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Product: MINI HYD EXCAVATOR

Model: 303.5C MINI HYD EXCAVATOR DMY

Configuration: 303.5C CR Mini Hydraulic Excavator DMY00001-UP (MACHINE) POWERED BY S3Q2 Engine

Operation and Maintenance Manual

303.5C CR, 303C CR, 304C CR and 305C CR Mini Hydraulic Excavators

Media Number -SEBU8021-09

Publication Date -01/03/2012

Date Updated -06/03/2012

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Operator Controls

SMCS - 7300; 7301; 7451

Note: Your machine may not be equipped with all of the controls that are described in this topic.

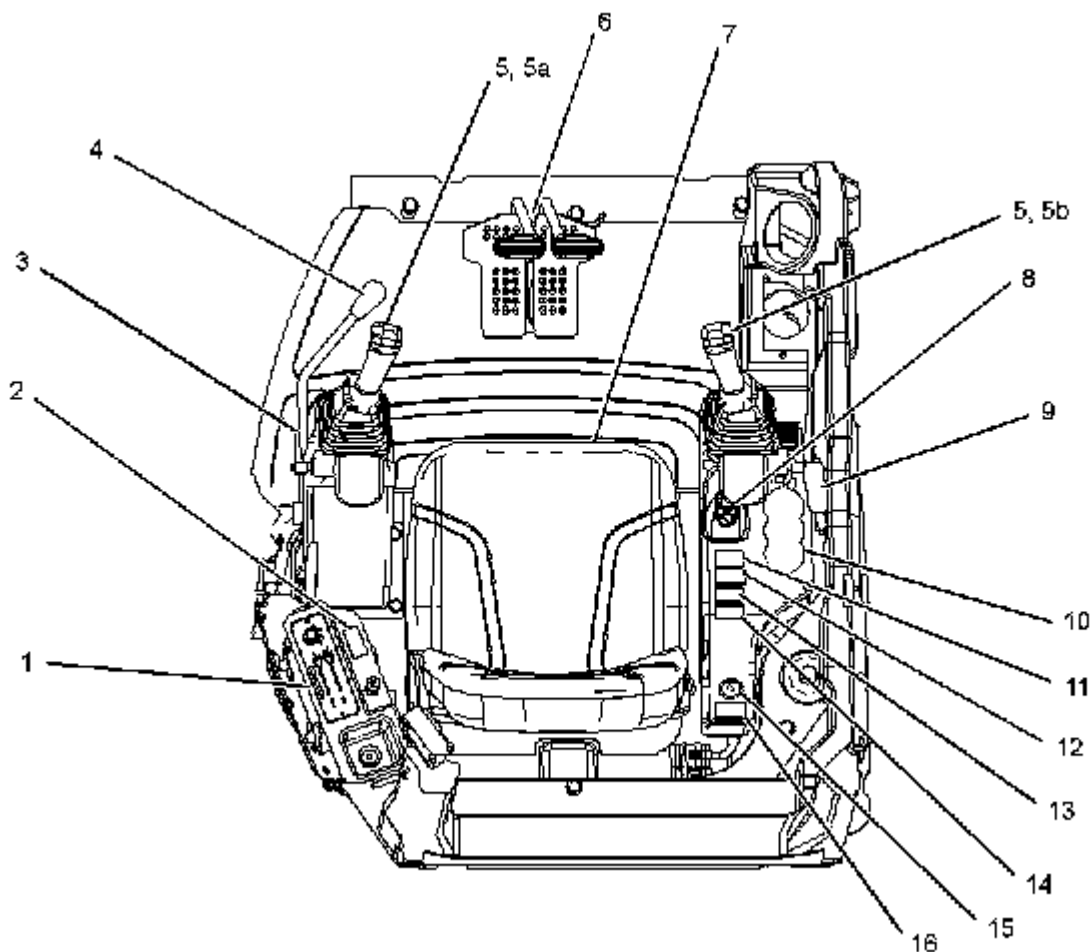


Illustration 1

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- (1) Air Conditioning and Heater Control
- (2) Window Wiper/Washer Switch
- (3) Service Hour Meter
- (4) Hydraulic Lockout Control
- (5) Joystick Controls
- (5a) Swing Boom Control
- (5b) Horn
- (6) Travel Controls
- (7) Operators Seat
- (8) Engine Start Switch
- (9) Dozer Blade Control
- (10) Monitoring System
- (11) Work Light Switch
- (12) Travel Speed Control
- (13) Secondary Auxiliary Switch (If equipped)
- (14) Travel Alarm Cancel Switch (If equipped)
- (15) Engine Speed Control
- (16) Automatic Engine Speed Control (If equipped)

Air Conditioning and Heating Control (1)

The heater/air conditioner provides comfort for the operator that is working under various temperature conditions. For more information on the air conditioning and heating controls, refer to Operation and Maintenance Manual, "Air Conditioning and Heating Control".

Window Wiper/Washer Switch (2)

NOTICE

If the wiper does not operate with the switch in the ON position, turn the switch off immediately. Check the cause. If the switch remains on, motor failure can result.

Machines that are equipped with a cab have a window wiper as standard equipment. The window wiper/washer switch is located in the rear of the cab on the left side.



Window Wiper - Push the switch to the middle position in order to turn on the wiper. Push the bottom of the switch in order to turn off the wiper.

NOTICE

If the washer is used continuously for more than 20 seconds or used when no washer solution comes out, motor failure can result.



Window Washer - Push the switch downward in order to spray washer fluid onto the window. Release the switch in order to stop the flow of washer fluid. The switch will return to the middle position.

Service Hour Meter (3)



Service Hour Meter - This display indicates the total operating hours of the engine. Use the display to determine the service hour maintenance intervals.

Hydraulic Lockout Control (4)



WARNING

Deactivation of the hydraulic controls does not prevent the blade, boom swing, or auxiliary circuit functions from moving under gravity or other external forces. Gravity or other external forces can move the blade, boom swing, or auxiliary circuit functions suddenly if a hydraulic control lever is moved.

Personal injury or death may occur from sudden machine movement.



Locked - Pull the hydraulic
lockout control upward to the
RAISED position in order to
deactivate the hydraulic controls.

Make sure that the hydraulic lockout control is in the RAISED position before you exit the machine.

Note: Be sure to put the hydraulic lockout control in the RAISED position when starting the engine. The engine start switch will not function if the hydraulic lockout control is in the LOWERED position.



Unlocked - Push the hydraulic
lockout control downward to the
LOWERED position. When the left
console is in the LOWERED
position the hydraulic controls are
operable.

Joystick Controls (5)

The joystick control is used to control the functions of the work tools. For more information on the individual functions of the joysticks, refer to Operation and Maintenance Manual, "Joystick Controls".

Swing Boom Control (5a)

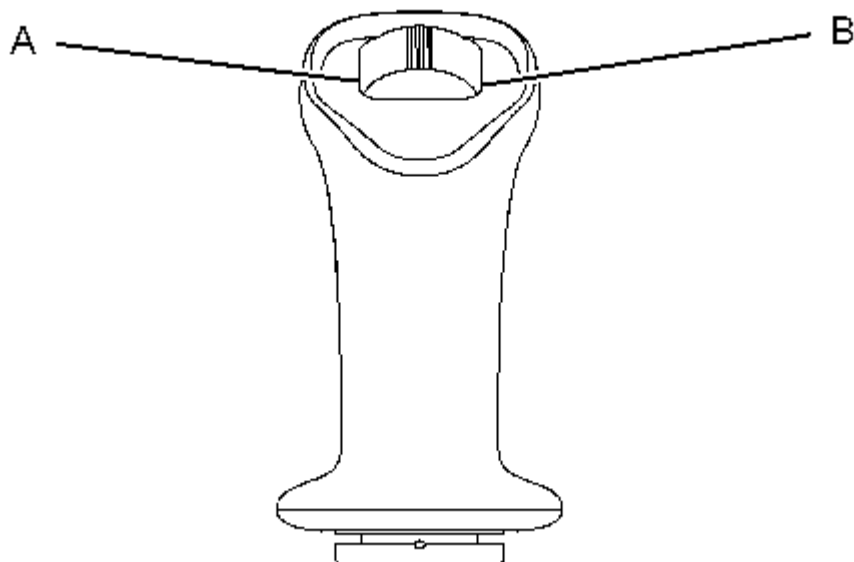


Illustration 2

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Type A



Swing Left (A) - Move the switch that is on top of the left joystick to the left in order to swing the boom to the left.



Swing Right (B) - Move the switch that is on top of the left joystick to the right in order to swing the boom to the right.

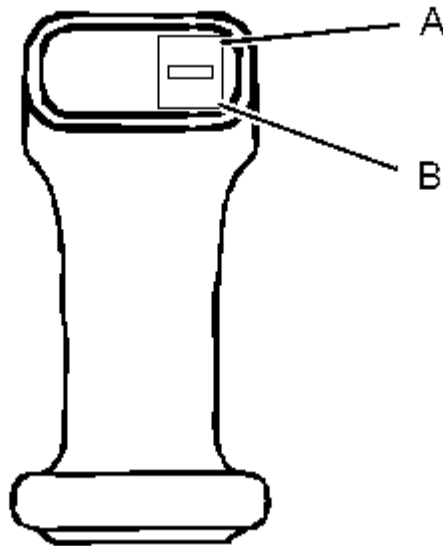


Illustration 3

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Type B



Swing Left (A) - Move the switch that is on top of the left joystick downward in order to swing the boom to the left.



Swing Right (B) - Move the switch that is on top of the left joystick upward in order to swing the boom to the right.

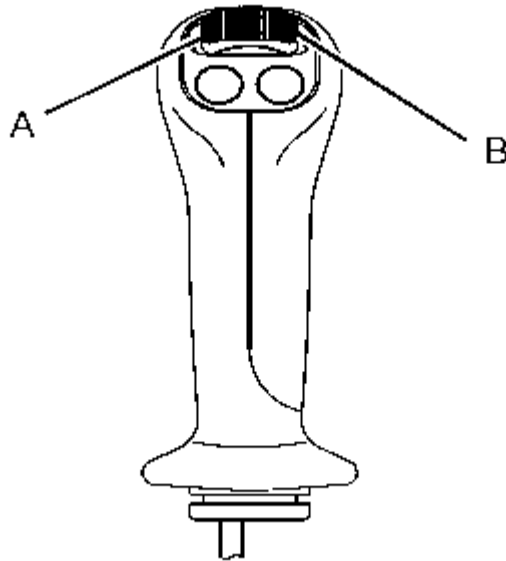


Illustration 4

g02175365

Type C



Swing Left (A) - Move the switch that is on top of the left joystick to the left in order to swing the boom to the left.



Swing Right (B) - Move the switch that is on top of the left joystick to the right in order to swing the boom to the right.

Horn (5b)

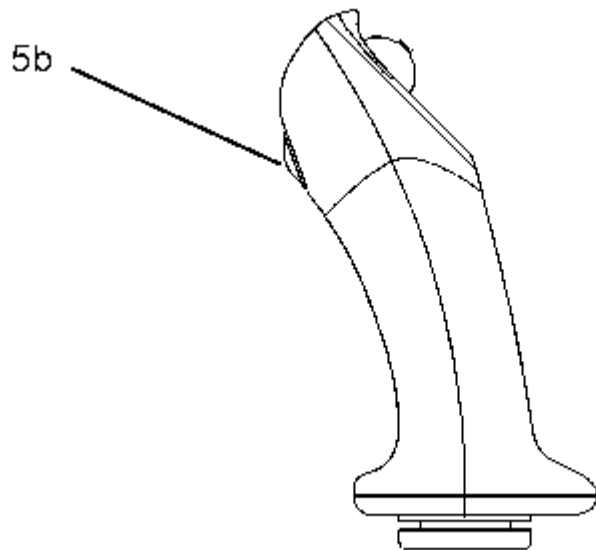


Illustration 5

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Type A

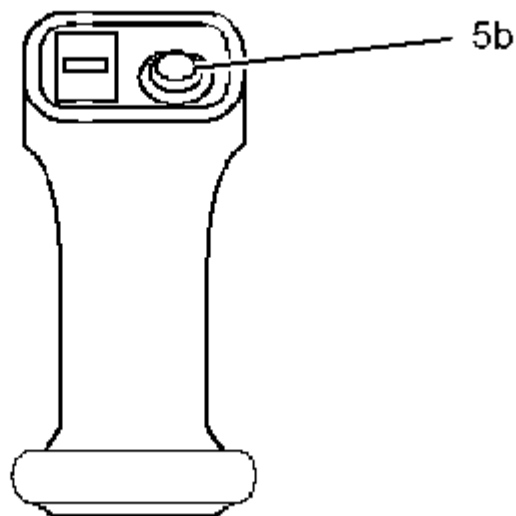


Illustration 6

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Type B

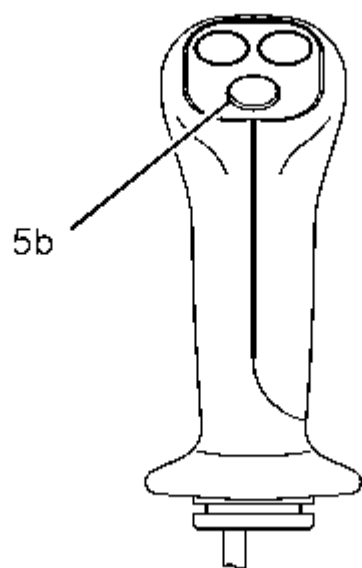


Illustration 7

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Type C



Horn (5b) - The horn button is located on the right side joystick. Depress the horn button in order to sound the horn. Use the horn for alerting personnel or for Signaling personnel.

Travel Controls (6)

Note: Normal steering occurs when the operator station is facing the blade. The travel lever information given below is for when the blade is in front of the operator station. Reverse steering occurs when the blade is behind the operator station. The directional functions and the steering will be reversed.

When you travel, make sure that the blade is in front of the operator station.

When the travel levers or the foot controls (if equipped) are moved in the forward direction, the machine will always travel toward the blade. When the travel levers or the foot controls (if equipped) are moved in the reverse direction, the machine will always travel away from the blade.

If you move a travel lever or foot control (if equipped) farther in the forward direction, the forward travel speed will increase. If you move a travel lever or foot control (if equipped) farther in a backward direction, the reverse travel speed will increase.

Move both of the travel levers or foot controls (if equipped) equally in the same direction in order to travel in a straight line.

Note: You should not attempt any grade that is steeper than 30 degrees. In steep downhill operation, carefully operate the travel levers.

Right Travel Lever

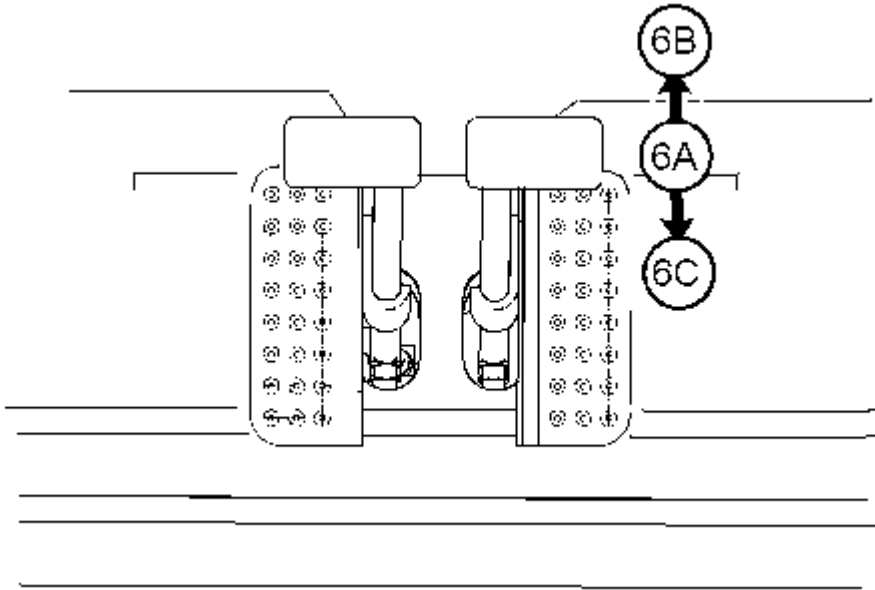


Illustration 8

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Stop (6A) - Release the right travel lever in order to stop the right track.

Forward (6B) - Move the right travel lever forward in order to operate the right track in a forward direction.

Reverse (6C) - Move the right travel lever backward in order to operate the right track in a reverse direction.

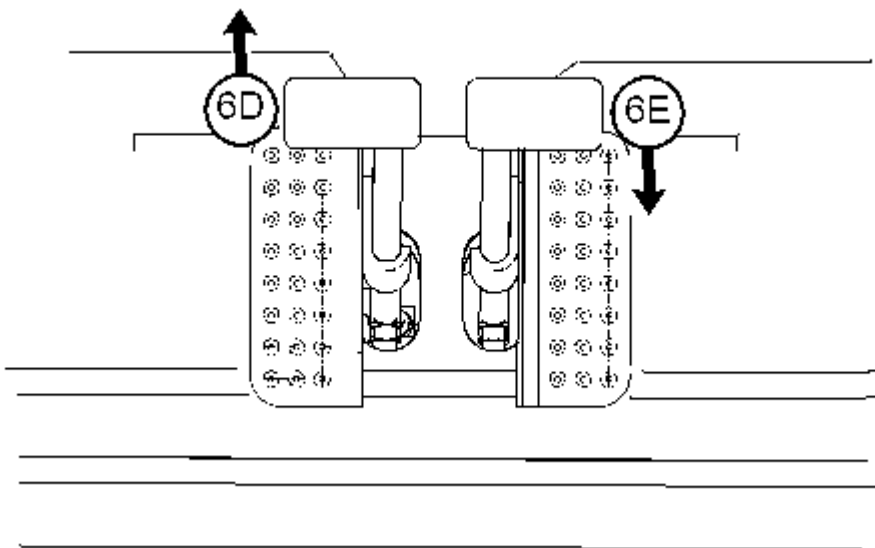


Illustration 9

g02176111

Spot Right Turn - Move the right travel lever (6E) backward. Move the left travel lever (6D) forward at the same time. This will turn the machine quickly to the right.

Pivot Right Turn - Move the left travel lever (6D) forward. This will turn the machine to the right.

Left Travel Lever

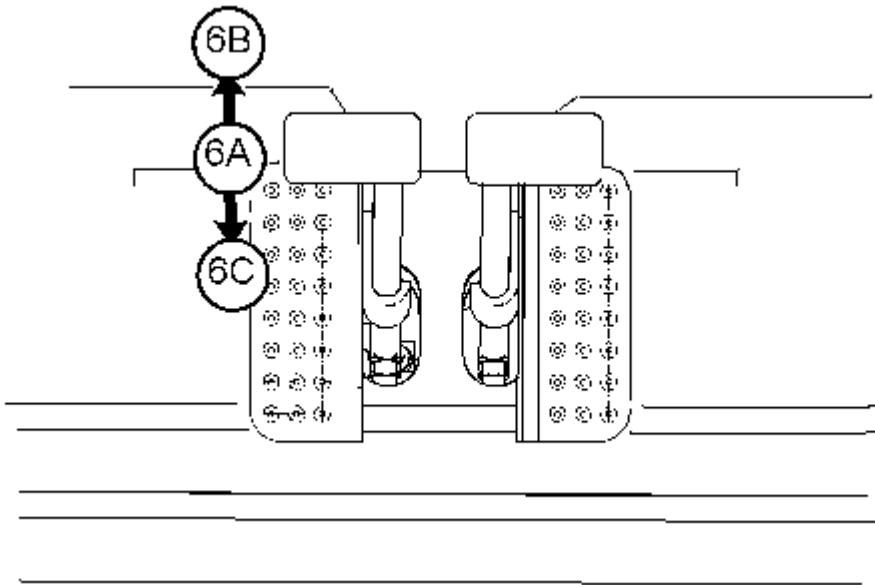


Illustration 10

g02176112

Stop (6A) - Release the left travel lever in order to stop the left track.

Forward (6B) - Move the left travel lever forward in order to operate the left track in a forward direction.

Reverse (6C) - Move the left travel lever backward in order to operate the left track in a reverse direction.

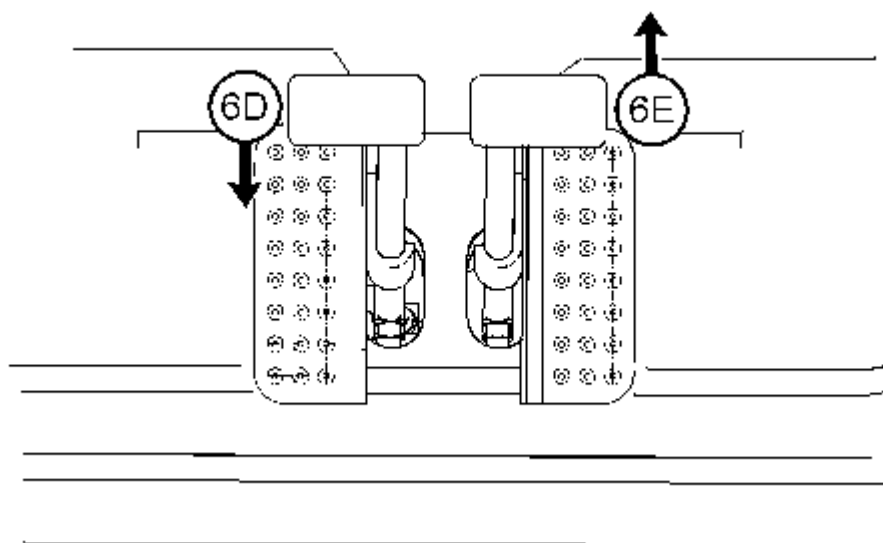


Illustration 11

g02176113

Spot Left Turn - Move the left travel lever (6D) backward. Move the right travel lever (6E) forward at the same time. This will turn the machine quickly to the left.

Pivot Left Turn - Move the right travel lever (6E) forward. This will turn the machine to the left.

Operators Seat (7)

The operators seat has various adjustments in order to meet a wide range of operators. For more information, refer to Operation and Maintenance Manual, "Seat".

Engine Start Switch (8)

NOTICE

To start the engine, be sure to put the hydraulic activation control lever in the LOCKED position. If the lever is in the UNLOCKED position, the engine start switch will not function.

Note: Be sure to put the console for the hydraulic lockout control in the RAISED position when you are starting the engine. The engine will not start if the console for the hydraulic lockout control is in the LOWERED position.



OFF - Insert the engine start switch key only from the OFF position and remove the engine start switch key only from the OFF position. In the OFF position, there is no power to most electrical circuits in the cab.

Turn the engine start switch key to the OFF position in order to stop the engine.



ON - Turn the engine start switch key to the ON position. Hold the key in this position in order to activate the glow plugs. The indicator for the glow plugs will light on the instrument panel.



START - Turn the engine start switch key clockwise to the START position in order to crank the engine. Release the engine start switch key after the engine starts and the engine start switch key returns to the ON position.

Note: If the engine fails to start, the engine start switch key must be returned to the OFF position in order to attempt to start the engine again.

Dozer Blade Control (9)



Float - Push the lever forward to the detent position. The blade will lower to the ground. The blade will float with the contour of the ground. The lever will remain in the FLOAT position until the lever is removed from the detent position. After the lever is removed from the detent position, the lever will return to the HOLD position.



Lower - Push the lever forward in order to lower the blade. The lever will return to the HOLD position when you release the lever. The blade will remain in the selected position.

Hold - The lever will return to the HOLD position when the lever is released from the RAISED or LOWERED position.



Raise - Pull the lever backward in order to raise the blade. The lever will return to the HOLD position when you release the lever. The blade will remain in the selected position.

Monitoring System (10)

The machine gauges and alert indicators are located in the monitoring panel.

Refer to Operation and Maintenance Manual, "Monitoring System" for more information.

Work Light Switch (11)



Lights - Press the top of the switch once in order to turn on the work light that is located on the boom. Press the top of the light switch again in order to turn on the work light that is located on the cab. Press the bottom of the light switch in order to turn off the work lights.

Beacon

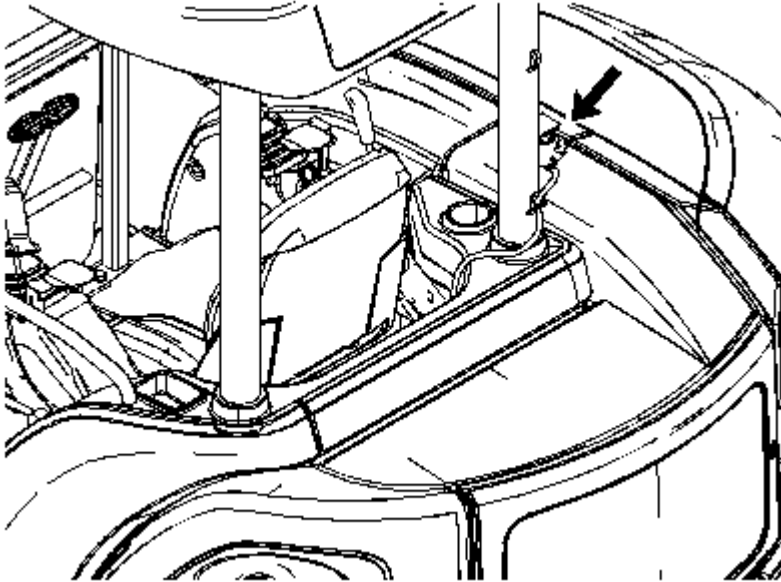


Illustration 12

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Canopy

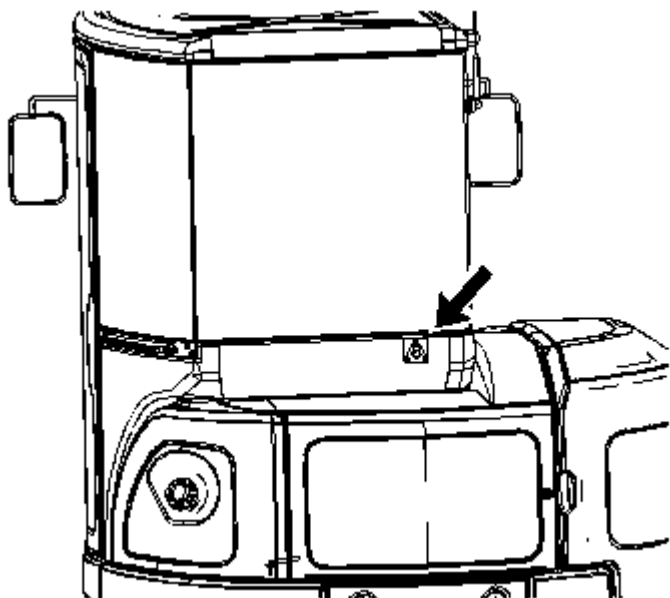


Illustration 13

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Cab

The receptacle for the beacon is located on the right side rear post of machines that are equipped with a canopy. The receptacle for the beacon is located on the rear of the machine on the bottom right corner of machines that are equipped with a cab. The receptacle for the beacon can be used for the service light.

Insert the connector for the beacon into the receptacle in order to provide power for the beacon.

Cab Dome Light

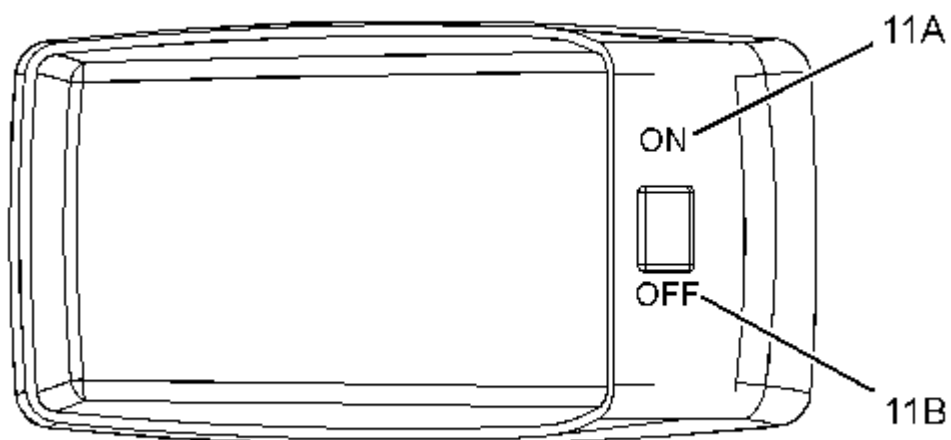


Illustration 14

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"ON" (11A) - Move the switch for the cab dome light to this position in order to turn on the cab dome light.

"OFF" (11B) - Move the switch for cab dome light to this position in order to turn off the cab dome light.

Travel Speed Control (12)

Use the switch in order to change the travel speed.



Low - Move the switch to this position in order to travel at low speed.



High - Move the switch to this position in order to travel at a high speed.

Travel always at a slow speed on slopes. Travel always at a slow speed on rough ground.

Secondary Auxiliary Switch (If Equipped) (13)

The hydraulic system has the capability of a secondary auxiliary circuit. For more information, refer to Operation and Maintenance Manual, "Work Tool Control".

Travel Alarm Cancel Switch (If Equipped) (14)



Travel Alarm Cancel Switch -

This switch is used to stop the travel alarm from sounding. Press the switch in order to stop the alarm. The indicator lamp will turn on.

Note: The travel alarm is located under the hydraulic tank. The travel alarm will sound when the travel lever or the travel pedal is activated.

Engine Speed Control (15)



Engine Speed - Turn the engine speed dial in order to control the engine speed (engine rpm). Select the desired position from the ten available positions. The selected position of the engine speed dial is indicated on the electronic monitor panel.



Decrease - Turn the engine speed dial counterclockwise in order to decrease the engine speed (engine rpm).



Increase - Turn the engine speed dial clockwise in order to increase the engine speed (engine rpm).

Automatic Engine Speed Control (If Equipped) (16)

The Automatic Engine Speed Control automatically reduces engine speed when the machine has been inactive for 5 seconds. The AEC system is designed to reduce fuel consumption and noise. Lower engine speeds can also increase engine life.

The engine rpm will recover automatically to the setting of the engine speed dial when any hydraulic function is activated.



Automatic Engine Speed Control (AEC)

- Press the right side of the switch in order to turn on the function of AEC. Press the left side of the switch in order to turn off the function of AEC.

Note: If the hydraulic oil temperature is below 8 °C (46 °F), the AEC will not function.

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Thu Apr 5 13:01:36 CDT 2012