EN

Bobcat®

Operation & Maintenance Manual

Telescopic Handler

(T36.120SLRB) S/N B51211001 & Above

7400377enGB (06-20) (0)

Printed in Belgium
Original Instructions

EU S5

OPERATOR SAFETY WARNINGS

WARNING

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

W-2001-0502

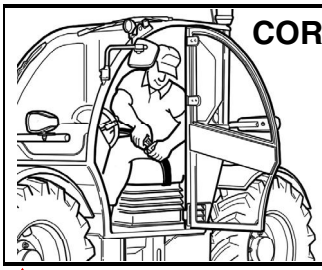
Safety Alert Symbol: This symbol with a warning statement, means: "Warning, be alert! Your safety is involved!" Carefully read the message that follows.

CORRECT

P-90216

Never operate without instructions. See machine signs (decals), Operation & Maintenance Manual.

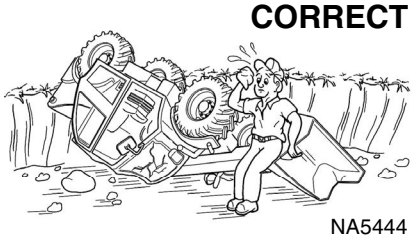
CORRECT



NA5465

Always fasten seat belt snugly.
Always keep your feet and arms inside the cab.

CORRECT



NA5444

Never use telescopic handler without operator cab with ROPS and FOPS approval.

WRONG

NA5435

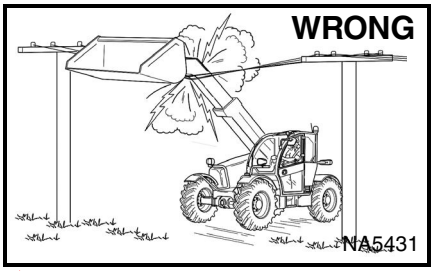
Never carry riders.
Use only an approved work platform.

WRONG

NA5438

Do not use machine in atmosphere with explosive dust, explosive gas, or where exhaust can contact flammable material.

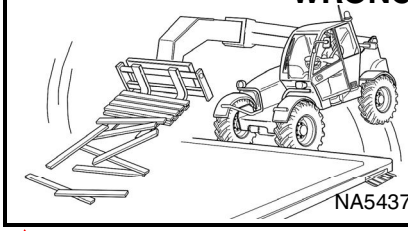
WRONG



NA5431

Check for overhead or underground power lines before operating.
Keep boom, attachment, and load a minimum of 3m (10 ft.) away from electrical power lines.

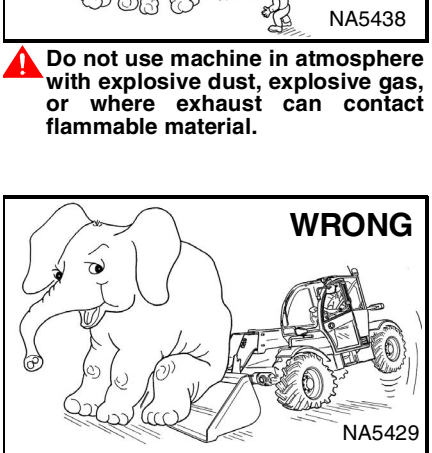
WRONG



NA5437

Always carry bucket or attachments as low as possible.
Do not travel or turn with boom up.
Load, unload, and turn on flat level ground.

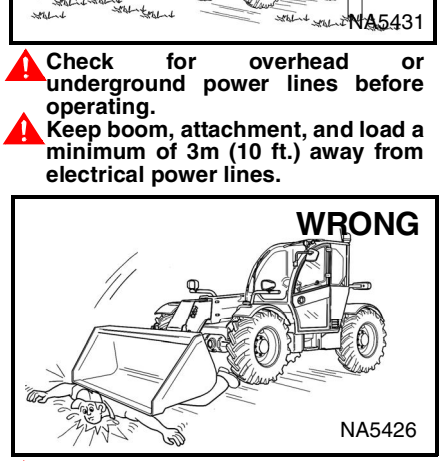
WRONG



NA5429

Never exceed Rated Load Capacity.
Read and understand the Load Capacity Charts.

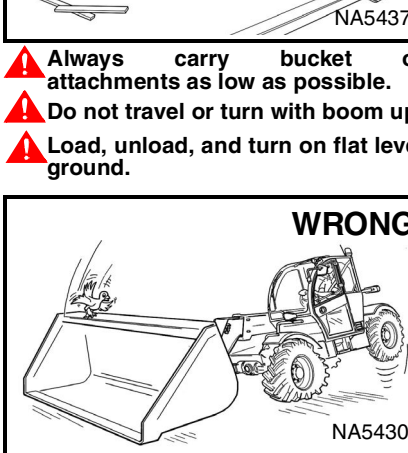
WRONG



NA5426

Never exit the machine with engine running or with boom raised.
To park, put transmission in neutral, engage parking brake, and put attachment flat on the ground.

WRONG



NA5430

Never modify equipment.
Use only attachments approved by Bobcat Company for this model telescopic handler.

SAFETY EQUIPMENT

The Bobcat® telescopic handler must be equipped with safety items necessary for each job. Ask your Bobcat dealer for information on the availability and safe use of attachments and accessories.

1. SEAT BELT: Check belt fasteners and check for damaged webbing or buckle.
2. OPERATOR CAB (ROPS and FOPS): It must be on the telescopic handler with all fasteners tight. Never operate without right window.
3. OPERATOR'S HANDBOOK: Must be in the cab.
4. SAFETY SIGNS (DECALS): Replace if damaged.
5. SAFETY TREADS: Replace if damaged.
6. GRAB HANDLES: Replace if damaged.
7. BOOM STOP (if equipped): Replace if damaged.
8. PARKING BRAKE: Check for function.
9. WINDOWS AND MIRRORS: Clean and check for broken glass or mirrors. Replace if damaged.

OSW71-EN-0117

Longitudinal Load Moment Indicator (LLMI) (Cont'd)

Critical Zone:

Red indicator light (Item 3) **[Figure 19]** (one light). The machine's longitudinal stability reaches a critical level. A warning horn is activated along with the red indicator light.

In this zone, the following machine functions are reduced in speed or disabled:

- Boom lowering (disabled with boom angle above 5°, reduced in speed when below 5°)
- Boom extend (disabled)
- Tilt (reduced in speed)
- Auxiliary hydraulic functions (reduced in speed)
- Stabilisers (disabled)
- Frame-levelling (disabled to increase frame angle).

Use the remaining active functions to bring the machine back to a safe level of stability. If necessary, activate the LLMC override mode to enable a disabled function such that the machine can be brought back to a safe level of stability. (See Selection Mode Switch on Page 116.)

NOTE: The LLMC override mode should only be activated when necessary and is automatically deactivated after a running period of 60 seconds.

NOTE: The warning horn cannot be deactivated.

Test Button:

The test button (Item 4) **[Figure 19]** has two functions:

- Testing the correct functioning of the LLMI and LLMC. (See LLMC CALIBRATION TEST on Page 153.)
- Calibrating the LLMC (See your Bobcat dealer for calibration).

The test indicator light (RED) (Item 5) **[Figure 19]** is used for the test procedure and the LLMI / LLMC system calibration. The light flashes when the LLMC is in fault mode.

The control indicator light (ORANGE) (Item 6) **[Figure 19]** indicates that the machine is under control of the LLMC. The light flashes when the LLMC override mode is activated. (See Selection Mode Switch on Page 116.)

Display Panel

Figure 20

1. **Direction Signal (Green Light)** - The light will flash when a direction signal is activated or when the hazard lights are activated.

2. **General Warning (Red Light)** - The light comes on when a general error is present. (See Service Codes* and "MONITORING THE DISPLAY PANEL" on page 92.)

3. **Low Speed (Yellow Light)** - The light comes on when low speed is activated.

4. **Engine Coolant Temperature (Red Light)** - The light comes on if the engine coolant temperature is high. The light will flash if the engine coolant temperature is extremely high.

5. **Engine Malfunction (Red Light)** - The light comes on when there is an engine malfunction or failure. (See Service Codes* and "MONITORING THE DISPLAY PANEL" on page 92.)

6. **Engine Temperature Gauge** - Shows the engine coolant temperature.

7. **Display Screen** - Displays information. (See Display Screen on Page 50.)

8. **Seat Belt (Red Light)** - Instructs operator to fasten seat belt. Remains lit for 45 seconds.

9. **Forward - Neutral - Reverse - F-N-R (Yellow Light)** - The light will flash when attempting to start the engine when the Travel Direction Control (Travel Direction Switch and / or Lever) is not in NEUTRAL position. (See Travel Direction on Page 42.)

10. **Joystick Lockout (Red Light)** - The light comes on when the joystick lockout is activated. The light will flash when there is a joystick malfunction or failure. (See Service Codes*.)

11. **Parking Brake And Operator Position (Red Light)** - The light comes on when the parking brake is engaged. (See PARKING BRAKE on Page 65.) The light will flash and a warning horn is activated when the parking brake pressure is too low OR when the operator leaves the operator seat while the parking brake is not engaged.

12. **Headlights High Beam (Blue Light)** - The light comes on when high beam is activated. (See Multi-function Lever on Page 43.)

13. **NOT USED**

14. **Fuel Level (Red Light)** - The light comes on when the fuel level is low.

* See SYSTEM SETUP AND ANALYSIS for Service Code description. (See DIAGNOSTIC SERVICE CODES on Page 205.)

Display Panel (Cont'd)

15. **Hydraulic System Malfunction (Red Light)** - The light comes on when there is a hydraulic malfunction or failure or if the hydraulic / hydrostatic fluid temperature is high or if the hydraulic filter is plugged. The light will flash if the hydraulic / hydrostatic fluid temperature is extremely high. (See Service Codes*.)

16. **Fuel Level Gauge** - Shows the amount of fuel in the tank.

17. **Hot Exhaust System Temperature (Yellow Light)** - The light comes on when the exhaust reaches high temperatures suitable for active Diesel Particulate Filter (DPF) regeneration. (See DPF Icons on Page 61.)

18. **DPF Soot Load Level** - Shows the amount of soot in the Diesel Particulate Filter (DPF). (See DPF Icons on Page 61.)

19. **Work Lights** - Press once to turn front and rear work lights ON (left green LED will be on). Press a second time to turn work lights OFF (left green LED will be off).

NOTE: Work Lights can only be activated when parking lights are ON. (See Multi-function Lever on Page 43.)

20. **Hydraulic Control Lockout** - Press once to deactivate all hydraulic functions of the boom. Press a second time to enable the hydraulic functions. Use to deactivate all functions of the Hydraulic Control Lever (Joystick) when travelling on a road.

21. **Continuous Flow Auxiliary Hydraulics** - For continuous operation of the auxiliary hydraulics, press this button once to activate the continuous auxiliary hydraulics system (left green LED will light) and then press the joystick front button (Item 9) **[Figure 70 on Page 77]**. Press a second time to deactivate the system.

    Auxiliary Hydraulics At Startup - For auxiliary hydraulics at startup, press this button for three seconds to show the auxiliary hydraulics default mode at startup. (See Auxiliary Hydraulics At Startup on Page 78.)

22. **Information** - Press to cycle through the display screen menus. (See Display Screen on Page 50.)

* See SYSTEM SETUP AND ANALYSIS for Service Code description. (See DIAGNOSTIC SERVICE CODES on Page 205.)

IMPORTANT

AVOID ENGINE DAMAGE

Continuing to operate the machine when a service code has been recorded can cause serious engine damage. A service code will not cause the engine to shut down automatically.

If a service code is observed:
- **Park the machine in a safe location.**
- **Stop the engine immediately.**
- **Maintain or repair the machine as required.**

I-2353-0112

Display Screen

Figure 21

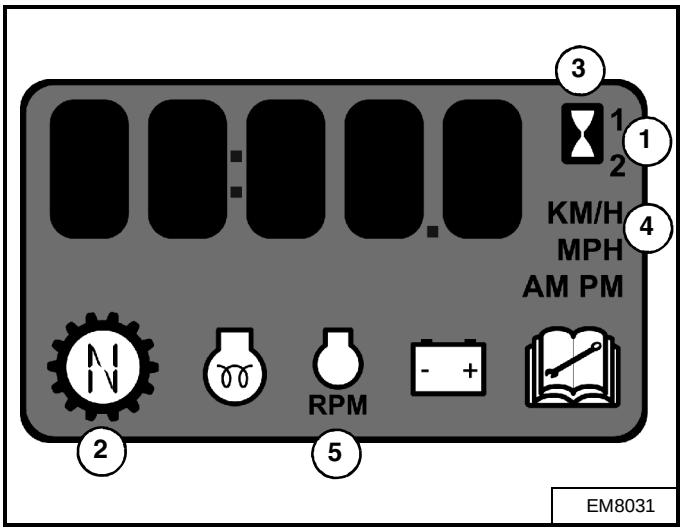
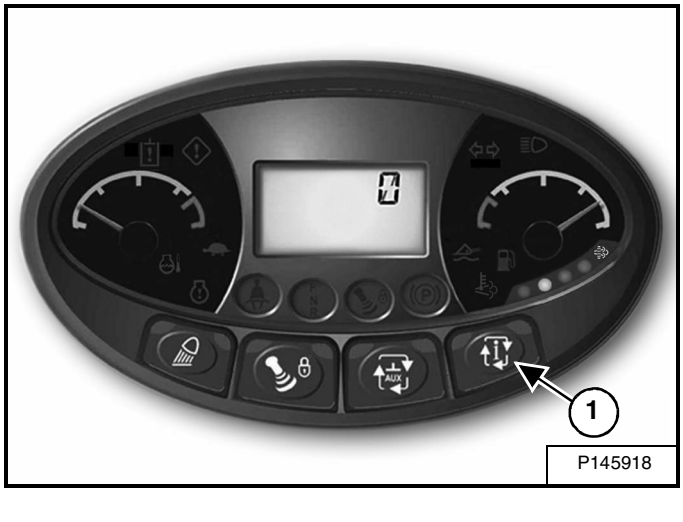


Figure 22



The display screen **[Figure 21]** is located on the display panel. (See Display Panel on Page 48.)

The following icons are always displayed:

- **STABILISERS DOWN (LEFT / RIGHT)** - The displayed numbers (Item 1) **[Figure 21]** indicate the status of the stabilisers:
  - "1": left stabiliser down,
  - "2": right stabiliser down.

  [STAB] is displayed on the display screen for 5 seconds when stabiliser(s) are on the ground. (See Using Stabilisers on Page 123.)

- **FORWARD - NEUTRAL - REVERSE (F-N-R)** - The displayed character (Item 2) **[Figure 21]** indicates the selected travel mode. (See Travel Direction on Page 42.)

The display screen can display the following information:

- **Engine Hours** - Shows total time the engine ever ran (hours). When this menu is activated, the hourglass icon (Item 3) **[Figure 21]** will light. The Engine Hours menu will show by default upon startup.

- **Machine Speed** - NOT USED (Item 4) **[Figure 21]**

- **Engine Speed** - Shows the actual engine revolutions per minute (rpm). When this menu is activated, the rpm icon (Item 5) **[Figure 21]** will light.

- **Job Hours** - Shows the total time the engine ran during the job (hours). When this menu is activated, the hourglass icon (Item 3) **[Figure 21]** will light. Press the information button (Item 1) **[Figure 22]** for 3 seconds to reset the job hours.

- **Boom Angle** - Shows the inclination angle of the telescopic boom (degrees). When this menu is activated, the degree symbol (°) will be displayed on the right side of the display screen.

- **Speed Management (Creep)** - Shows the Speed Management value (%). When this menu is activated, 'C' followed by the Speed Management value will be displayed on the left side of the display screen if the Speed Management is enabled, **[C OFF]** if the Speed Management is disabled. (See SPEED MANAGEMENT on Page 74.)

- **Auxiliary Hydraulics** - Shows which percentage (%) of the auxiliary hydraulics flow is available. When this menu is activated, 'A' followed by the maximum available percentage will be displayed on the left side of the display screen. (See Changing The Maximum Auxiliary Flow on Page 78.)

- **Frame-Levelling Angle** - Shows the frame level angle (degrees). When this menu is activated, the degree symbol (°) will be displayed on the right side of the display screen. (See Using Frame-Levelling on Page 122.)

- **Auto Reverse Cooling Fan (If Equipped)** - Shows the auto reverse cooling fan interval (minutes). When this menu is activated, 'I' followed by the reverse cooling fan interval will be displayed on the left side of the display screen. (See AUTO REVERSE COOLING FAN on Page 80.)

Use the information button (Item 1) **[Figure 22]** to cycle through the different information.

Display Screen (Cont'd)

Figure 23

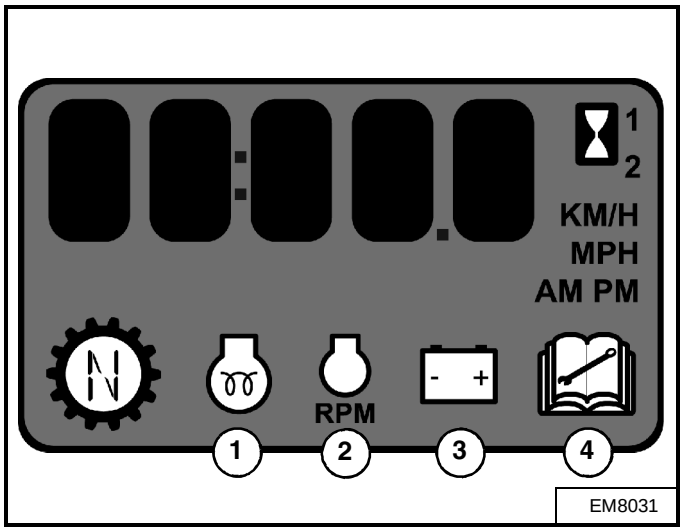
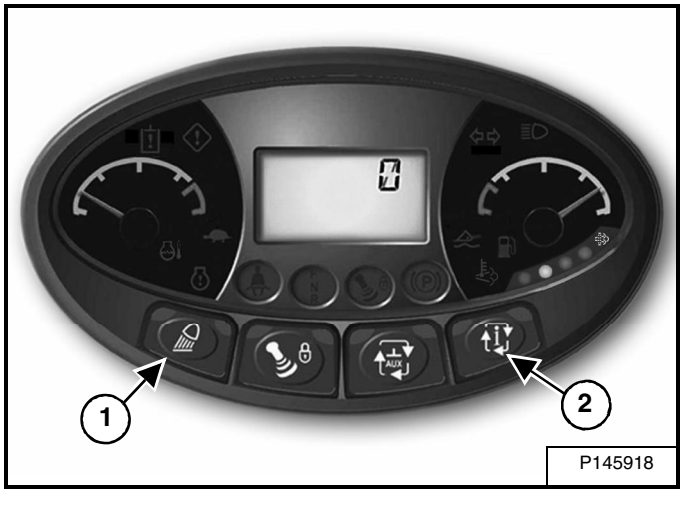


Figure 24



The following information can be displayed on the display screen **[Figure 23]**:

- **Engine Preheat** - **[WAIT]** is displayed automatically during the preheating of the engine (See STARTING THE ENGINE on Page 88.) When this menu is activated, the engine preheat icon (Item 1) **[Figure 23]** will light.

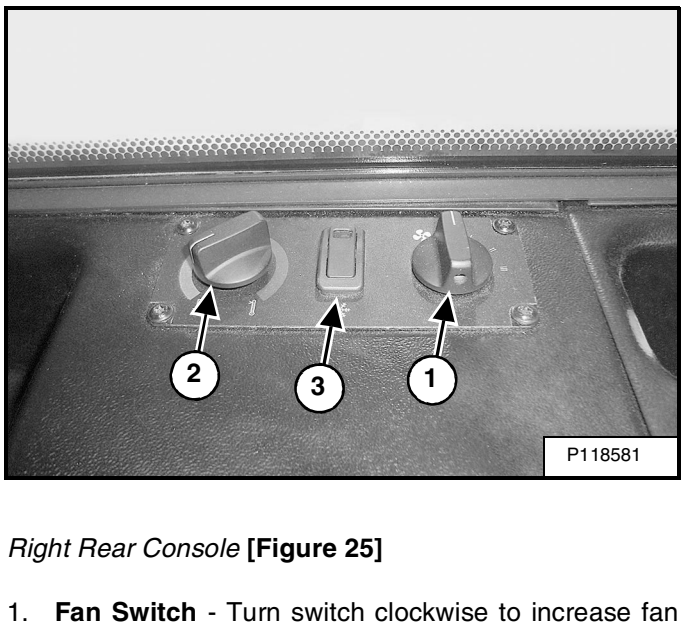
- **Steering Mode Change Management** - Shows the active steering mode change management. (See Steering Mode Management on Page 57.) When this menu is activated, the rpm icon (Item 2) **[Figure 23]** will light.

- **Battery / Charging Voltage** - Shows the battery voltage. To activate this menu, press the work lights button (Item 1) **[Figure 24]** for three seconds while in the engine hours menu. When the battery voltage menu is activated, the battery voltage icon (Item 3) **[Figure 23]** will light. Press the information button (Item 2) **[Figure 24]** once to return to the engine hour menu. In combination with general warning icon (see Item 2 "Display Panel" on page 48) it shows a battery voltage error.

- **Service Codes** - Shows the active Service Codes. (See Viewing Service Codes on Page 205.) When this menu is activated, the Service icon (Item 4) **[Figure 23]** will light.

Temperature Control Panel

Figure 25



Right Rear Console **[Figure 25]**

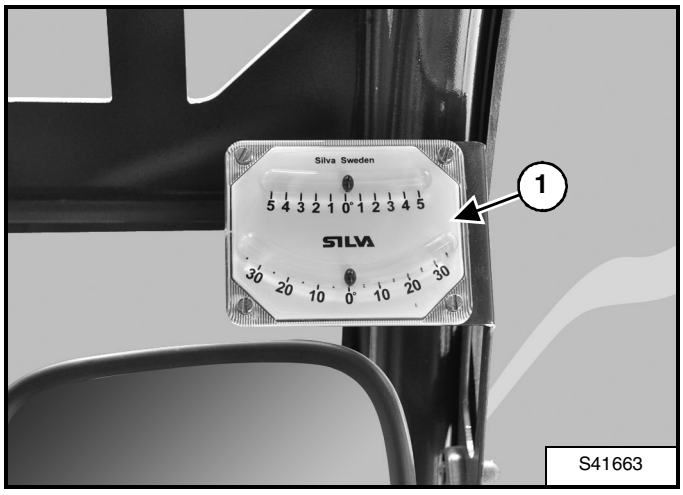
1. **Fan Switch** - Turn switch clockwise to increase fan speed. "O" - Off, "I" - Low, "II" - Medium, "III" - Fast

2. **Temperature Control** - Turn clockwise to increase cab temperature; anticlockwise to decrease.

3. **Air Conditioning Switch (If Equipped)** - Press the top of the switch to turn the Air Conditioning ON - Press the bottom of the switch to turn the Air Conditioning OFF.

Sight Level Gauge

Figure 26

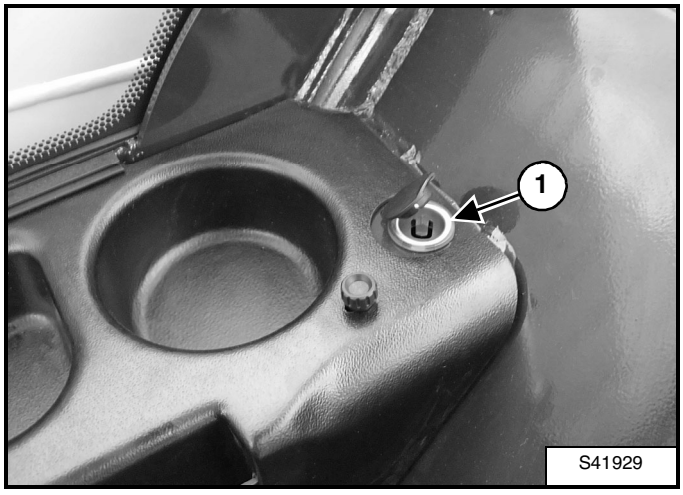


The sight level gauge (Item 1) **[Figure 26]** indicates position of the frame to the horizontal plane.

When carrying out load handling work, carefully monitor this sight level gauge and take the necessary measures.

Auxiliary Power Outlet

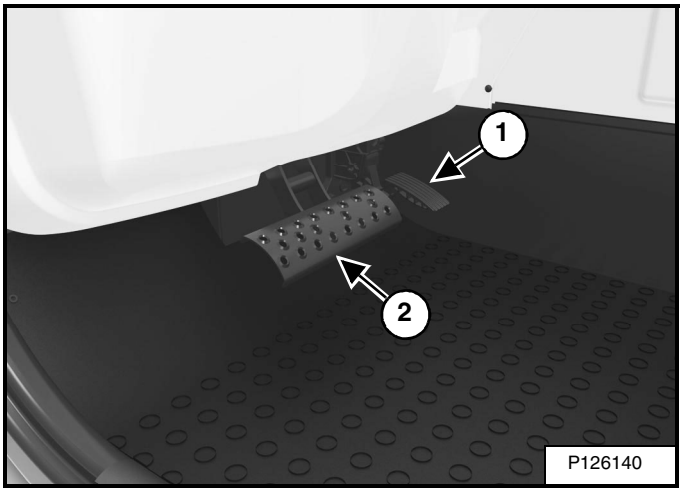
Figure 27



The Auxiliary Power Outlet (Item 1) **[Figure 27]** is a 12 volt receptacle for accessories.

Accelerator Pedal

Figure 28



The accelerator pedal (Item 1) **[Figure 28]** is at the right side of the steering console.

Press the accelerator pedal down to increase engine speed. Release foot pressure to decrease engine speed.

Brake Pedal And Inching Control

The brake pedal (Item 2) **[Figure 28]** is at the left of the accelerator pedal.

Press the brake a small amount to decrease travel speed and control inching (gradual travel of the machine). Press down to stop travel of the machine.

NOTE: Approximately the first half of the total brake pedal travel is for INCHING CONTROL.

OPERATOR CAB

Description

The Bobcat telescopic handler has an operator cab (ROPS / FOPS) as standard equipment to protect the operator. The seat belt must be worn for ROPS / FOPS protection.

Check the ROPS / FOPS cab, mounting, and hardware for damage. Never modify the ROPS / FOPS cab. Replace the cab and hardware if damaged. See your Bobcat dealer for parts.

ROPS / FOPS - Roll-Over Protective Structure per ISO 3471, Falling-Object Protective Structure per ISO 3449 (FOPS Level II) and OECD code 4, code 9 and code 10.

Operator cab category 1 per EN 15695-1:2009.

The operator cab does not provide protection against hazardous substances. Do not use this machine under conditions requiring protection against hazardous substances.

⚠ WARNING

Never modify operator cab by welding, grinding, drilling holes or adding attachments unless instructed to do so by Bobcat Company. Do not operate without right window. Changes to the cab can cause loss of operator protection from rollover and falling objects, and result in serious injury or death.

W-2906-0211

Cab Door

Figure 29

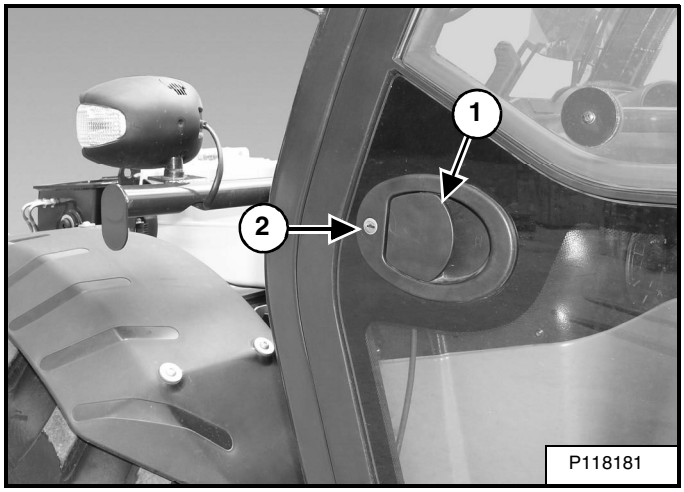
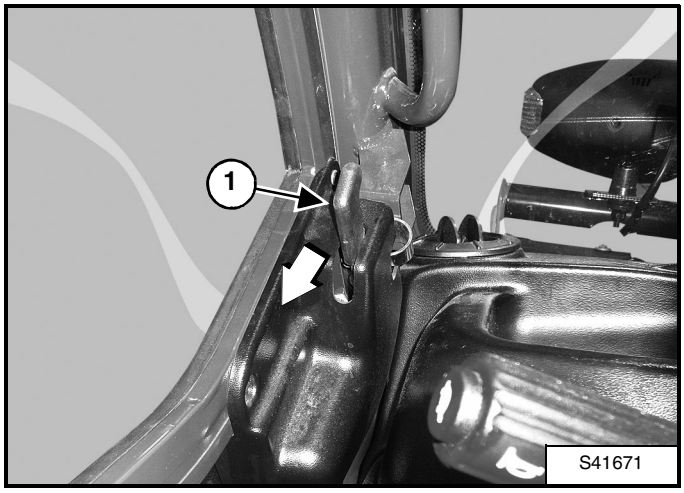


Figure 30

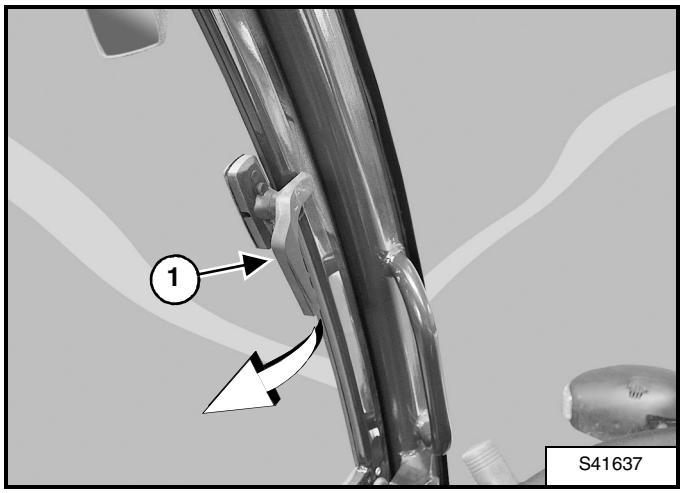


The cab door can be opened from the outside of the cab using the latch (Item 1) **[Figure 29]** and opened from the inside of the cab when you pull the lever (Item 1) **[Figure 30]** back (as shown).

The cab door can be locked (Item 2) **[Figure 29]** with the same key as the starter switch.

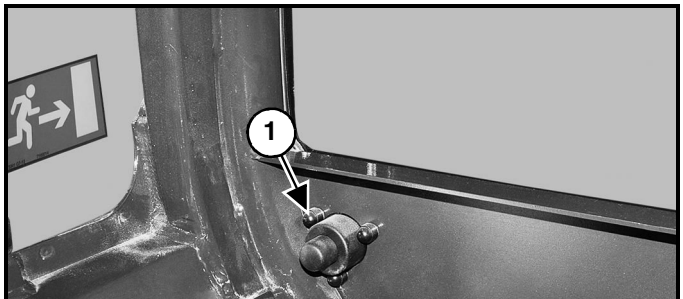
Cab Door Window

Figure 31



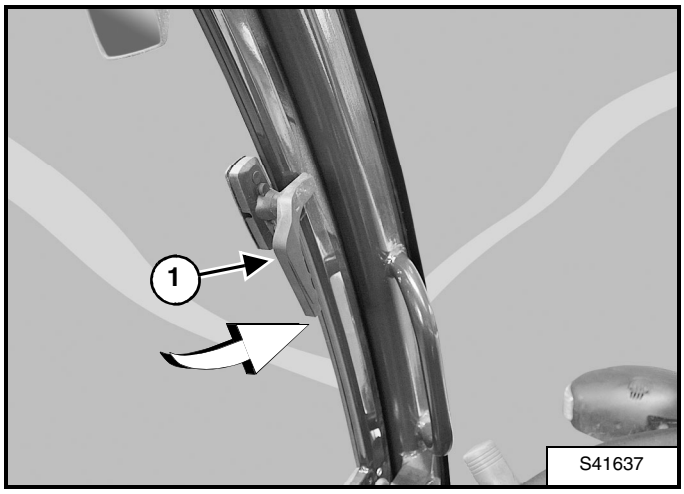
Turn the handle (Item 1) **[Figure 31]** (as shown) to unlock the window. Push the window fully open until it latches against the cab.

Figure 32



Push the knob (Item 1) **[Figure 32]** inside the cab to disengage the latch and close the window.

Figure 33



Turn the handle (Item 1) **[Figure 33]** back into the original position (as shown) to lock the window.