

VEHICLE DISPLAY

Home screen – Icon identification

The machine will check each monitored system when you turn the key / knob switch to the ON position. At the end of this check all monitored systems will return to normal operation. If there is an open circuit between a sensor and the multifunction display on some circuits, the lights will flash and the warning alarm will sound.

Top section of the screen display (A)

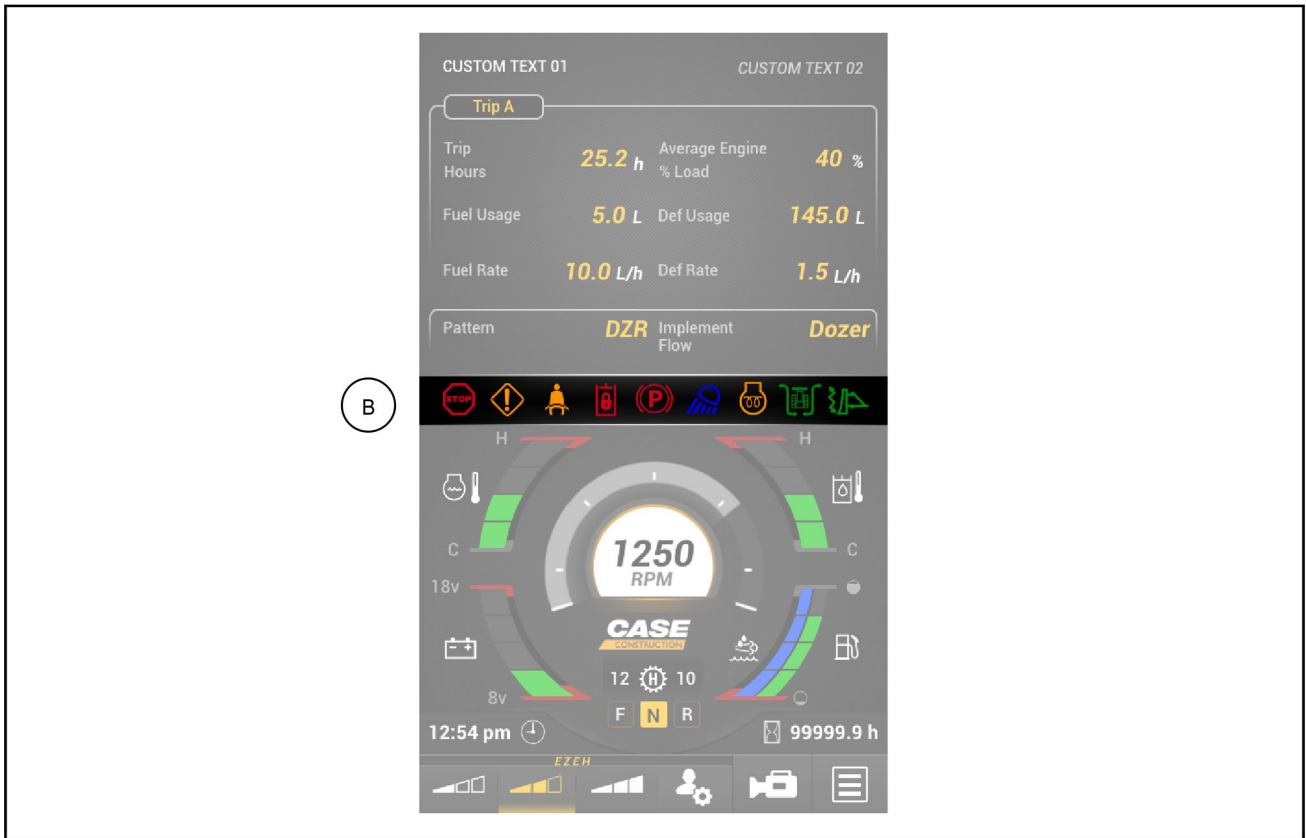


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The top section of the screen will display trip information (1) or the rear view camera screen (2) if selected. This part of the screen can be set per the operator's preference. The following attributes are shown if trip information is the operator's preference:

- Trip Hours
- Fuel Usage
- Fuel Rate
- Pattern – ISO or DZR control pattern
- Average Engine % Load
- DEF Usage
- DEF Rate
- Implement Flow






Middle section of the display (B)



RAIL22SSL0302UA 2

Icon	Description
	Stop Master indicator (red, critical) The Stop Master indicator is a critical warning display. When the Stop Master indicator illuminates, IMMEDIATELY bring the machine safely to a stop, and turn the engine OFF. Failure to do so may result in personal injury and/or damage to the machine.
	Caution Master indicator (amber, non-critical) The Caution Master indicator is a non-critical warning display. When the Caution Master indicator is ON, change the operating method, schedule a shutdown for maintenance, or if the condition persists, contact your dealer.
	Operator Presence indicator (red) Indicator illuminates when the seat belt is unlatched or the operator leaves the seat.
	Auto-Ride Control™ indicator (green/gray) Indicator illuminates in the same location as the Operator Presence indicator when Auto-Ride Control™ is activated.
	Hydraulic System Status indicator (green/red) Indicator will be red when the hydraulic system is deactivated. Indicator will be green when the hydraulic system is activated.
	Parking Brake indicator (red) Indicator illuminates when the parking brake is applied.
	Work Light indicator (amber) Indicator illuminates when the work lights are ON.
	Engine Glow Plug indicator (amber) In cold climate starting conditions, after turning the key / knob switch to run position, this amber engine pre-heating lamp will illuminate, instructing the operator that incoming air is being pre-conditioned for smoother starting. The operator must wait until the lamp goes out before attempting to start the engine.

3 - CONTROLS AND INSTRUMENTS

Icon	Description
	ISO steering mode indicator (green) Indicator remain illuminated when vehicle steering is set to ISO mode.
	Dozer steering mode indicator (green) Indicator will remain illuminated when vehicle steering is set to DZR mode.
ISO I	ISO control pattern indicator (green) Indicator will remain illuminated when the control pattern is set to ISO mode.
DZR D	Dozer control pattern indicator (green) Indicator will remain illuminated when the control pattern is set to DZR mode.
	Grading mode indicator (green) Indicator will be illuminated when blade grading mode is active.
	Auto Blade Leveling indicator (green) Indicator will be illuminated when auto blade leveling is activated.
	Implement Auxiliary Detent Status (yellow/green) Indicator will be illuminated yellow when auxiliary flow detent is available but not active. Indicator will be illuminated green when auxiliary flow detent is active.

Middle section of the display (C)



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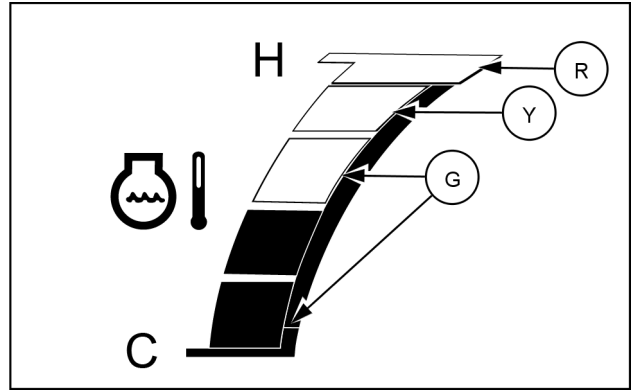
Icon	Description
	Engine Coolant Temperature gauge. This gauge indicates the relative temperature of the engine coolant.
	Hydraulic Oil Temperature gauge. This gauge indicates the relative temperature of the hydraulic oil.
	Diesel Fuel Level gauge. Shows level of fuel in the tank.
	DIESEL EXHAUST FLUID (DEF)/AdBlue® level gauge (if equipped). Shows level of DIESEL EXHAUST FLUID (DEF)/AdBlue® fluid in the tank.
	ISO Speed indicator When ISO is active, displays the speed selection, L, L1, L2, H1, H2, or H. See “ISO speed range function” 3-19 for more details. DZR Speed indicator When DZR is active, displays the letter L (low) when speed is 8 or less or the letter H (high) when speed is greater than 8. See “DZR speed setting” 3-20 for more details.
	Travel speed and direction F-forward, N-neutral, or R-reverse will be highlighted yellow on the display to show the direction of travel. Above the F and R will be the speed setting for each, only when DZR is active.
	Creep Mode Speed Setting. Symbol appears with speed setting number when creep mode is active.
	Engine Speed (RPM) gauge. Shows engine speed in Revolutions Per Minute (RPM).
	Electrical System Voltage gauge. Indicates the voltage in the operating system.

Engine Coolant Temperature gauge

The Engine Coolant Temperature gauge indicates the coolant temperature of the engine. When the engine coolant temperature continues to increase and the gauge moves into the red zone, a warning alarm will sound. The Stop Master indicator turns red. Do not operate the machine when the temperature is in the red zone.

Temperature ranges:

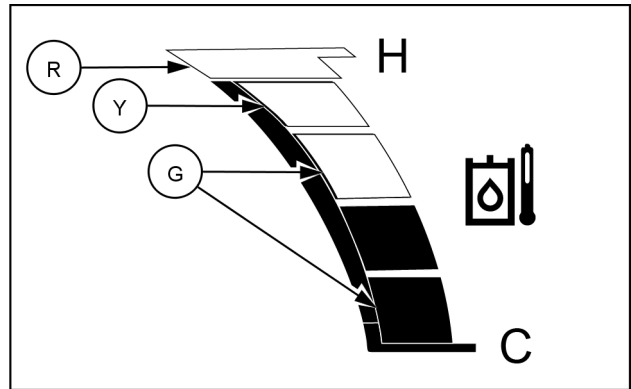
- **(G)** Green zone (normal): **20 – 109 °C (68 – 228 °F)**
- **(Y)** Yellow zone (warning): **109 – 112 °C (228 – 234 °F)**
- **(R)** Red zone (stop): **above 112 °C (234 °F)**



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Hydraulic Oil Temperature gauge

When the Hydraulic Oil Temperature continues to increase and the gauge moves into the red zone, a warning alarm will sound. The Stop Master indicator turns red. Do not operate the machine when the temperature is in the red zone.



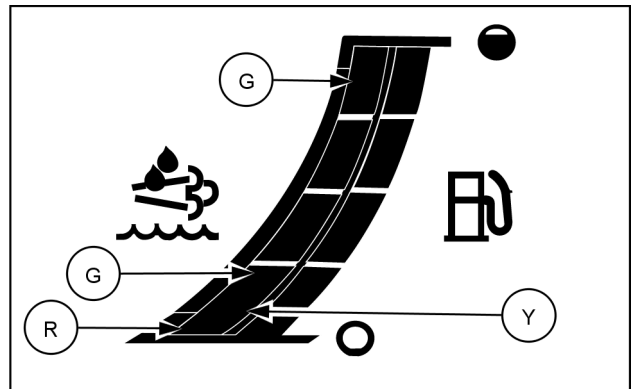
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Hydraulic oil temperature range

Zone	at the ground drive case drain		at the auxiliary pump case drain
(G) Green zone (normal)	20 – 106 °C (68 – 223 °F)	OR	20 – 112 °C (68 – 234 °F)
(Y) Yellow zone (warning)	106 – 109 °C (223 – 228 °F)	OR	112 – 115 °C (234 – 239 °F)
(R) Red zone (stop)	above 109 °C (228 °F)	OR	above 115 °C (239 °F)

DIESEL EXHAUST FLUID (DEF)/AdBLUE® level gauge (if equipped)

The DIESEL EXHAUST FLUID (DEF)/AdBLUE® level bar gauge indicates the level of diesel exhaust fluid in the DIESEL EXHAUST FLUID (DEF)/AdBLUE® tank. When all bars are illuminated, the tank is full. Illuminated bars indicate the level of fluid remaining in the DIESEL EXHAUST FLUID (DEF)/AdBLUE® tank.



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DIESEL EXHAUST FLUID (DEF)/AdBLUE®				
ID	Gauge indication	Condition	Master indicator	Alarm status
(G)	11 – 100% full	No engine power loss	None	None
(Y)	6 – 10% full	No engine power loss	Caution (yellow)	None
(R)	0 – 5% full	Moderate engine power loss (de-rate)	Stop (red)	Continuous
	Empty	Severe engine power loss (de-rate)	Stop (red)	Continuous

Fuel Level gauge

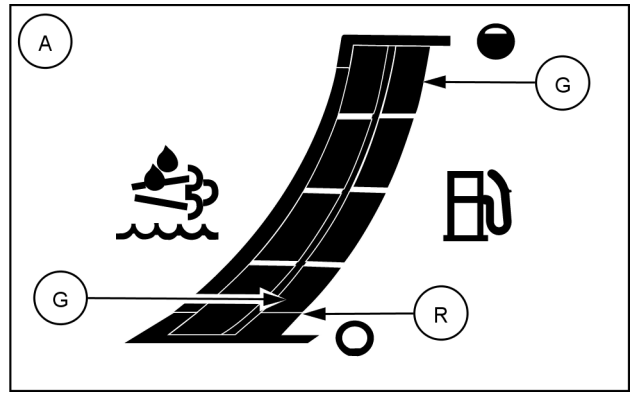
The Fuel Level gauge indicates the fuel level. When the tank is almost empty, the gauge moves into the red zone, the fuel indicator turns on and the warning alarm sounds.

NOTE: Figure (A) is applicable to machines with a **DIESEL EXHAUST FLUID (DEF)/AdBLUE®** gauge. Figure (B) is applicable to machines without a **DIESEL EXHAUST FLUID (DEF)/AdBLUE®** gauge.

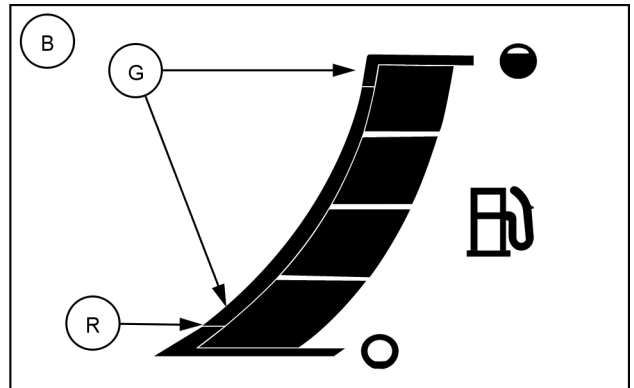
NOTICE: Do not allow the machine to run completely out of fuel.

Fuel level ranges:

- (G) Green zone (normal): **11 – 100%** full
- (R) Red zone (refuel): **0 – 10%**



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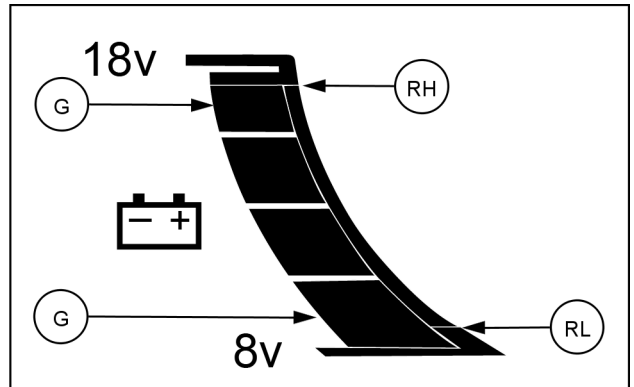
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Electrical System Voltage gauge

The Electrical System Voltage gauge indicates the voltage in the operating system. If the gauge moves into the red zone, the system is not functioning properly and needs to be serviced.

Battery Voltage ranges:

- (RL) Red zone: **8 – 9 V**
- (G) Green zone (normal): **9 – 16.5 V**
- (RH) Red zone: **16.6 – 18 V**



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Bottom section of the display (D)



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Icon	Description
	Digital clock (24 hour or 12 hour option)
	Machine work hours
	Display menu. Switch from the Home Screen to the Main Screen display.
	Rear view camera enable/disable. The camera icon will illuminate when the rearview camera is enabled.
	EZ-EH Custom setting (if equipped). The EZ-EH custom selection allows a user to quickly access their preferred settings. The EZ-EH Custom setting options can be found in the Machine Settings submenu. If selected this icon will illuminate.
	EZ-EH Low setting. Preset setting from the factory. If selected this icon will illuminate.
	EZ-EH Medium setting. Preset setting from the factory. If selected this icon will illuminate.
	EZ-EH High setting. Preset setting from the factory. If selected this icon will illuminate.

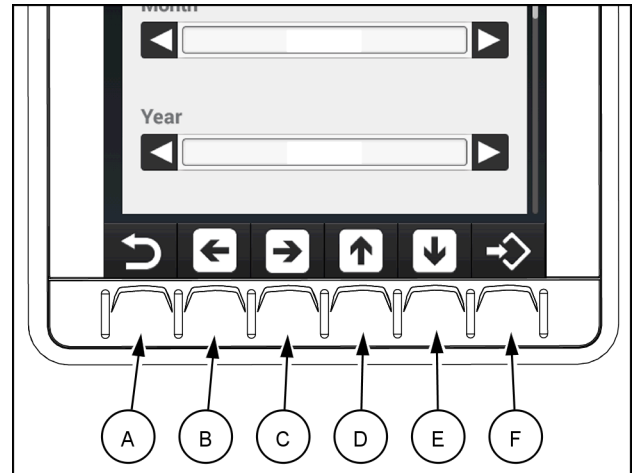
Display navigation

A keypad is located on the bottom external border of the display.

Use this keypad to move from one screen to another, to choose various selections, to monitor the machine functions, and to retrieve information.

Follow any screen prompts when given and use the Enter key (F) to enter the selection. Use the Home key (A) to return to the Home screen. This will also lock the chosen selection into memory.

You can access all functions in the same basic manner.



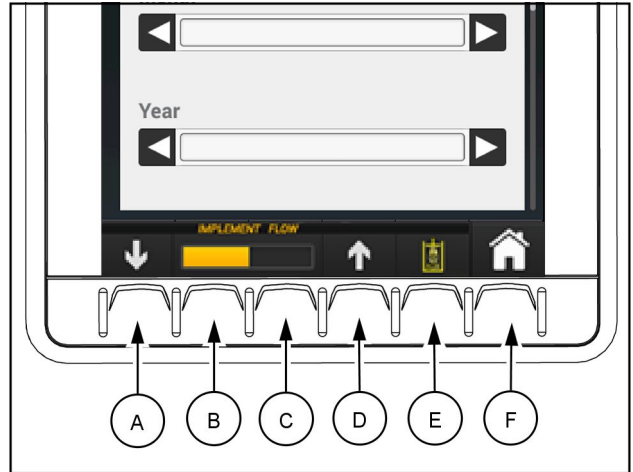
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	Icon	Description
(A)		Home key– When available, use this key to exit and return to the “Home” screen.
		Return key – When available, use this key anytime to start over and begin again or to exit a field.
		Reset key – When available, use this key to clear a passcode and start the passcode entry again.
		Cancel key – When available, use this key to cancel a process or procedure.
(B)		Left arrow key – Use this key to scroll left to selections/screens.
(C)		Right arrow key – Use this key to scroll right to selections/screens.
(D)		Up arrow key – Use this key to scroll up to selections/screens.
(E)		Down arrow key – Use this key to scroll down to selections/screens.
(F)		Enter key – After selections have been highlighted, use the Enter key to confirm selections.

Implement auxiliary flow control

In certain circumstance while operating an implement with auxiliary hydraulics, the functionality of the display keypad will change along with the icons above the keypad. See “Implement auxiliary flow control” 6-14 for more details for when and what this functionality is available.


Use the keypad to adjust auxiliary flow or to lock the auxiliary flow ON.









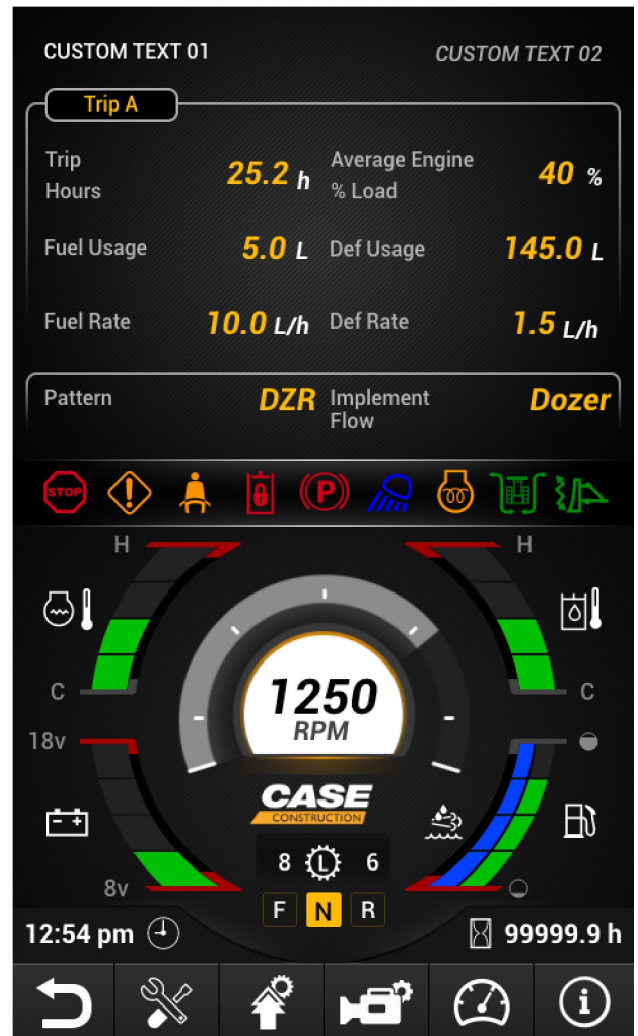
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	Icon	Description
(A)		Down arrow key – Use this key to decrease the maximum flow limit to the implement auxiliary hydraulics.
(B)		Slider – key has no function, slider is a visual representation of the active implement auxiliary hydraulic flow rate.
(C)		Slider – key has no function, slider is a visual representation of the active implement auxiliary hydraulic flow rate.
(D)		Up arrow key – Use this key to increase the maximum flow limit to the implement auxiliary hydraulics.
(E)		Auxiliary Detent - Use this key to lock the auxiliary hydraulics ON.
(F)		Home key– When available, use this key to exit and return to the “Home” screen icons.

Menu screen display

Use the keypad on the bottom of the display. Press the key below the Display icon  from the Home screen to access the Menu screen display. The following options will be available.



Icon	Description
	Return to previous screen
	Maintenance Settings
	Machine Settings
	Camera Settings
	Trip screen settings
	Machine Status

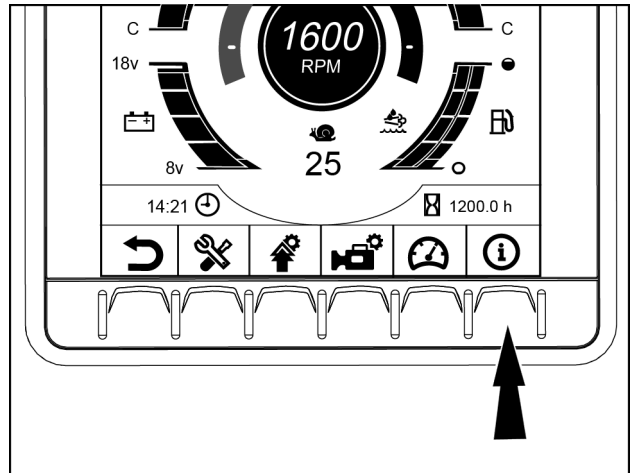


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Machine Status

The Machine Status screen provides current information regarding the machine while in operation.

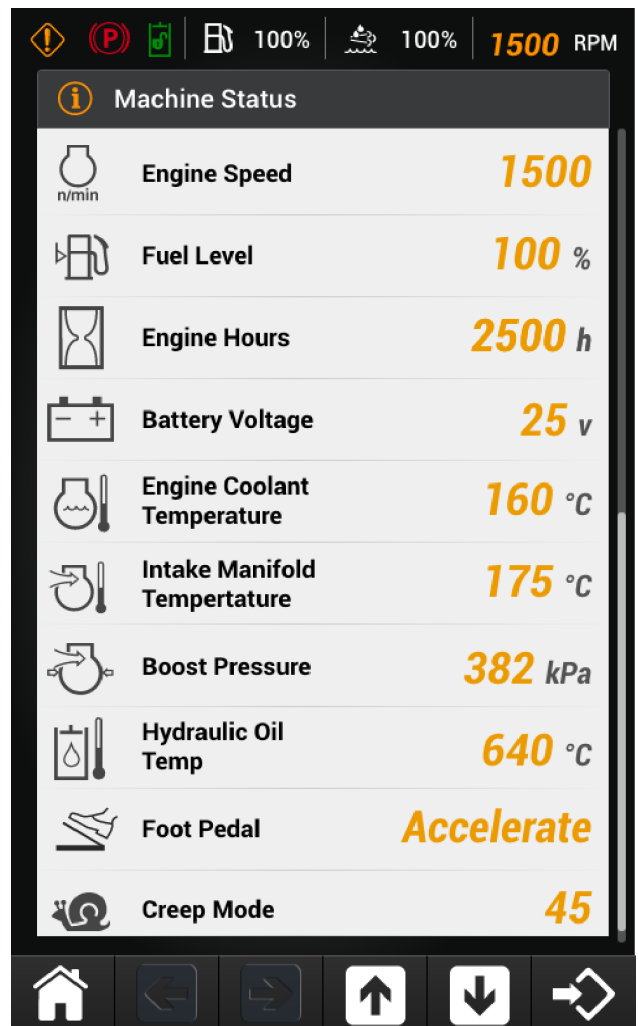
1. From the Home screen, use the keypad on the bottom of the display and press the Display key  to access the main screen display.
2. Press the Machine Status key  to display the Machine Status screens.





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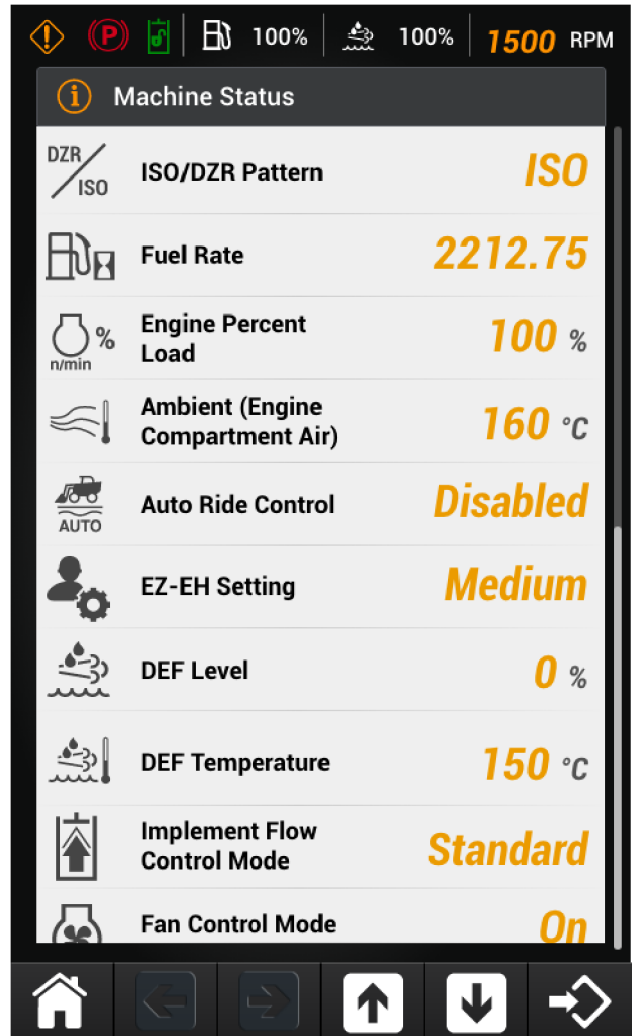
The following items will appear on the display. This is a quick overview of some of the key machine operating data.



- Engine Speed
- Fuel Level
- Engine Hours
- Battery Voltage
- Engine Coolant Temperature
- Intake Manifold Temperature
- Boost Pressure
- Hydraulic Oil Temperature
- Foot Pedal
- Creep Mode

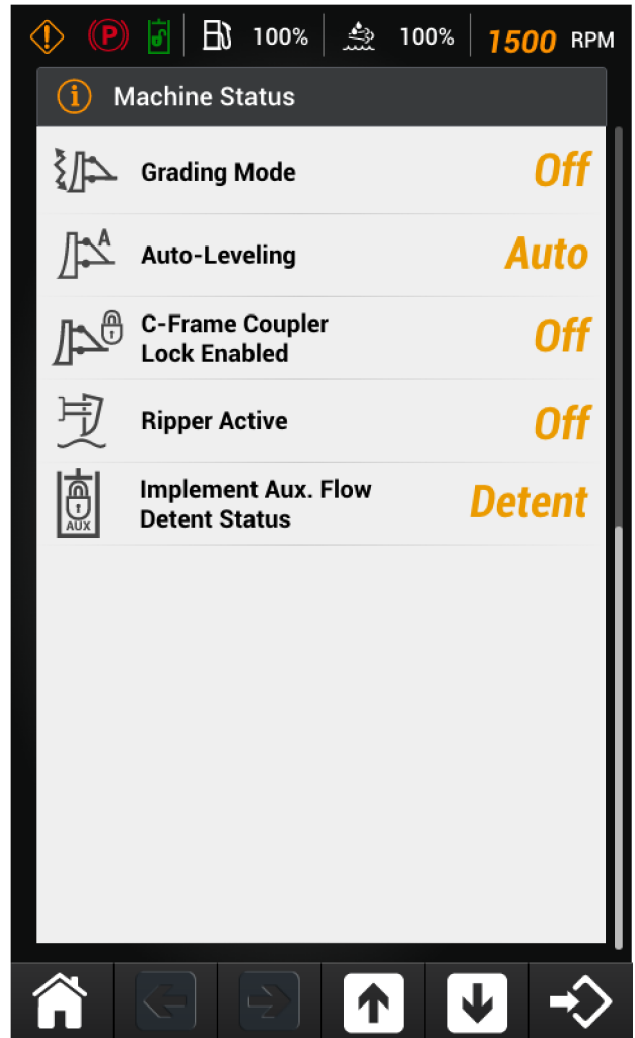


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1. Press the down arrow key  to scroll down to the bottom of the Machine Status screen.
 - ISO/DZR Pattern
 - Fuel Rate
 - Engine Percent Load
 - Ambient (Engine Compartment Air)
 - **Auto-Ride Control™**
 - EZ-EH Setting
 - DEF Level
 - DEF Temperature
 - Implement Flow Control Mode
 - Fan Control Mode
2. Press the Home key  to exit the Machine Status screen.





1. Press the down arrow key  to scroll down to the bottom of the Machine Status screen.
 - Grading Mode
 - Auto-Leveling
 - C-Frame Coupler Lock Enabled
 - Ripper Active
 - Implement Aux. Flow Detent Status
2. Press the Home key  to exit the Machine Status screen.

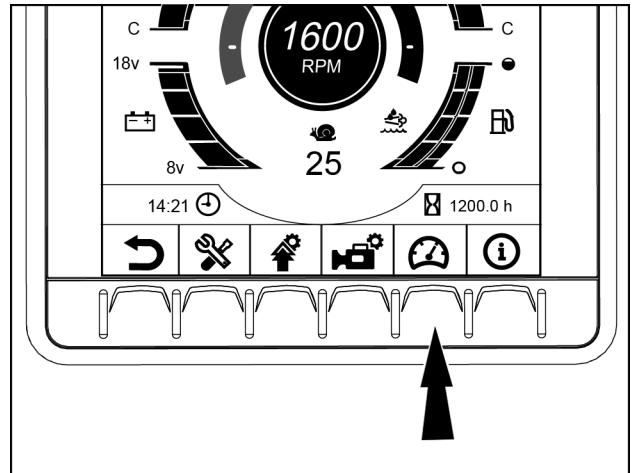


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Trip screens


Operators may keep track of the machine hours, fuel usage, fuel rate, DEF usage (if equipped), DEF rate (if equipped), and average engine % load during a certain project using the Trip screens. Two Trip screens are available to track or monitor a variety of jobs.


1. From the Home screen, use the keypad on the bottom of the display and press the Display key  to access the Main screen display.
2. Press the Trip screens key .



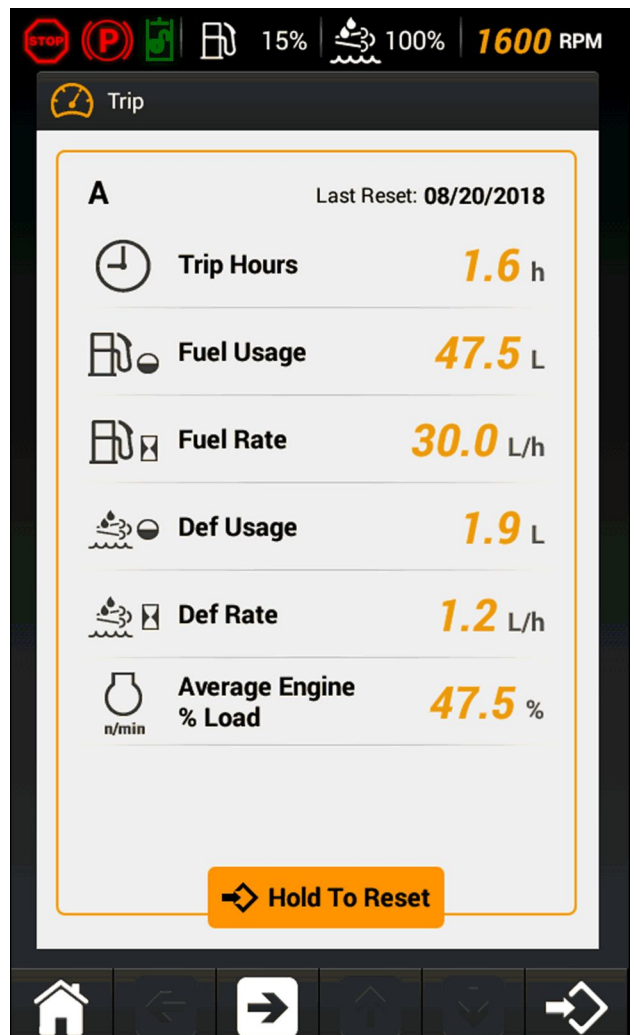
RAIL19SSL0081BA 1

Trip A screen

Press and hold the Enter key  to reset the Trip A screen.


Press the arrow key  to switch to the Trip B screen.


Press the Home key  to exit the Trip screen.



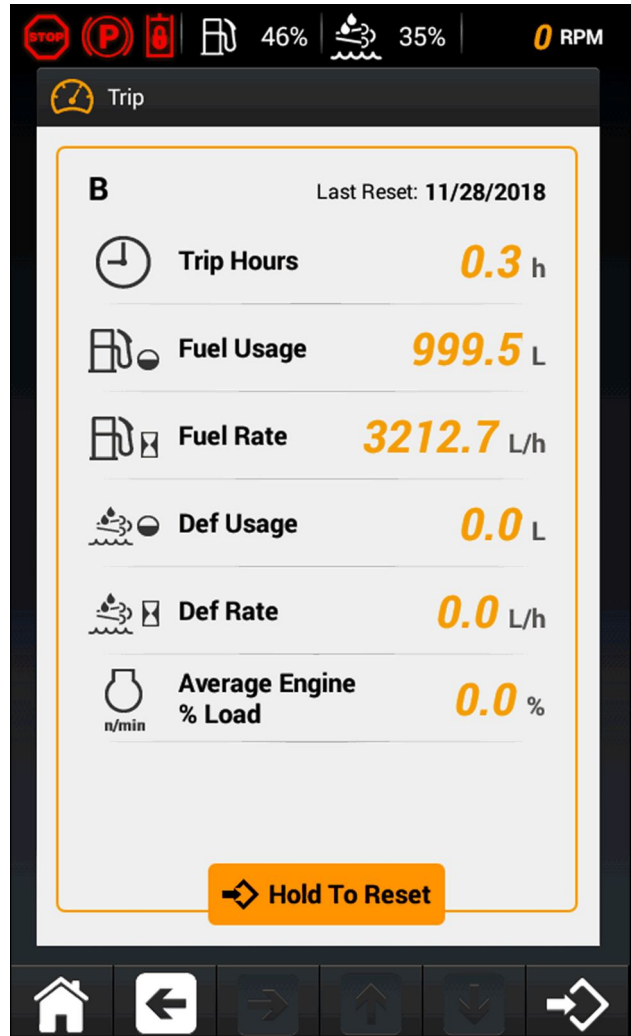
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Trip B screen

Press and hold the Enter key  to reset the Trip B screen.



Press the arrow key  to switch to the Trip A screen.

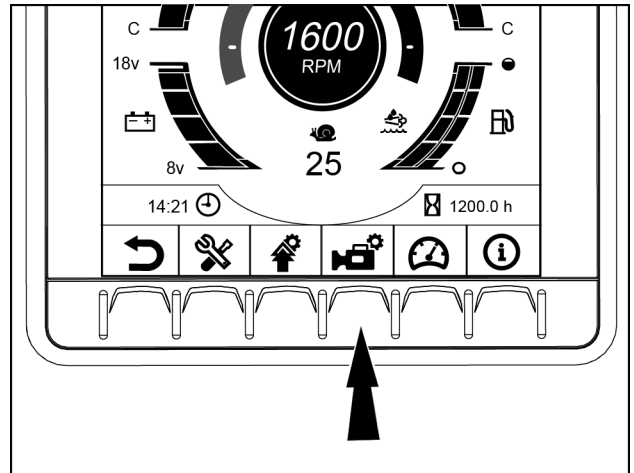
Press the Home key  to exit the Trip screen.



Camera Settings

Operators may chose to have the rearview camera appear in the top section of the Home screen display instead of the Trip screen. The Trip screen is the default setting from the factory.







1. From the Home screen, use the keypad on the bottom of the display and press the Display key  to access the Main screen display.
2. Press the Camera Settings key .

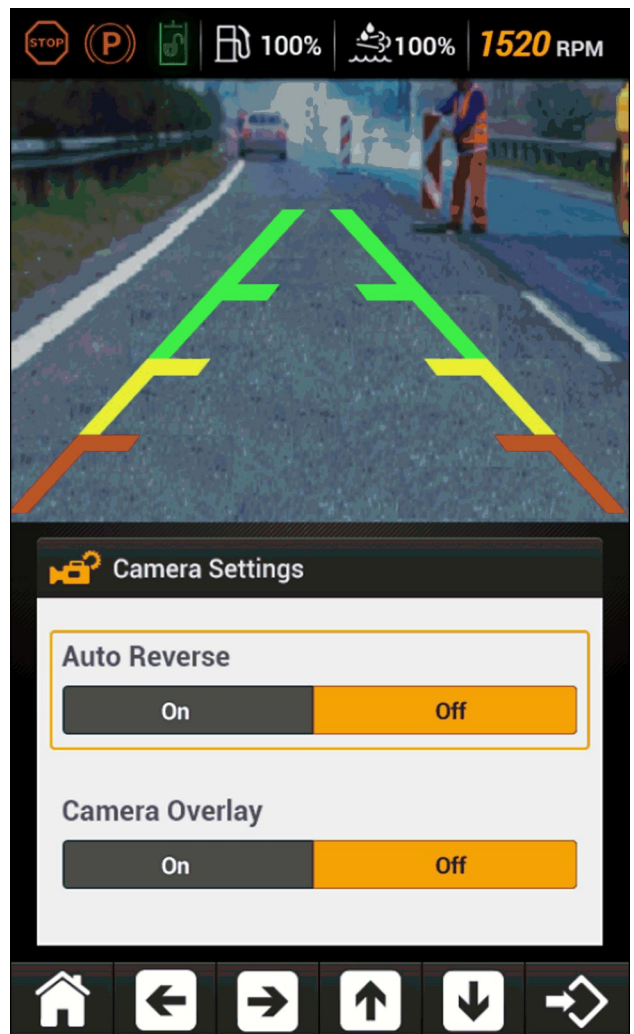


RAIL19SSL0081BA 1

Auto Reverse setting

The camera can be configured to automatically appear in the display when the machine is reversing, if the setting is set to On.





1. Press the arrow keys   to select between the Auto Reverse setting and the Camera Overlay setting.
2. Press the arrow keys   to highlight the ON or OFF setting.
3. Press the Enter key  to save the setting.
4. Press the Home key  to exit the Camera Settings screen.

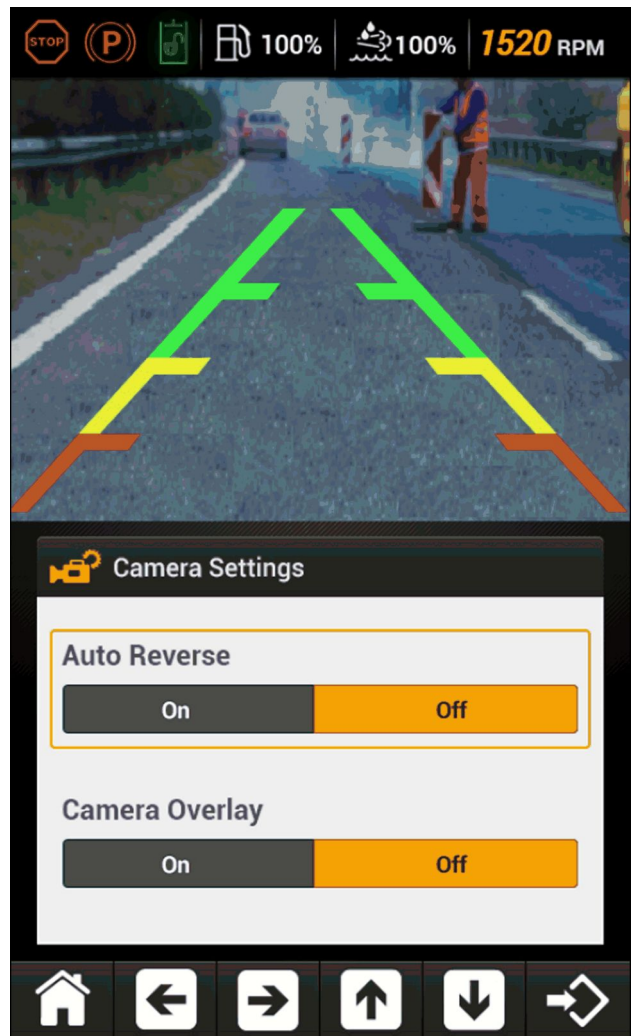


RAIL19SSL0308RA 2

Camera Overlay setting

The Camera Overlay can be configured to appear over the camera screen and serves as a guide for the operator when reversing the machine. The operator may choose to turn the Camera Overlay On or Off.



1. Press the arrow keys  to select between the Auto Reverse setting and the Camera Overlay setting.
2. Press the arrow keys  to highlight the ON or OFF setting.
3. Press the Enter key  to save the setting.
4. Press the Home key  to exit the Camera Settings screen.

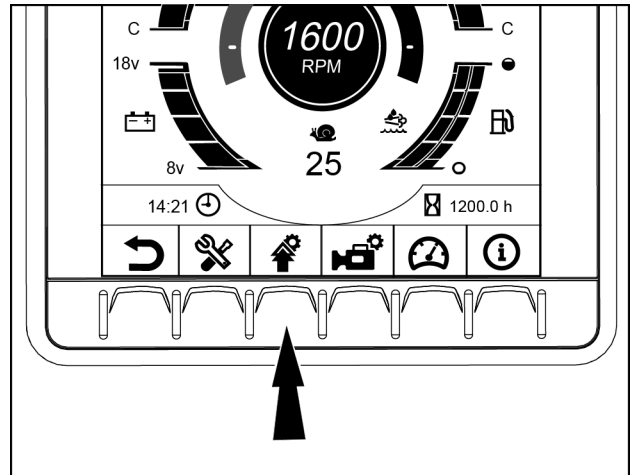


RAIL19SSL0308RA 3

Machine Settings

Several Machine Settings are available through the display for the operator to set to their own preferences.





1. From the Home screen, use the keypad on the bottom of the display and press the Display key  to access the Main screen display.
2. Press the Machine Settings key .

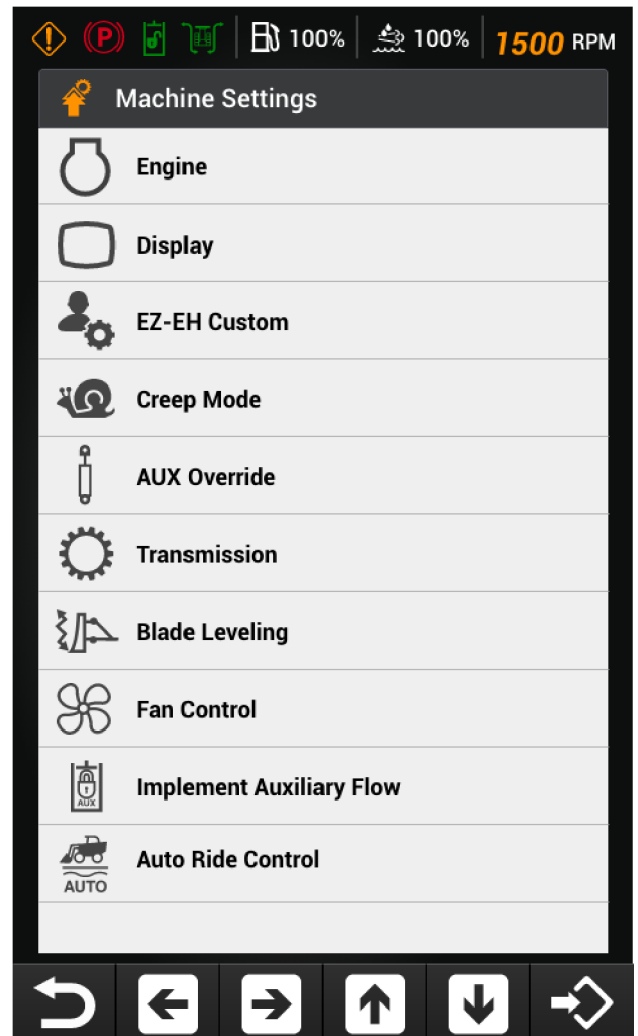


RAIL19SSL0081BA 1

Operators may customize machine features through the display. The following items are available for customization:

- Engine
- Display
- EZ-EH
- Creep Mode
- AUX Override
- Transmission
- Blade Leveling
- Fan Control
- Implement Auxiliary Flow
- **Auto-Ride Control™**



1. Press the arrow keys   to select between the available options.
2. Press the Enter key  to access the setting.
3. Press the Home key  to exit the main Machine Settings screen.







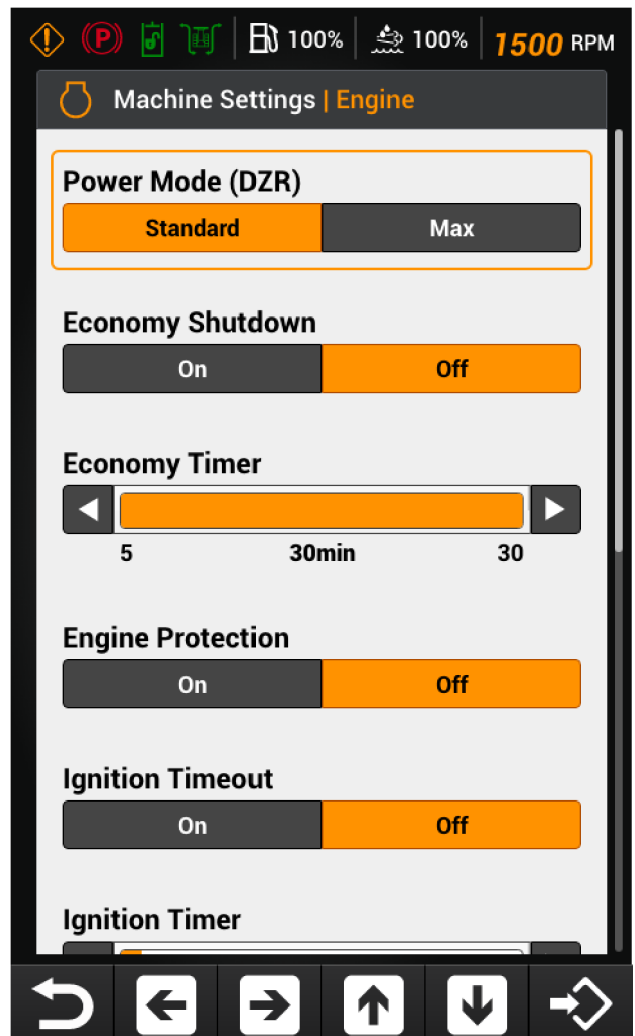
RAIL22SSL0684RA 2

Engine settings

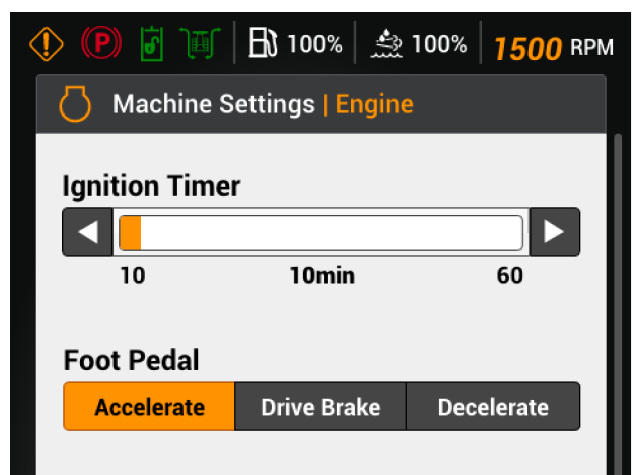
NOTE: If passcodes are used, you must have an Administrator or Advanced level four digit passcode to enter the Engine settings screens. Contact your dealer for assistance.

1. Press the arrow keys   to scroll between the following Engine settings.
 - Power Mode (DZR)

NOTE: Power Mode (DZR) is only active when DZR pattern control is selected.
 - Economy Shutdown
 - Economy Timer
 - Engine Protection
 - Ignition Timeout
 - Ignition Timer
 - Foot Pedal
2. Press the arrow keys   to highlight the On or Off setting or to adjust the number setting.
3. If prompted, press the Enter key  to save the setting.
4. Press the Return key  to exit the Engine settings screen.



RAIL22SSL0685RA 3



RAIL22SSL0203PA 4

Power Mode (DZR)

NOTE: The Power Mode feature will appear in the Engine Settings menu when the vehicle control pattern is set to DZR .


By changing the DZR Power Mode, the operator can match engine output to a specific dozing task.

- Select Standard power mode for optimizing vehicle performance and fuel efficiency.
- Select Max power mode for maximum engine power in aggressive dozing applications.

Economy Shutdown

Turn this feature ON to auto shutdown the engine when the following conditions are met for a specified amount of time. The specified time is set by the Economy Timer.

- Auxiliary Override is OFF (inactive).
- Diesel Emissions Fluid (DEF) inducements are inactive.
- Machine engine speed is low idle.
- Seat switch is OPEN (no operator in the seat).

1 min before auto shutdown a countdown message will appear on the display with an amber  light and a single pulse buzzer will alarm.

The operator may cancel the auto shutdown during the **1 min** countdown by pressing any key on the keyboard at the bottom of the display.


Economy Timer

Set the timer for the Economy auto shutdown. Timer can be set from **5 – 30 min** in **5 min** increments.

Engine Protection

Turn this feature ON to auto shutdown the engine if any of the following parameters are detected.


- Engine coolant temperature too high.
- Engine oil pressure too low.
- Hydraulic oil temperature too high.

When engine protection shutdown is initiated, the red  lamp appears, a continuous buzzer will sound, and an Engine Protection Shutdown message will appear on the display. The message will provide a countdown to when the engine will shutdown and the reason for the shutdown. Operator should safely find a place to park the machine and lower any raised attachment to the ground before the shutdown occurs.

Ignition Timeout

Turn ON the Ignition Timeout function to prevent battery drainage during extended periods of stationary operation without the engine running. This function will automatically trigger the system power-down routine after detecting the following conditions.

- Key or knob is in the ON or ACC (accessory) position.
- Seat switch is OPEN (no operator in the seat).

1 min before auto shutdown a countdown message will appear on the display with an amber  light and a single pulse buzzer will alarm. The operator may cancel the ignition time-out during the **1 min** countdown by doing any one of the following.

- Pressing any key on the keyboard at the bottom of the display.
- Sit in the operator's seat.
- Start the engine.

- Turn the key or knob to the RUN position.

Ignition Timer

Set the timer for the Ignition Timeout shutdown. Timer can be set from **10 – 60 min** in **10 min** increments.

Foot Pedal







Set the mode for the Foot Pedal functionality:

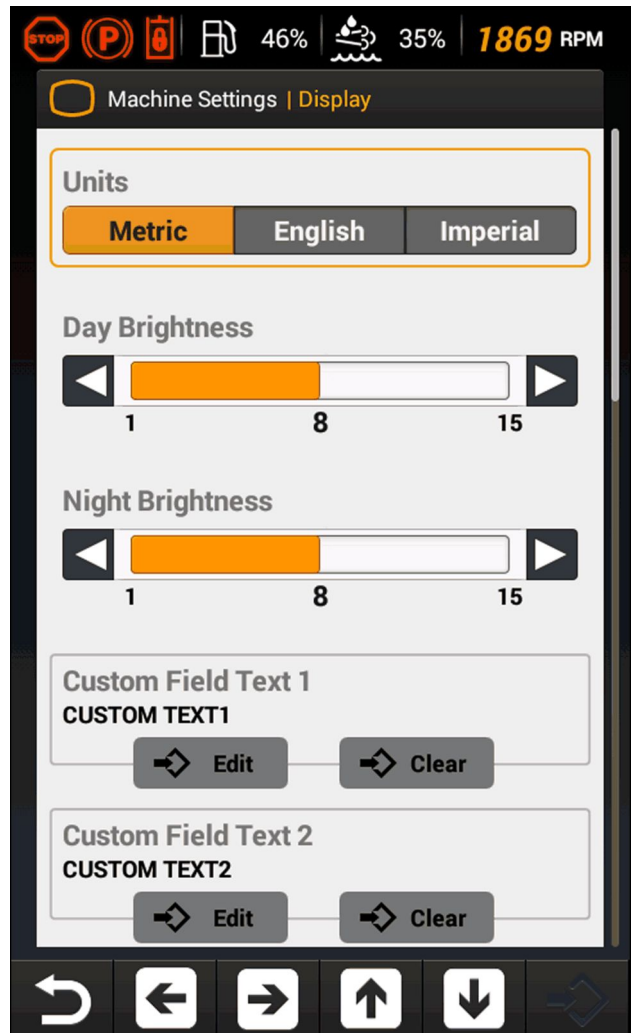
- Accelerate – Depressing the pedal increases engine RPM.
- Drive Brake– Depressing the pedal reduces hydraulic flow to the drive motors, slowing the vehicle while maintaining engine RPM.
- Decelerate – Depressing the pedal reduces the engine RPM.

Display settings

NOTE: If passcodes are used, you must have an Administrator or Advanced level four digit passcode to enter the Display settings screens. Contact your dealer for assistance.




Top section of the Display settings.

1. Press the arrow keys   to scroll between the following Display settings.
 - Units
 - Day Brightness
 - Night Brightness
 - Custom Field Text 1 (user defined text for home screen)
 - Custom Field Text 2 (user defined text for home screen)
2. Press the arrow keys   to adjust the number settings or select the available option.
3. If prompted, press the Enter key  to save the setting.
4. Continue to scroll or press the Return key  to exit the Display settings screen.



RAIL19SSL0304RA 5




Middle section of the Display settings.

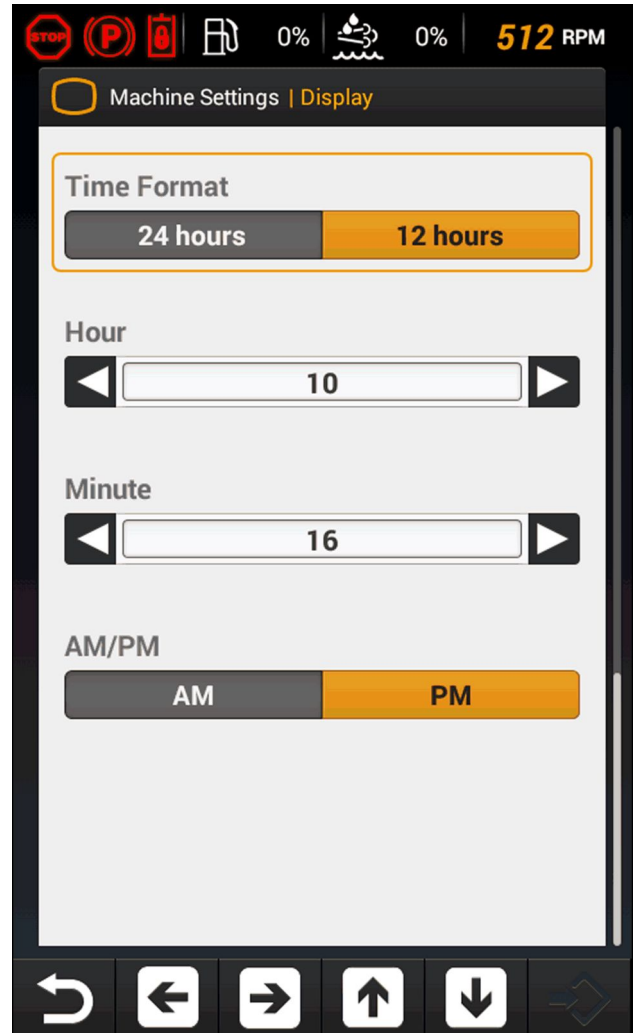
1. Press the arrow keys  to scroll between the following Display settings.
 - Language
 - Date Format
 - Day
 - Month
 - Year
2. Press the arrow keys  to adjust the number settings or select the available option.
3. Continue to scroll or press the Return key  to exit the Display settings screen.



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Bottom section of the Display settings.

1. Press the arrow keys  to scroll between the following Display settings.
 - Time Format
 - Hour
 - Minute
 - AM/PM
2. Press the arrow keys  to adjust the number settings or select the available option.
3. Continue to scroll or press the Return key  to exit the Display settings screen.



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EZ-EH Custom settings

NOTE: If passcodes are used, you must have an Administrator or Advanced level four digit passcode to enter the EZ-EH Custom settings screens. Contact your dealer for assistance.

The EZ-EH Custom feature allows the operator to adjust the machine’s loader arm, blade, and drive response to the movement of the control levers. Use the following tables as guides.

ISO control pattern






NOTE: The following settings are available when the vehicle control pattern is set to ISO .

Speed – Tilt, Lift, and Drive

Setting	Action
Low	Low speed of hydraulic function
Med...1	Medium/low speed of hydraulic function
Med...2	Medium/high speed of hydraulic function
High	High speed of hydraulic function

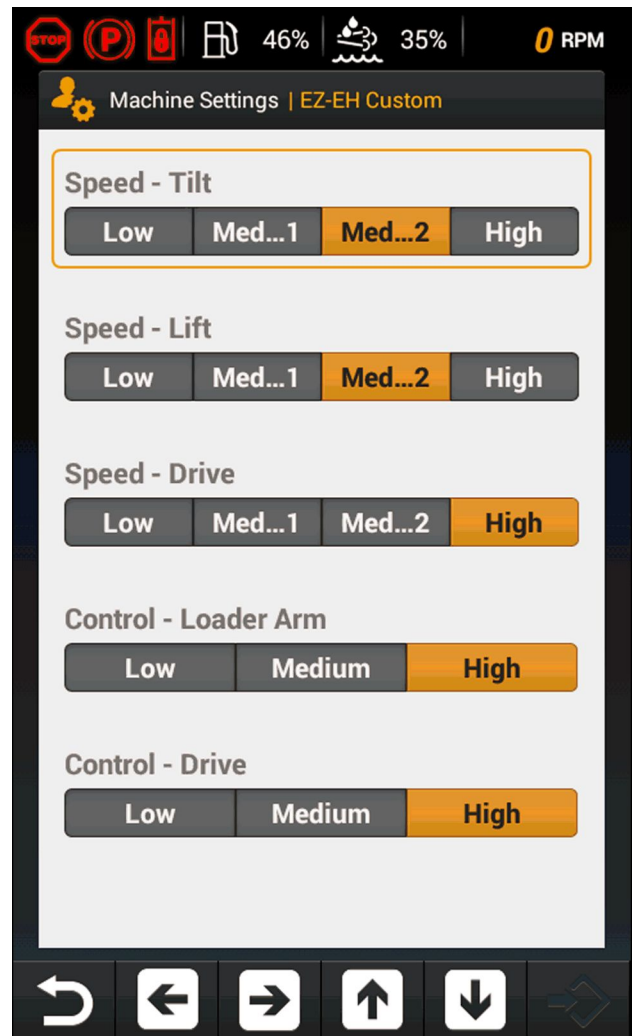
Control– Loader Arm and Drive

Setting	Action
Low	Smooth response to control lever movement
Medium	Medium response to control lever movement
High	Aggressive response to control lever movement

- Press the arrow keys   to scroll between the following Display settings.
 - Speed – Tilt
 - Speed – Lift
 - Speed – Drive
 - Control – Loader Arm
 - Control – Drive
- Press the arrow keys   to adjust the number settings or select the available option.
- Continue to scroll and make changes or press the Return key  to exit the EZ-EH Custom screen.

Factory default setting for the EZ-EH Custom settings

SPEED	TILT	MED-1
	LIFT	MED-1
	DRIVE	MED-1
CONTROL	LOADER ARM	MEDIUM
	DRIVE	MEDIUM



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DZR control pattern






NOTE: The following settings are available when the vehicle control pattern is set to DZR .

Speed – Blade Tilt, Lift, and Angle

Setting	Action
Low	Low speed of hydraulic function
Med...1	Medium/low speed of hydraulic function
Med...2	Medium/high speed of hydraulic function
High	High speed of hydraulic function

Control– Acceleration, steering, and blade sensitivity

Setting	Action
Slow	Smooth response to control lever movement
Moderate	Medium response to control lever movement
Aggressive	Aggressive response to control lever movement

- Press the arrow keys   to scroll between the following Display settings.
 - Control – Shuttle (acceleration)
 - Control – Steering
 - Speed – Blade Tilt
 - Control – Blade Sensitivity
 - Speed – Blade Lift
 - Speed – Blade Angle
- Press the arrow keys   to adjust the number settings or select the available option.
- Continue to scroll and make changes or press the Return key  to exit the EZ-EH Custom screen.



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Factory default setting for the EZ-EH Custom settings


SPEED	TILT	MED-1
	LIFT	MED-1
	ANGLE	MED-1
CONTROL	SHUTTLE	MODERATE
	STEER	MODERATE
	BLADE	MODERATE



Creep Mode settings


NOTE: If passcodes are used, you must have an Administrator or Advanced level four digit passcode to enter the Creep Mode settings screens. Contact your dealer for assistance.

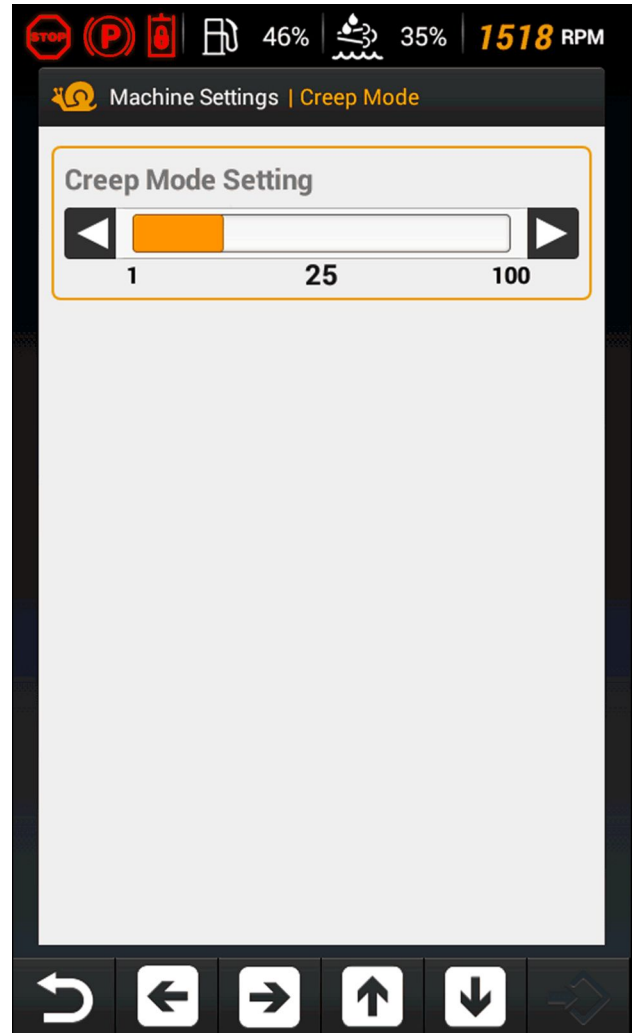
The Creep Mode setting allows the operator to adjust the creep speed setting from 1 to 100. The factory default Creep Mode setting is 50.

NOTE: The creep speed setting can also be adjusted by the two-speed buttons on the left-hand control lever. See “Creep mode (if equipped)” 3-35 for more details.

1. Press the arrow keys  to adjust the number setting.

NOTE: Press and hold either arrow key and the operator will be able to move rapidly up or down the speed setting increments until the key is released. Pressing the  will stop at 100 and not cycle back to 1. Pressing the  will stop at 1 and not cycle up to 100.

2. Press the Return key  to exit the Creep Mode Setting screen.





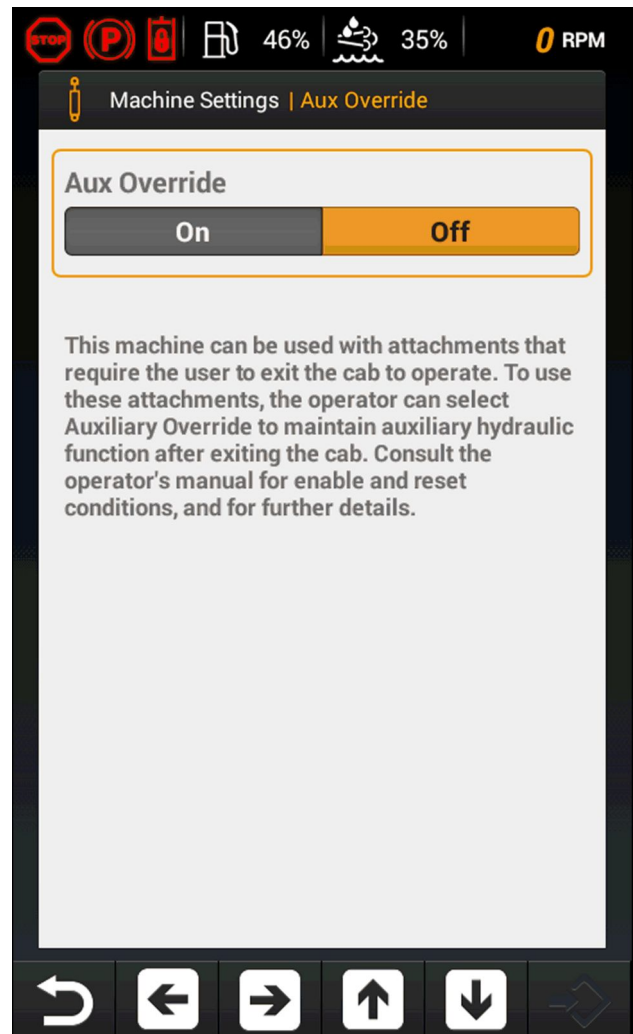
Aux Override

This machine can be used with attachments that require the user to exit the cab to operate. To use these attachments, the operator can select Auxiliary Override to maintain auxiliary hydraulic function after exiting the cab. See “Auxiliary (Aux) Override” 6-18 for more details.

1. Meet the following requirements to activate Aux Override:
 - The operator is in the operator seat.
 - The machine is running.
 - The hydraulics are enabled.
 - The operator leaves the cab within **30 s** after turning “Aux Override” ON.

NOTE: *Hydraulics may become disabled automatically if operator does not exit within 30 s.*




2. Press the arrow keys  to select On or Off.
3. Press the Return key  to exit the Aux Override screen.

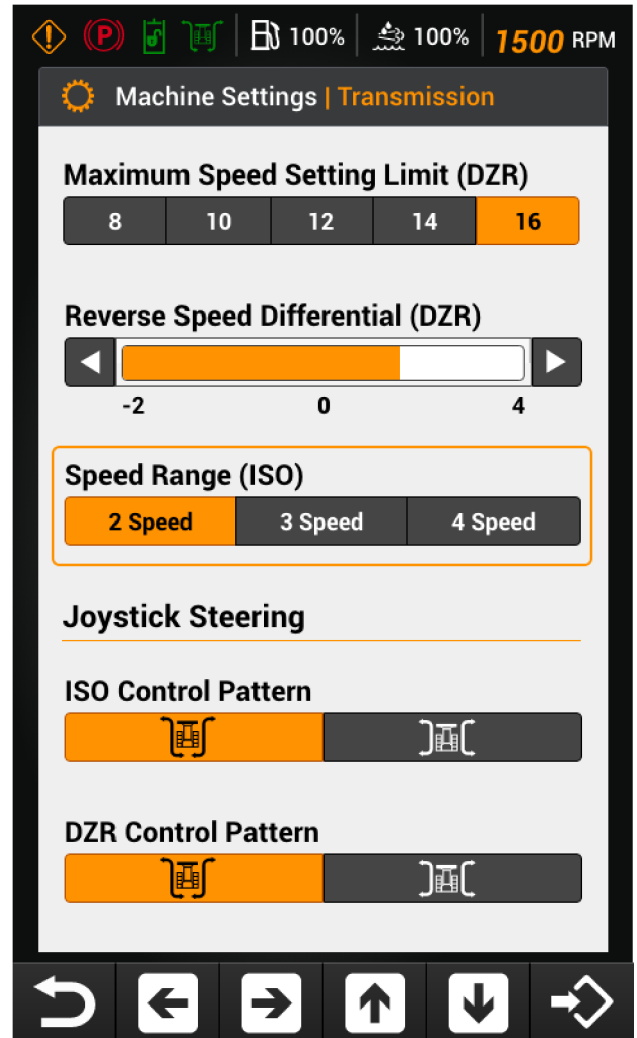


RAIL19SSL0309RA 11

Transmission

The transmission settings allow the operator to customize the drive controls to their operating preferences. See “ISO or DZR pattern control switch” **3-28** for steering selections. See “ISO speed range function” **3-19** or “DZR speed setting” **3-20** for more details.

1. Press the arrow keys  to scroll between the Transmission settings.
2. Press the arrow keys  on the desired option to adjust the number settings or select the available option.
3. Press the Return key  to exit the Transmission menu.



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Maximum Speed Setting Limit (DZR)

Maximum Speed Setting Limit (8, 10, 12, 14, 16)

- Sets the maximum ground speed ONLY while operating with the vehicle control pattern set to DZR.

Reverse Speed Differential (DZR)



Reverse speed differential (-2, -1, 0, +1, +2, +3, +4)

- Sets the differential between forward and reverse ground speeds ONLY while operating with the vehicle control pattern set to DZR.

NOTE: Example; if forward speed is 7 with differential set at of +2, speed in reverse will be 9.



Speed Range (ISO)

Speed Range (2 Speed, 3 Speed, 4 Speed)



- This setting applies ONLY when operating with the vehicle control pattern set to ISO.
- Press the  or  on the left-hand control lever to transition from one speed range to the next.
- 2 Speed - Speed ranges Low and High are available.
- 3 Speed - Speed ranges Low, High1, and High2 are available.
- 4 Speed - Speed ranges Low1, Low2, High1, and High2 are available.

Joystick Steering

ISO Control Pattern






- Select  for steering control like a dozer when operating with the vehicle control pattern set to ISO.
- Select  for steering in standard ISO pattern when operating with the vehicle control pattern set to ISO.

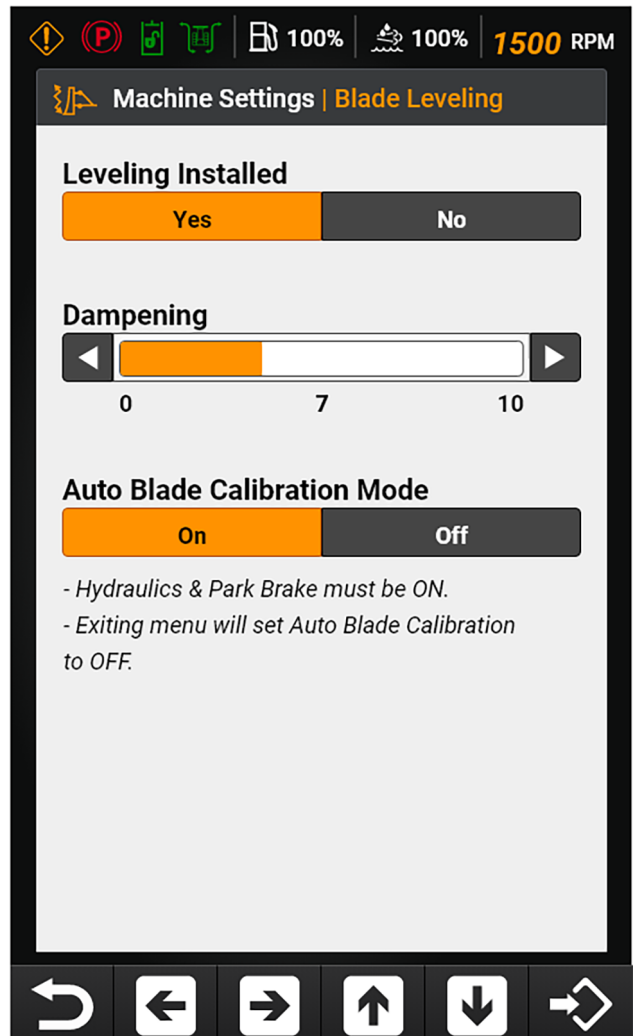
DZR Control Pattern

- Select  for steering control like a dozer when operating with the vehicle control pattern set to DZR .
- Select  for steering in standard ISO pattern when operating with the vehicle control pattern set to DZR.

Blade Leveling (if equipped)

The Blade Leveling feature is used in conjunction with a third party blade guidance system and a blade guidance factory ready system.

1. Press the arrow keys   to select the Blade Leveling options.
 - Leveling Installed: Yes or No
 - Dampening: 0 to 10
 - Auto-Blade Calibration Mode: On or Off
2. Press the arrow keys   on the desired options settings.
3. Press the Return key  to exit the Blade Leveling screen.



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Leveling Installed

Select Yes, if vehicle has been configured with a third party blade guidance system for auto blade control.

Select No, if vehicle has not been configured with a third party blade guidance system for auto blade control. If No is selected Dampening and Auto Blade Calibration Mode will not be accessible.

NOTE: If No is selected Dampening and Auto Blade Calibration Mode will not be accessible.

Dampening

The operator has 10 settings to change the gain of our lift pressure feedback. Setting of 0 provides a lower gain for less dampening, increasing this gain applies more dampening to the system. Operator can adjust this gain to stabilize the system if lift feels unstable.

NOTE: The Dampening default setting is 5. The setting will be saved over key cycles and operator profile settings.

Auto Blade Calibration Mode

Hydraulics and park brake must be ON to enter this mode. When operator wants to calibrate his hydraulic settings on their blade guidance system they must change this setting to ON. This disables the feedbacks in our system to allow the operator to calibrate our loader valve with their blade guidance system. If park brake is turned off, the calibration mode will automatically be turned off.




Fan Control

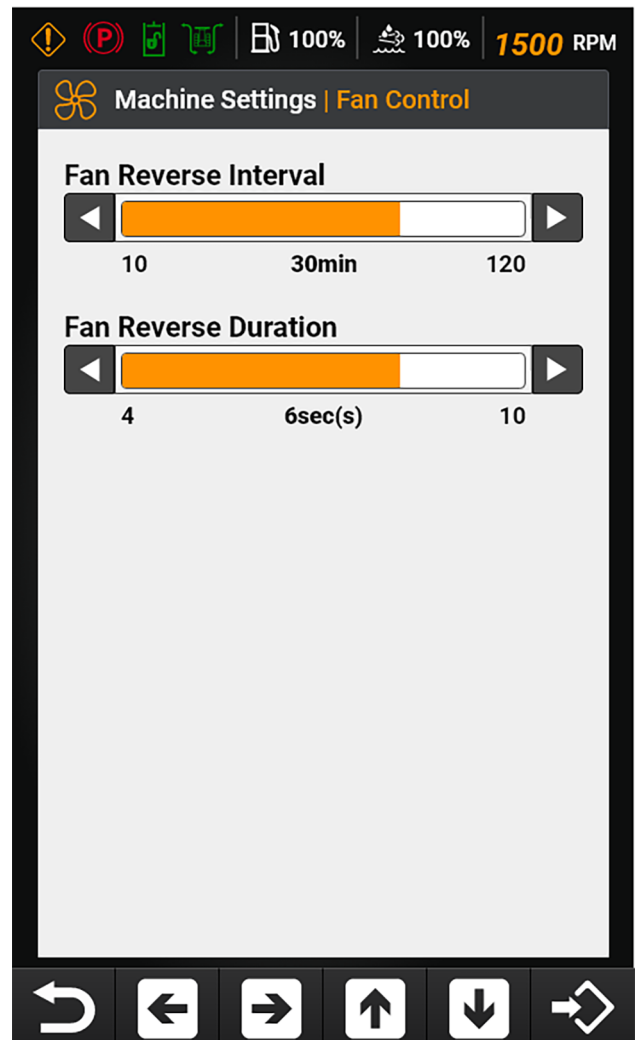
NOTE: If passcodes are used, you must have an Administrator or Advanced level four digit passcode to enter the Fan Control settings screens. Contact your dealer for assistance.

The Fan Control settings allows the operator to adjust the fan reversing settings. In this screen the following options are available:

- Fan Reverse Interval (20 – 120 minutes in 10 minute increments)
- Fan Reverse Duration (4 – 10 seconds in 2 second increments)

See “Fan Reversing” 3-37 for details on fan reversing control.




1. Press the arrow keys  to scroll between Fan Reverse Interval and Fan Reverse Duration.
2. Press the arrow keys  on the desired option to adjust the number settings or select the available option.
3. Press the Return key  to exit the Fan Control screen.



RAIL22SSL0211PA 14


Implement Auxiliary Flow Control

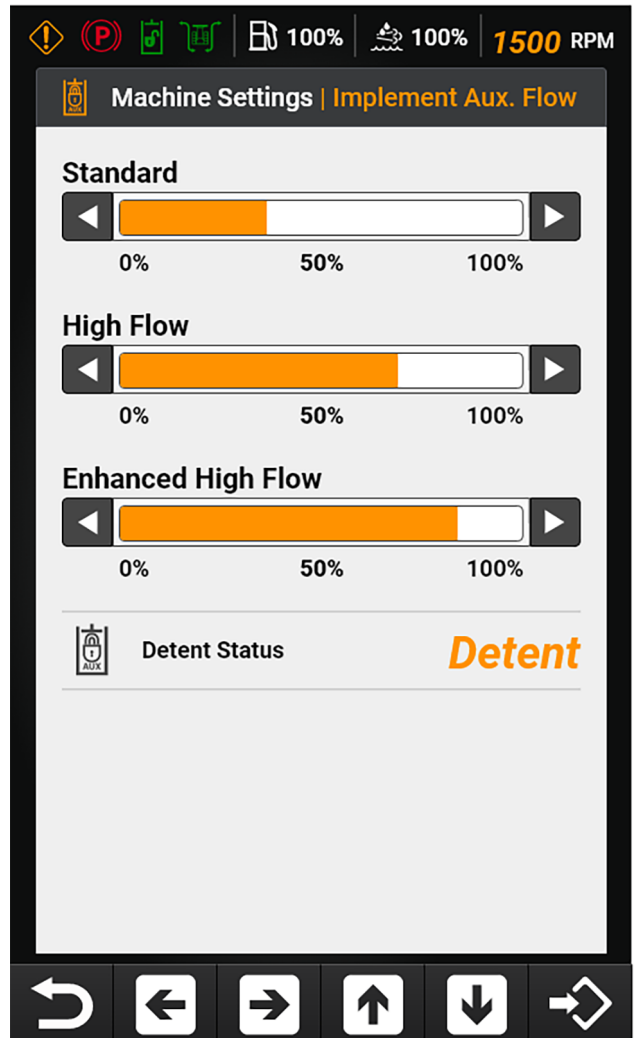
The Implement Auxiliary Flow Control setting allows the operator to adjust the upper limit of hydraulic flow to auxiliary attachments for Standard, High Flow, or Enhanced High Flow (EHF) auxiliary hydraulics.

1. Press the arrow keys  to scroll between the three flow control options.
2. Press the arrow keys  to adjust the flow setting from **10 – 100%** in **10%** increments.
3. Press the Return key  to exit the Implement Auxiliary Flow Control screen.

When operating an auxiliary hydraulic attachment, the maximum flow commanded from the operator by using the auxiliary hydraulics thumbwheel of the right-hand control grip will be limited by this setting.







It is also possible to adjust this setting while the auxiliary hydraulics are in use, without going through the display menu to the machine settings. When the auxiliary hydraulics thumbwheel is pushed to the detent (max) position in either direction, the buttons on the display can be used to adjust the upper limit. The bottom row of icons will be replaced with a flow control bar showing the current flow mode and number setting.

1. While the thumbwheel is in the detent (max) position, press the arrow keys  to adjust the flow setting from **10 – 100%** in **10%** increments.

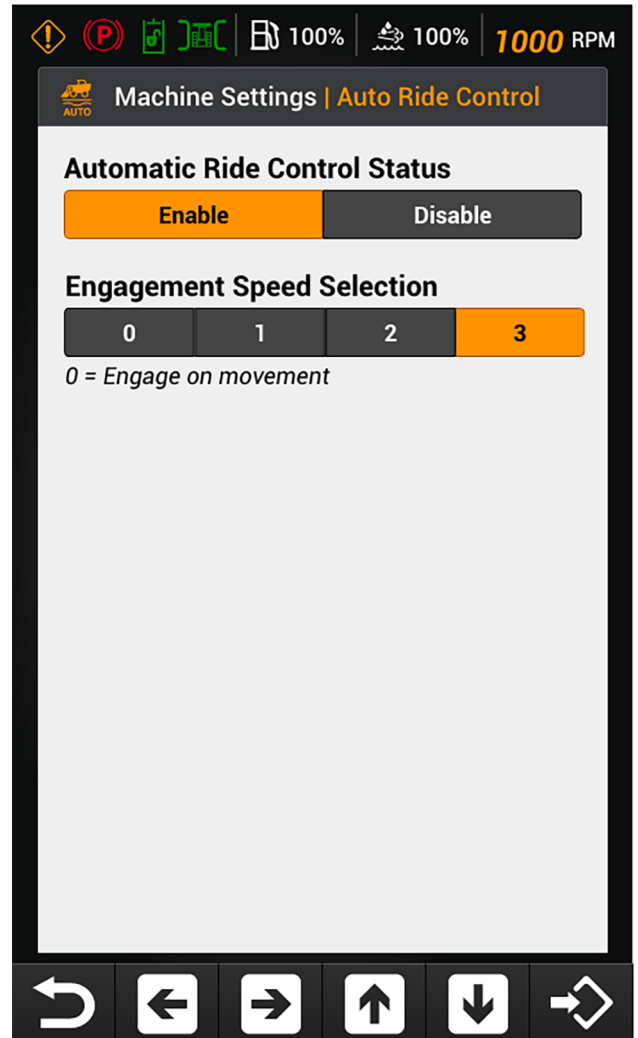


Auto-Ride Control™ (ARC) if equipped

When you enable the **Auto-Ride Control™** feature, ride control becomes active when the vehicle exceeds the activation speed selection you make in the display. The **Ride Control™** feature reduces machine rocking motion during transport and material hauling operations. See 3-39 for more details.

1. Press the arrow keys   to select the “Enable” or “Disable” modes.
2. If you elect to enable the **Auto-Ride Control™** feature, press the down-arrow key  to access the “Engagement Speed Selection” controls.
3. Press the arrow keys   to select speed 0, 1, 2, or 3.
4. Press the Return key  to exit the **Auto-Ride Control™** screen.

NOTE: When you select speed 0 with the **Auto-Ride Control™** feature enabled, the **Ride Control™** feature will become active when the system detects drive movement.





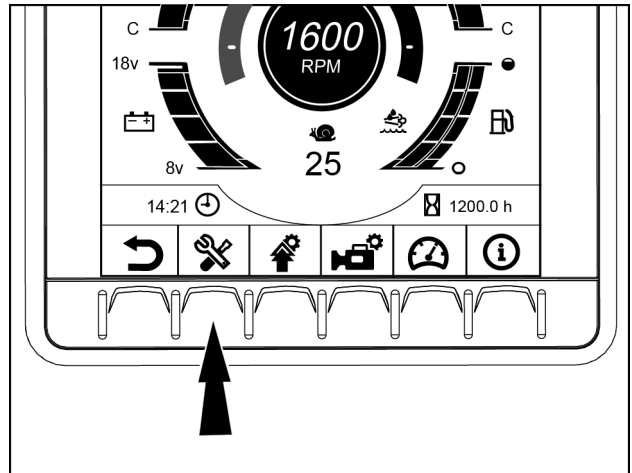
RAIL22SSL0212PA 16

Setting	Rubber Track Speed to Activate Ride Control™	Steel Track Speed to Activate Ride Control™
0	0 km/h (0 mph)	0 km/h (0 mph)
1	4.0 km/h (2.5 mph)	1.6 km/h (1.0 mph)
2	6.4 km/h (4.0 mph)	3.2 km/h (2.0 mph)
3	8.9 km/h (5.5 mph)	4.8 km/h (3.0 mph)

Machine Service

There are several Machine Service options that are available through the display for the operator to set to their own preferences.




1. From the Home screen, use the keypad on the bottom of the display and press the Display key  to access the Main screen display.
2. Use the keypad on the bottom of the display to select the Machine Service settings key .

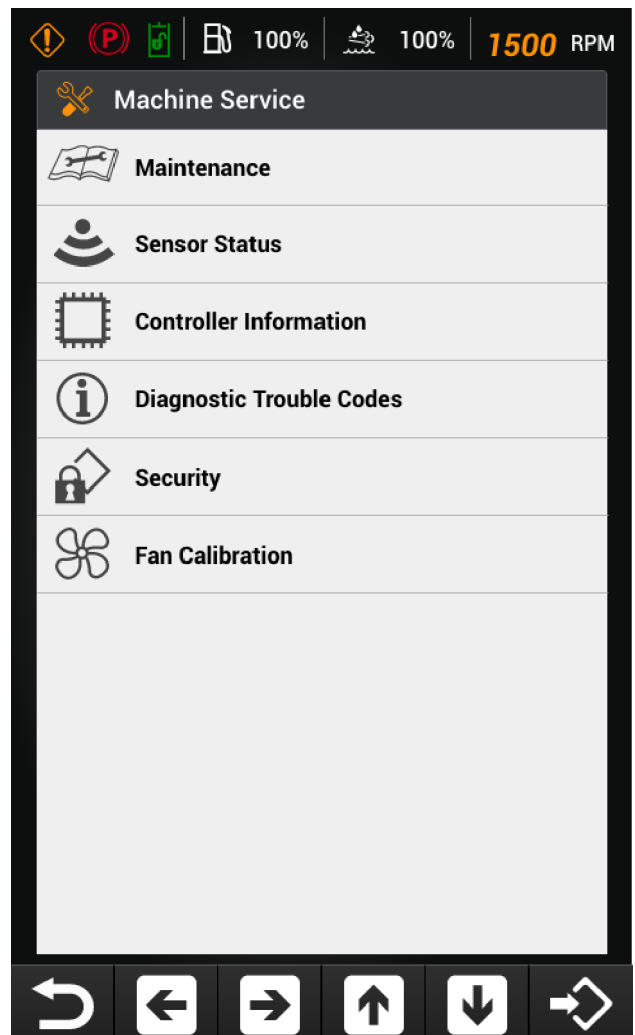


RAIL19SSL0081BA 1

Operators may view machine configurations and features through the display. The following items are available:

- Maintenance
- Sensor Status
- Controller Information
- Diagnostic Trouble Codes
- Security
- Fan Calibration

1. Press the arrow keys  to select between the available options.
2. Press the Enter key  to access the setting.
3. Press the Home key  to exit the main Machine Service screen.






RAIL21SSL0287RA 2

Maintenance

NOTE: If passcodes are used, you must have an Administrator or Advanced level four digit passcode to enter the Maintenance screens. Contact your dealer for assistance.





NOTICE: Not all required machine maintenance is shown on the display. See “Maintenance chart” 7-31 to view all the required machine maintenance, maintenance schedule and maintenance procedures.

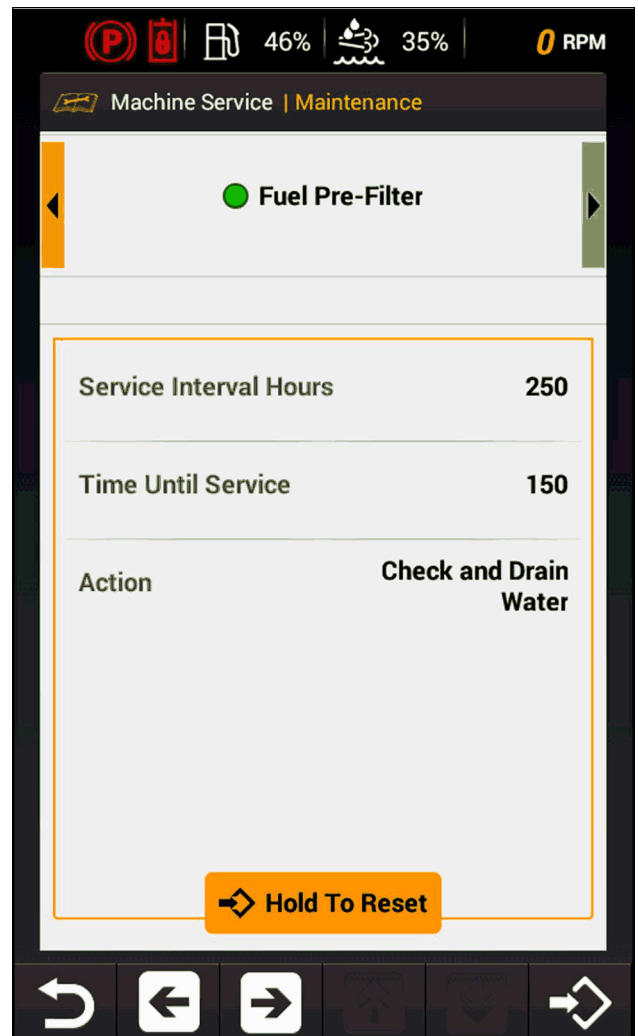
A service reminder pop-up "Service Notice" along with single pulse buzzer will appear at every key cycle on the home screen. Only one pop-up appears if one or more service items are due/past due. Each service interval has a status icon at the top. The color of the icon indicates the following:

-  - Service is not required.
-  - Service is due in **25 h** or less.
-  - Service is due or past due.

For machines that operate in extreme conditions and require the service intervals to be more frequent, contact your CASE CONSTRUCTION dealer. The dealer can use the Electronic Service Tool (EST) to change the maintenance intervals. The intervals cannot be set for less than **25 h**.





Fuel Pre-Filter

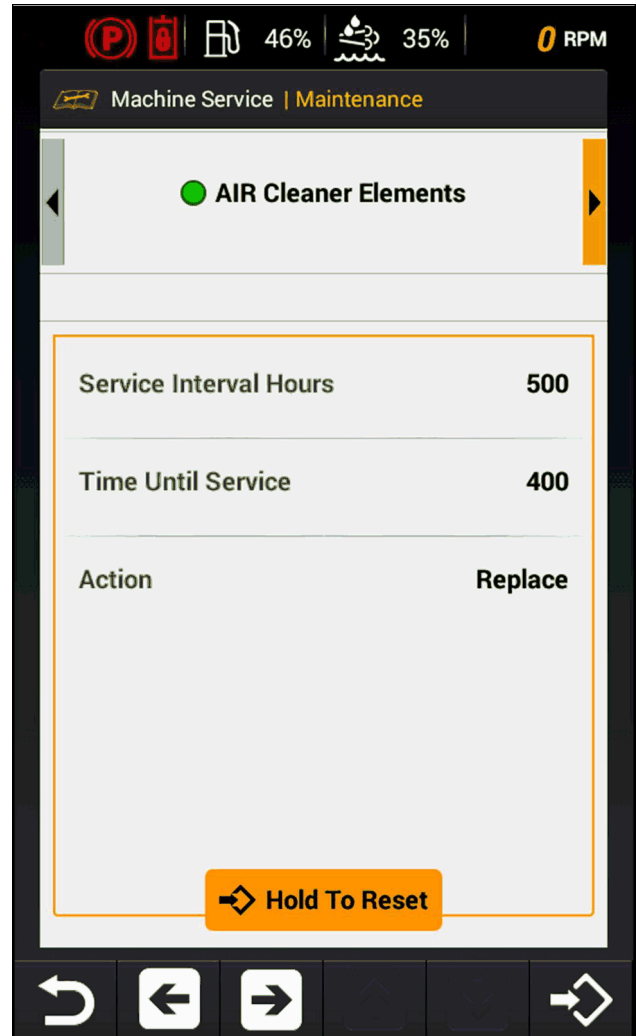
- Service Interval Hours: **250 h**
 - Time Until Service: hours remaining until service is due
 - Action: Check and Drain Water
1. Press and hold the Enter key  to reset the Time Until Service hours.
 2. Press the arrow keys   to move to the next maintenance interval.
 3. Press the Return key  to exit the Maintenance screen.



RAIL19SSL0357RA 1





Air Cleaner Elements

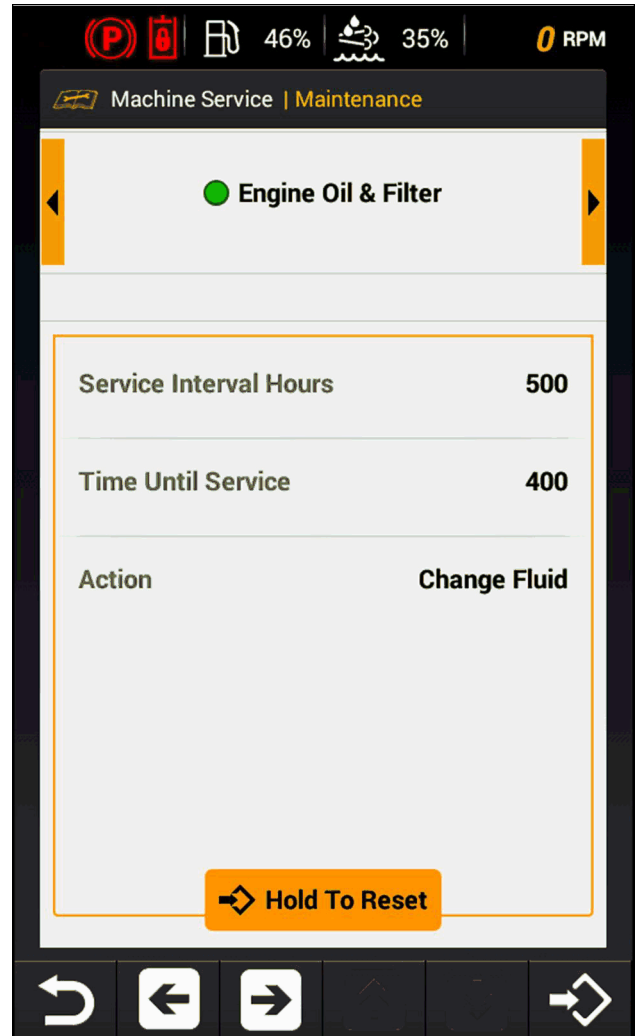
- Service Interval Hours: **500 h**
 - Time Until Service: hours remaining until service is due
 - Action: Replace
1. Press and hold the Enter key  to reset the Time Until Service hours.
 2. Press the arrow keys   to move to the next maintenance interval.
 3. Press the Return key  to exit the Maintenance screen.



RAIL19SSL0358RA 2





Engine Oil & Filter

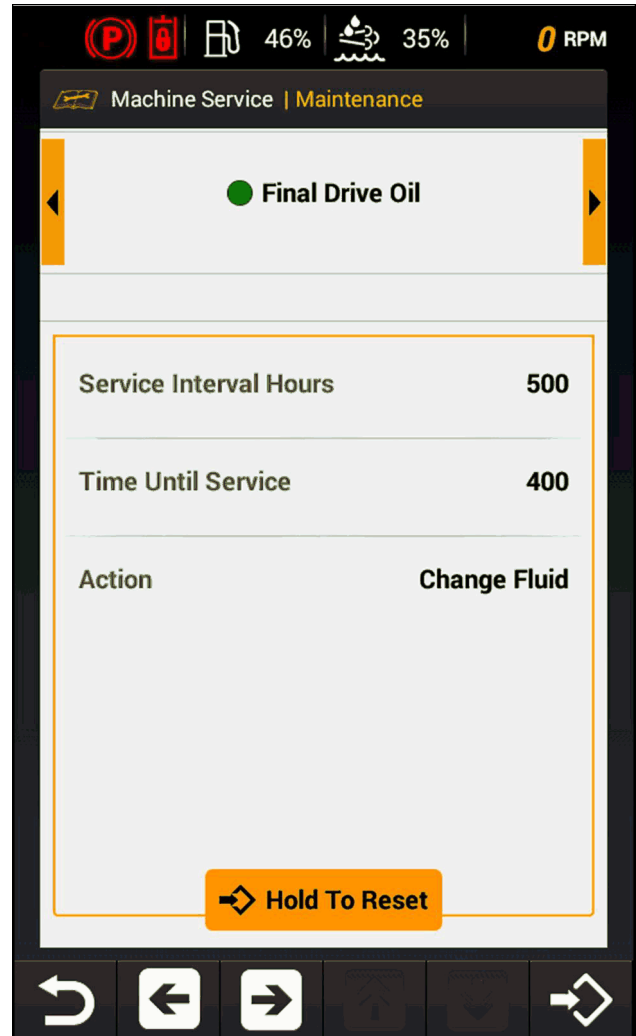
- Service Interval Hours: **500 h**
 - Time Until Service: hours remaining until service is due
 - Action: Change Fluid
1. Press and hold the Enter key  to reset the Time Until Service hours.
 2. Press the arrow keys   to move to the next maintenance interval.
 3. Press the Return key  to exit the Maintenance screen.



RAIL19SSL0359RA 3





Final Drive Oil

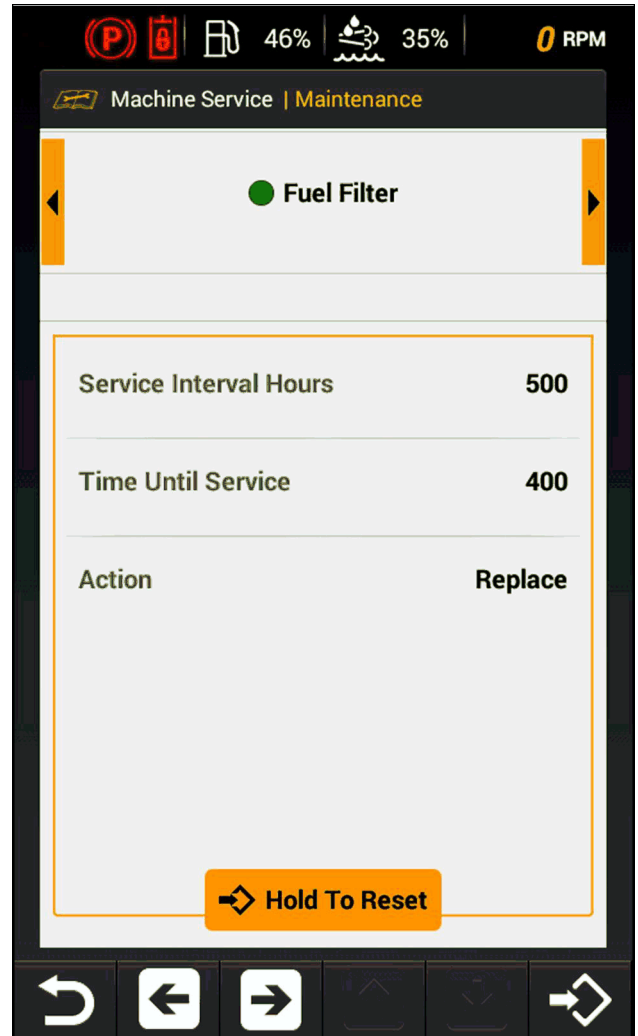
- Service Interval Hours: **500 h**
 - Time Until Service: hours remaining until service is due
 - Action: Change Fluid
1. Press and hold the Enter key  to reset the Time Until Service hours.
 2. Press the arrow keys   to move to the next maintenance interval.
 3. Press the Return key  to exit the Maintenance screen.



RAIL19SSL0367RA 4





Fuel Filter

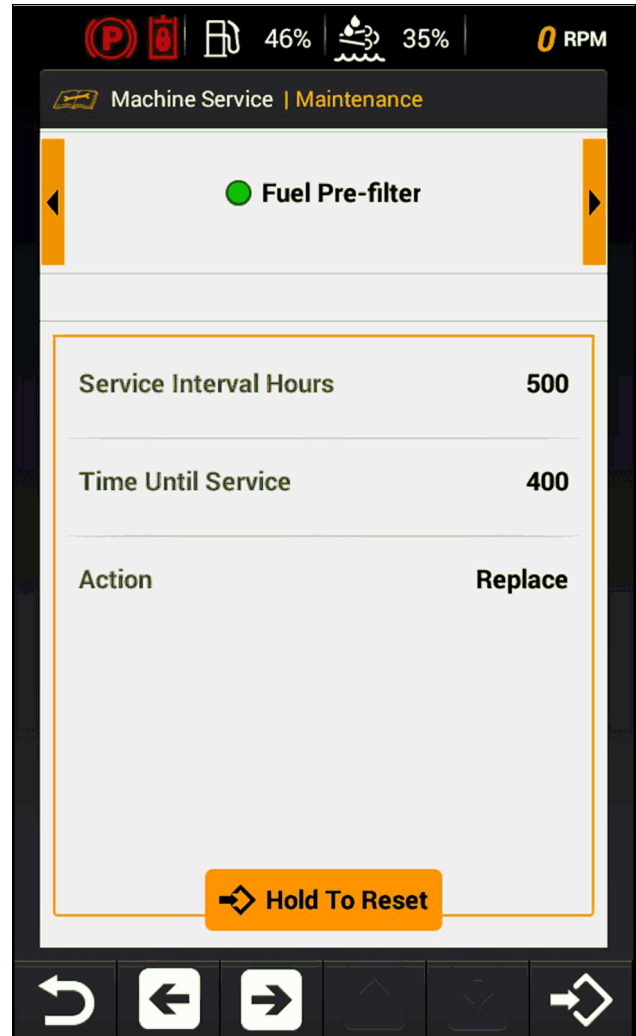
- Service Interval Hours: **500 h**
 - Time Until Service: hours remaining until service is due
 - Action: Replace
1. Press and hold the Enter key  to reset the Time Until Service hours.
 2. Press the arrow keys   to move to the next maintenance interval.
 3. Press the Return key  to exit the Maintenance screen.



RAIL19SSL0360RA 5





Fuel Pre-Filter

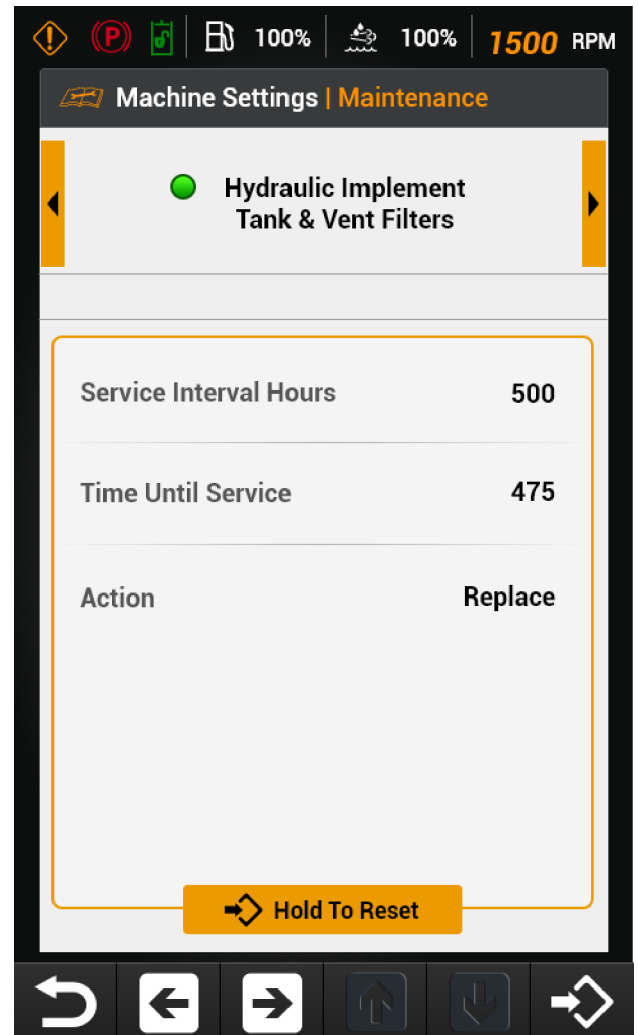
- Service Interval Hours: **500 h**
 - Time Until Service: hours remaining until service is due
 - Action: Replace
1. Press and hold the Enter key  to reset the Time Until Service hours.
 2. Press the arrow keys   to move to the next maintenance interval.
 3. Press the Return key  to exit the Maintenance screen.



RAIL19SSL0361RA 6





Hydraulic Implement Tank & Vent Filters

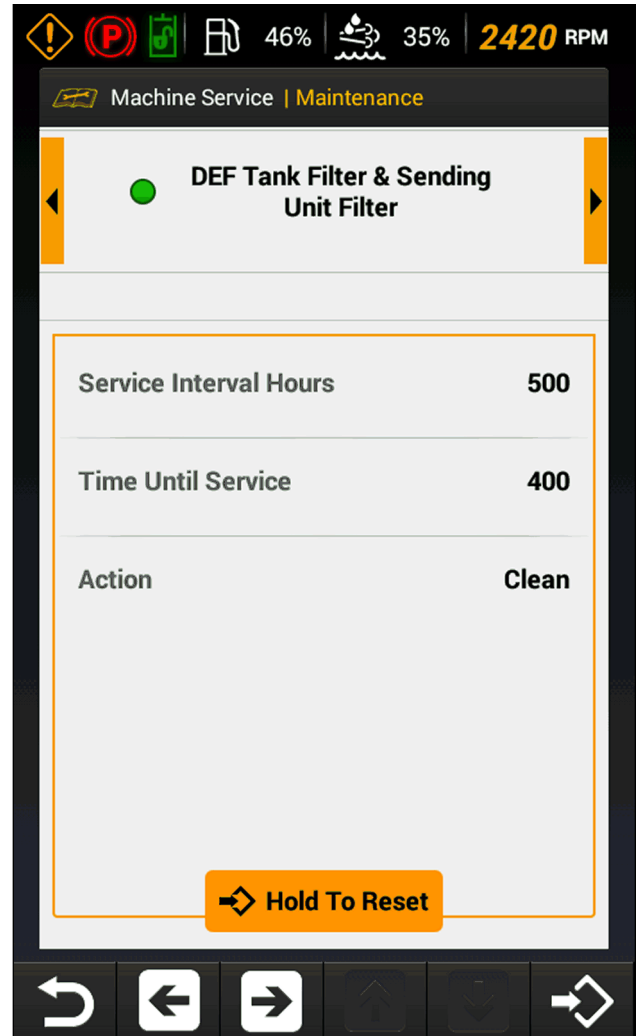
- Service Interval Hours: **500 h**
 - Time Until Service: hours remaining until service is due
 - Action: Replace
1. Press and hold the Enter key  to reset the Time Until Service hours.
 2. Press the arrow keys   to move to the next maintenance interval.
 3. Press the Return key  to exit the Maintenance screen.



RAIL21SSL0653RA 7





DEF Tank Filter & Sending Unit Filter

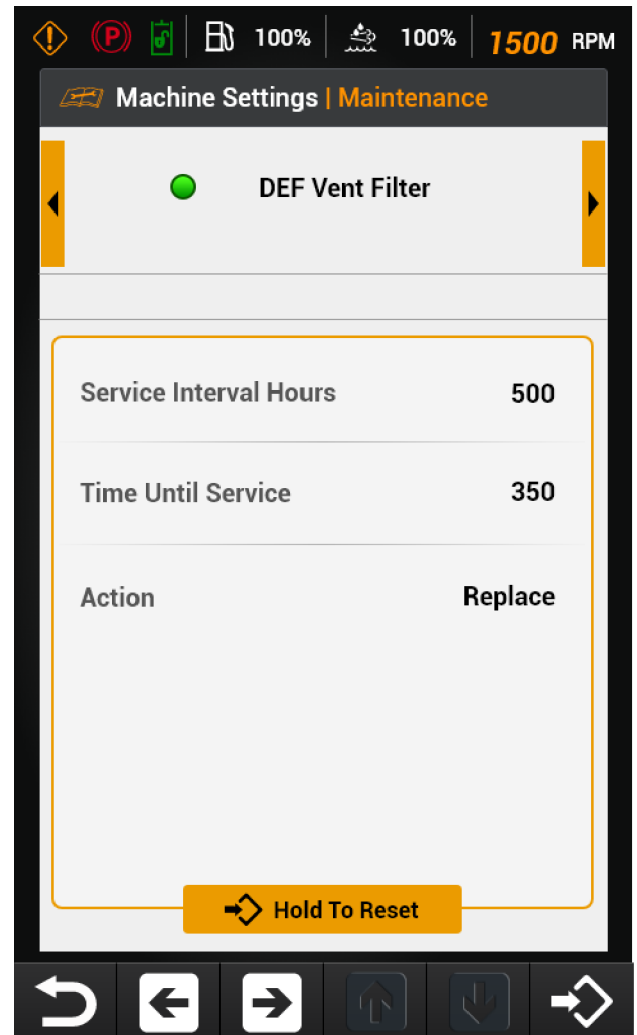
- Service Interval Hours: **500 h**
 - Time Until Service: hours remaining until service is due
 - Action: Clean
1. Press and hold the Enter key  to reset the Time Until Service hours.
 2. Press the arrow keys   to move to the next maintenance interval.
 3. Press the Return key  to exit the Maintenance screen.



RAIL22SSL0256RA 8

DEF Vent Filter




- Service Interval Hours: **500 h**
 - Time Until Service: hours remaining until service is due
 - Action: Clean
1. Press and hold the Enter key  to reset the Time Until Service hours.
 2. Press the arrow keys   to move to the next maintenance interval.
 3. Press the Return key  to exit the Maintenance screen.

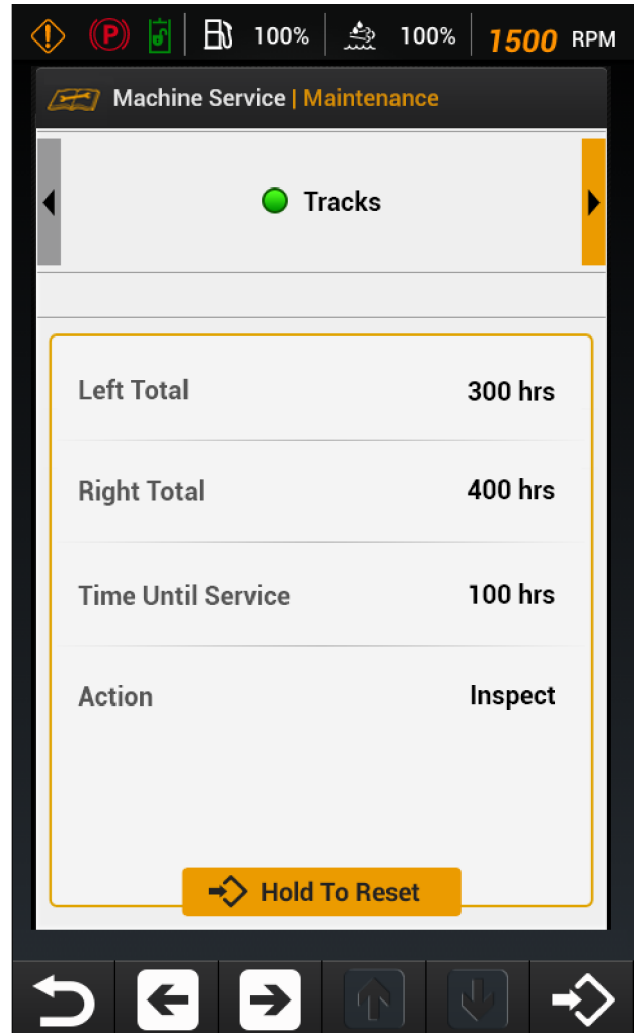


RAIL21SSL0652RA 9

Inspect Tracks

- Left total: total hours the left track has been moving since last inspection
- Right total: total hours the right track has been moving since last inspection
- Time Until Service: hours remaining until service is due (the service interval is **500 h**)
- Action: Inspect tracks and undercarriage




1. Press and hold the Enter key  to reset the Time Until Service hours.
2. Press the arrow keys  to move to the next maintenance interval.
3. Press the Return key  to exit the Maintenance screen.

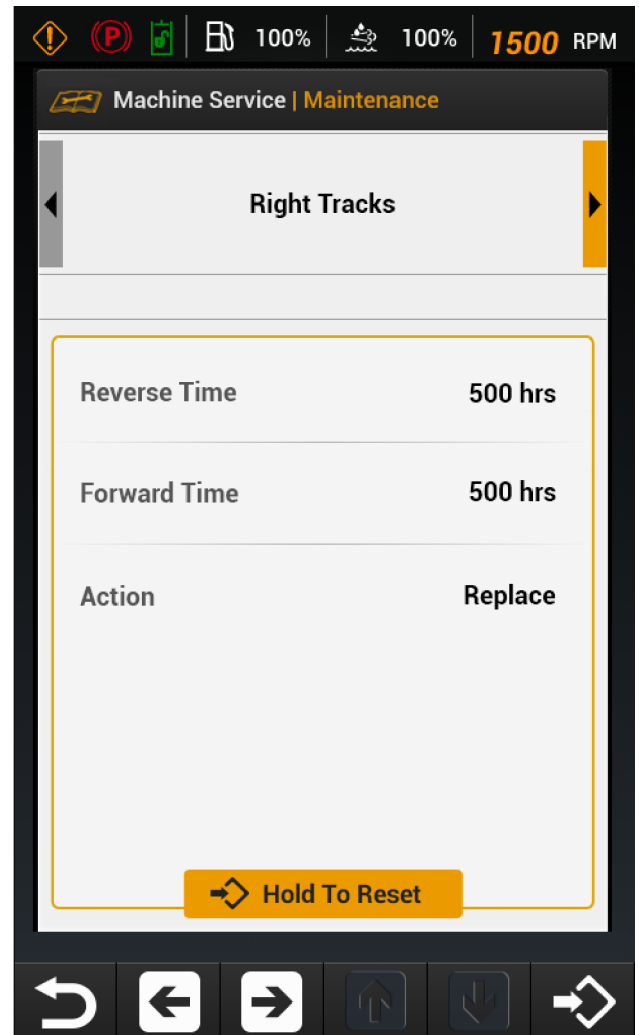


RAIL22SSL0257RA 10

Right Track

Right track hour counter.

- Reverse time: total hours the right track has been moving since replaced last
 - Forward time: total hours the right track has been moving since replaced last
 - Action: Replace (when necessary)
1. Press and hold the Enter key  to reset the Time Until Service hours.
 2. Press the arrow keys  to move to the next maintenance interval.
 3. Press the Return key  to exit the Maintenance screen.






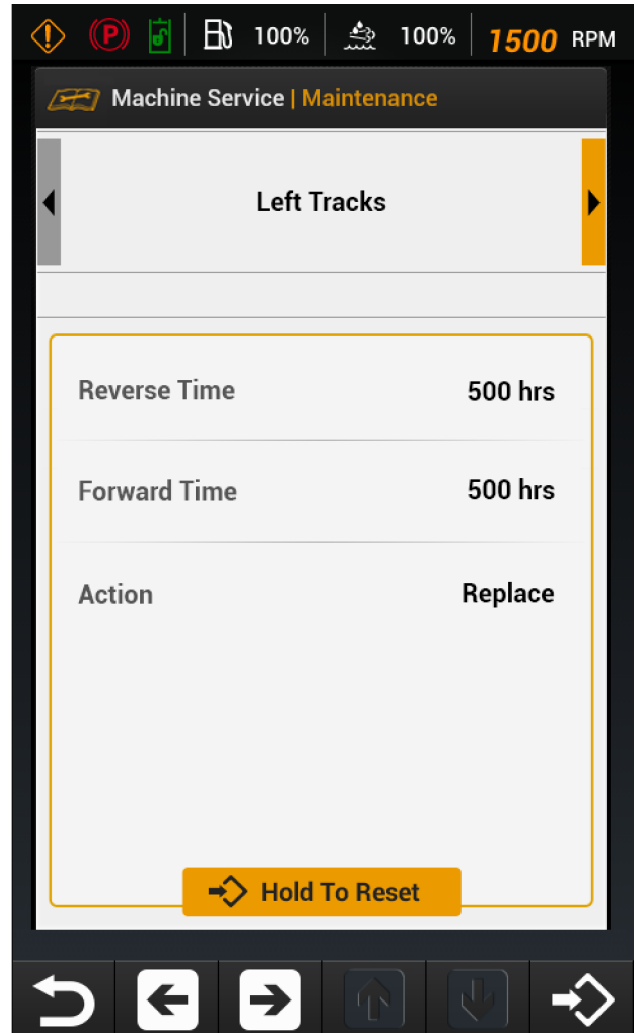
RAIL22SSL0253RA 11

Left Track

Left track hour counter.





- Reverse total: total hours the left track has been moving since replaced last
- Forward total: total hours the left track has been moving since replaced last
- Action: Replace (when necessary)

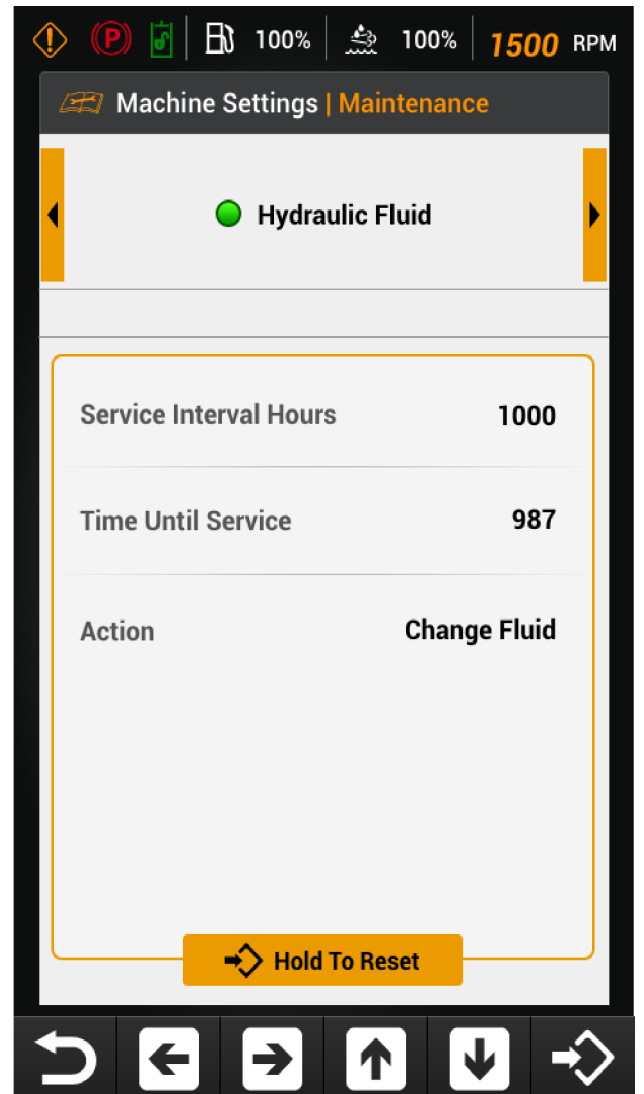
1. Press and hold the Enter key  to reset the Time Until Service hours.
2. Press the arrow keys  to move to the next maintenance interval.
3. Press the Return key  to exit the Maintenance screen.



RAIL22SSL0252RA 12





Hydraulic Fluid

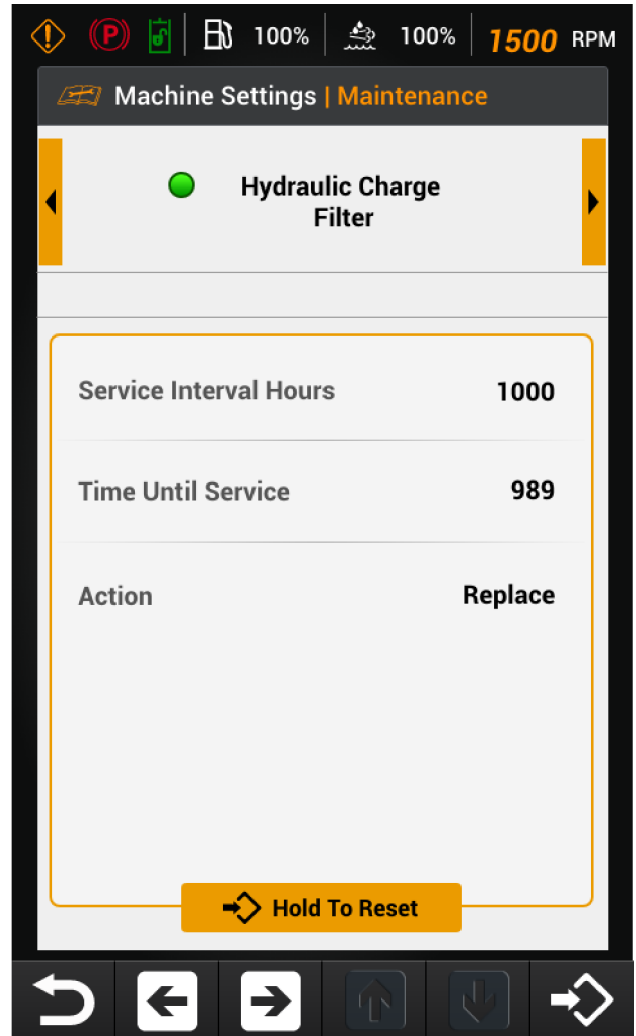
- Service Interval Hours: **1000 h**
 - Time Until Service: hours remaining until service is due
 - Action: Change Fluid
1. Press and hold the Enter key  to reset the Time Until Service hours.
 2. Press the arrow keys   to move to the next maintenance interval.
 3. Press the Return key  to exit the Maintenance screen.



RAIL22SSL0258RA 13




Hydraulic Charge Filter

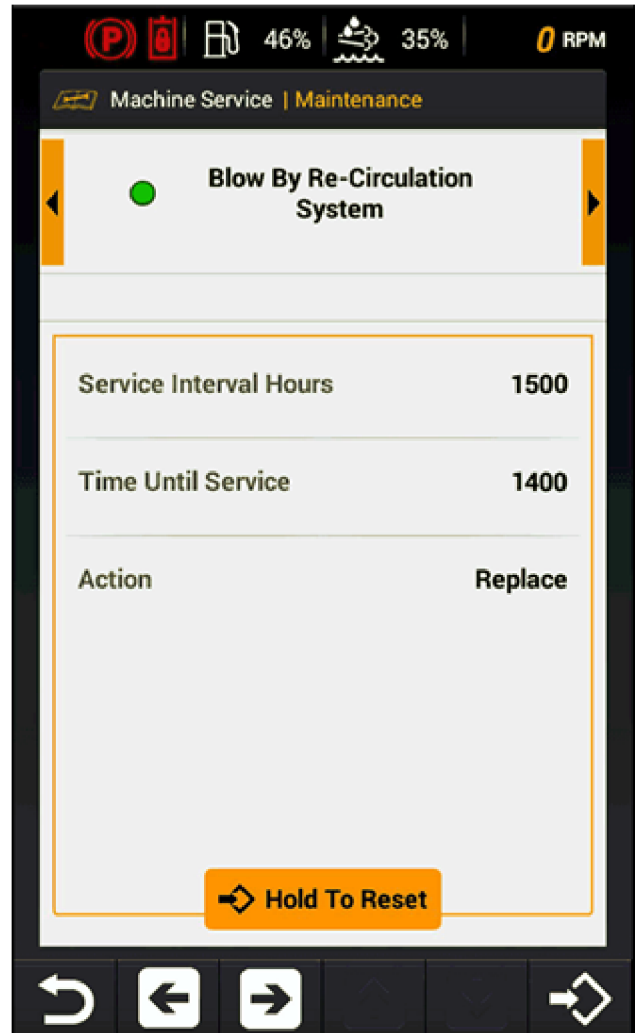
- Service Interval Hours: **1000 h**
 - Time Until Service: hours remaining until service is due
 - Action: Replace
1. Press and hold the Enter key  to reset the Time Until Service hours.
 2. Press the arrow keys   to move to the next maintenance interval.
 3. Press the Return key  to exit the Maintenance screen.



RAIL22SSL0251RA 14





Hydraulic Charge Filter

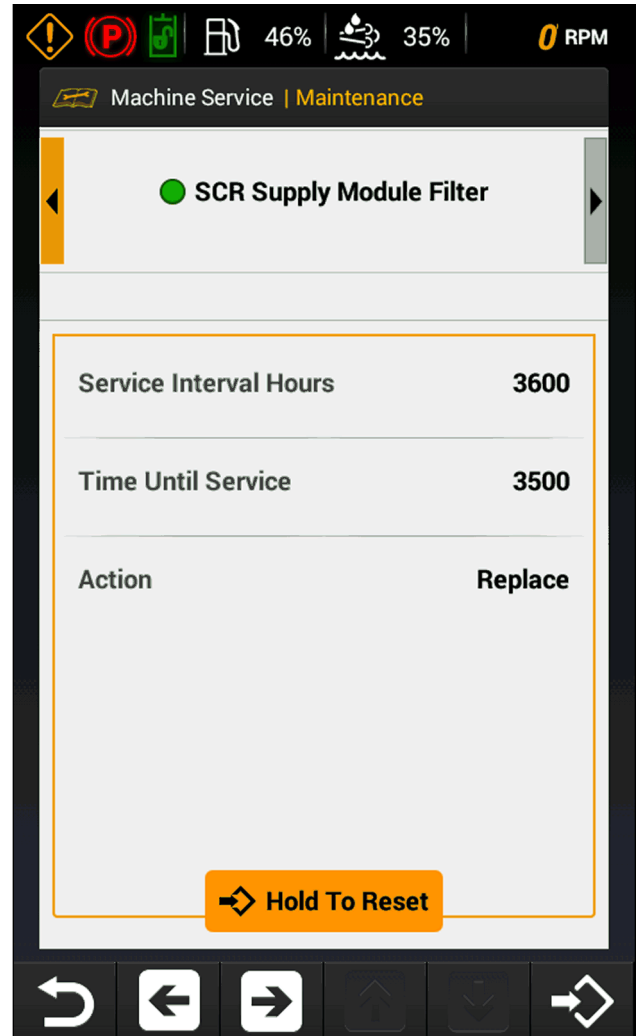
- Service Interval Hours: **1500 h**
 - Time Until Service: hours remaining until service is due
 - Action: Replace
1. Press and hold the Enter key  to reset the Time Until Service hours.
 2. Press the arrow keys  to move to the next maintenance interval.
 3. Press the Return key  to exit the Maintenance screen.



RAIL22SSL0206PA 15





SCR Supply Module Filter

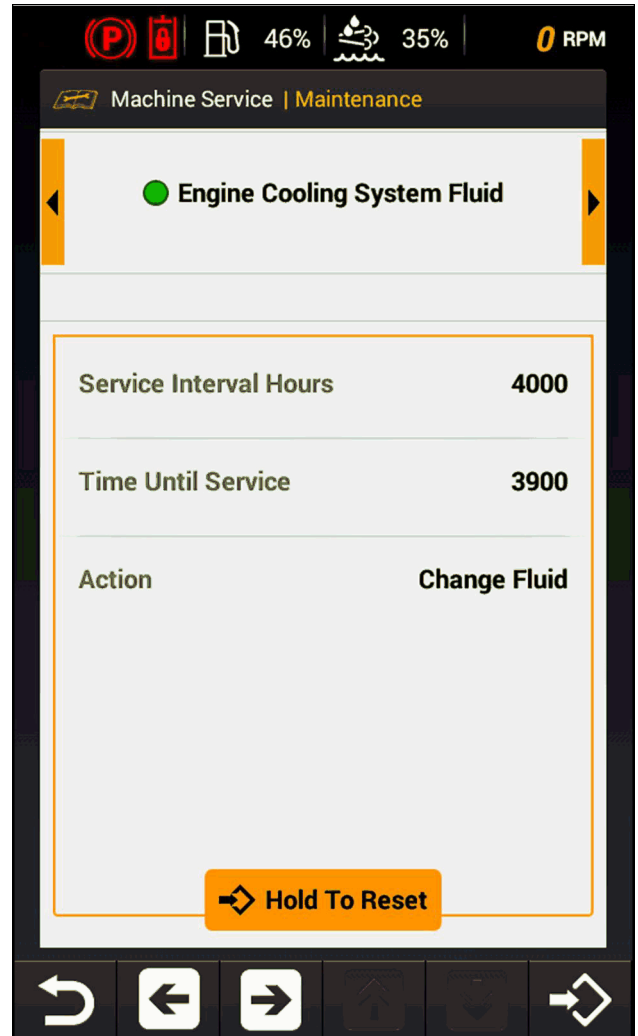
- Service Interval Hours: **3600 h**
 - Time Until Service: hours remaining until service is due
 - Action: Replace
1. Press and hold the Enter key  to reset the Time Until Service hours.
 2. Press the arrow keys   to move to the next maintenance interval.
 3. Press the Return key  to exit the Maintenance screen.



RAIL22SSL0255RA 16

Engine Cooling System Fluid

- Service Interval Hours: **4000 h**
 - Time Until Service: hours remaining until service is due
 - Action: Change Fluid
1. Press and hold the Enter key  to reset the Time Until Service hours.
 2. Press the arrow keys   to move to the next maintenance interval.
 3. Press the Return key  to exit the Maintenance screen.





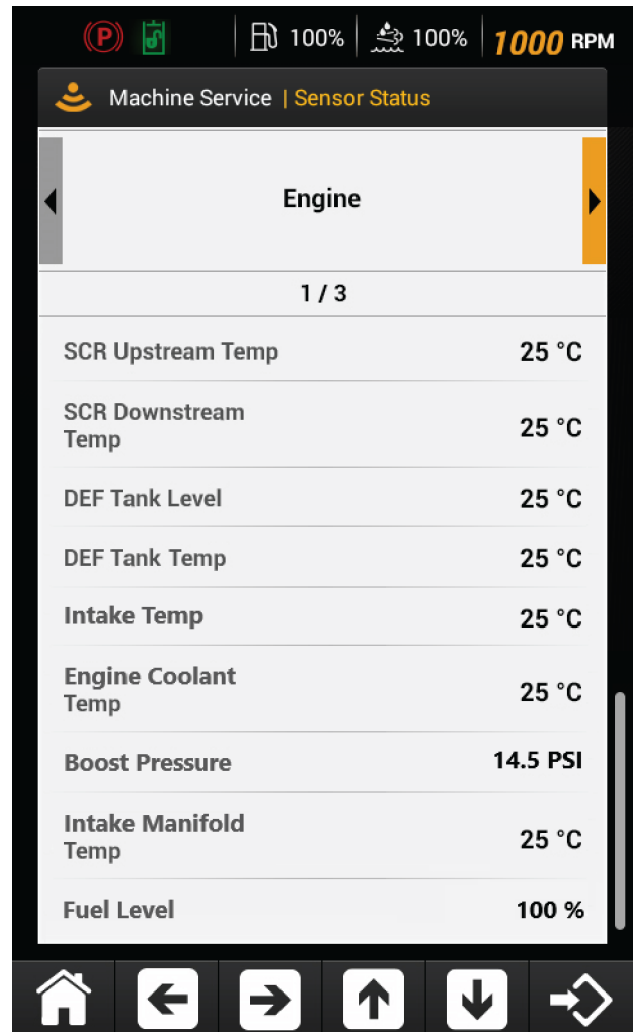
RAIL19SSL0366RA 17

Sensor Status

Engine

- SCR Upstream Temp
- SCR Downstream Temp
- DEF Tank Level
- DEF Tank Temp
- Intake Temp
- Engine Coolant Temp
- Boost Pressure
- Intake Manifold Temp
- Fuel Level



1. Press the arrow keys  to move to the next Sensor Status screen.
2. Press the Return key  to exit the Sensor Status screen.

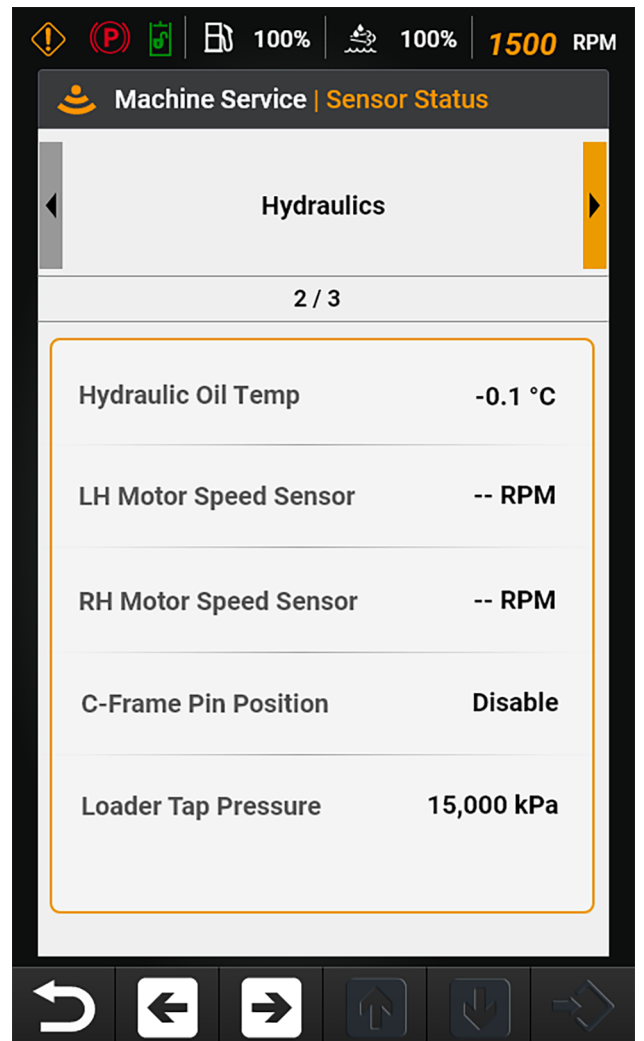


RAIL21SSL0648RA 1

Hydraulics

- Hydraulic Oil Temp
- LH Motor Speed Sensor
- RH Motor Speed Sensor
- C-Frame Pin Position
- Loader Tap Pressure

1. Press the arrow keys  to move to the next Sensor Status screen.
2. Press the Return key  to exit the Sensor Status screen.





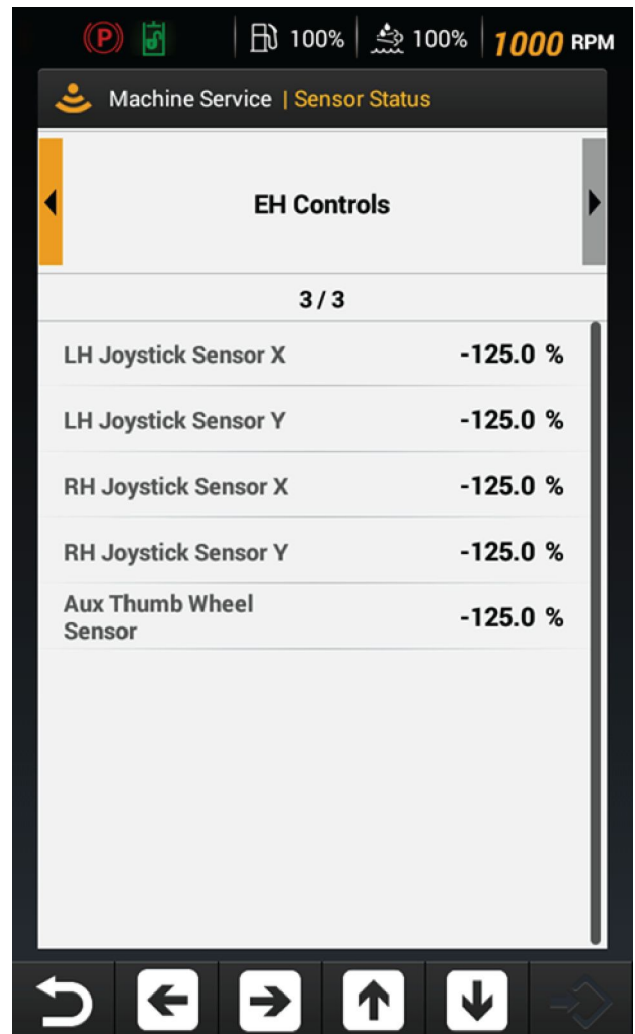
RAIL22SSL0209PA 2

EH Controls

Monitor the position of each control lever. **0%** indicates a neutral position and **100%** indicates the control lever is at full stroke.

- LH Joystick Sensor X
- LH Joystick Sensor Y
- RH Joystick Sensor X
- RH Joystick Sensor Y
- Aux Thumb Wheel Sensor



1. Press the arrow keys  to move to the next Sensor Status screen.
2. Press the Return key  to exit the Sensor Status screen.

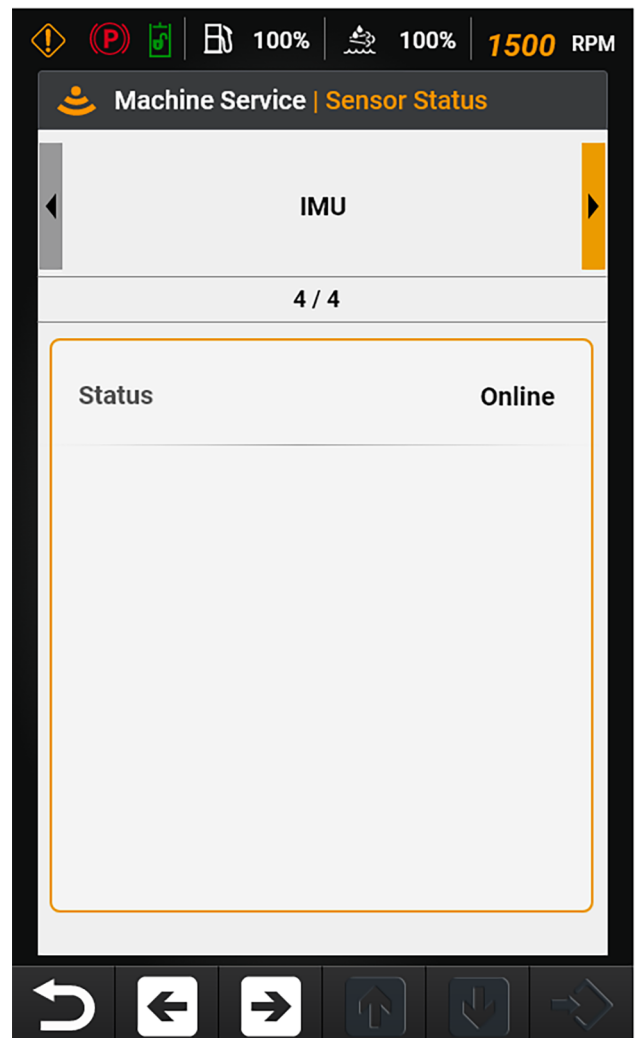


RAIL21SSL0649RA 3

Inertia Measurement Unit (IMU)

The Inertia Measurement Unit (IMU) sensors provides 'Online' or 'Offline' status of the third party blade guidance system.

1. Press the arrow keys  to move to the next Sensor Status screen.
2. Press the Return key  to exit the Sensor Status screen.





RAIL22SSL0208PA 4

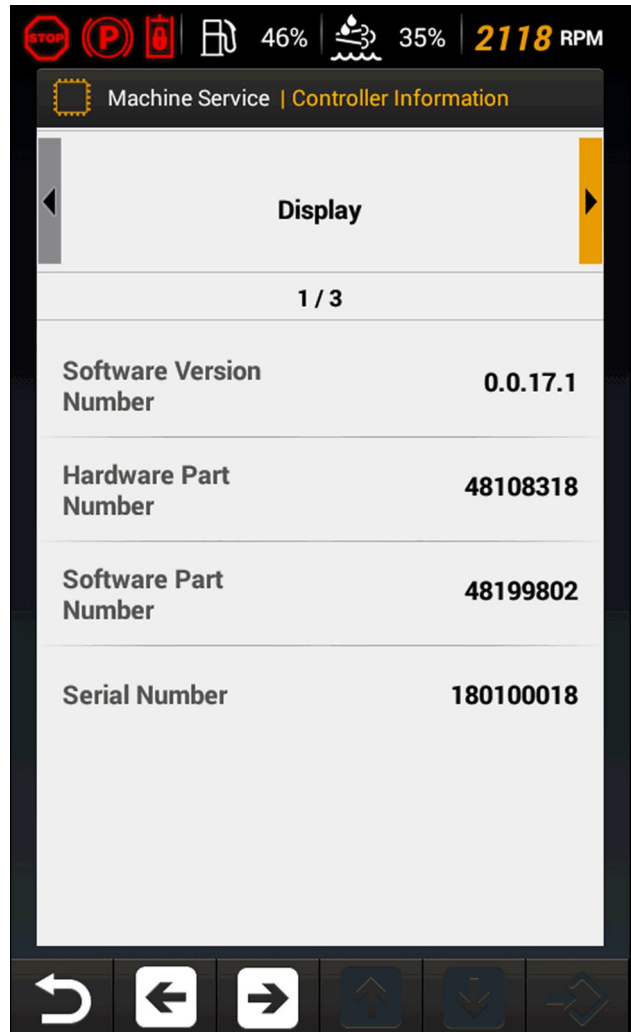
Controller Information

Display, Universal Control Module (UCM), and Engine Control Module (ECM) information

This screen shows the following information regarding the Display, Universal Control Module (UCM), and Engine Control Module (ECM) controller:

- Software Version Number
- Hardware Part Number
- Software Part Number
- Serial Number

1. Press the arrow keys  to move to the next Controller Information screen.
2. Press the Return key  to exit the Controller Information screen.





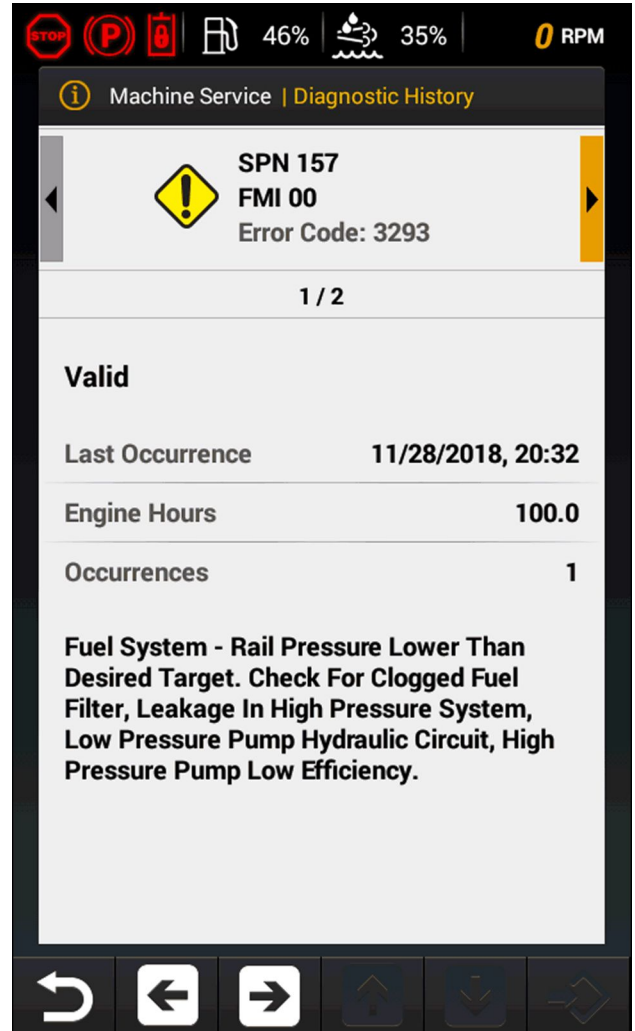
RAIL19SSL0307RA 1

Diagnostic Trouble Codes

Diagnostic History

This screen shows the list of the Diagnostic Trouble Codes (DTC) that have occurred or are active on the machine. Additional information regarding the code is also provided.


1. If applicable, press the arrow keys  to move to the next Diagnostic History screen.
2. Press the Return key  to exit the Diagnostic History screen.

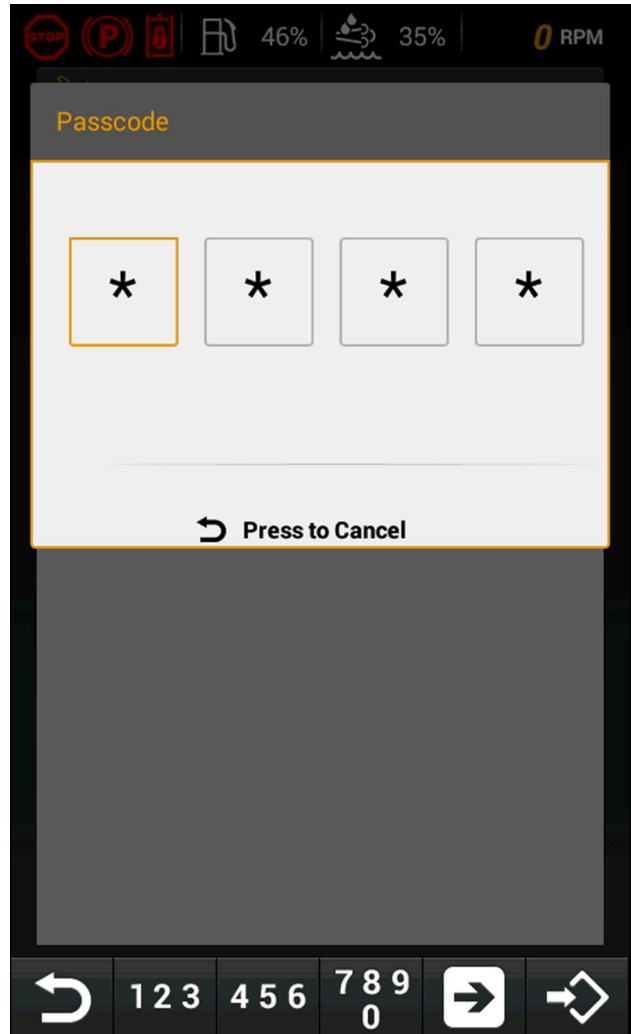


RAIL19SSL0301RA 1

Security Code



NOTE: You must have an Administrator level four digit passcode to enter the Security Code screens. Contact your dealer for assistance.

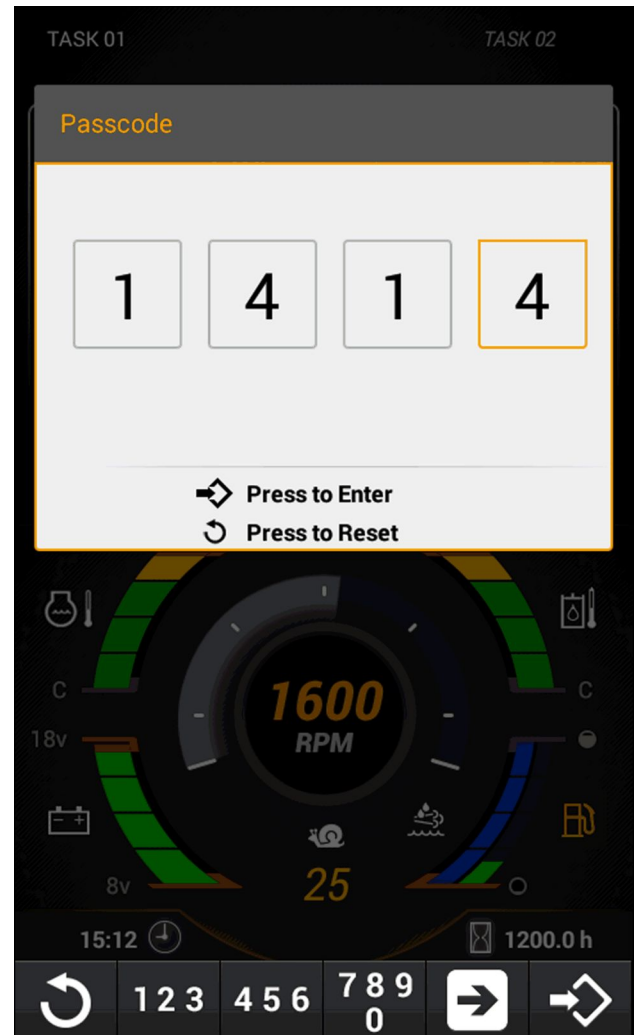
1. Use the keypad at the bottom of the display to enter the passcode.
2. Press the arrow key  to move to the next passcode box.



RAIL19SSL0352RA 1

NOTE: You must have an Administrator level four digit passcode to enter the Security Code screens. Contact your dealer for assistance.




1. Press the Enter key  to enter the passcode.
2. Press the Reset key  clear the current entry and to start over entering the code.

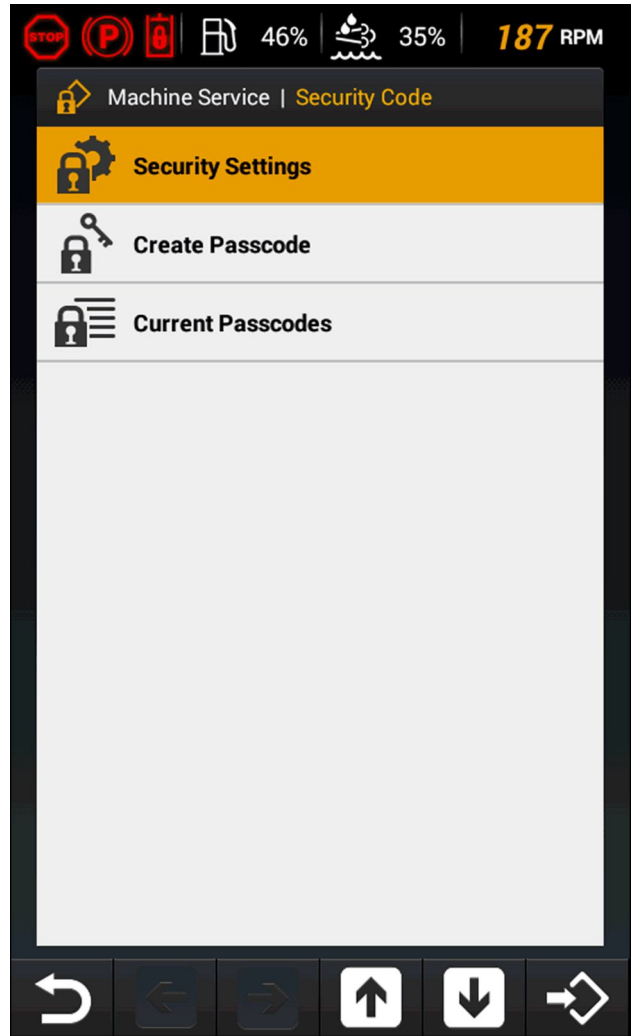


RAIL19SSL0353RA 2

This screen shows the “Security Code” settings available on the machine.

- Security Settings
- Create Passcode
- Current Passcodes





1. Press the arrow keys  to select between the available options.
2. Press the Enter key  to access the desired option.
3. Press the Return key  to exit the Security Code screen.

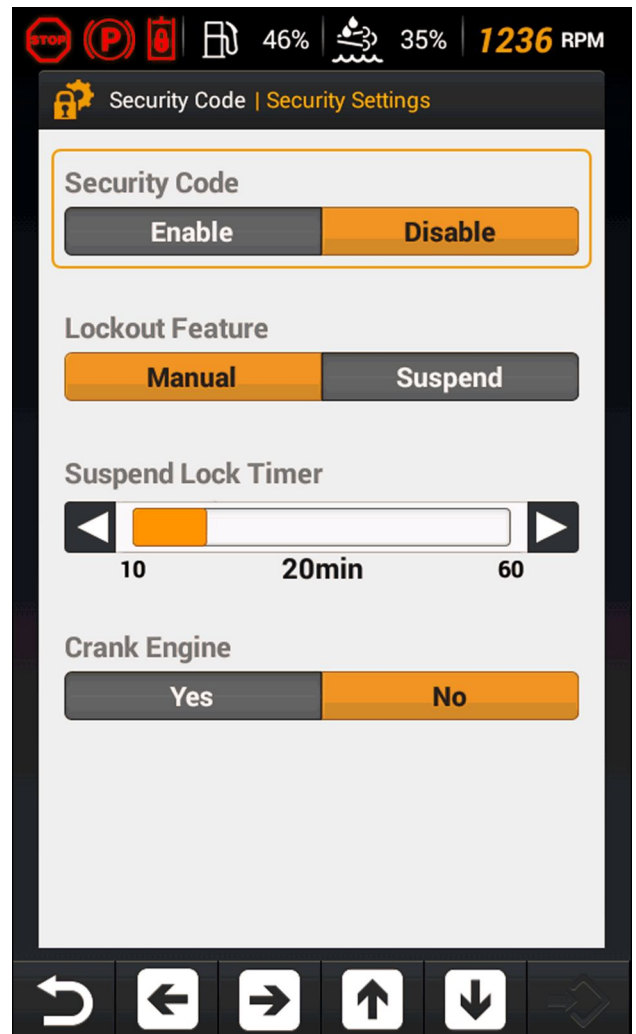


RAIL19SSL0273RA 3

Security Settings

This screen shows the option of the Security Settings options

1. Press the arrow keys  to scroll between the following Engine settings.
 - Security Code
 - Lockout Feature
 - Suspend Lock Timer
 - Crank Engine
2. Press the arrow keys  to highlight a setting or to adjust the number setting.
3. If prompted, press the Enter key  to save the setting.
4. Press the Return key  to exit the Security Settings screen.



RAIL19SSL0272RA 4

Security Code

Select whether to enable or disable passcode locking functionality.

Lockout Feature

"Manual" prompts the user to lock the machine upon shutdown. If the user does not make a selection after 30 seconds, the machine will be left unlocked.

"Suspend" allows the user to leave the machine with the time delay chosen below before having to re-enter a passcode. If the user does not select "Yes" within 30 seconds when prompted to delay locking, the machine will be automatically locked.

Suspend Lock Timer







Select the amount of time delay before a user must enter a passcode after leaving the machine and returning. Timer can be set from **10 – 60 min** in **10 min** increments.

Crank Engine

Select whether to allow the engine to be cranked and started without a passcode. The operator must still enter a passcode before enabling machine operation.

Create Passcode

This screen shows the Create Passcode options. Passcodes inherit the profile that was applied at login. If changes have been made to a profile, a restart needs to be done prior to creating a profile.





1. Press the arrow keys   to scroll between the following options.
 - User Levels
 - Name
 - Passcode
2. Press the arrow keys   to highlight a setting.
3. If applicable or if prompted, press the Enter key  to Complete, Edit, Default, or Clear a Create Passcode setting.
4. Press the Return key  to exit the Create Passcode screen.

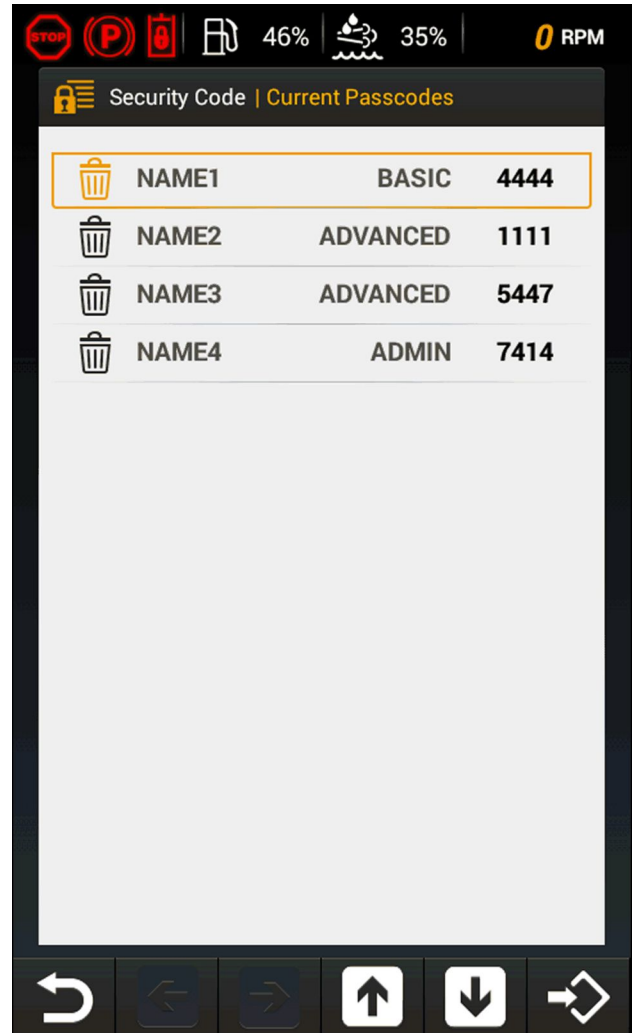


RAIL19SSL0274RA 5

Current Passcode

This screen provides the Administrator the option to view or delete current passcode users.

1. Press the arrow keys   to scroll between the Current Passcodes.
2. Press the Enter key  to delete a passcode user.
3. Press the Return key  to exit the Current Passcode screen.



RAIL19SSL0305RA 6

User Access Level Summary

Features	Basic	Advanced	Administrator
Start Lockout	X	X	X
Machine Status Information	X	X	X
Trip Computer	X	X	X
Camera View and Settings	X	X	X
Machine Settings – Engine		X	X
Machine Settings – Display		X	X
Machine Settings – EZ-EH Custom		X	X
Machine Settings – Creep Mode		X	X
Machine Settings – Aux Override	X	X	X
Machine Settings – Fan Control	X	X	X
Machine Settings – Implement Aux Flow	X	X	X
Machine Settings – Auto-Ride Control™	X	X	X
Machine Settings – Transmission	X	X	X
Machine Settings – Blade Leveling	X	X	X
Machine Service – Maintenance			X
Machine Service – Sensor Status Information	X	X	X
Machine Service – Controller Information	X	X	X
Machine Service – Diagnostics	X	X	X
Machine Service – Security			X
Machine Service – Fan Calibration			X

Fan Calibration

NOTICE: *It is highly recommended to have a CASE CONSTRUCTION dealer re-calibrate the fan, if necessary. If not done properly, an adverse affect may occur with machine operation and machine function.*