

## INSTRUMENTS AND CONSOLES

### Left Console (Excavator Mode)

Figure 11

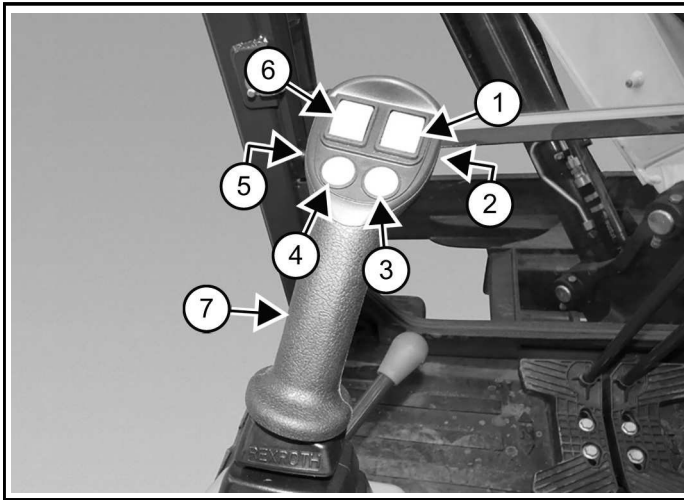
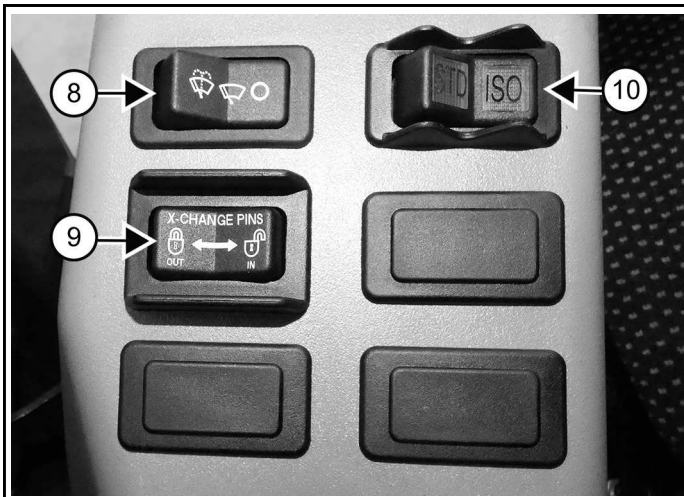


Figure 12

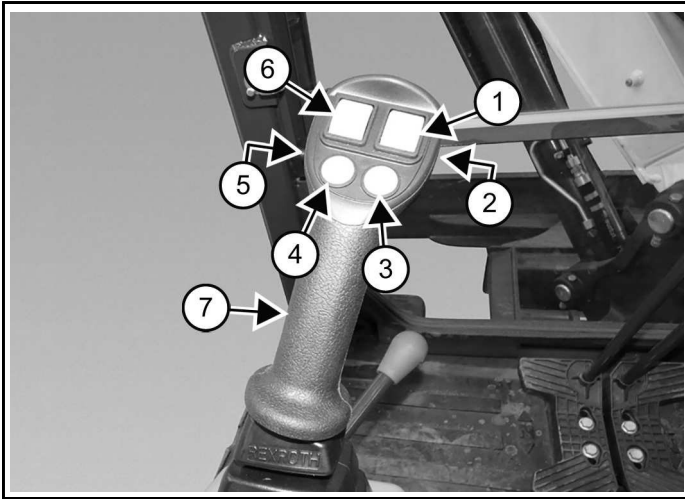


REF.	DESCRIPTION	FUNCTION
4	Left Button	Activates Drive By Joystick mode. (See Drive By Joystick Mode on Page 42)
5	Front Bottom Button	Toggles between rear view camera and current screen on the display. (See Operating Rear View Camera on Page 38)
6	Left Paddle	Controls angle blade. (See Angling The Blade on Page 65)
7	Left Joystick	Controls boom, arm, and upperstructure slew. (See ISO Control Pattern on Page 57) (See Standard Control Pattern on Page 58)
8	Wiper / Washer Switch	Operates the windshield wiper and washer. (See Operating Windshield Wiper on Page 50)
9	Hydraulic X-Change Switch	Retracts and extends hydraulic pins. (See Installing Attachments (Hydraulic X-Change) on Page 80)
10	Control Pattern Selection Switch	Switches between STD / ISO control patterns. (See Selecting Control Pattern on Page 56)

REF.	DESCRIPTION	FUNCTION
1	Right Paddle	Controls boom swing. (See Operating Boom Swing on Page 66)
2	Top Front Button	Operates the horn.
3	Right Button	Turns cruise control on / off. (See Cruise Control on Page 44)

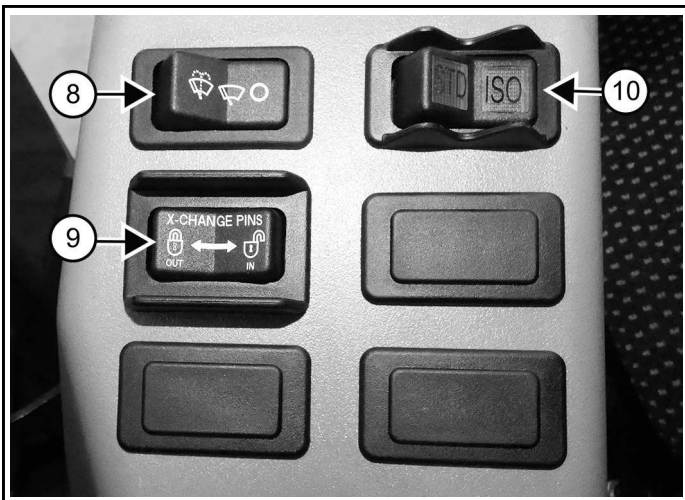
**Left Console (Drive By Joystick Mode)**

**Figure 13**



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**Figure 14**



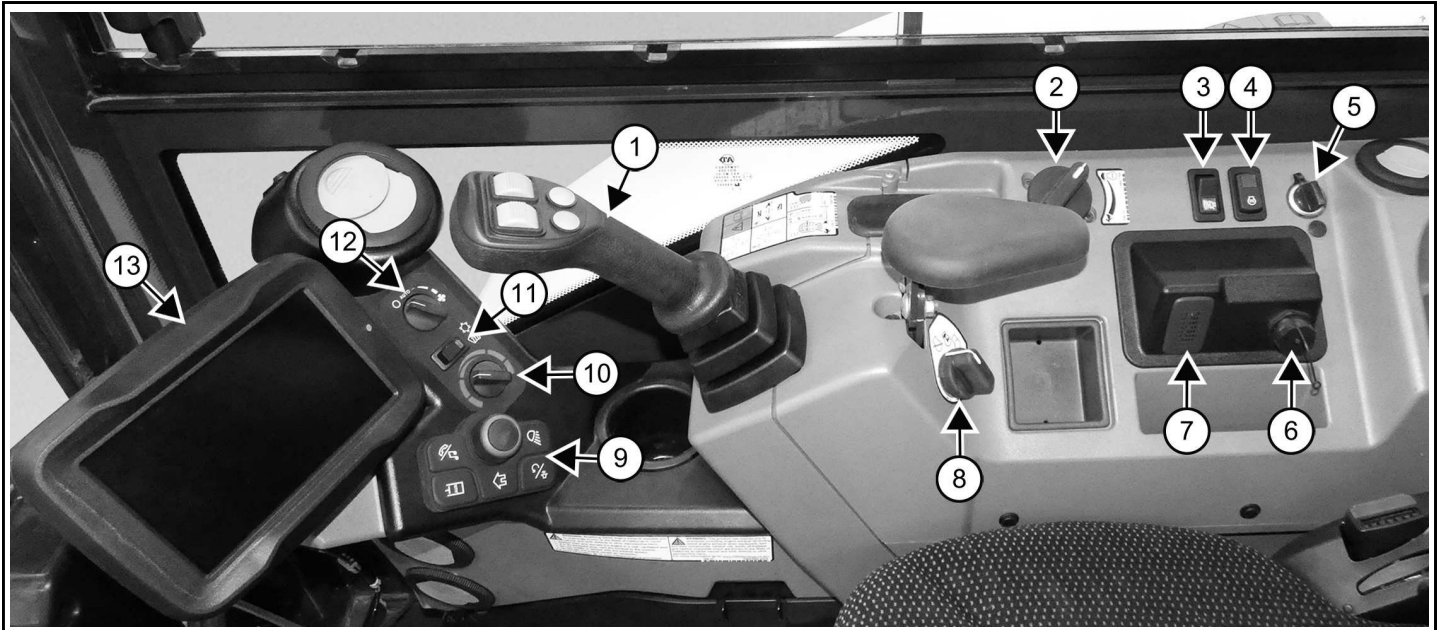
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REF.	DESCRIPTION	FUNCTION
5	Front Bottom Button	Toggles between rear view camera and current screen on the display. (See Operating Rear View Camera on Page 38)
6	Left Paddle	Controls upperstructure slew. (See Drive By Joystick Mode on Page 42)
7	Left Joystick	Controls machine travel. (See Drive By Joystick Mode on Page 42)
8	Wiper / Washer Switch	Operates the windshield wiper and washer. (See Operating Windshield Wiper on Page 50)
9	Hydraulic X-Change Switch	Retracts and extends hydraulic pins. (See Installing Attachments (Hydraulic X-Change) on Page 80)
10	Control Pattern Selection Switch	Not used in this mode.

REF.	DESCRIPTION	FUNCTION
1	Right Paddle	Controls boom swing. (See Operating Boom Swing on Page 66)
2	Top Front Button	Operates the horn.
3	Right Button	Turns cruise control on / off. (See Cruise Control on Page 44)
4	Left Button	Activates Drive By Joystick mode. (See Drive By Joystick Mode on Page 42)

## Right Console

Figure 15

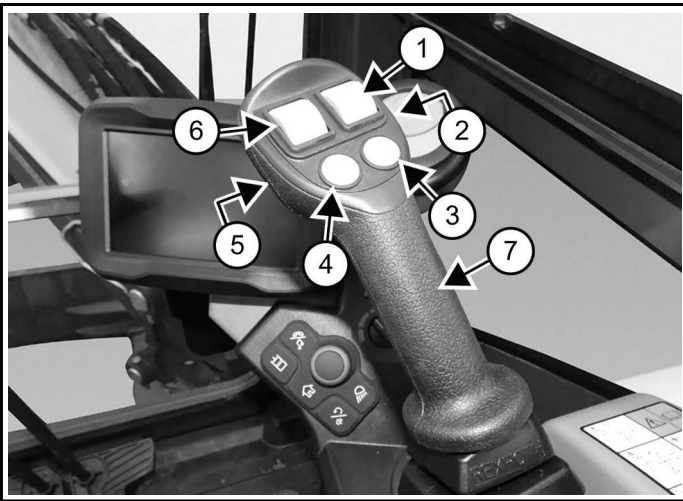


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REF.	DESCRIPTION	FUNCTION
1	Right Joystick	(See Right Joystick (Excavator Mode) on Page 34) (See Right Joystick (Drive By Joystick Mode) on Page 34)
2	Engine Speed Control Dial	Controls engine rpm. (See Engine Speed Control on Page 66)
3	Travel Motion Alarm Cancel Switch	Temporarily disables the travel motion alarm. (See Disabling The Travel Motion Alarm on Page 52)
4	Wait To Start Light	When light turns off, the engine can be started.
5	Auxiliary Power Outlet	12 volt receptacle for accessories.
6	USB Port	See the Touch Display User Guide for more information about the sound system.
7	Hands-Free Microphone	Used for hands-free talking with the touch display phone feature.
8	Keyless Start Switch	Used to start the engine. (See Starting The Engine on Page 71)
9	Jog Shuttle	Used to navigate the display. (See Jog Shuttle (Touch Display) on Page 37)
10	Temperature Control Dial	Controls temperature in cab.
11	Air Conditioning Switch	Turns air conditioner on / off.
12	Fan Motor Dial	Controls fan speed.
13	Touch Display	(See Touch Display on Page 35)

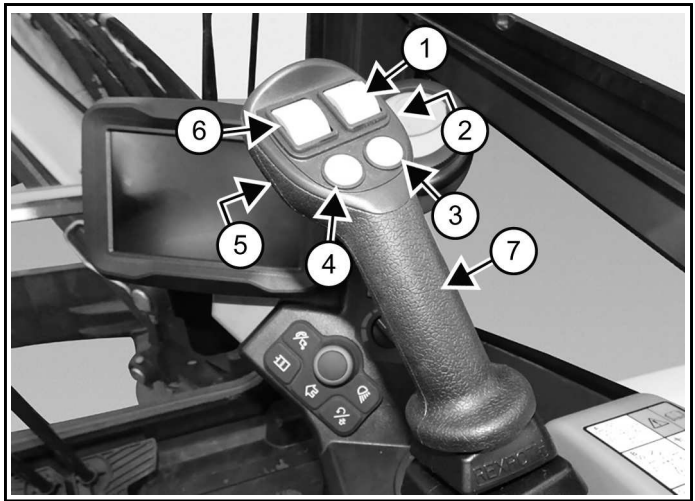
### Right Joystick (Excavator Mode)

Figure 16



### Right Joystick (Drive By Joystick Mode)

Figure 17



REF.	DESC.	FUNCTION
1	Right Paddle	Raises and lowers blade. (See Raising And Lowering The Blade on Page 64)
2	Top Front Button	Controls auxiliary hydraulic flow. (See Operating Attachments With Auxiliary Hydraulics on Page 61)
3	Right Button	Engages automatic bucket shake out. (See Engaging Automatic Bucket Shake Out on Page 43)
4	Left Button	Engages two-speed travel. (See Engaging Two-Speed Travel on Page 46)
5	Bottom Front Button	Engages blade float. (See Raising And Lowering The Blade on Page 64)
6	Left Paddle	Controls auxiliary hydraulics. (See Operating Attachments With Auxiliary Hydraulics on Page 61)
7	Right Joystick	Operates the boom and arm. (See ISO Control Pattern on Page 57) (See Standard Control Pattern on Page 58)

REF.	DESC.	FUNCTION
1	Right Paddle	Raises and lowers the boom. (See Activating Drive By Joystick Mode on Page 42)
2	Top Front Button	Controls auxiliary hydraulic flow. (See Operating Attachments With Auxiliary Hydraulics on Page 61)
3	Right Button	Engages automatic bucket shake out. (See Engaging Automatic Bucket Shake Out on Page 43)
4	Left Button	Engages two-speed travel. (See Engaging Two-Speed Travel on Page 46)
5	Bottom Front Button	Engages blade float. (See Raising And Lowering The Blade on Page 64)
6	Left Paddle	Controls auxiliary hydraulics. (See Operating Attachments With Auxiliary Hydraulics on Page 61)
7	Right Joystick	Operates the blade. (See Angling The Blade on Page 65) (See Raising And Lowering The Blade on Page 64)

## WORK MODES

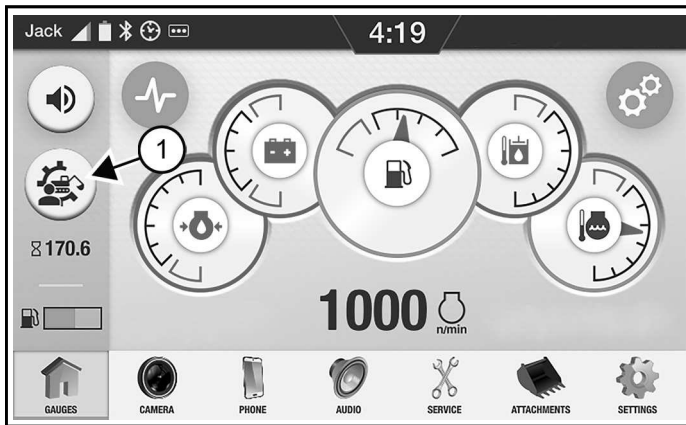
### Setting Work Modes

Use work modes to optimize your machine's performance and operating behavior. The speed and response can be adjusted for each function.

**Speed:** Sets the function velocity at full joystick. With Speed set high, the function speed will be maximum at full joystick. With Speed set low, the function speed will be minimum at full joystick.

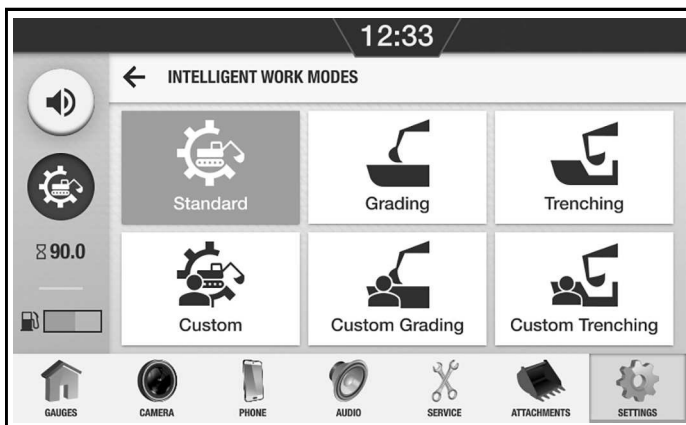
**Response:** Sets the rate at which the machine responds to joystick movement. With Response set high, the machine will respond quickly to joystick movements. With Response set low, the machine will respond slower to joystick movements.

Figure 27



1. Select the work mode button (Item 1) [Figure 27].

Figure 28



2. Select a work mode [Figure 28].

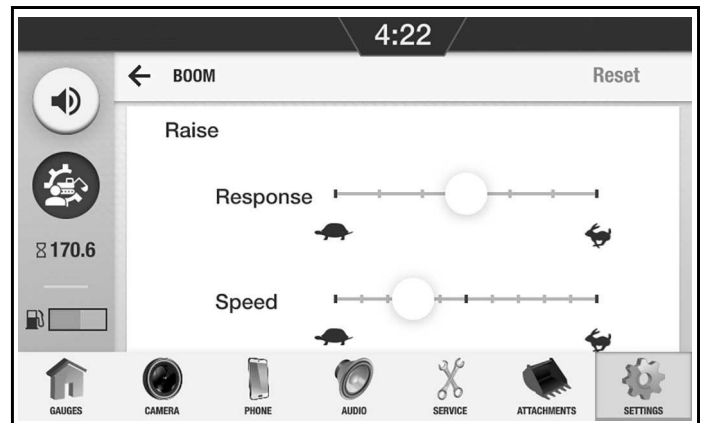
WORK MODE	DESCRIPTION
 Standard	Suitable for general applications with pre-set response and speed.
 Grading	Suitable for precise applications, with faster response and slower speeds.
 Trenching	Suitable for high productivity, with slower response and faster speeds.

3. Select one of the custom work modes to adjust the parameters.

Custom work modes start with the preset templates, but each parameter is customizable.

4. Double tap a custom mode icon to edit.

Figure 29



5. For each function, two parameters can be adjusted. In this example [Figure 29], the Response and Speed for raising the boom can be adjusted.

Every operator can adjust the following parameters for each function. Custom settings will be saved for each operator.

FUNCTION	ADJUST	PARAMETER
Boom	Raise / Lower	Response and Speed
Arm	In / Out	
Bucket	Curl / Dump	
Boom Offset	Left / Right	
Slew	Left / Right	
Travel	Forward / Reverse	Speed

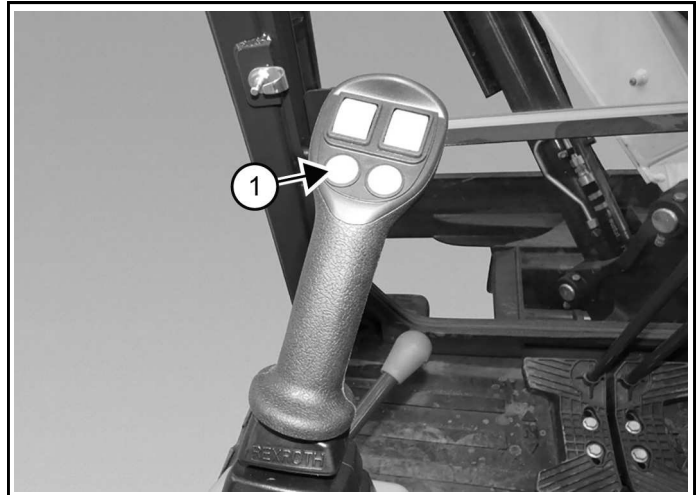
## DRIVE BY JOYSTICK MODE

### Activating Drive By Joystick Mode

Drive By Joystick is a mode that allows you to drive the excavator with the left joystick. (See Travel Controls (Drive By Joystick Mode) on Page 55)

In Drive By Joystick mode, the steering levers and foot pedals are disabled.

Figure 30



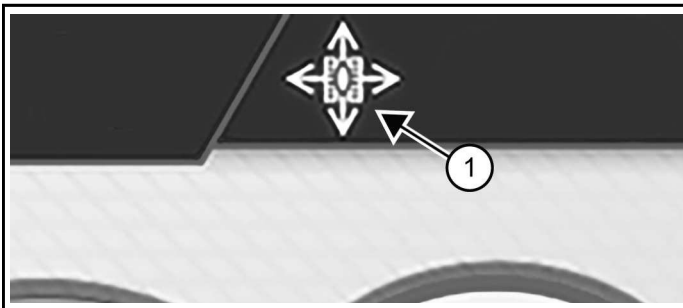
1. Push the left button (Item 1) [Figure 30] on the left joystick to select Drive By Joystick mode.

Figure 31



2. Enable Drive By Joystick on the display [Figure 31].

Figure 32



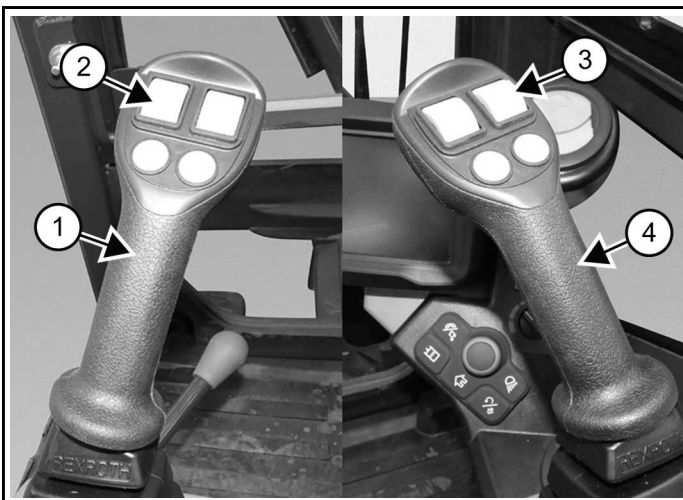
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The Drive By Joystick icon (Item 1) [Figure 32] will appear on the screen.

Drive By Joystick must be enabled the first time it is turned on during every key cycle.

The following table shows the changes in functionality in Drive By Joystick mode.

Figure 33



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DRIVE BY JOYSTICK MODE		
REF.	USE...	TO CONTROL...
1	left joystick	machine travel
2	left paddle on left joystick	upperstructure slew (left / right)
3	right paddle on right joystick	boom (raise / lower)
4	right joystick	blade (raise / lower / angle)

3. To return to Excavator mode, push the left button (Item 1) [Figure 30] on the left joystick.

## AUTOMATIC BUCKET SHAKE OUT

### Engaging Automatic Bucket Shake Out

The automatic bucket shake out feature allows you to automatically shake the bucket with a customizable cylinder stroke.

Figure 34



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1. Push and hold down the right button (Item 1) [Figure 34] on the right joystick to activate automatic bucket shake out.

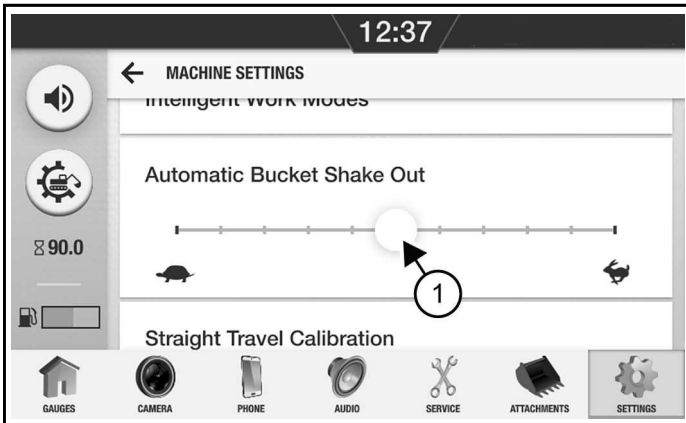
Figure 35



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2. To customize automatic bucket shake out, select the Machine Settings button (Item 1) [Figure 35] on the display.

Figure 36



- Adjust automatic bucket shake out with the slider (Item 1) [Figure 36].

Turtle = Longer bucket cylinder strokes.

Rabbit = Shorter bucket cylinder strokes.

## CRUISE CONTROL

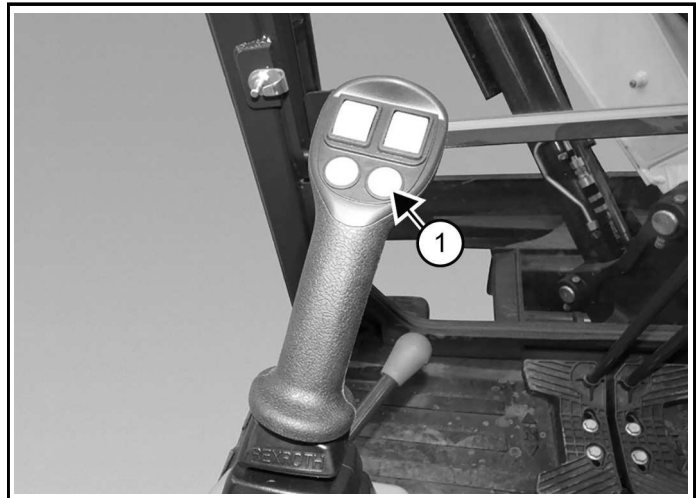
### Engaging Cruise Control

Cruise control is available in Excavator and Drive By Joystick modes.

Steering corrections and temporary speed increases are allowed when cruise control is activated.

Cruise control is only available when traveling in the blade-facing direction.

Figure 37



- While traveling, push the right button on the left joystick (Item 1) to engage cruise control.

Figure 38



The icon (Item 1) [Figure 38] will illuminate on the display.

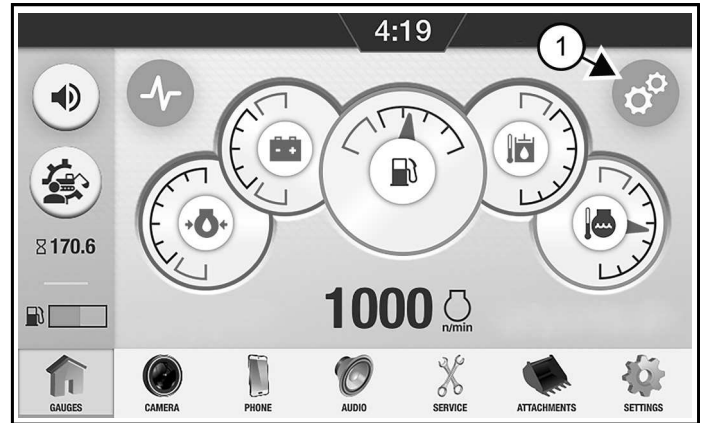
2. To deactivate cruise control, press the cruise control button on the left joystick.
- OR
- Move either travel lever rearward.
- OR
- Move the left joystick rearward in Drive By Joystick mode.

## STRAIGHT TRAVEL COMPENSATION

### Adjusting Straight Travel Compensation

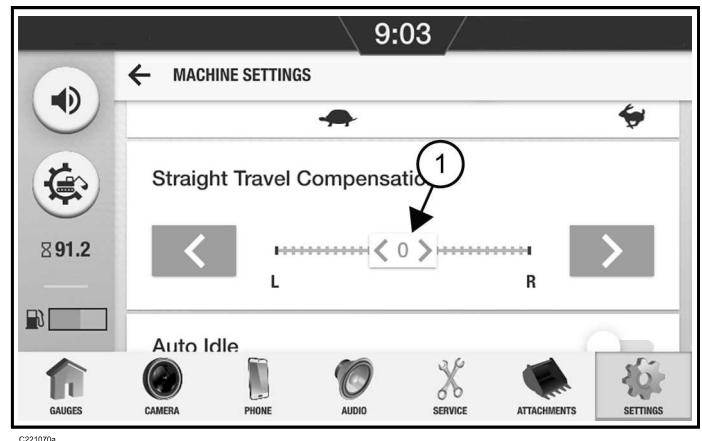
If the machine is drifting to one side while travel controls are directed straight, adjust the machine's line of travel.

**Figure 39**



1. Select the Machine Settings button (Item 1) [Figure 39].
2. Scroll down to **[STRAIGHT TRAVEL COMPENSATION]**.

**Figure 40**



3. Adjust left or right with the slider (Item 1) [Figure 40].

Compensation can be adjusted with the travel controls in neutral or during travel.

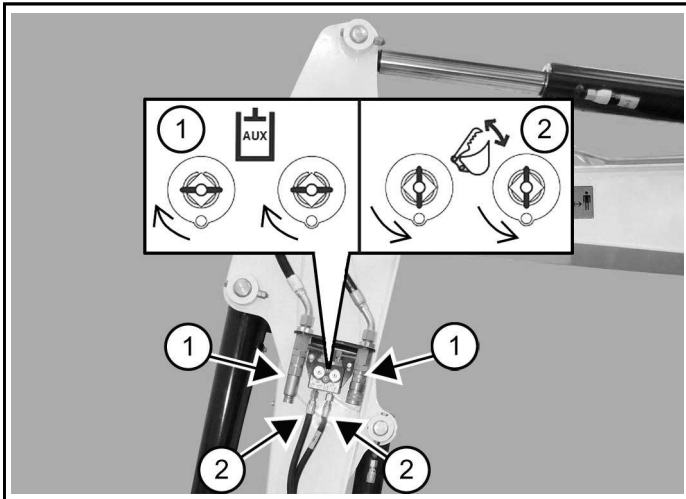
## DIVERTER VALVE

### Operating The Diverter Valve

The diverter valve, if equipped, allows you to leave the hydraulic clamp hoses connected to the machine while removing and installing other attachments.

1. Release hydraulic pressure in the excavator.

Figure 84

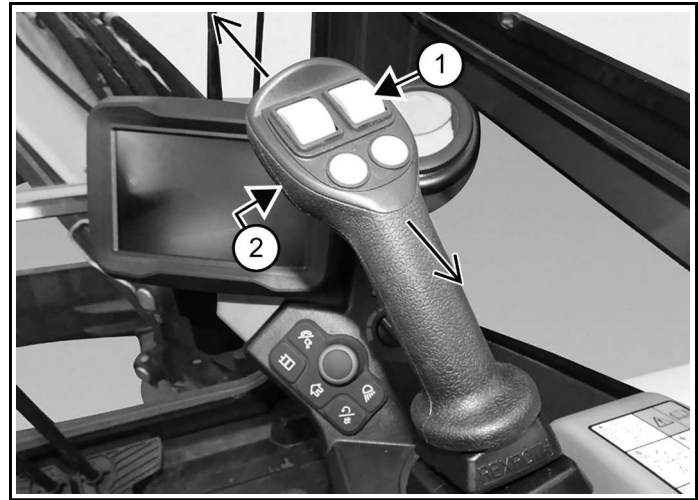


2. Rotate both valves clockwise to operate the primary auxiliary quick couplers (Item 1) [Figure 84].
3. Before diverting to the hydraulic clamp, disconnect the attachment from the primary hydraulic couplers (Item 1) [Figure 84].
4. Rotate both valves counterclockwise to operate the hydraulic clamp (Item 2) [Figure 84].

## BLADE

### Raising And Lowering The Blade

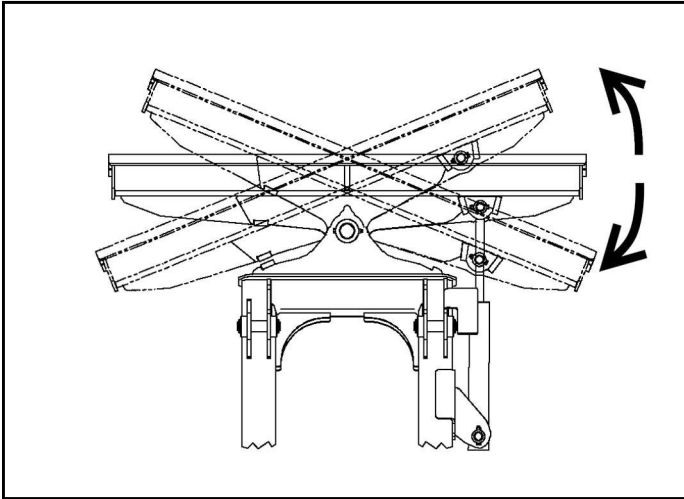
Figure 85



- In Drive By Joystick mode, move the right joystick forward and backward to lower and raise the blade [Figure 85].  
  
To engage blade float, move the right joystick forward while pressing the bottom front button on the right joystick (Item 2) [Figure 85]. Press button again to disengage blade float.
- In Excavator mode, use the right paddle on the right joystick (Item 1) [Figure 85] to lower and raise the blade.  
  
To engage blade float, move the right paddle on the right joystick (Item 1) forward while pressing the bottom front button on the right joystick (Item 2) [Figure 85]. Press button again to disengage blade float.

## Angling The Blade

Figure 86



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The blade can be angled left and right [Figure 86].

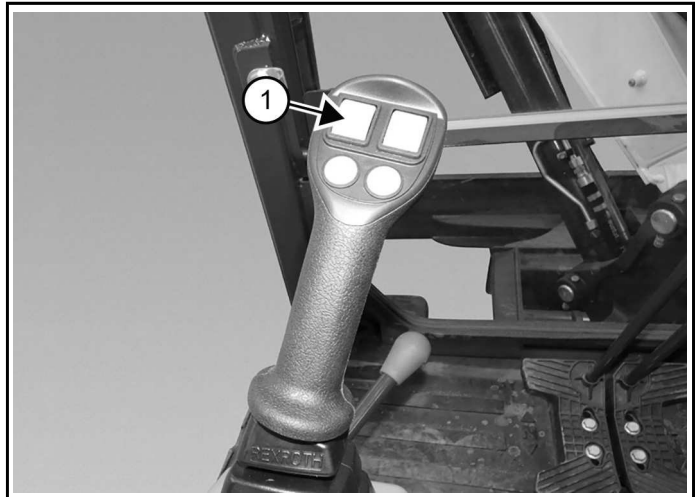
Figure 87



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1. In Drive By Joystick mode, angle the blade by moving the right joystick left and right [Figure 87].

Figure 88



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2. In Excavator mode, angle the blade with the left paddle on the left joystick (Item 1) [Figure 88].