

# **Operation & Maintenance Manual**



**SKID-Steer Loader**S/N AT5A11001 & Above





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REFERENCE INFORMATION
Write the correct information for YOUR Bobcat loader in the spaces below. Always use these numbers wher referring to your Bobcat loader.
Loader Serial Number
Engine Serial Number
NOTES:
YOUR BOBCAT DEALER:
ADDRESS:
PHONE:

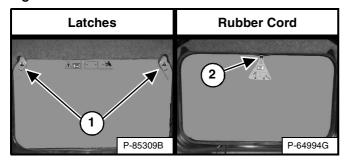
Bobcat Company P.O. Box 128 Gwinner, ND 58040-0128 UNITED STATES OF AMERICA Doosan Bobcat EMEA s.r.o. U Kodetky 1810 263 12 Dobris CZECH REPUBLIC

#### **EMERGENCY EXIT**

The front opening on the operator cab and rear window provide exits.

#### **Rear Window Identification**

Figure 52



There are two different procedures for removing the rear window from your machine:

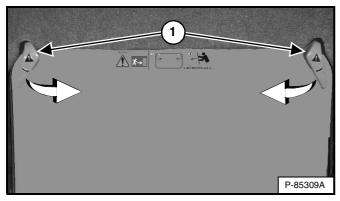
- 1. This window is equipped with latches [Figure 52].
- 2. This window is equipped with a rubber cord and tag [Figure 52].

NOTE: Use these procedures to remove the rear window only under emergency conditions.

Damage to machine may occur.

#### **Rear Window Removal (Latches)**

Figure 53



Turn both latches (Item 1) [Figure 53] in until they disengage from the window frame.

Push the rear window out of the rear of the operator cab.

Figure 54



Exit through the rear of the operator cab [Figure 54].

## **Rear Window Removal (Rubber Cord)**

Figure 55



Pull on the tag on the top of the rear window to remove the rubber cord [Figure 55].

Push the rear window out of the rear of the operator cab.

Figure 56

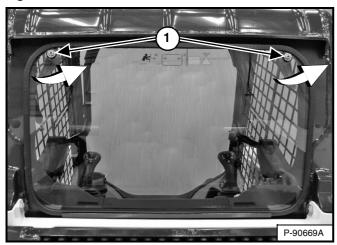


Exit through the rear of the operator cab [Figure 56].

### **EMERGENCY EXIT (CONT'D)**

#### **External Access (Rear Window With Latches)**

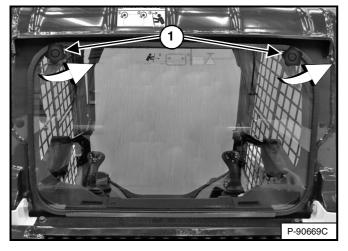
#### Figure 57



The rear window can be removed from outside the loader using a T40 TORX® Drive tool. Turn both screws (Item 1) [Figure 57] counterclockwise until the latches disengage from the window frame. Pull the top of the window away from the cab and lift up to remove.

OR

Figure 58



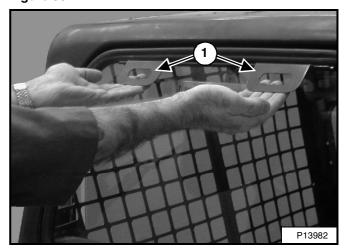
A kit is available to allow removal of the latch equipped rear window from outside the machine without tools. See your Bobcat dealer for availability.

Turn both knobs (Item 1) [Figure 58] counterclockwise until the latches disengage from the window frame. Pull the top of the window away from the cab and lift up to remove.

#### **External Access (Rear Window With Rubber Cord)**

A kit is available to allow removal of the rubber cord equipped rear window from outside the machine. See your Bobcat dealer for availability.

Figure 59

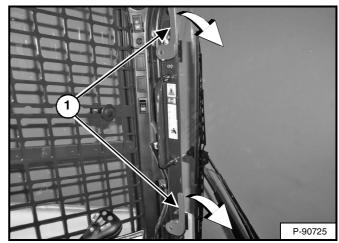


Pull both handles (Item 1) [Figure 59] up and out to remove the rear window.

#### **Front Door**

NOTE: Use this procedure to remove the front door only under emergency conditions. Damage to machine may occur.

Figure 60



Turn both latches (Item 1) [Figure 60] down until they disengage from the door frame.

Push the door out of the operator cab door frame and exit through the opening.

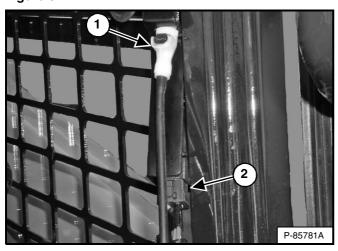
## **EMERGENCY EXIT (CONT'D)**

#### Front Door (Cont'd)

Front Door Reassembly

Reassemble the front door using the following instructions if the door was opened using the emergency exit procedure.

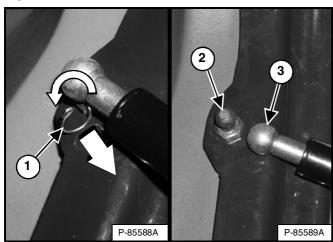
Figure 61



NOTE: Later models route the washer fluid hose differently and will not require this step.

Disconnect electrical connector (Item 2) and washer fluid hose (Item 1) (if equipped) [Figure 61].

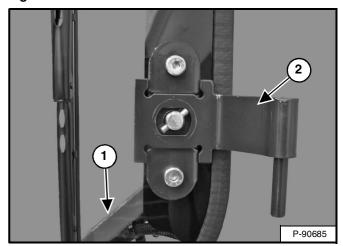
Figure 62

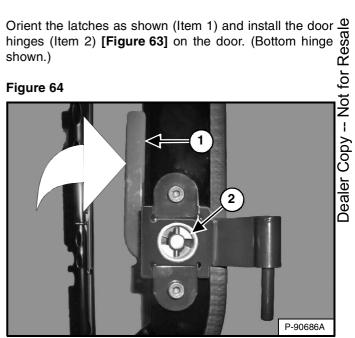


Rotate and pull the clip (Item 1) out of the gas spring socket. Pull the gas spring socket (Item 3) straight off the ball stud fitting (Item 2) [Figure 62].

Remove the door hinges from the loader.

Figure 63





Install cast washers (Item 2) on door hinges taking care to match rectangular surfaces. Hold cast washer firmly against door and rotate latch (Item 1) [Figure 64] up to lock cast washer into position. (Bottom hinge shown.) (Plastic cap shown removed for visual clarity.)

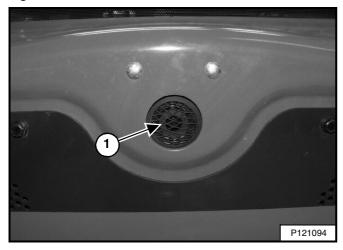
Install door on loader. Install the gas spring socket on the ball stud fitting. Install the clip into the hole in the gas spring socket. Rotate the clip to lock into position [Figure 62].

Connect electrical connector and washer fluid hose (if equipped) [Figure 61].

#### **BACK-UP ALARM SYSTEM**

#### **Description**

#### Figure 65



The back-up alarm (Item 1) [Figure 65] is located on the inside of the rear door.

A back-up alarm is not a substitute for looking to the rear when operating the loader in reverse, or for keeping bystanders away from the work area. Operators must always look in the direction of travel, including reverse, and must also keep bystanders away from the work area, even though the loader is equipped with a back-up alarm.

Operators must be trained to **always** look in the direction of travel, **including when operating the loader in reverse** and to keep bystanders away from the work area. Other workers should be trained to **always** keep away from the operator's work area and travel path.

#### Operation

# **WARNING**

#### **AVOID INJURY OR DEATH**

- Always keep bystanders away from the work area and travel path.
- The operator must maintain a clear view of the direction of travel and look before and during machine movement.
- The back-up alarm must sound when operating the machine in the reverse direction.

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The back-up alarm will sound when the operator moves both steering levers or joystick(s) into the reverse position. Slight movement of the steering levers into the reverse position is required with hydrostatic transmissions, before the back-up alarm will sound.

If alarm does not sound or for adjustment instructions, see inspection and maintenance instructions for the back-up alarm system in the preventive maintenance section of this manual. (See BACK-UP ALARM SYSTEM on Page 136.)

#### DRIVING AND STEERING THE LOADER

#### **Available Control Configurations**

This loader has three control configurations available:

- Standard Controls Two steering levers control drive and steering functions.
- Advanced Control System (ACS) (Option) Two steering levers control drive and steering functions.
- Selectable Joystick Controls (SJC) (Option):

('ISO' Pattern) - Left joystick controls the drive and steering functions.

('H' Pattern) - Left and right joysticks control left and right side drive and steering functions.

#### **Operation (Standard And ACS)**

# **WARNING**

#### **AVOID INJURY OR DEATH**

When operating the machine:

- Keep the seat belt fastened snugly.
- The seat bar must be lowered.
- Keep your feet on the pedal controls or footrests and hands on the controls.

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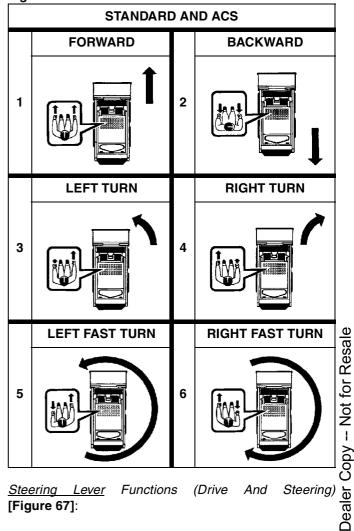
Figure 66



The steering levers (Item 1) [Figure 66] are on the left and right side in front of the seat.

Move the levers smoothly. Avoid sudden starting and stopping.

Figure 67



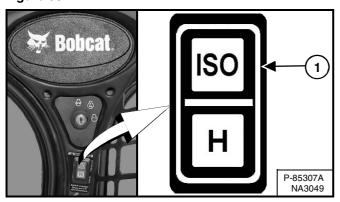
Steering Steering Lever Functions (Drive And [Figure 67]:

- 1. Forward Travel Push both levers forward.
- 2. **Backward Travel** Pull both levers backward.
- 3. **Left Turn** Move the right lever farther forward than the left lever.
- 4. **Right Turn** Move the left lever farther forward than the right lever.
- 5. Left Fast Turn Move the left lever backward and the right lever forward.
- 6. Right Fast Turn Move the right lever backward and the left lever forward.

#### DRIVING AND STEERING THE LOADER (CONT'D)

#### Operation (SJC) In 'ISO' Control Pattern

Figure 68



Select the 'ISO' control pattern by pressing the top of the switch (Item 1) [Figure 68].



#### **AVOID INJURY OR DEATH**

When operating the machine:

- Keep the seat belt fastened snugly.
- · The seat bar must be lowered.
- Keep your feet on the foot rests and hands on control levers.

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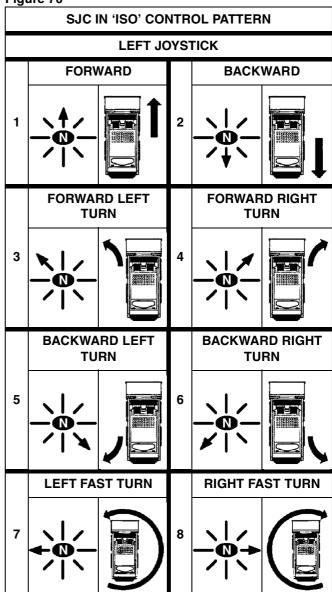
Figure 69



The joystick that controls drive and steering is on the left side in front of the seat (Item 1) [Figure 69].

Move the joystick smoothly. Avoid sudden starting and stopping.

Figure 70



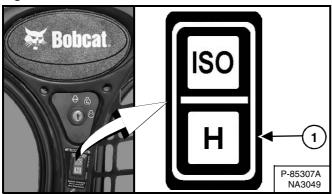
<u>Left Joystick</u> Functions (Drive And Steering) [Figure 70]:

- 1. Forward Travel Move joystick forward.
- 2. Backward Travel Move joystick backward.
- 3. **Forward Left Turn** Move joystick forward and to the left.
- 4. **Forward Right Turn** Move joystick forward and to the right.
- 5. **Backward Left Turn** Move joystick backward and to the right.
- 6. **Backward Right Turn** Move joystick backward and to the left.
- 7. **Left Fast Turn** Move joystick to the left.
- 8. **Right Fast Turn** Move joystick to the right.

### DRIVING AND STEERING THE LOADER (CONT'D)

#### Operation (SJC) In 'H' Control Pattern

Figure 71



Select the 'H' control pattern by pressing the bottom of the switch (Item 1) [Figure 71].



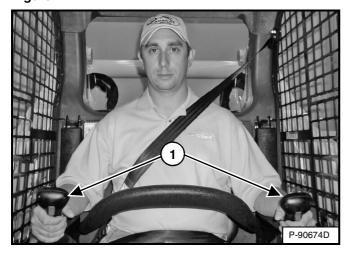
**AVOID INJURY OR DEATH** 

When operating the machine:

- Keep the seat belt fastened snugly.
- The seat bar must be lowered.
- Keep your feet on the foot rests and hands on control levers.

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Figure 72



Both joysticks control drive and steering and are located on the left and right side in front of the seat (Item 1) [Figure 72].

Move the joysticks smoothly. Avoid sudden starting and stopping.

Figure 73

SJC IN 'H' CONTROL PATTERN					
	LEFT JOYSTICK	RIGHT JOYSTICK			
1	<b>*</b>	<b>*</b>		FORWARD	
2				BACKWARD	
3	<b>*</b>	<b>*</b>		LEFT TURN	Resale
4	<b>†</b>	<b>*</b>		RIGHT TURN	Dealer Copy Not for Resale
5		<b>*</b>		LEFT FAST TURN	Dealer C
6	1			RIGHT FAST TURN	

<u>Joystick</u> Functions (Drive And Steering) [Figure 73]:

- 1. Forward Travel Move both joysticks forward.
- 2. Backward Travel Move both joysticks backward.
- 3. **Forward Left Turn** Move the right joystick farther forward than the left joystick.
- 4. **Forward Right Turn** Move the left joystick farther forward than the right joystick.
- 5. **Left Fast Turn** Move the left joystick backward and the right joystick forward.
- 6. **Right Fast Turn** Move the left joystick forward and the right joystick backward.

#### STOPPING THE LOADER

#### **Using The Control Levers Or Joysticks**

When the steering levers or joysticks are moved to the NEUTRAL position, the hydrostatic transmission will act as a *service brake* to stop the loader.

#### TWO-SPEED CONTROL

#### Description

This machine may be equipped with two speed ranges, high and low. High range allows you to reduce cycle times when there is a long travel distance between the dig site and the dump site. You can also use the high range when traveling from one jobsite to another at faster speeds.

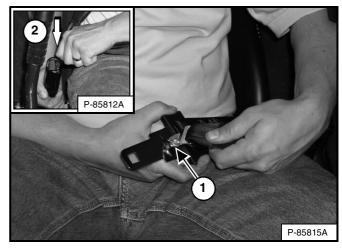


# HITTING OBSTRUCTIONS AT HIGH RANGE SPEEDS CAN CAUSE SERIOUS INJURY OR DEATH

Fasten shoulder belt for additional restraint when operating at high range speeds.

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Figure 74



NOTE: The 3-point restraint must be used when selecting high range operation [Figure 74].

Connect the shoulder belt to the lap belt (Item 1). Pull the lap belt across to the right side of the seat and fasten (Item 2) [Figure 74].

The shoulder belt must be positioned over your left shoulder and lap belt over your lower hips.

Continue with the correct procedure for your machine. (See Operation (Standard And ACS) on Page 63.) or (See Operation (SJC) on Page 63.).