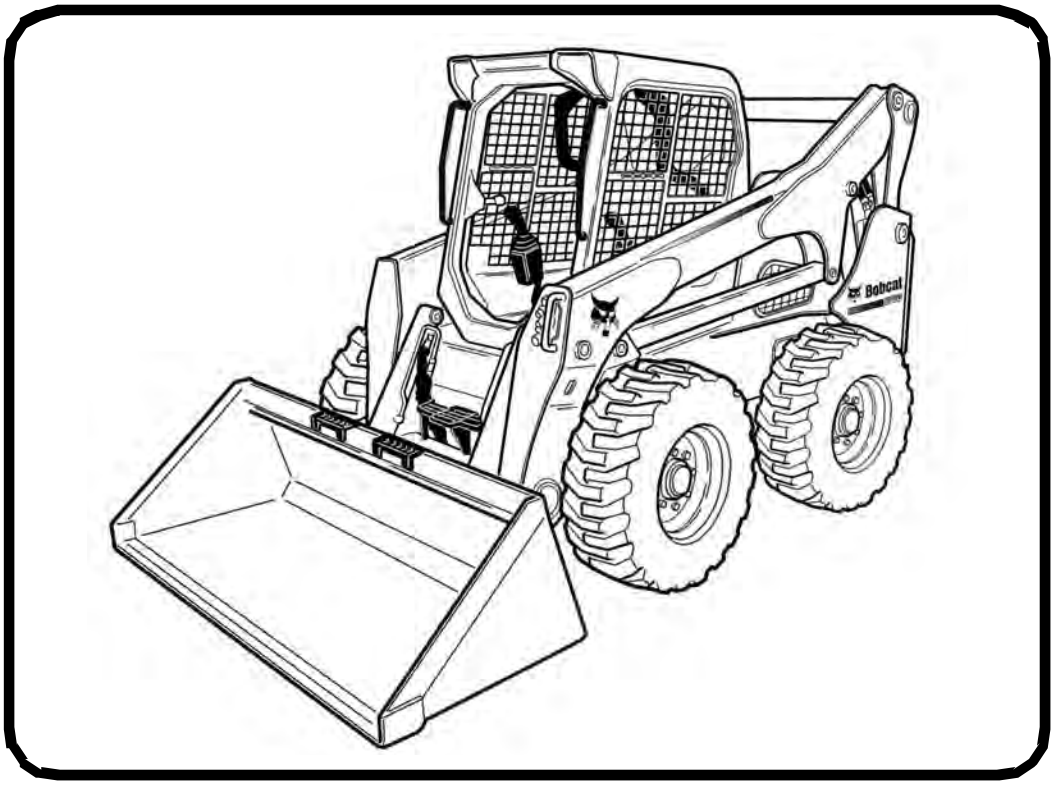
Operation & Maintenance Manual
S770 Skid-Steer Loader

S/N ASRV11001 & Above

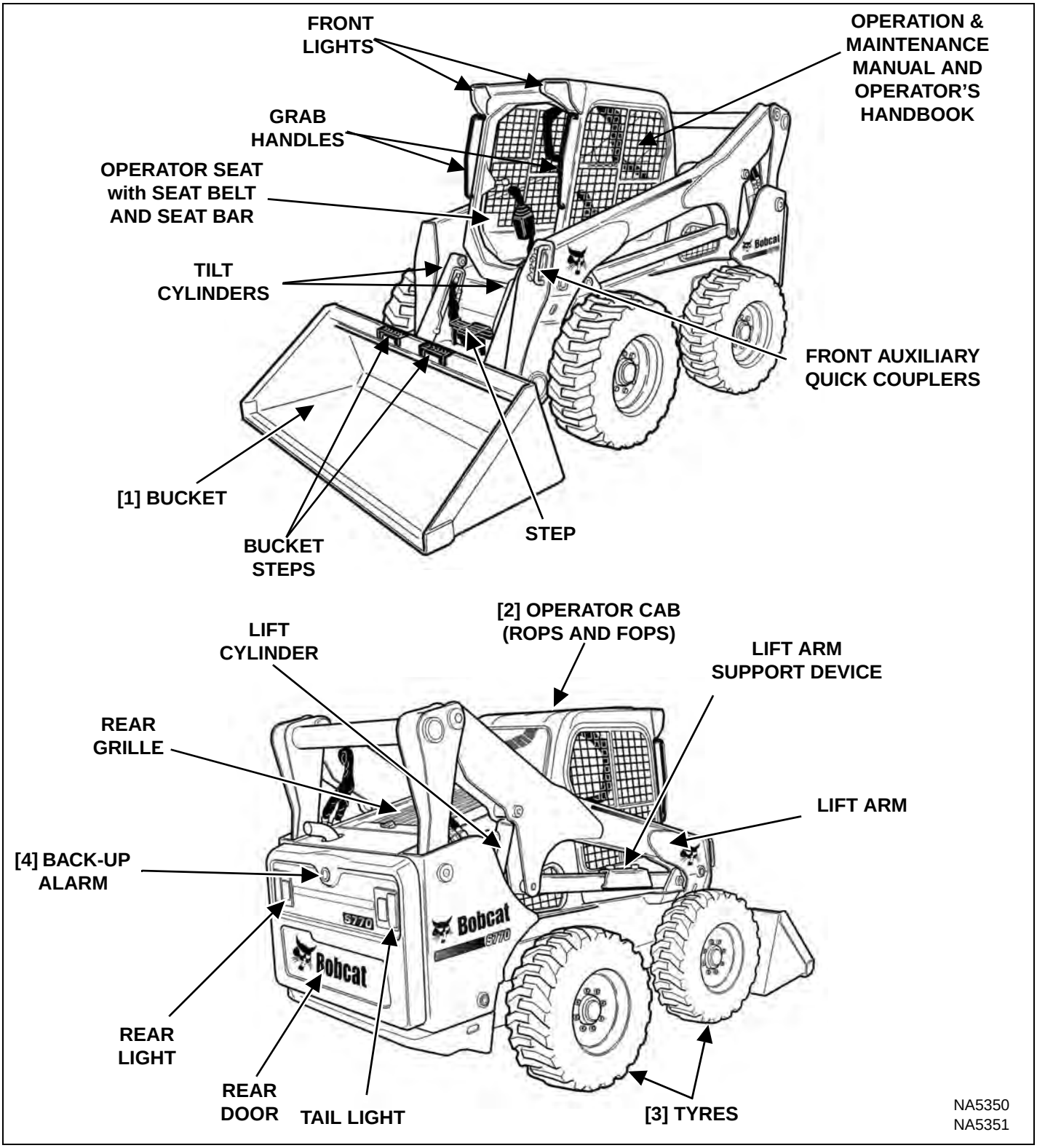


EQUIPPED WITH
BOBCAT INTERLOCK
CONTROL SYSTEM (BICS™)

6990110-EN (01-13) Revised (04-13) (7)

Printed in U.S.A.

LOADER IDENTIFICATION



[1] BUCKETS - Several different buckets and other attachments are available for the Bobcat loader.
[2] ROPS - Roll-Over Protective Structure per ISO 3471 and FOPS - Falling-Object Protective Structure per ISO 3449, Level I. Level II is available.
[3] TYRES - Standard tyres are shown. Several different tyre styles and sizes are available for the Bobcat loader.
[4] If equipped.

Avoid Silica Dust

Cutting or drilling concrete containing sand or rock containing quartz may result in exposure to silica dust. Use a respirator, water spray or other means to control dust.

FIRE PREVENTION

Maintenance

The machine and some attachments have components that are at high temperatures 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 can cause a fire hazard. Clean often to avoid this accumulation. Flammable debris in the engine compartment is a potential fire hazard.

The operator's area, engine compartment and engine cooling system must be inspected every day and cleaned if necessary to prevent fire hazards and overheating.

All fuels, most lubricants and some coolants mixtures are flammable. Flammable fluids that are leaking or spilled onto hot surfaces or onto electrical components can cause a fire.

Operation

Do not use the machine where exhaust, arcs, sparks or hot components can contact flammable material, explosive dust or gases.

Electrical

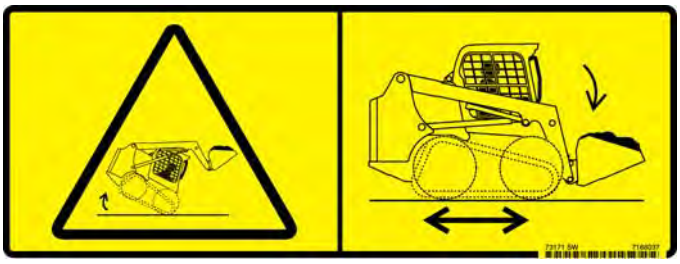
Check all electrical wiring and connections for damage. Keep the battery terminals clean and tight. Repair or replace any damaged part or wires that are loose or frayed.

Battery gas can explode and cause serious injury. Use the procedure in the Operation & Maintenance Manual for connecting the battery and for jump starting. Do not jump start or charge a frozen or damaged battery. Keep any open flames or sparks away from batteries. Do not smoke in battery charging area.

No-Text Safety Signs (Cont'd)

9. Tipping, Rollover or Loss of Visibility (7168037)

This safety sign is located on the back side of the lift arms facing the operator.



WARNING

TIPPING, ROLLOVER OR LOSS OF VISIBILITY CAN CAUSE SERIOUS INJURY OR DEATH

Carry load low.

W-2836-0310

10. Frame Raising (7168034)

This safety sign is located on the front of the loader.

DANGER

AVOID DEATH

Attachment can be forced against the ground and cause front frame to raise.

Never go under or reach under lift arms or lift cylinder without an approved lift arm support device installed.

D-1021-0310

11. Falling Hazard (7168040)

This safety sign is located on the front of the loader.

WARNING

AVOID INJURY OR DEATH

- **Never carry riders.**
- **Never use loader as a man lift or work platform.**

W-2835-0310

12. Lift Arm Crushing (7168033)

This safety sign is located on the front of the loader.

DANGER

AVOID DEATH

Keep out of this area when lift arms are raised unless supported by an approved lift arm support device.

Moving lift arm control or failure of a part can cause lift arms to drop.

D-1020-0310

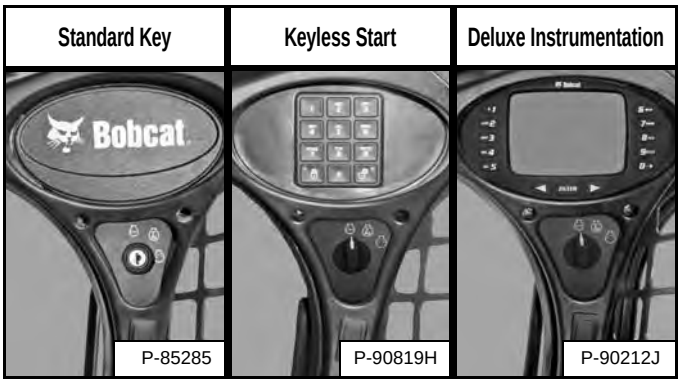
INSTRUMENT PANEL IDENTIFICATION

Overview

Figure 8

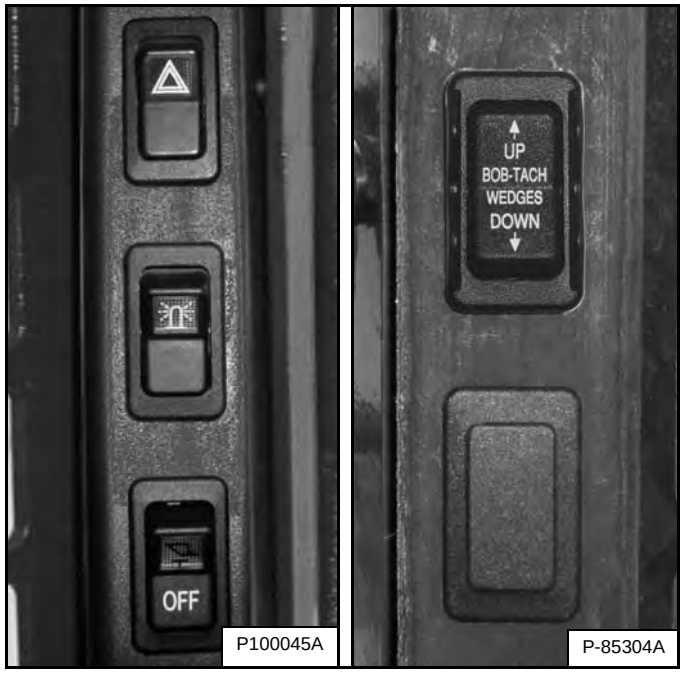
The left panel **[Figure 8]** is described in more detail. (See Left Panel (Earlier Models) on Page 40.) or (See Left Panel (Later Models) on Page 42.)

Figure 9



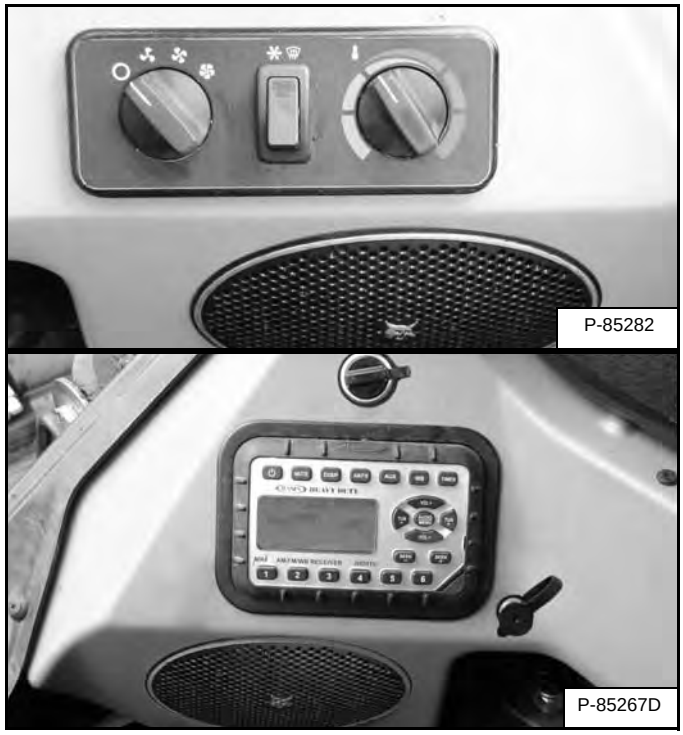
The right panel **[Figure 9]** is described in more detail. (See Right Panel (Standard Key Panel) on Page 45.), (See Right Panel (Keyless Start Panel) on Page 46.) or (See Right Panel (Deluxe Instrumentation Panel) on Page 47.)

Figure 10



The left and right switch panels **[Figure 10]** are described in more detail. (See Left Switch Panel on Page 49.) and (See Right Switch Panel on Page 49.)

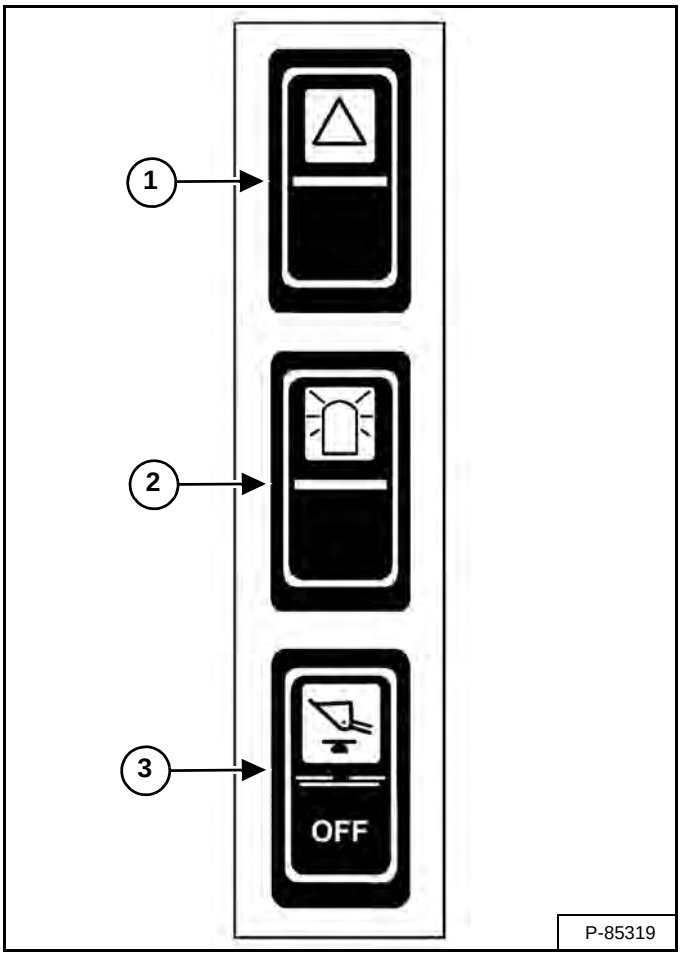
Figure 11



The left and right side lower panels **[Figure 11]** are described in more detail. (See Left Side Lower Panel on Page 50.) and (See Right Side Lower Panel on Page 50.)

Left Switch Panel

Figure 21

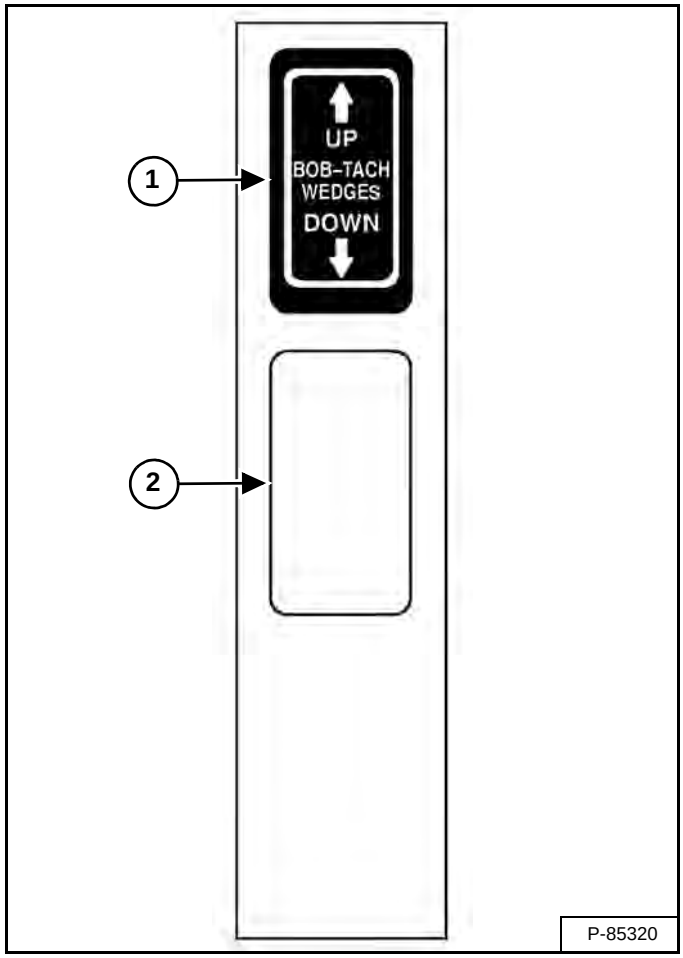


This machine may be equipped with a Left Switch Panel **[Figure 21]**.

REF. NO.	DESCRIPTION	FUNCTION / OPERATION
1	FOUR-WAY FLASHER LIGHTS (Option)	Press the top to turn lights ON; bottom to turn OFF.
2	ROTATING BEACON (Option) ***or*** STROBE LIGHT (Option)	Press the top to turn light ON; bottom to turn OFF.
3	HYDRAULIC BUCKET POSITIONING (Option)	Press the top to engage Hydraulic Bucket Positioning; bottom to disengage.

Right Switch Panel

Figure 22



This machine may be equipped with a Right Switch Panel **[Figure 22]**.

REF. NO.	DESCRIPTION	FUNCTION / OPERATION
1	POWER BOB-TACH (Option)	Press and hold the up arrow to disengage the Bob-Tach wedges. Press and hold the down arrow to engage the Bob-Tach wedges into the attachment mounting frame holes.
2	NOT USED	- - -

SEAT BAR RESTRAINT SYSTEM

Operation

Figure 37

The Seat Bar Restraint System has a pivoting seat bar with armrests (Item 1) **[Figure 37]**.

The operator controls the use of the seat bar. The seat bar in the down position helps to keep the operator in the seat.

⚠ 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.**

W-2261-0909

When the seat bar is down, the engine is running, the PRESS TO OPERATE LOADER button is activated, and the brake is released, the lift, tilt, and traction drive functions can be operated.

When the seat bar is raised, the lift, tilt and traction drive functions are deactivated and both foot pedals (if equipped) will be locked when returned to neutral position.

⚠ WARNING

AVOID INJURY OR DEATH

Before you leave the operator's seat:

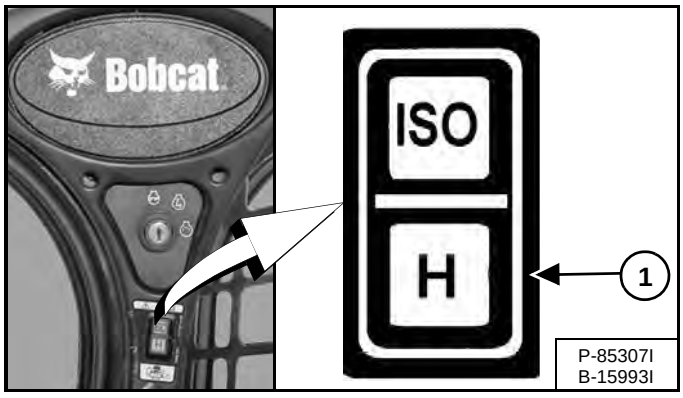
- **Lower the lift arms and put the attachment flat on the ground.**
- **Stop the engine.**
- **Engage the parking brake.**
- **Raise the seat bar.**
- **Move all controls to the NEUTRAL / LOCKED position to make sure the lift, tilt and traction drive functions are deactivated.**

The seat bar system must deactivate these functions when the seat bar is up. See your Bobcat dealer for service if controls do not deactivate.

W-2463-1110

Operation (SJC) In 'H' Control Pattern

Figure 64



Select the 'H' control pattern by pressing the bottom of the switch (Item 1) **[Figure 64]**.

⚠ WARNING

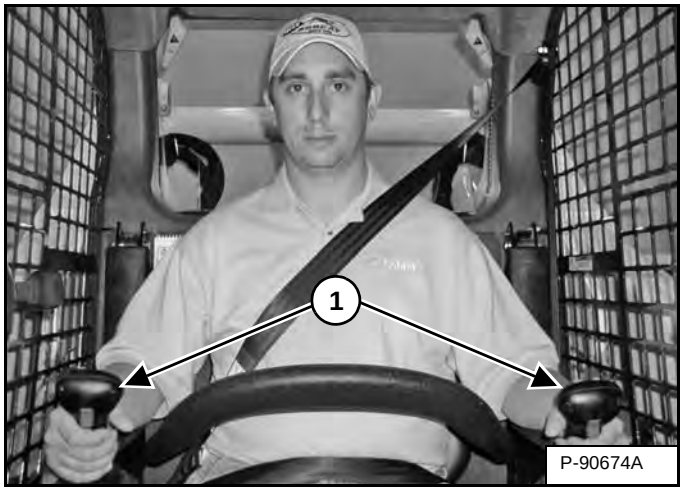
AVOID INJURY OR DEATH

When operating the machine:

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

W-2399-0501

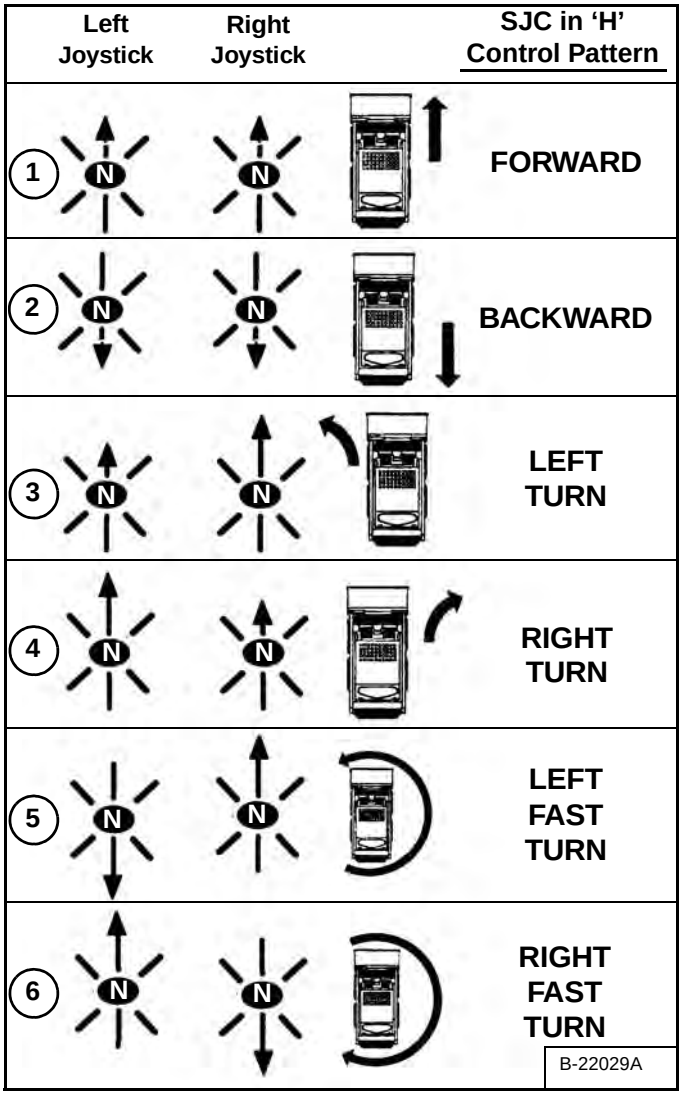
Figure 65



Both joysticks control drive and steering and are located on the left and right side in front of the seat (Item 1) **[Figure 65]**.

Move the joysticks smoothly. Avoid sudden starting and stopping.

Figure 66



Joystick Functions (Drive And Steering) **[Figure 66]**

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

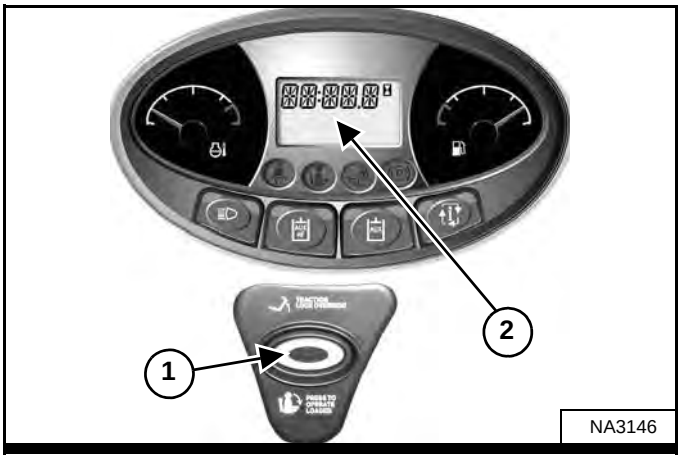
When the steering levers or joysticks are moved to the neutral position, the hydrostatic transmission will act as a *service brake* to stop the loader.

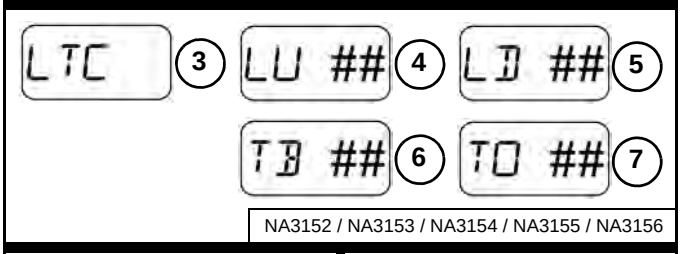
LIFT AND TILT COMPENSATION (CONT'D)

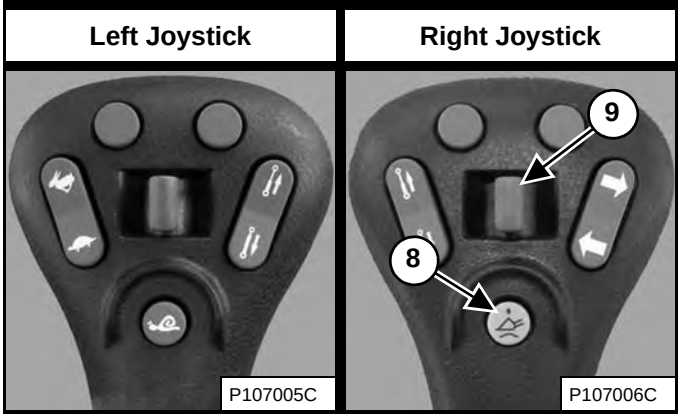
Operation (SJC)

This procedure is described using the 'H' control pattern. The procedure can be performed using the 'ISO' control pattern on SJC equipped loaders.

Figure 78







LTC - Lift and Tilt Compensation
LU - Lift Up
LD - Lift Down
TB - Tilt Back
TO - Tilt Out

1. Press and hold the float button (Item 8). Press the PRESS TO OPERATE LOADER button (Item 1). Release both buttons. This will open the lift and tilt compensation menu. **[LTC]** (Item 3) will appear in the data display (Item 2) **[Figure 78]**.

2. Move the left joystick outward and hold. **[LU ##]** (Item 4) will appear in the data display. (## will indicate the current setting.) Move the switch (Item 9) **[Figure 78]** to the right repeatedly until a slight upward movement of the lift arms is noticed. The setting will increase by one each time the switch is moved. The available range of adjustment is -25 to 35.

NOTE: If the lift arms begin to move immediately, move the switch (Item 9) [Figure 78] to the left repeatedly until lift arm movement stops, then move the switch to the right repeatedly until a slight upward movement of the lift arms is noticed. (This procedure also applies to the next three steps.)

3. Move the left joystick inward and hold. **[LD ##]** (Item 5) will appear in the data display. Move the switch (Item 9) **[Figure 78]** to the right repeatedly until a slight downward movement of the lift arms is noticed.

4. Move the right joystick inward and hold. **[TB ##]** (Item 6) will appear in the data display. Move the switch (Item 9) **[Figure 78]** to the right repeatedly until a slight backward tilt movement of the Bob-Tach frame is noticed.

5. Move the right joystick outward and hold. **[TO ##]** (Item 7) will appear in the data display. Move the switch (Item 9) **[Figure 78]** to the right repeatedly until a slight forward tilt movement of the Bob-Tach frame is noticed.

Saving The Lift And Tilt Compensation Setting:

The current lift and tilt compensation setting can be saved by pressing the PRESS TO OPERATE LOADER button (Item 1) **[Figure 78]**. The machine will exit from the lift and tilt compensation menu.

OR

Raise and lower the seat bar to exit from the lift and tilt compensation menu without saving. This will cancel all changes made. Press the PRESS TO OPERATE LOADER button (Item 1) **[Figure 78]** to continue machine operation.

Perform several lift and tilt functions to determine if the settings match your preferences. Repeat procedure if desired.

DAILY INSPECTION

Daily Inspection And Maintenance

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

Figure 106

The Service Checklist And Schedule (Item 1) **[Figure 106]** is located inside the rear door of the loader.

A chart format of the Service Checklist And Schedule is also available in the Preventive Maintenance section of this manual. (See SERVICE SCHEDULE on Page 133.)

⚠ WARNING

AVOID INJURY OR DEATH

- **Keep door / cover closed except for service.**
- **Keep engine clean of flammable material.**
- **Keep body, loose objects and clothing away from electrical contacts, moving parts, hot parts and exhaust.**
- **Do not use the machine in space with explosive dusts or gases or with flammable material near exhaust.**
- **Never use ether or starting fluid on diesel engine with glow plugs or air intake heater. Use only starting aids as approved by engine manufacturer.**
- **Leaking fluids under pressure can enter skin and cause serious injury.**
- **Battery acid causes severe burns; wear goggles. If acid contacts eyes, skin, or clothing, flush with water. For contact with eyes, flush and get medical attention.**
- **Battery makes flammable and explosive gas. Keep arcs, sparks, flames and lighted tobacco away.**
- **For jump start, connect negative cable to the machine engine last (never at the battery). After jump start, remove negative connection at the engine first.**
- **Exhaust gases can kill. Always ventilate.**

W-2782-0409

NOTE: Fluids such as engine oil, hydraulic fluid, coolant, etc. must be disposed of in an environmentally safe manner. Some regulations require that certain spills and leaks on the ground must be cleaned in a specific manner. See local bylaws for correct disposal.

⚠ WARNING

Operator must have instructions before operating the machine. Untrained operators can cause injury or death.

W-2001-0502

Deluxe Instrumentation Panel

⚠ WARNING

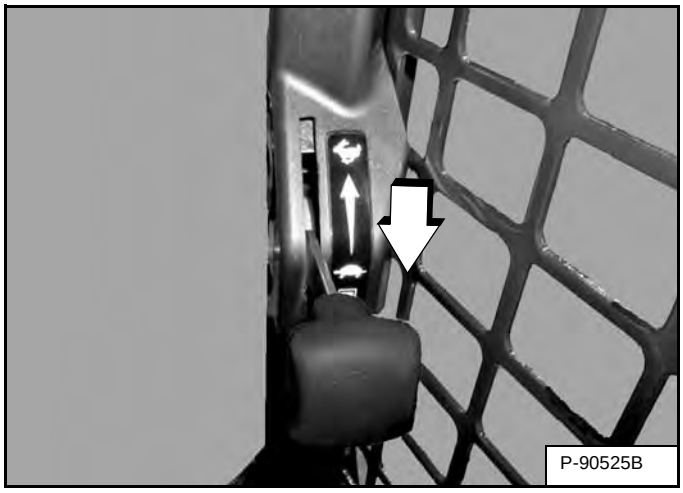
AVOID SERIOUS INJURY OR DEATH

- **Engines can have hot parts and hot exhaust gas. Keep flammable material away.**
- **Do not use machines in atmosphere containing explosive dust or gases.**

W-2051-0212

Perform the PRE-STARTING PROCEDURE. (See PRE-STARTING PROCEDURE on Page 91.)

Figure 128

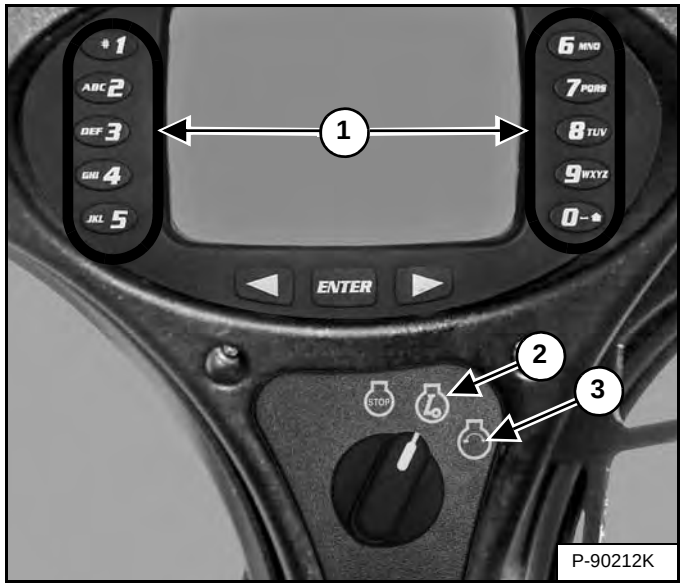


Set the engine speed control to the idle position **[Figure 128]**.

NOTE: Loaders with a Deluxe Instrumentation Panel have a permanent, randomly generated Master Password set at the factory. Your loader will also be assigned an Owner Password. Your dealer will provide you with this password. Change the owner password to one that you will easily remember to prevent unauthorised use of your loader. (See Changing The Owner Password on Page 198.) Keep your password in a safe place for future needs.

NOTE: The Password Lockout feature can be used to allow starting of the loader without a password. (See Password Lockout Feature on Page 199.)

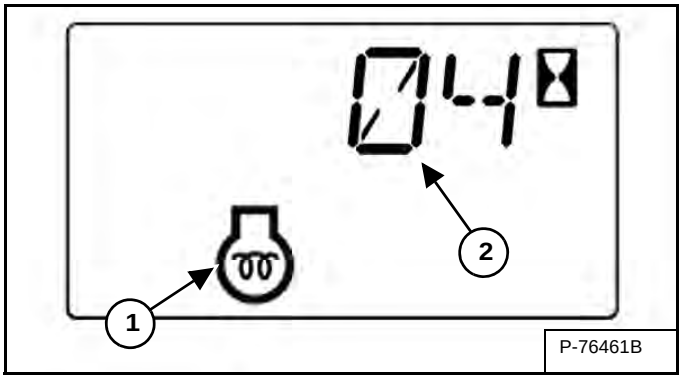
Figure 129



Turn the key switch to RUN (Item 2) **[Figure 129]**. The indicator lights on the left instrument panel will come ON briefly and the Instrument Panel / monitoring system will do a self test.

Use the numeric keypad (Item 1) **[Figure 129]** to enter the password.

Figure 130



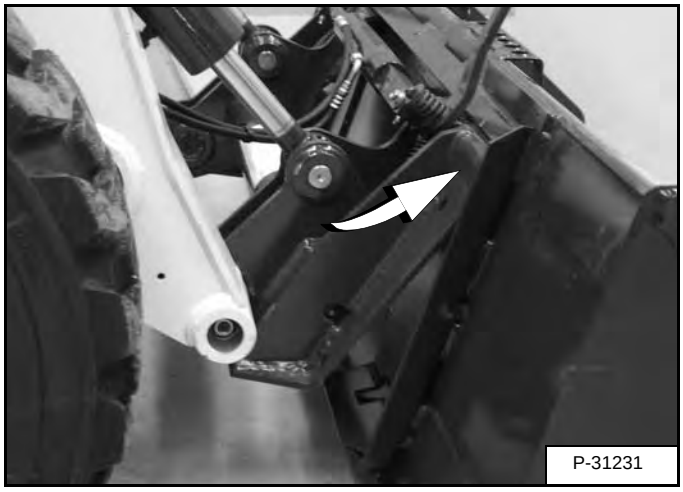
The machine will cycle the air intake heater automatically based on temperature. The engine preheat icon (Item 1) will be ON and the cycle time remaining (Item 2) **[Figure 130]** will show in the data display.

When the engine preheat icon goes OFF, turn the key switch to START (Item 3). Release the switch when the engine starts and allow it to return to the RUN position (Item 2) **[Figure 129]**.

Installing And Removing The Attachment (Power Bob-Tach) (Cont'd)

Installing (Cont'd)

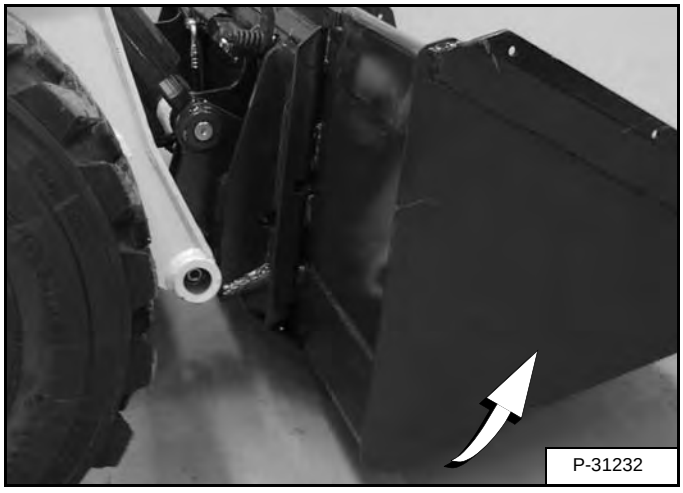
Figure 147



Drive the loader slowly forward until the top edge of the Bob-Tach is completely under the top flange of the bucket mounting frame **[Figure 147]** (or other attachment).

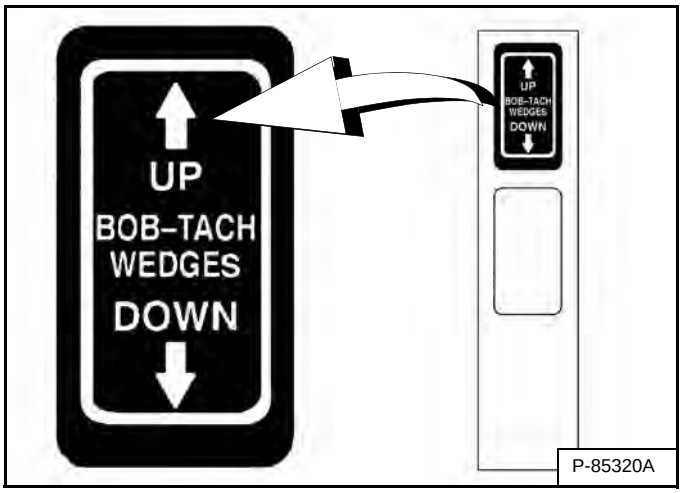
NOTE: Be sure the Bob-Tach levers do not hit the attachment.

Figure 148



Tilt the Bob-Tach backward until the cutting edge of the bucket (or other attachment) is slightly off the ground **[Figure 148]**. This will cause the bucket mounting frame to fit up against the front of the Bob-Tach.

Figure 149



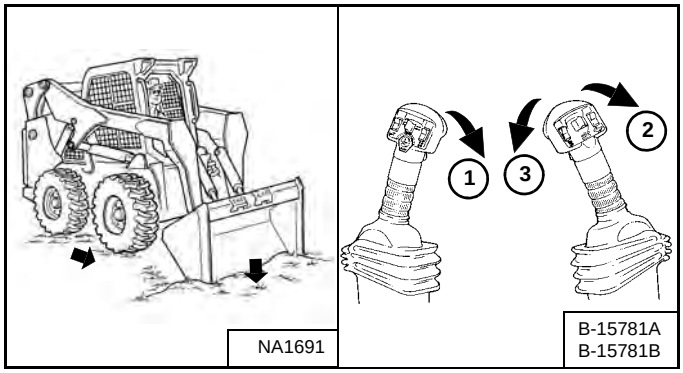
Push and hold BOB-TACH "WEDGES UP" switch (Right Switch Panel) **[Figure 149]** to make sure the levers are fully raised (wedges fully raised).

NOTE: The Power Bob-Tach system has continuous pressurised hydraulic oil to keep the wedges in the engaged position and prevent attachment disengagement. Because the wedges can slowly lower, the operator may need to reactivate the switch (BOB-TACH WEDGES UP) to be sure both wedges are fully raised before installing the attachment.

Digging And Filling A Hole (ACS - Handles, AHC - Handles And SJC - 'H' Pattern)

Digging

Figure 170

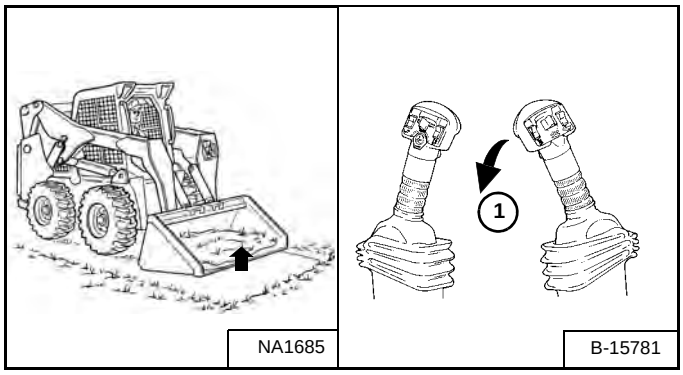


Lower the lift arms all the way (Item 1). Tilt the bucket forward (Item 2) **[Figure 170]** until the cutting edge of the bucket is on the ground.

Drive forward slowly and continue to tilt the bucket down (Item 2) **[Figure 170]** until it enters the ground.

Tilt the bucket backward a small amount (Item 3) to increase traction and keep an even digging depth. Continue to drive forward until the bucket is full. When the ground is hard, raise and lower the cutting edge (Items 2 and 3) **[Figure 170]** while driving forward.

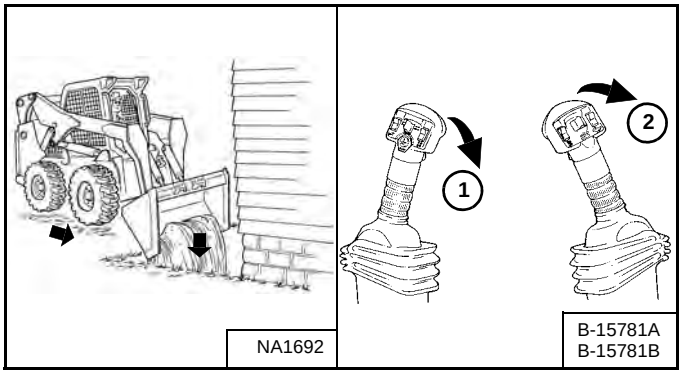
Figure 171



Tilt the bucket backward (Item 1) **[Figure 171]** as far as it will go when the bucket is full.

Filling

Figure 172



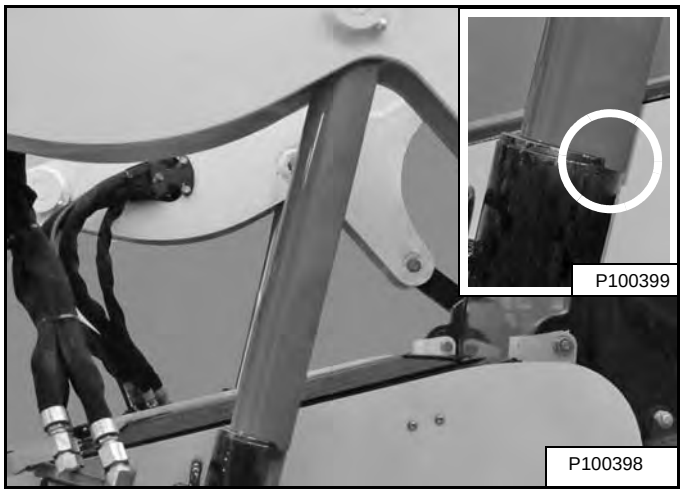
Lower the lift arms (Item 1) and put the cutting edge of the bucket on the ground (Item 2) **[Figure 172]**. Drive forward to the edge of the hole to push the material into the hole.

Tilt the bucket forward (Item 2) **[Figure 172]** as soon as it is past the edge of the hole.

If necessary, raise the lift arms to empty the bucket.

Installing (Cont'd)

Figure 190



Lower the lift arms slowly until the lift arm support device is held between the lift arms and the lift cylinder. The tabs of the lift arm support device must go past the end of the cylinder (Inset) **[Figure 190]**.

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 and 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.

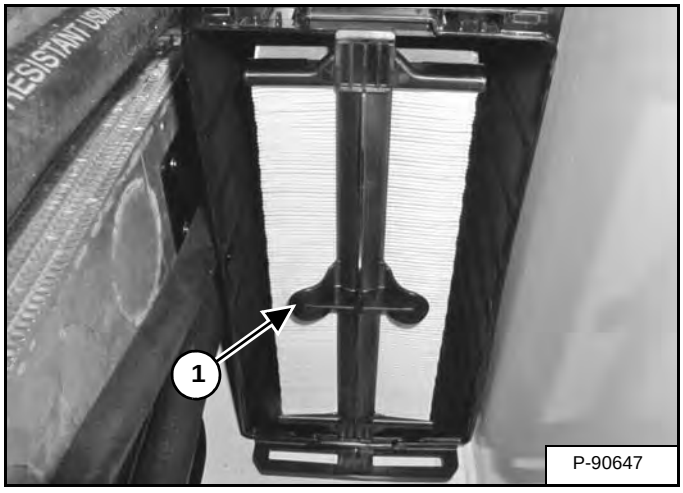
Return the lift arm support device to the storage position and secure with clamping knobs.

Remove the jackstands.

Replacing Filter Elements (Cont'd)

Outer Filter (Cont'd)

Figure 216



Pull the outer filter element (Item 1) **[Figure 216]** out and discard.

NOTE: Make sure the filter housing is free of dirt and debris. Verify that sealing surfaces are clean. DO NOT use compressed air.

Install new filter element. Push all the way in until it contacts the base of the housing.

Install the cover and secure the latches **[Figure 215]**.

NOTE: Ensure the intake hose is connected to the fitting on the fan housing (Inset) [Figure 218].

NOTE: Ensure the coolant tank is secured into the coolant tank bracket.

Install the rear grille.

Inner Filter

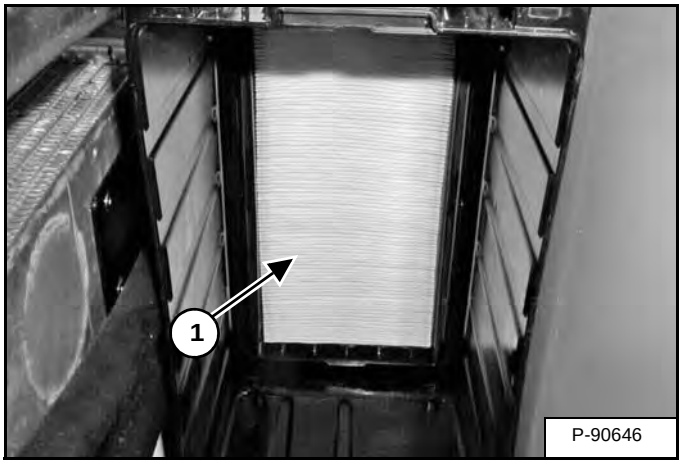
Only replace the inner filter element under the following conditions:

- Replace the inner filter element every *third* time the outer filter is replaced.
- After the outer element has been replaced, start the engine and run at full rpm. If service code **[M0117]** (Air Filter Plugged) is still displayed in the data display, replace the inner filter element.

Remove the rear grille. (See REAR GRILLE on Page 146.)

Remove the cover **[Figure 215]** and the outer filter element **[Figure 216]**.

Figure 217



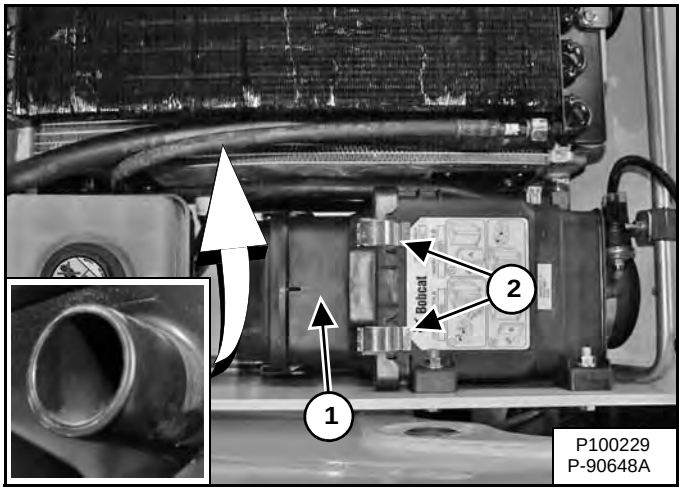
Remove the inner filter element (Item 1) **[Figure 217]**.

NOTE: Make sure the filter housing is free of dirt and debris. Verify that sealing surfaces are clean. DO NOT use compressed air.

Install new inner filter element. Push all the way in until it contacts the base of the housing.

Install the outer filter element **[Figure 216]**.

Figure 218



Install the cover (Item 1) and secure the latches (Item 2) **[Figure 218]**.

NOTE: Ensure the intake hose is connected to the fitting on the fan housing (Inset) [Figure 218].

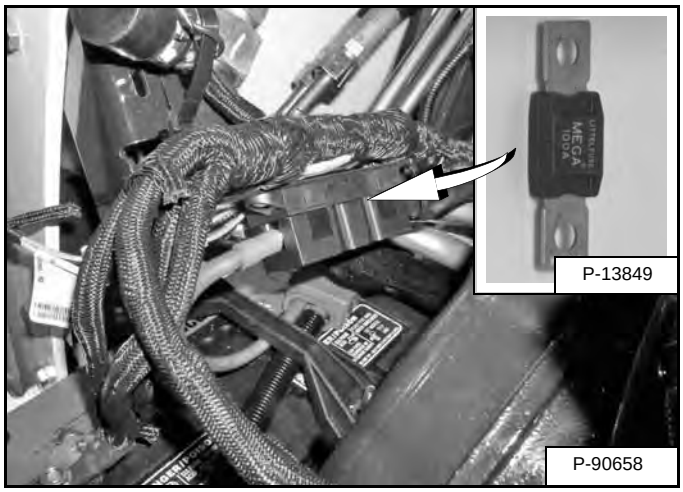
NOTE: Ensure the coolant tank is secured into the coolant tank bracket.

Install the rear grille.

ELECTRICAL SYSTEM

Description

Figure 237



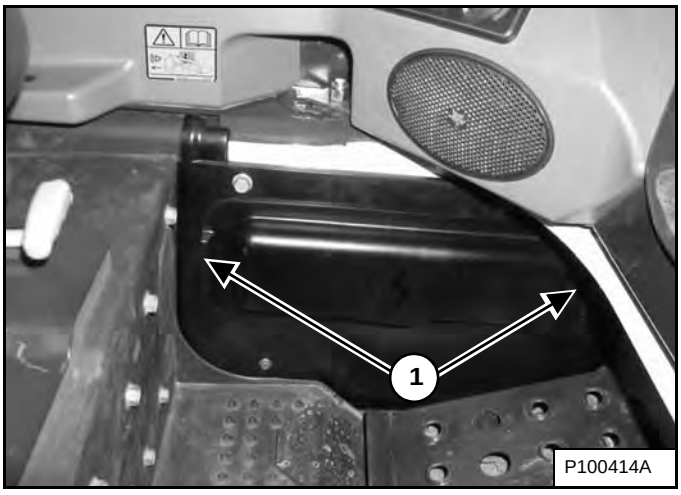
The loader has a 12 volt, negative earth, alternator charging system.

The electrical system is protected by fuses located in the operator cab and a 100 ampere master fuse **[Figure 237]** located above the battery in the engine compartment.

The fuses will protect the electrical system when there is an electrical overload. The reason for the overload must be found before starting the engine again.

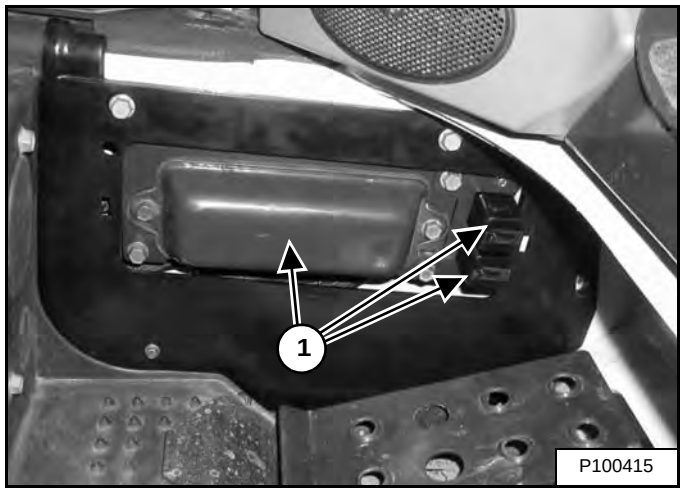
Fuse And Relay Location / Identification

Figure 238



The fuse / relay panels are located behind an access panel near the left foot pedal / footrest. Pull the panel at each end (Item 1) **[Figure 238]** to remove.

Figure 239



The electrical system is protected from overload by fuses and relays located under three fuse panel covers (Item 1) **[Figure 239]**.

Figure 240

Remove the covers to check or replace the fuses **[Figure 240]**.

A decal is located inside the access panel to show location and amperage ratings.

Install the fuse panel covers **[Figure 239]**.

Line up the clips on the back of the access panel with the slots provided and push the panel into place when finished **[Figure 238]**. A locating pin prevents the panel from being installed upside down.

A table is provided with details on amperage ratings and circuits affected by each fuse and relay. (See Figure 241 on Page 160.)

Removing And Replacing Hydraulic Charge Filter (Cont'd)

⚠ WARNING

AVOID INJURY OR DEATH

Diesel fuel or hydraulic fluid under pressure can penetrate skin or eyes, causing serious injury or death. Fluid leaks under pressure may not be visible. Use a piece of cardboard or wood to find leaks. Do not use your bare hand. Wear safety goggles. If fluid enters skin or eyes, get immediate medical attention from a doctor familiar with this injury.

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Stop the engine and check for leaks at the filter.

Check the fluid level in the reservoir and add as needed. (See Checking And Adding Fluid on Page 164.)

Breather Cap

See the SERVICE SCHEDULE for the correct replacement interval. (See SERVICE SCHEDULE on Page 133.)

Remove the rear grille. (See REAR GRILLE on Page 146.)

Figure 259

Remove the breather cap (Item 1) **[Figure 259]** and discard.

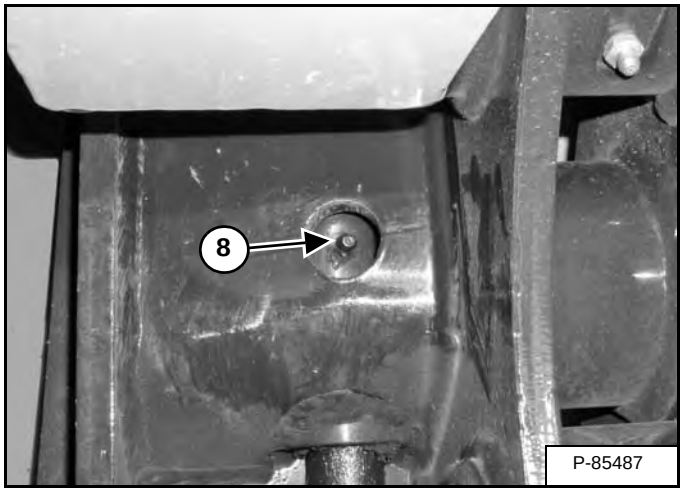
Install new breather cap.

Install the rear grille.

Lubrication Locations (Cont'd)

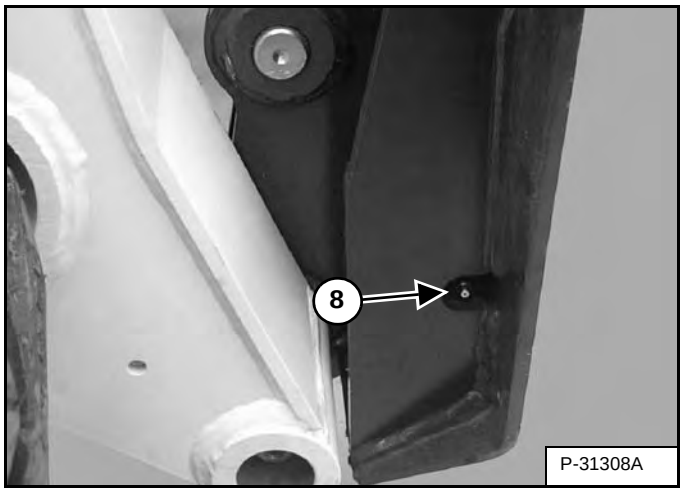
Earlier Models

Figure 286



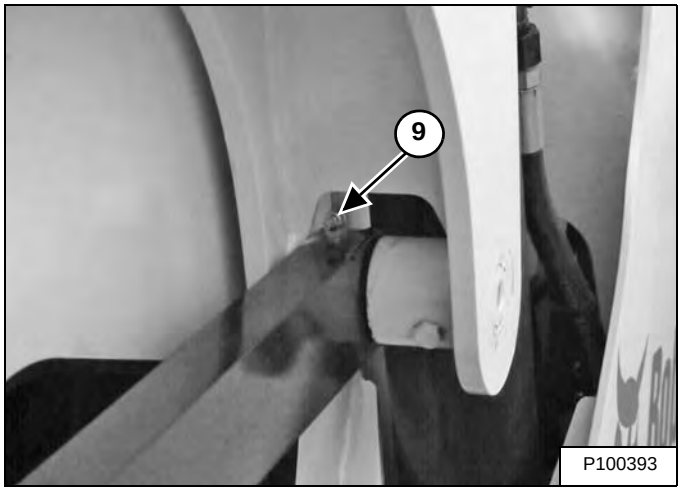
Later Models

Figure 287



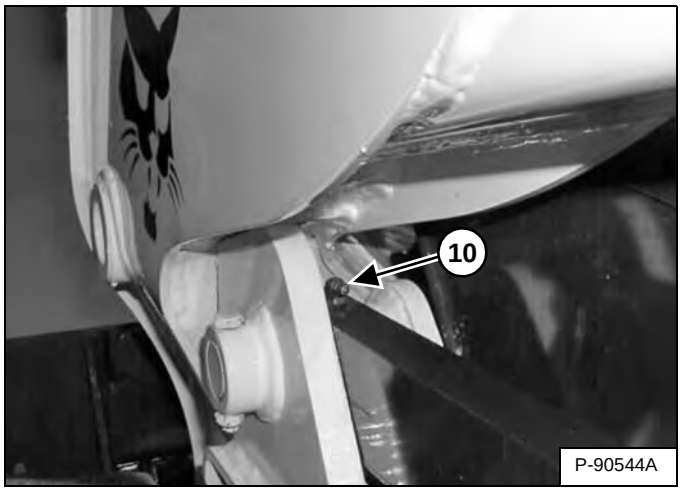
8. Bob-Tach Wedge (Both Sides) (2) **[Figure 286]** or **[Figure 287]**.

Figure 288



9. Rear Control Link (Both Sides) (2) **[Figure 288]**.

Figure 289

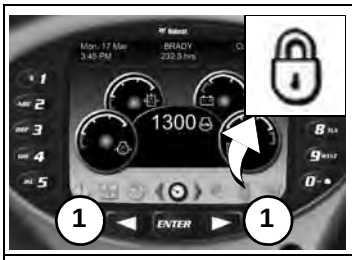


10. Front Control Link (Both Sides) (2) **[Figure 289]**.

Service Codes List (Cont'd)

CODE	DESCRIPTION	CODE	DESCRIPTION
D7510	Drive improper joysticks installed	D7555	Drive right forward drive solenoid error OFF
D7511	Drive left speed sensor not connected	D7556	Drive right reverse drive solenoid error OFF
D7512	Drive right speed sensor not connected	D7557	Drive right front steer extend short to earth
D7513	Drive right front wheel angle sensor stuck	D7558	Drive right front steer retract short to earth
D7514	Drive left front wheel angle sensor stuck	D7559	Drive left front steer extend short to earth
D7515	Drive right rear wheel angle sensor stuck	D7560	Drive left front steer retract short to earth
D7516	Drive left rear wheel angle sensor stuck	D7561	Drive right rear steer extend short to earth
D7517	Drive left swash plate not in neutral	D7562	Drive right rear steer retract short to earth
D7518	Drive right swash plate not in neutral	D7563	Drive left rear steer extend short to earth
D7519	Drive left joystick X-axis out of range high	D7564	Drive left rear steer retract short to earth
D7521	Drive left joystick Y-axis out of range high	D7565	Drive steer pressure short to earth
D7522	Drive right joystick Y-axis out of range high	D7566	Drive back-up alarm error OFF
D7523	Drive right front wheel angle sensor out of range high	D7567	Drive no communication from Bobcat controller
D7524	Drive left front wheel angle sensor out of range high	D7568	Drive angle sensors not calibrated
D7525	Drive right rear wheel angle sensor out of range high	D7569	Drive battery voltage out of range high
D7526	Drive left rear wheel angle sensor out of range high	D7570	Drive interrupted power (also occurs after software updates)
D7527	Drive left swash plate out of position	D7571	Drive battery voltage out of range low
D7528	Drive right swash plate out of position	D7572	Drive pump not calibrated
D7529	Drive left joystick X-axis out of range low	D7573	Drive operating mode switch flipped while operating
D7531	Drive left joystick Y-axis out of range low	D7574	Drive right wheel speed uncommanded motion
D7532	Drive right joystick Y-axis out of range low	D7575	Drive left wheel speed uncommanded motion
D7533	Drive right front wheel angle sensor out of range low	D7576	Drive no communication from ACS controller
D7534	Drive left front wheel angle sensor out of range low	D7577	Drive left speed sensor out of range high
D7535	Drive right rear wheel angle sensor out of range low	D7578	Drive right speed sensor out of range high
D7536	Drive left rear wheel angle sensor out of range low	D7579	Drive left speed sensor out of range low
D7537	Drive 5 volt sensor supply 1 out of range low	D7580	Drive right speed sensor out of range low
D7538	Drive 5 volt sensor supply 2 out of range low	D7581	Drive right front steer retract short to battery
D7539	Drive left swash plate sensor out of range high	D7582	Drive left front steer retract short to battery
D7540	Drive left swash plate sensor out of range low	D7583	Drive right rear steer retract short to battery
D7541	Drive right swash plate sensor out of range high	D7584	Drive left rear steer retract short to battery
D7542	Drive right swash plate sensor out of range low	D7585	Drive 5 volt sensor supply 1 out of range high
D7543	Drive left forward drive solenoid error ON	D7586	Drive 5 volt sensor supply 2 out of range high
D7544	Drive left reverse drive solenoid error ON	D7587	Drive software update required
D7545	Drive right forward drive solenoid error ON	D7588	Drive switched power stuck ON
D7546	Drive right reverse drive solenoid error ON	D7589	Drive switched power error OFF
D7547	Drive right front steer extend short to battery	D7590	Drive calibration performed
D7548	Drive left front steer extend short to battery	D7591	Drive left swash plate sensor reversed
D7549	Drive right rear steer extend short to battery	D7592	Drive right swash plate sensor reversed
D7550	Drive left rear steer extend short to battery	D7593	Drive unresponsive right speed sensor
D7551	Drive steer pressure short to battery	D7594	Drive unresponsive left speed sensor
D7552	Drive back-up alarm error ON	D7595	Drive left speed sensor reverse direction
D7553	Drive left forward drive solenoid error OFF	D7596	Drive right speed sensor reverse direction
D7554	Drive left reverse drive solenoid error OFF	D7597	Drive controller programmed

Changing The User Passwords

	Press a scroll button (Item 1) repeatedly until the Security screen icon (Inset) is highlighted.
	Select **[1. PASSWORDS / LOCKOUTS]**.
	Enter owner password and press **[ENTER]**.
	Select **[1. USER SETTINGS]**.
	Select user.
	Select **[2. CHANGE PASSWORD]**.
	Enter new user password and press **[ENTER]**.

Password Lockout Feature

This feature allows the owner to unlock the password feature so that a password does not need to be used every time the engine is started.

	Press a scroll button (Item 1) repeatedly until the Security screen icon (Inset) is highlighted.
	Select **[1. PASSWORDS / LOCKOUTS]**.
	Enter owner password and press **[ENTER]**.
	Select **[2. MACHINE LOCK]**.

NOTE: The procedure above can be followed to reset the machine lock so that the machine requires a password to start the engine.