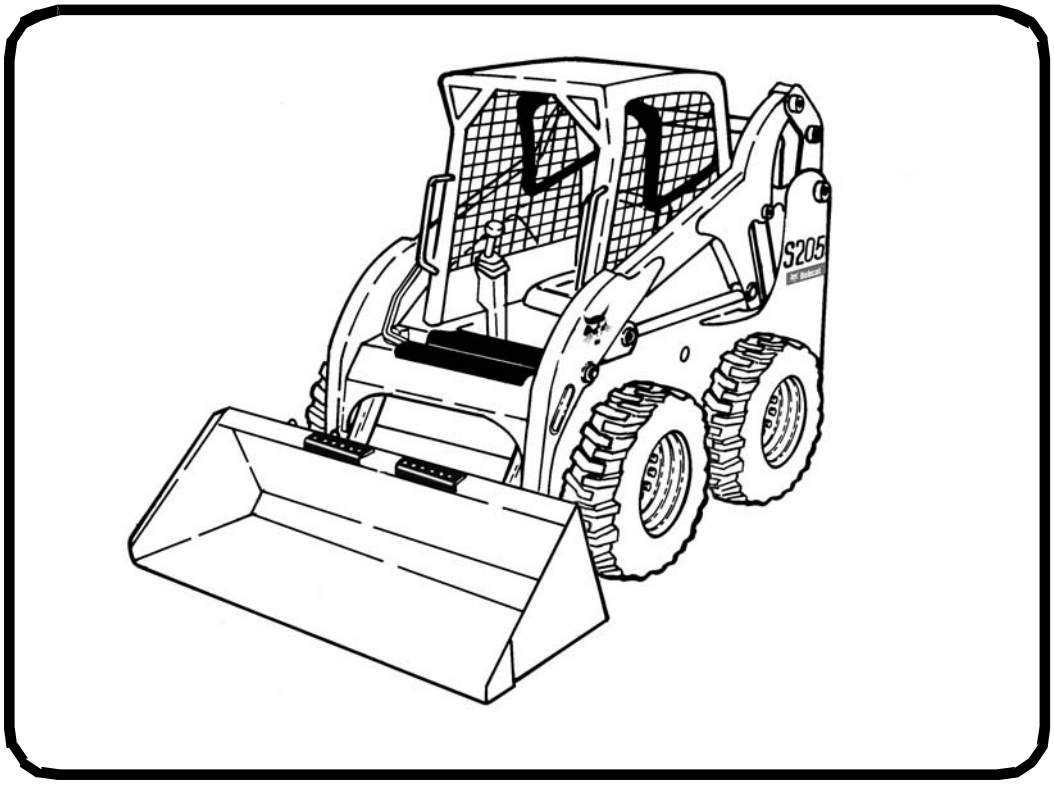
Bobcat®

Service Manual
S205 Skid-Steer Loader

S/N A3LJ11001 & Above
S/N A3LK11001 & Above



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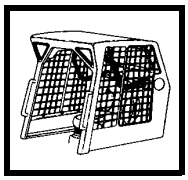
FOREWORD

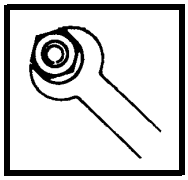
This manual is for the Bobcat loader mechanic. It provides necessary servicing and adjustment procedures for the Bobcat loader and its component parts and systems. Refer to the Operation & Maintenance Manual for operating instructions, starting procedure, daily checks, etc.

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

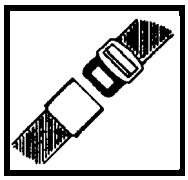
1. Check that the ROPS/FOPS (Including side screens) is in good condition and is not modified.



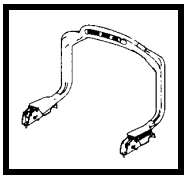
2. Check that ROPS mounting hardware is tightened and is Bobcat approved.



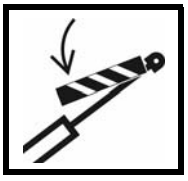
3. The seat belt must be correctly installed, functional and in good condition.



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

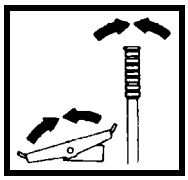


5. Check lift arm support device, replace if damaged.



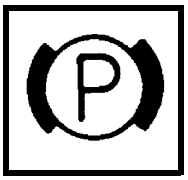
6. Machine signs (decals) must be legible and in the correct location.

7. Steering levers, hand controls and foot pedals must return to neutral (as applicable).

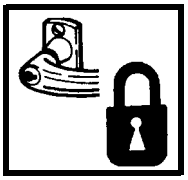


8. Check for correct function of the work lights.

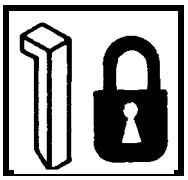
9. The parking brake must function correctly.



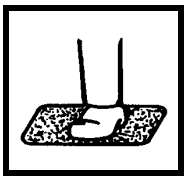
10. Enclosure door latches must open and close freely.



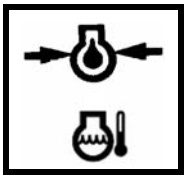
11. Bob-Tach wedges and linkages must function correctly and be in good condition.



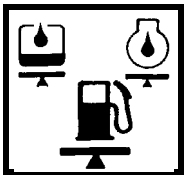
12. Safety treads must be in good condition.



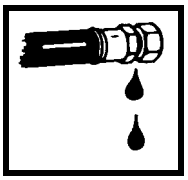
13. Check for correct function of indicator lamps.



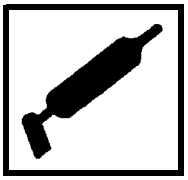
14. Check hydraulic fluid level, engine oil level and fuel supply.



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



16. Lubricate the loader.



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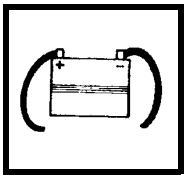
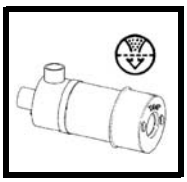
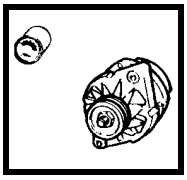
17. Check the condition of the battery and cables.



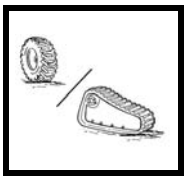
18. Inspect the air cleaner for damage or leaks. Check the condition of the element.



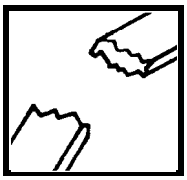
19. Check the electrical charging system.



20. Check tires for wear and pressure. Check tracks for wear and tension. Use only approved tires or tracks.

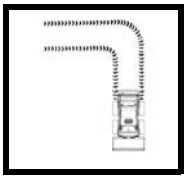


21. Inspect for loose or broken parts or connections.



22. Check for any field modification not completed.

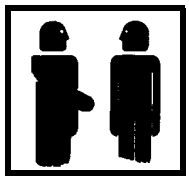
23. Operate the machine and check all functions.

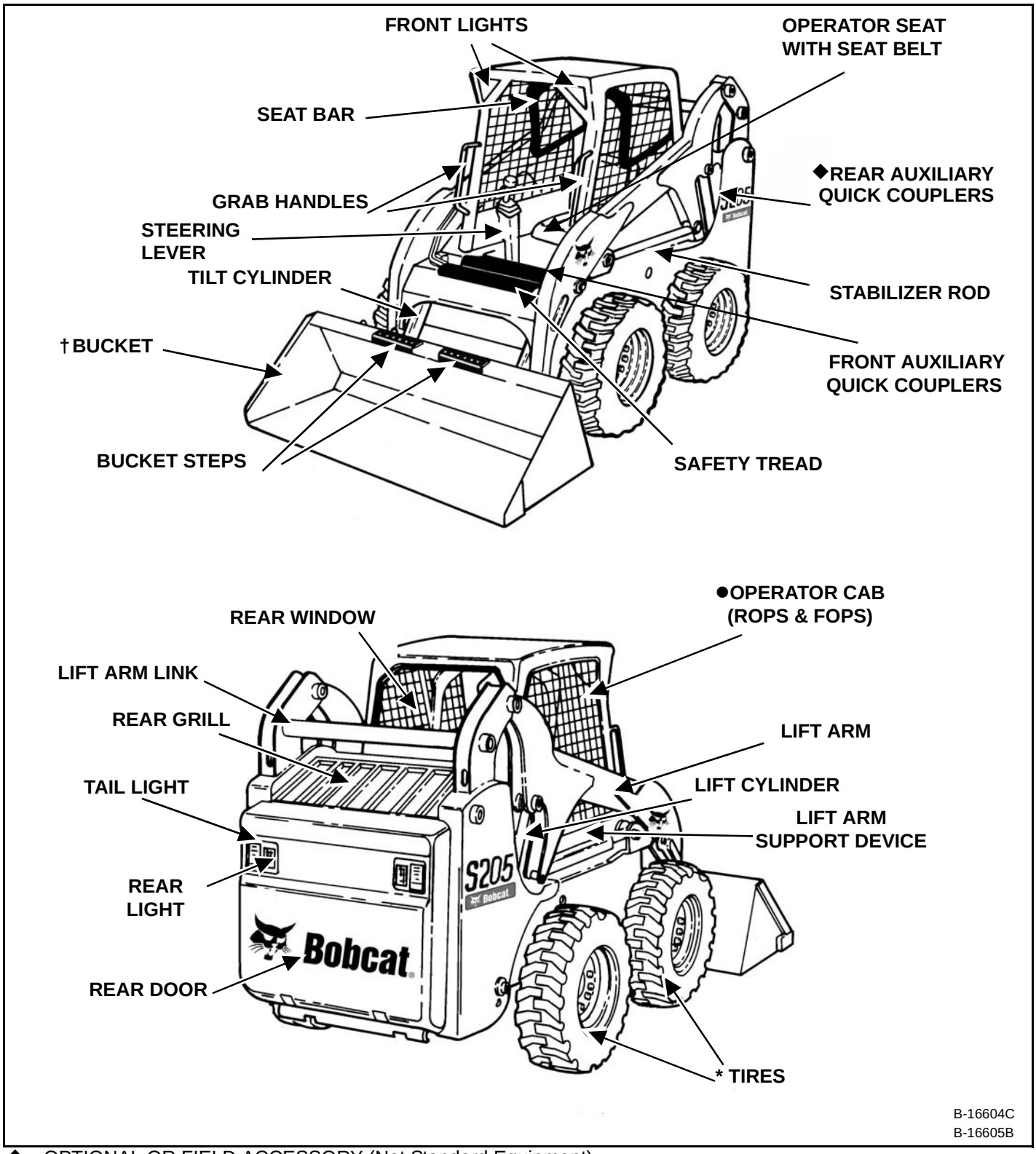


24. Check for correct function of the Bobcat Interlock Control System (BICS™) before the machine is returned to the customer.

25. Check function or condition of all equipped options and accessories (examples: back-up alarm, fire extinguisher, rotating beacon, lift kits, etc.).

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





◆ OPTIONAL OR FIELD ACCESSORY (Not Standard Equipment)

* TIRES - The Bobcat Loader is factory equipped with heavy duty flotation tires. See Specifications Section and your Bobcat dealer for available tires.

† BUCKET - Several different buckets and other attachments are available for the Bobcat Loader.

● ROPS, FOPS - Roll Over Protective Structure, per SAE J1040 and ISO 3471, and Falling Object Protective Structure per SAEJ1043 and ISO 3449, Level I. Level II is available. The Bobcat Loader is base-equipped with a standard operator cab as shown. Extra insulated cab is available as an option (Reduced noise level).

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

LIFTING AND BLOCKING THE LOADER

⚠ WARNING

AVOID INJURY OR DEATH

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-2003-0807

Figure 10-10-1

B-7023A

Procedure

Always park the loader on a level surface.

⚠ 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.

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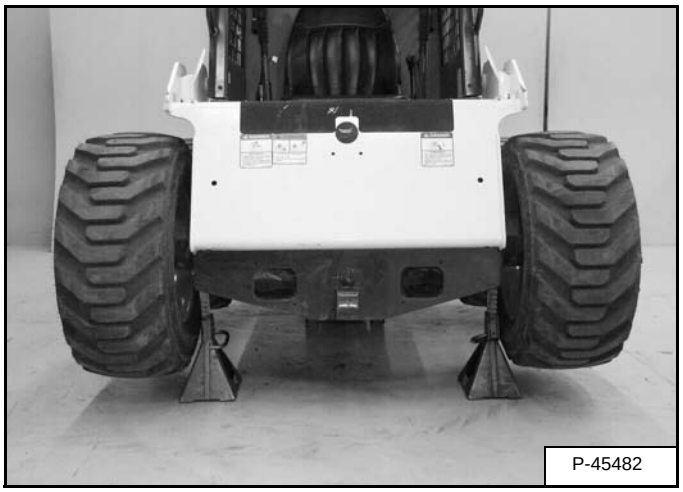
Figure 10-10-2



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Put the floor jack under the front of the loader.

Lift the front of the loader and put jackstands under the axle tubes **[Figure 10-10-2]**.

NOTE: Make sure the jackstands do not touch the tires. Make sure tires clear floor or any obstacles.

Figure 10-10-3

P-31849

Put the floor jack under the rear of the loader **[Figure 10-10-3]**.

Lift the rear of the loader and install jackstands **[Figure 10-10-3]**.

LIFT ARM SUPPORT DEVICE

Installing

WARNING

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

Service lift arm support device if damaged or if parts are missing. Using a damaged lift arm support or with missing parts can cause lift arms to drop causing injury or death.

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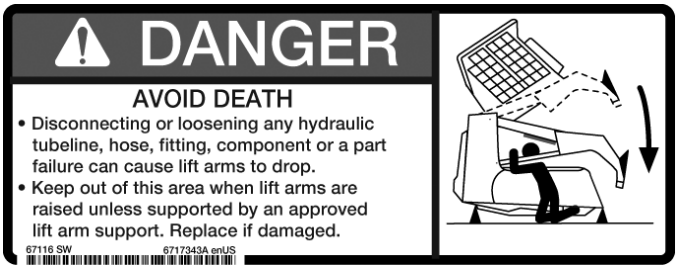
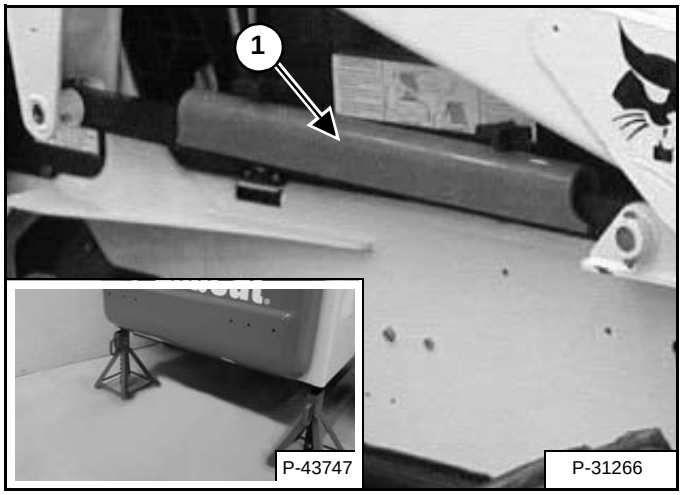


Remove attachment from the loader. (See BOB-TACH (HAND LEVER) on Page 50-40-1.) ***OR*** (See BOB-TACH (POWER) on Page 50-41-1.)

Figure 10-20-1



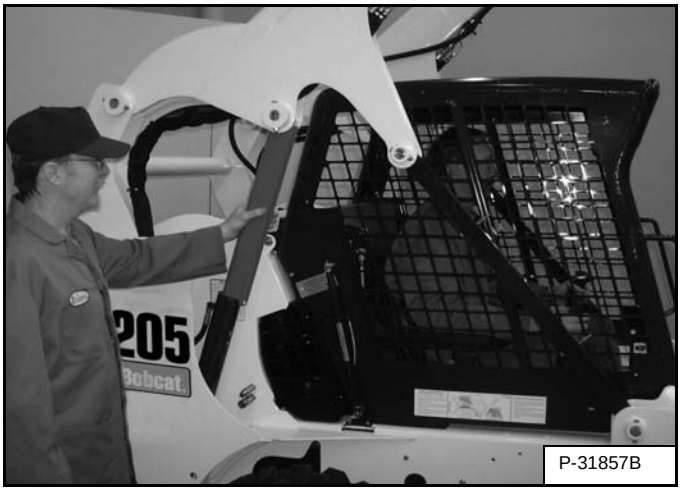
Put jackstands under the rear corners of the loader frame (Inset) **[Figure 10-20-1]**.

Remove the lift arm support device (Item 1) **[Figure 10-20-1]** from storage position.

The operator must be in the operator's seat, with the seat belt fastened and seat bar lowered, until the lift arm support device is installed.

Start the engine, and raise the lift arms all the way up.

Figure 10-20-2



Have a second person install the lift arm support device over the rod of one of the lift cylinders **[Figure 10-20-2]**.

The lift arm support device must be tight against the cylinder rod.

Figure 10-20-3

Lower the lift arms slowly until the lift arm support device is held between the lift arms and the lift cylinder **[Figure 10-20-3]**. The tabs of the lift arm support device must go past the end of the cylinder (Inset) **[Figure 10-20-3]**.

LIFT ARM SUPPORT DEVICE (CONT'D)

Removing

The operator must be in the operator's seat, with the seat belt fastened and seat bar lowered, until the lift arm support device is removed and the lift arms are lowered all the way.

Start the engine, raise the lift arms all the way up.

Have a second person remove the lift arm support device.

Lower the lift arms all the way and stop the engine.

Return the lift arm support device to storage position and secure with clamping knobs.

Remove the jackstands.

OPERATOR CAB

Description

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. The seat belt must be worn for roll over protection.

ROPS/FOPS - Roll Over Protective Structure per ISO 3471, and Falling Object Protective Structure per SAE J1043 and ISO 3449, Level I. Level II is available.

Level I

Protection from falling bricks, small concrete blocks, and hand tools encountered in operations such as highway maintenance, landscaping, and other construction sites.

Level II

Protection from falling trees, rocks: for machines involved in site clearing, overhead demolition or forestry.

⚠ WARNING

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

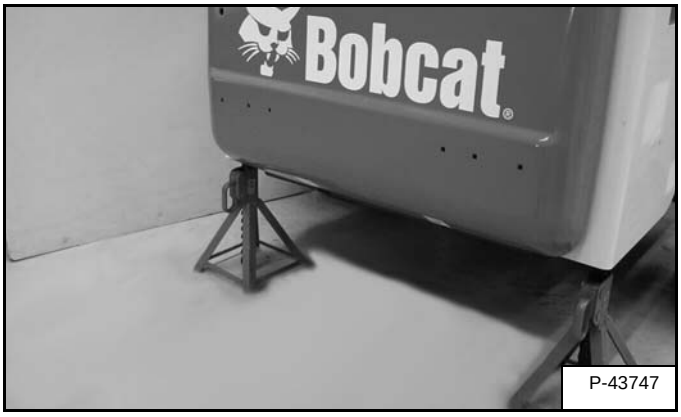
W-2069-0200

Raising

Always stop the engine before raising or lowering the cab.

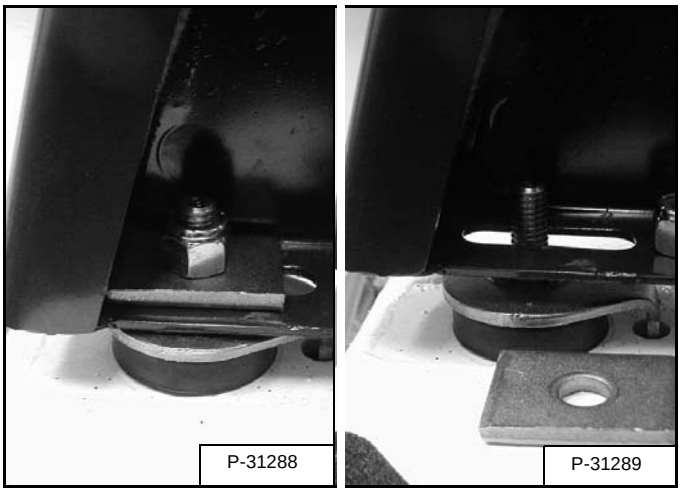
Stop the loader on a level surface. Lower the lift arms. If the lift arms must be up while raising the operator cab, install the lift arm support device. (See Installing on Page 10-20-1.)

Figure 10-30-1



Install jackstands under the rear of the loader frame **[Figure 10-30-1]**.

Figure 10-30-2



Remove the nuts and plates **[Figure 10-30-2]** (both sides) at the front corners of the cab.

NOTE: On Advanced Control System (ACS) equipped machines, the steering levers could contact the cab frame while raising or lowering the operator cab. The engine MUST be stopped before raising or lowering the cab.

Figure 10-30-3

Lift on the grab handle and bottom of the operator cab **[Figure 10-30-3]** slowly until the cab is all the way up and the latching mechanism engages .

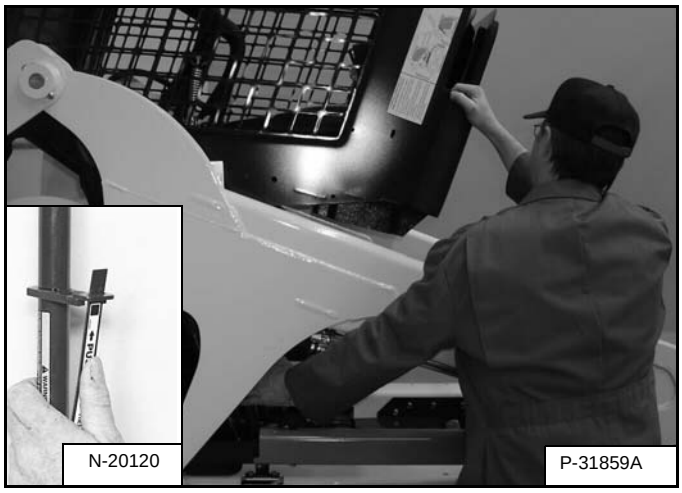
OPERATOR CAB (CONT'D)

Lowering

Always stop the engine before raising or lowering the cab.

NOTE: Always use the grab handles to lower the cab.

Figure 10-30-4



Pull down on the bottom of the operator cab until it stops at the latching mechanism **[Figure 10-30-4]**.

NOTE: The weight of the cab increases when equipped with options and accessories such cab door, heater, air conditioning, etc. In these cases, the cab may need to be raised slightly from the latch to be able to release the latch.

NOTE: On Advanced Control System (ACS) equipped machines, the steering levers could contact the cab frame while raising or lowering the operator cab. The engine MUST be stopped before raising or lowering the cab.

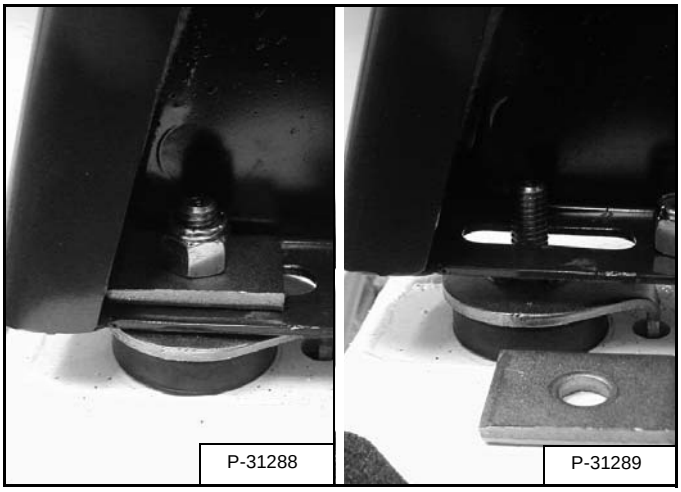
Support the cab and release the latching mechanism (Inset) **[Figure 10-30-3]**. Remove your hand from latching mechanism when the cab is past the latch stop. Use both hands to lower the cab all the way.

WARNING

PINCH POINT CAN CAUSE INJURY
Remove your hand from the latching mechanism when the cab is past the latch stop.

W-2469-0803

Figure 10-30-5



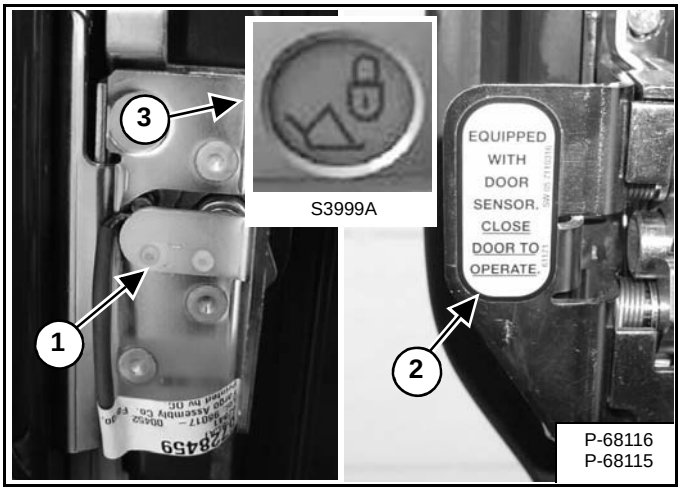
Install the plates and nuts (both sides) **[Figure 10-30-5]**.

Tighten the nuts to 40-45 ft.-lb. (54-61 N•m) torque.

Cab Door Sensor

This machine may be equipped with a Cab Door Sensor.

Figure 10-30-6



Cab doors have a sensor (Item 1) **[Figure 10-30-6]** installed which deactivates the lift and tilt valves when the door is open.

A decal is located on the latch mechanism (Item 2) **[Figure 10-30-6]**.

The LIFT & TILT VALVE light (Item 3) **[Figure 10-30-6]** will be OFF when the door is closed, the key switch is turned to RUN or the RUN / ENTER button is pressed, the seat bar is lowered and the PRESS TO OPERATE LOADER button is pressed.

Figure 10-30-7

The LIFT & TILT VALVE light (Item 3) **[Figure 10-30-6]** will be ON when the door is open, the key switch is turned to RUN or the RUN / ENTER button is pressed, the seat bar is lowered and the PRESS TO OPERATE LOADER button is pressed.

[DOOR] will appear in the data display **[Figure 10-30-7]**.

Special Applications Kit

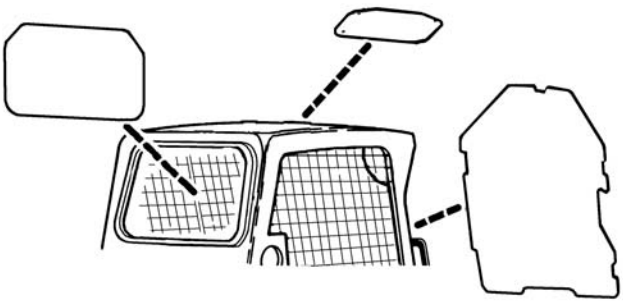
WARNING

AVOID INJURY OR DEATH

Some attachment applications can cause flying debris or objects to enter front, top or rear cab openings. Install the Special Applications Kit to provide added operator protection in these applications.

W-2737-0508

Figure 10-30-8



Available for special applications to restrict material from entering cab openings. Kit includes 1/2 inch Lexan® front door, top and rear windows **[Figure 10-30-8]**.

See your Bobcat dealer for availability.

Special Applications Kit Inspection And Maintenance

- Inspect for cracks or damage. Replace if required.
- Pre-rinse with water to remove gritty materials.
- Wash with a mild household detergent and warm water.
- Use a sponge or soft cloth. Rinse well with water and dry with a clean soft cloth or rubber squeegee.
- Do not use abrasive or highly alkaline cleaners.
- Do not clean with metal blades or scrapers.

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Our customer service e-mail:

aservicemanualpdf@yahoo.com