERATOR CAB (Cont'd)

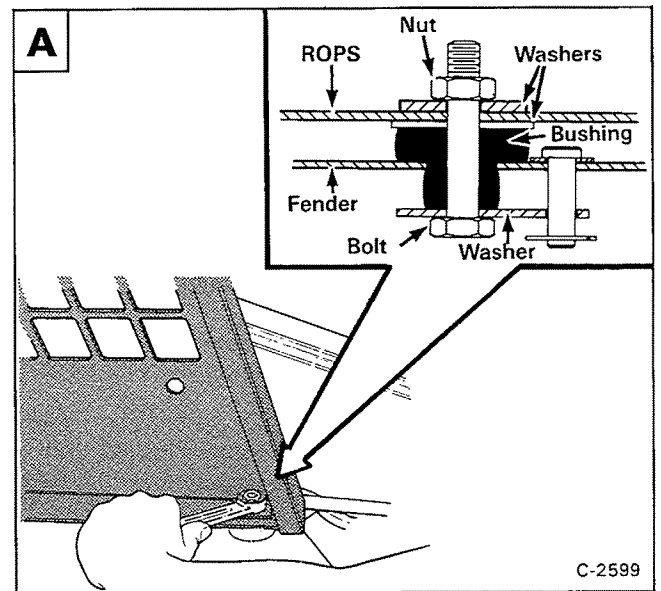
### Raising the Operator Cab

The cab can be raised or lowered with the lift arms up or down.

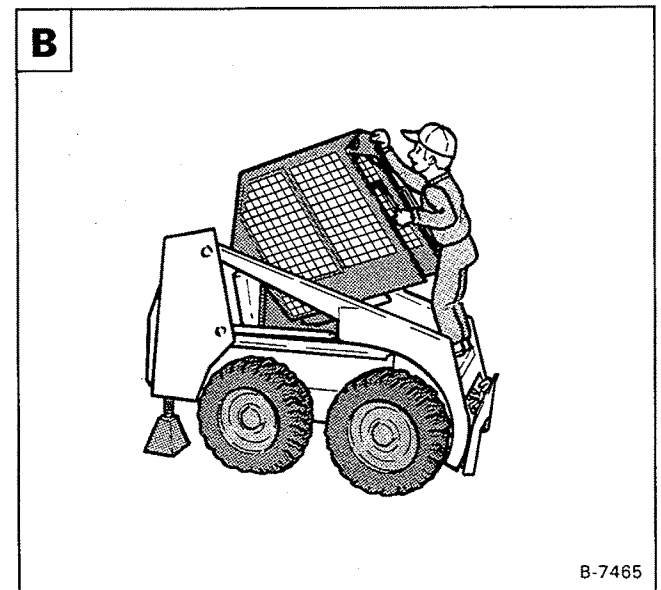
If the lift arms are up, a lift arm stop must be installed (See Page 1-4).

Stop the loader on a level surface. Stop the engine and engage the brake. Put jackstands under the rear of the loader.

Disconnect the two front fasteners **A**.



If the lift arms are down, stand on the safety tread **B**.




If the lift arms are up, stand beside the loader **C**.

Slowly raise the cab until it is all the way up **B** or **C**.

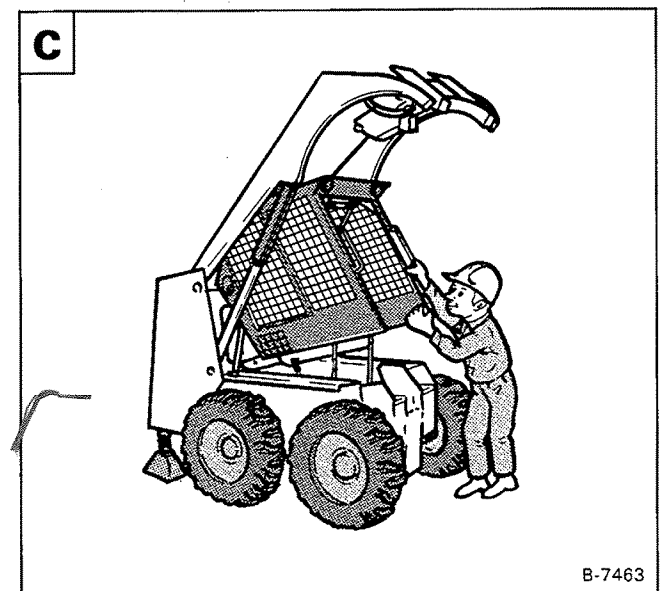
### Lowering the Operator Cab

Stand on the safety tread **A** or beside the loader **C** and slowly lower the operator cab.

 **WARNING**

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

W-2005-1285



Install the fasteners **A** before operating the loader.

## USING AN EXTRA BATTERY (JUMP START)

### 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 and one person to connect and disconnect the battery cables. The extra battery must be the same voltage as the loader battery.

1. Turn the key switch to the "OFF" position.
2. Connect the first jumper cable to the positive (+) terminal of the extra battery (Item 1) and to the positive (+) terminal of the battery (Item 2) **A**.

**NOTE:** Never connect the negative (—) cable to the negative (—) terminal of the battery.

3. Connect the second jumper cable to the negative (—) terminal of the extra battery (Item 3) and to the engine (Item 4) **A**.
4. Keep the jumper cables away from moving parts.
5. Start the engine.
6. Immediately remove the negative (—) cable (Item 4) from the engine **A**.
7. Remove the positive (+) cable from the starter.
8. Remove the cables from the extra 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



## WARNING

Batteries contain acid which burns eyes and skin on contact. Wear goggles and 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.

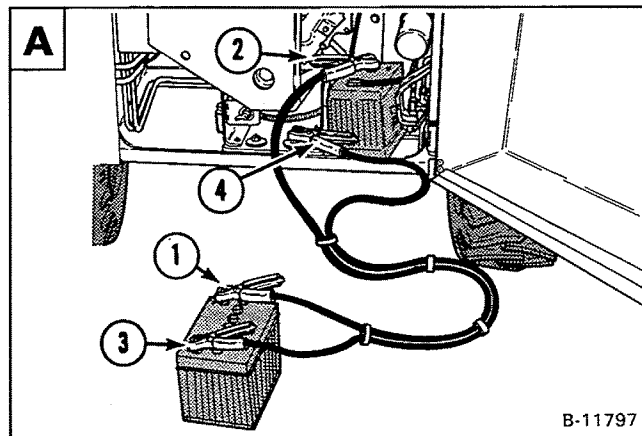
W-2065-1285

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



## REMOTE START SWITCH

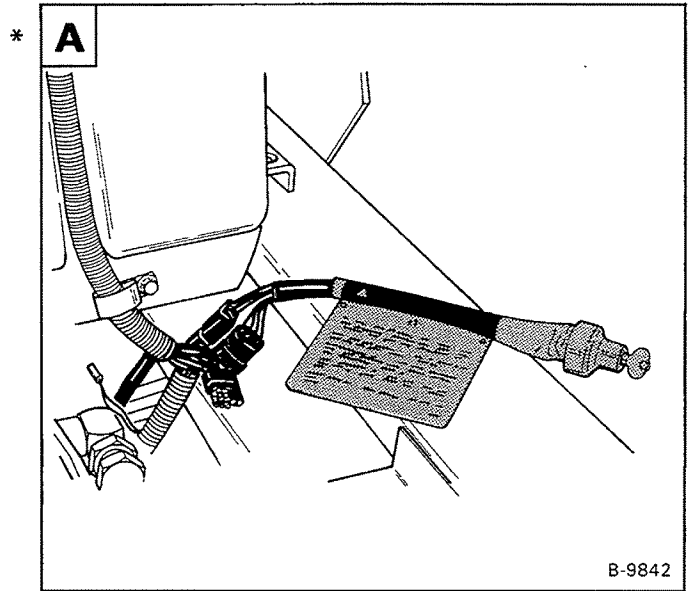
### Procedure

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

