VEHICLE DISPLAY

Home screen – Icon identification

The LCD multi-function display will check each monitored system when you turn the key / knob switch to the ON position. All lights will illuminate, and the warning alarm will sound for **3 s**. 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)

RAIL21SSL0574UA 1

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 – H or ISO control pattern (if applicable)
- Average Engine % Load
- DEF Usage
- DEF Rate
- Implement Flow

Middle section of the display (B)

RAIL21SSL0571UA 2

Icon	Description
STOP	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 restraint bar is raised or when the operator leaves the seat.
AUTO	**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.
(P)	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.

Middle section of the display (C)

RAIL21SSL0572UA 3

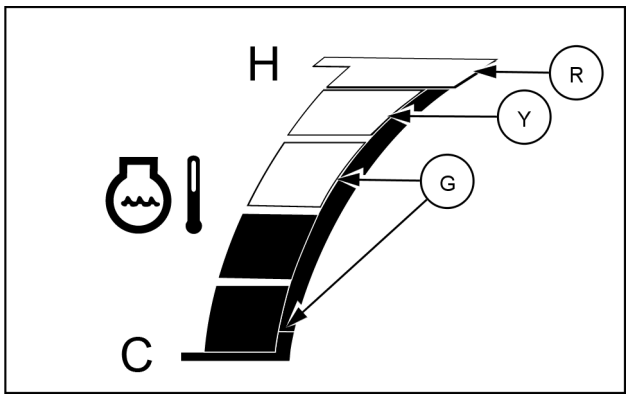
Icon	Description
	Engine Coolant Temperature gauge. This gauge indicates the relative temperature of the engine coolant.
	Hydraulic Oil Temperature gauge. This gauge indicates the relative temperature of the hydraulic oil.
	Diesel Fuel Level gauge. Shows level of fuel in the tank.
	DIESEL EXHAUST FLUID (DEF)/ADBLUE® level gauge (if equipped). Shows level of **DIESEL EXHAUST FLUID (DEF)/ADBLUE®** fluid in the tank.
	2-Speed indicator Displays the letter L (low) when 2-speed is not active or the letter H (high) when 2-speed is active.
	Creep Mode Speed Setting. Symbol appears with speed setting number when creep mode is active.
RPM	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 – 98 °C** (**68 – 208 °F**)
- **(Y)** Yellow zone (warning): **99 – 108 °C** (**210 – 226 °F**)
- **(R)** Red zone (stop): above **108 °C** (**226 °F**)



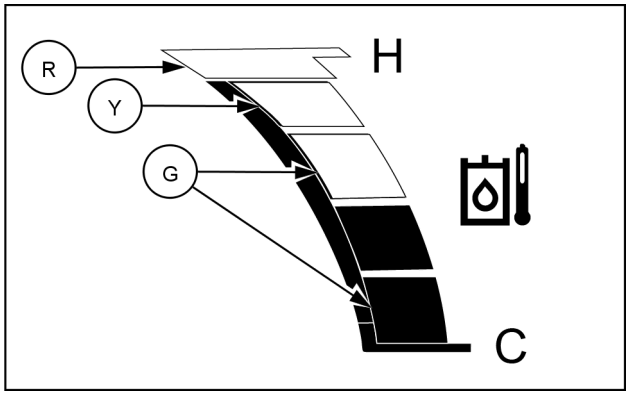
RAIL19SSL0458AA 4

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.

Temperature ranges:

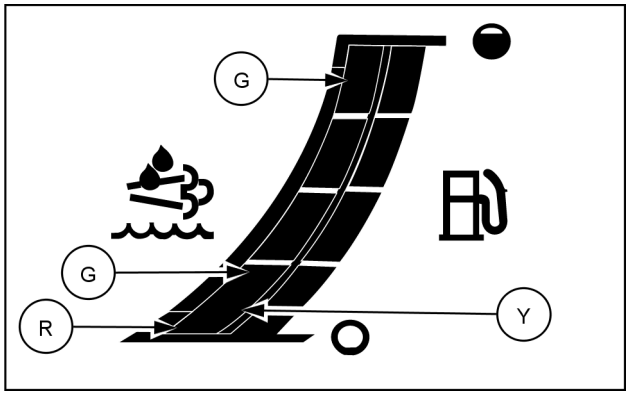
- **(G)** Green zone (normal): **20 – 102 °C** (**68 – 216 °F**)
- **(Y)** Yellow zone (warning): **102 – 104 °C** (**216 – 219 °F**)
- **(R)** Red zone (stop): above **104 °C** (**219 °F**)



RAIL19SSL0461AA 5

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.



RAIL19SSL0462AA 6

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

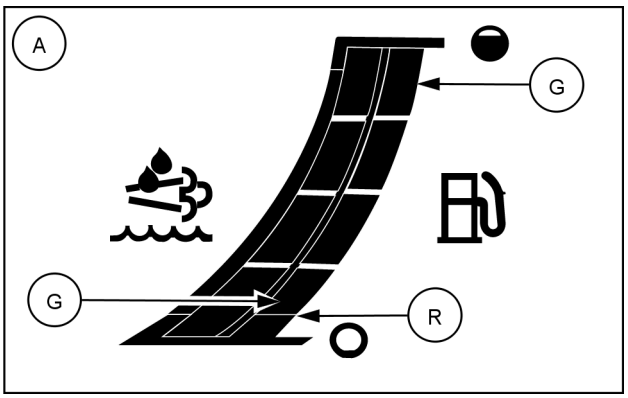
The Fuel Level gauge indicates the fuel level. When the tank is almost empty, the gauge moves into the red zone, the fuel indicator turns on and the warning alarm sounds.

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.*

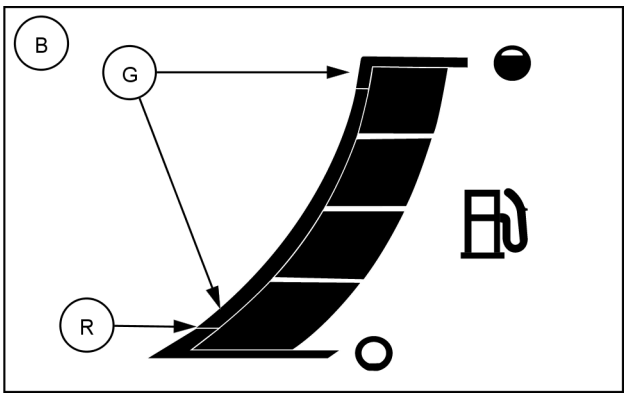
NOTICE: *Do not allow the machine to run completely out of fuel.*

Fuel level ranges:

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



RAIL19SSL0462AA 7



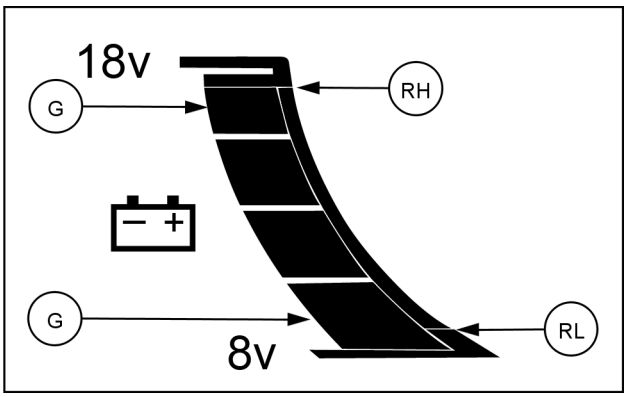
RAIL19SSL0460AA 8

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: **0 – 9 V**
- **(G)** Green zone (normal): **9 – 16.5 V**
- **(RH)** Red zone: **16.6 – 18 V**



RAIL19SSL0459AA 9

Bottom section of the display (D)

RAIL21SSL0573UA 10

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.

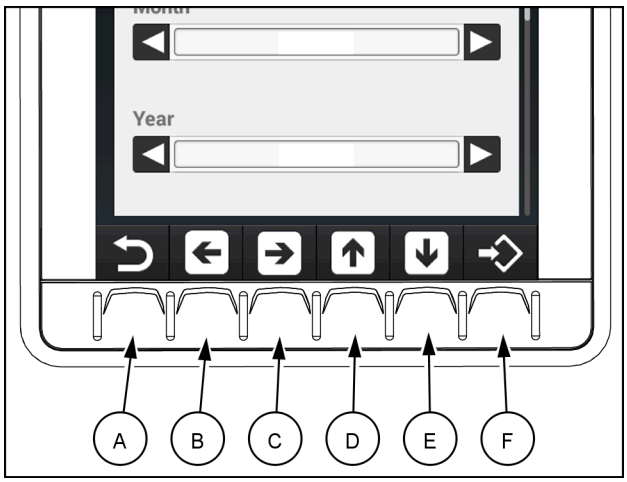
Display navigation

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.



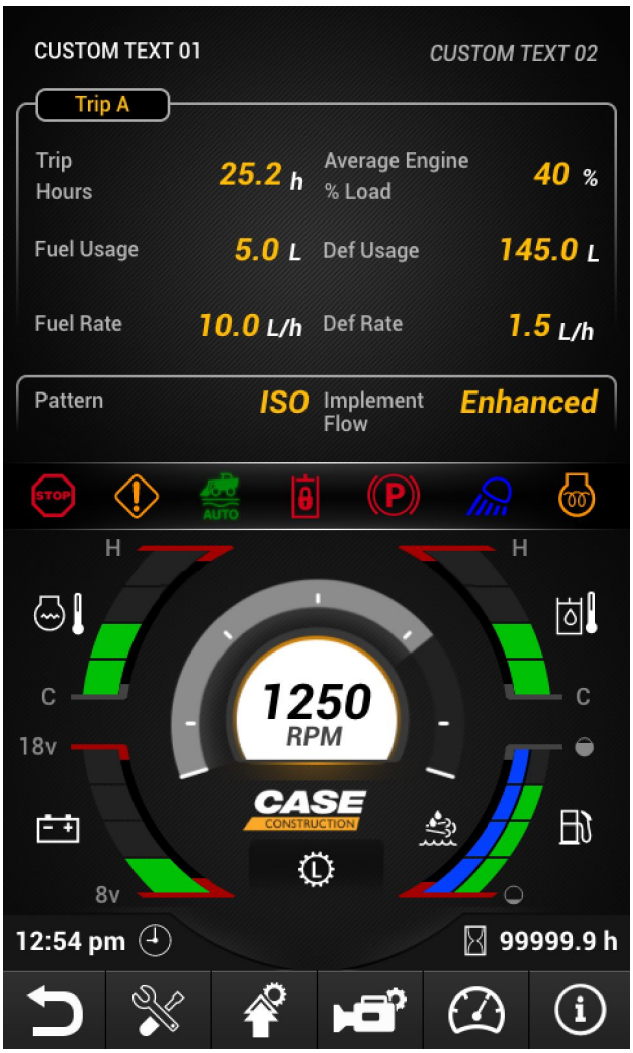
RAIL19SSL0077BA 1

	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.

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

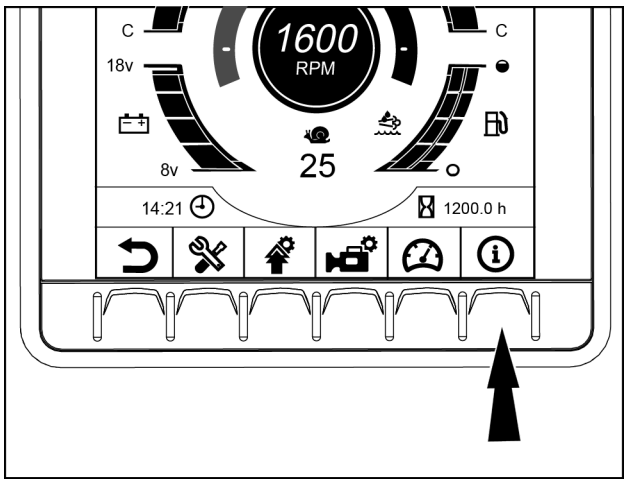


RAIL21SSL0273RA 1

Machine Status

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

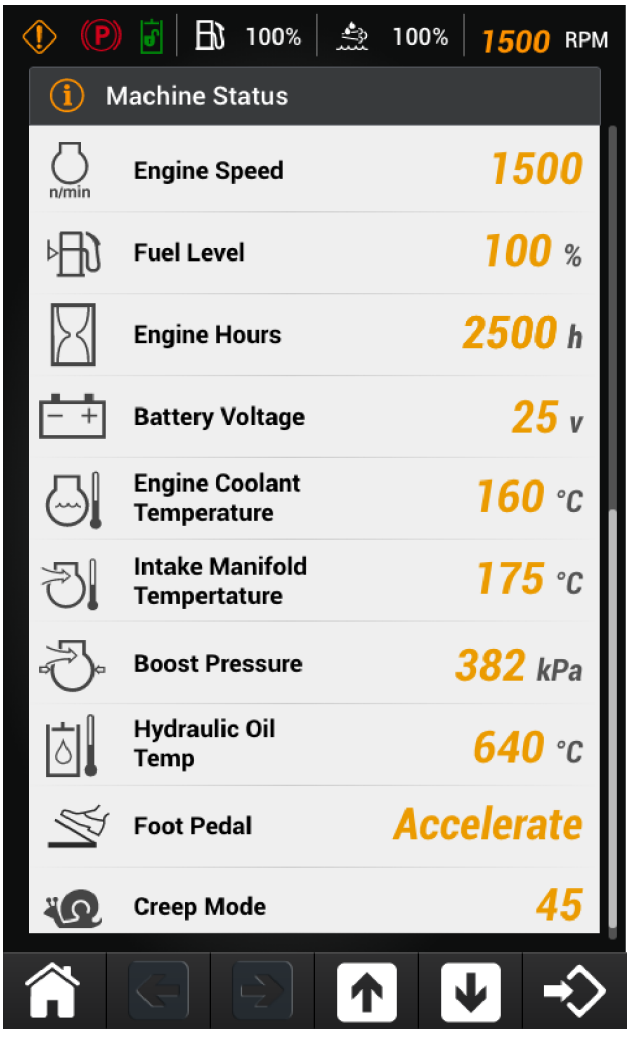
1. From the Home screen, use the keypad on the bottom of the display and press the Display key to access the main screen display.
2. Press the Machine Status key to display the Machine Status screens.



RAIL19SSL0081BA 1

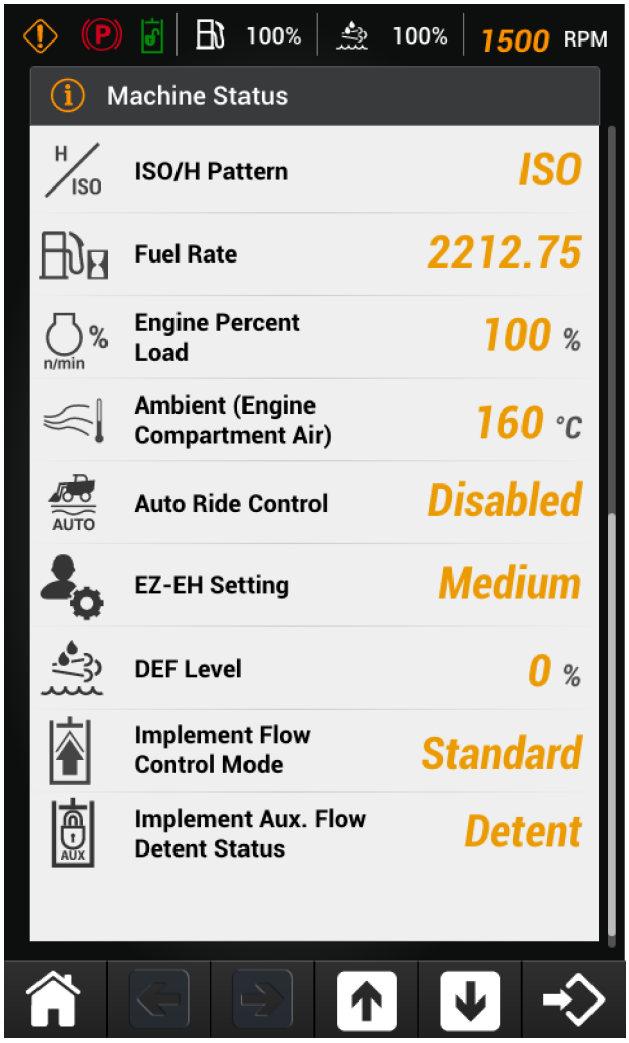
The following items will appear on the display. This is a quick overview of some of the key machine operating data.

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



RAIL21SSL0280RA 2

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

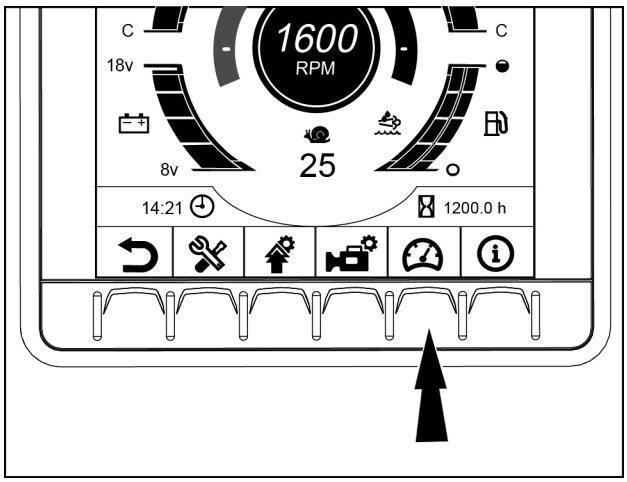


RAIL21SSL0281RA 3

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 .



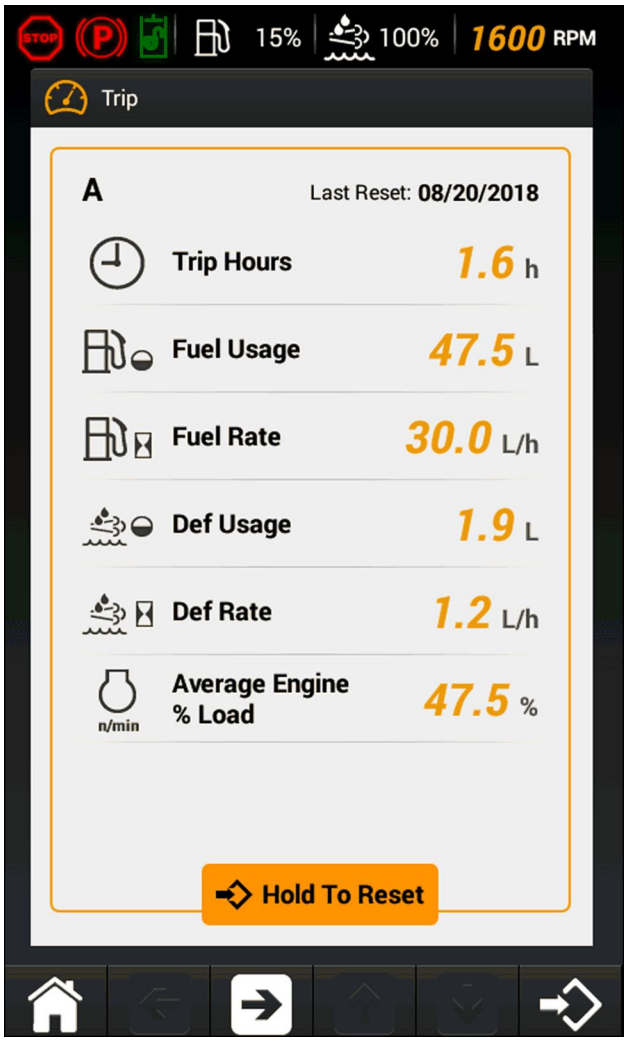
RAIL19SSL0081BA 1

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.



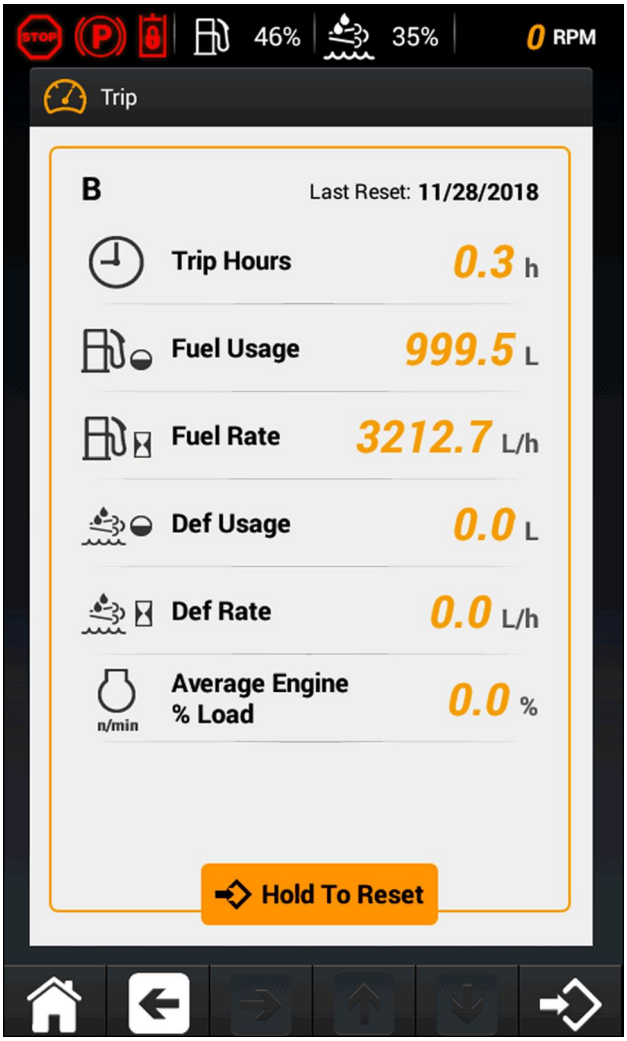
RAIL19SSL0268RA 2

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.

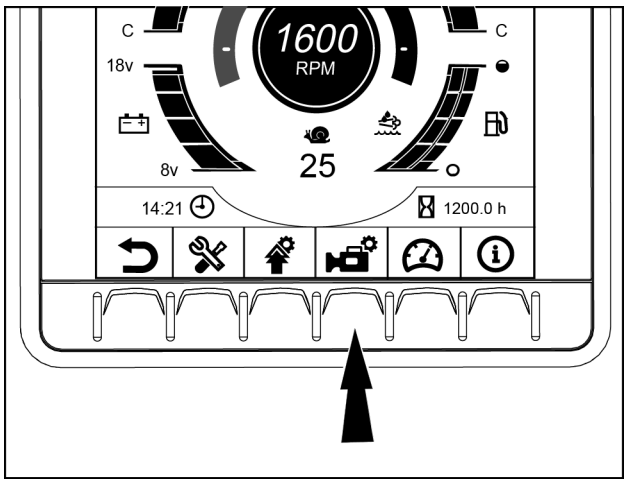


RAIL19SSL0267RA 3

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 .

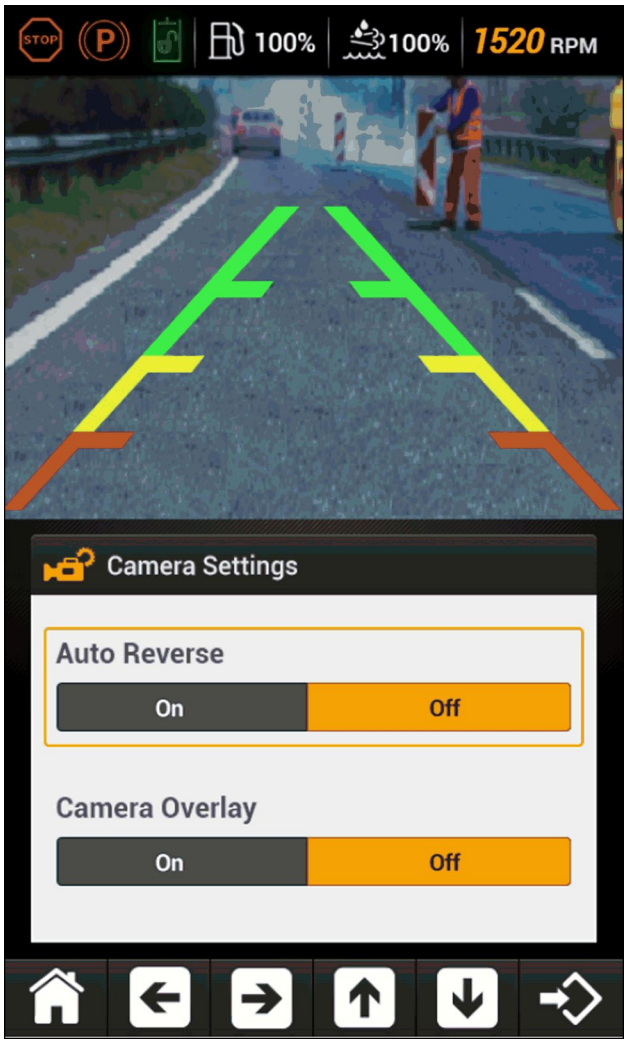


RAIL19SSL0081BA 1

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.

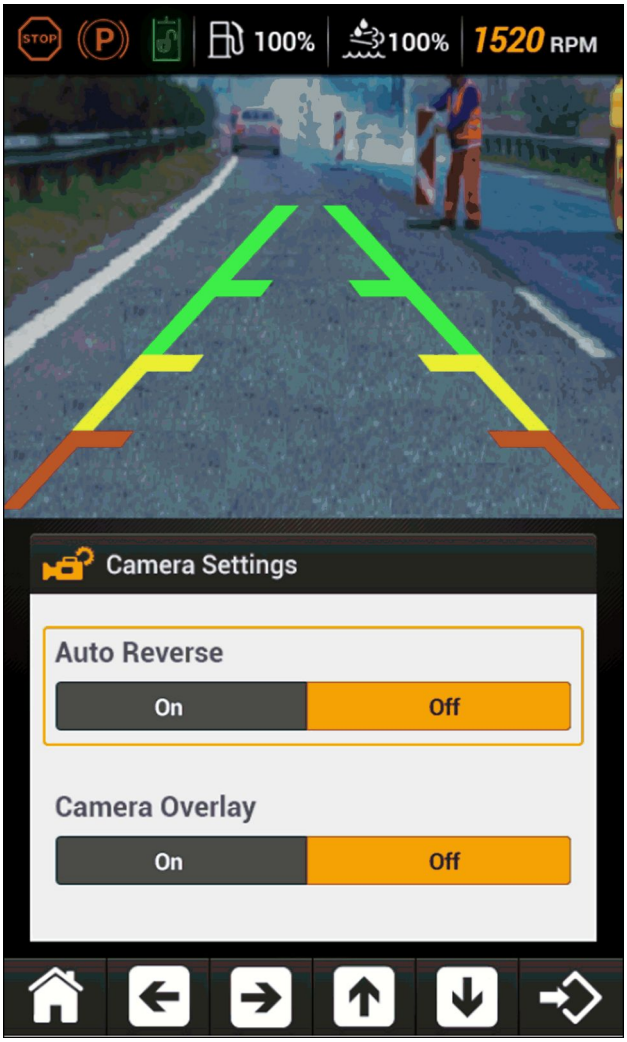


RAIL19SSL0308RA 2

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 chose 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.

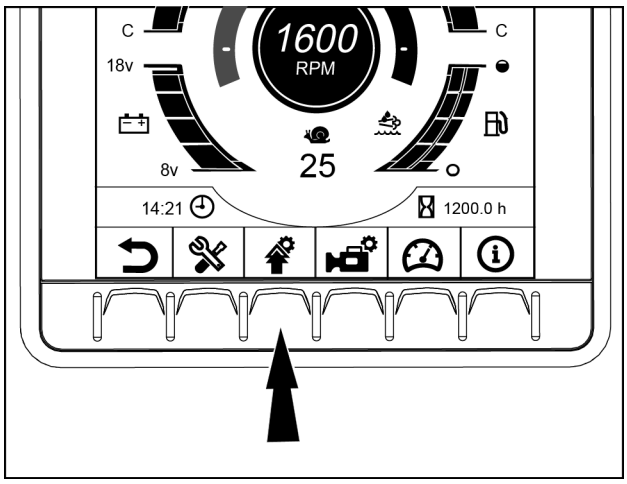


RAIL19SSL0308RA 3

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 .

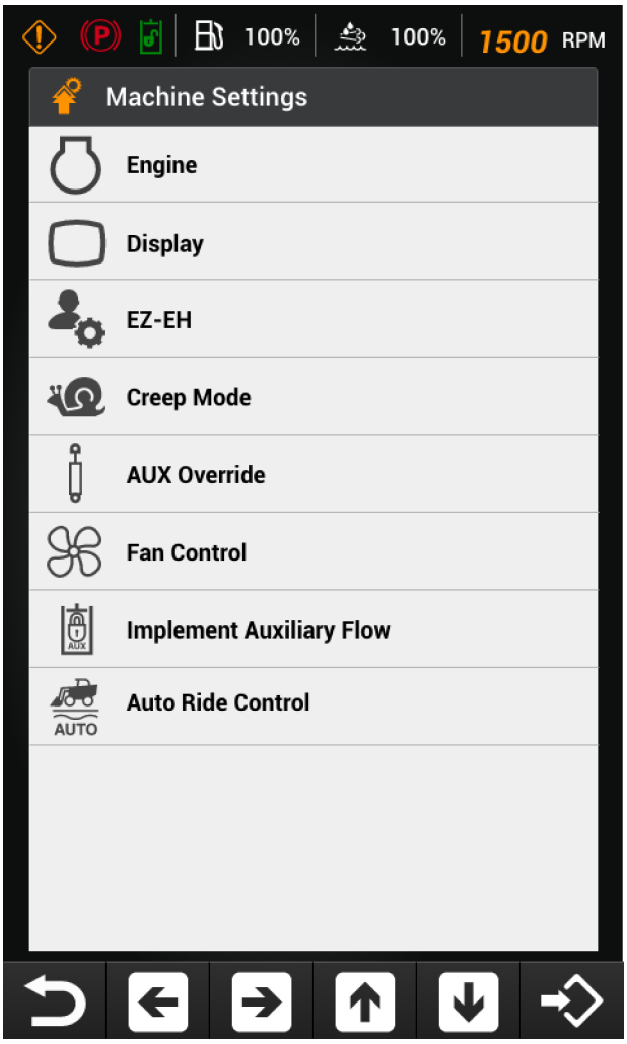


RAIL19SSL0081BA 1

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

- Engine
- Display
- EZ-EH
- Creep Mode
- AUX Override
- 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.

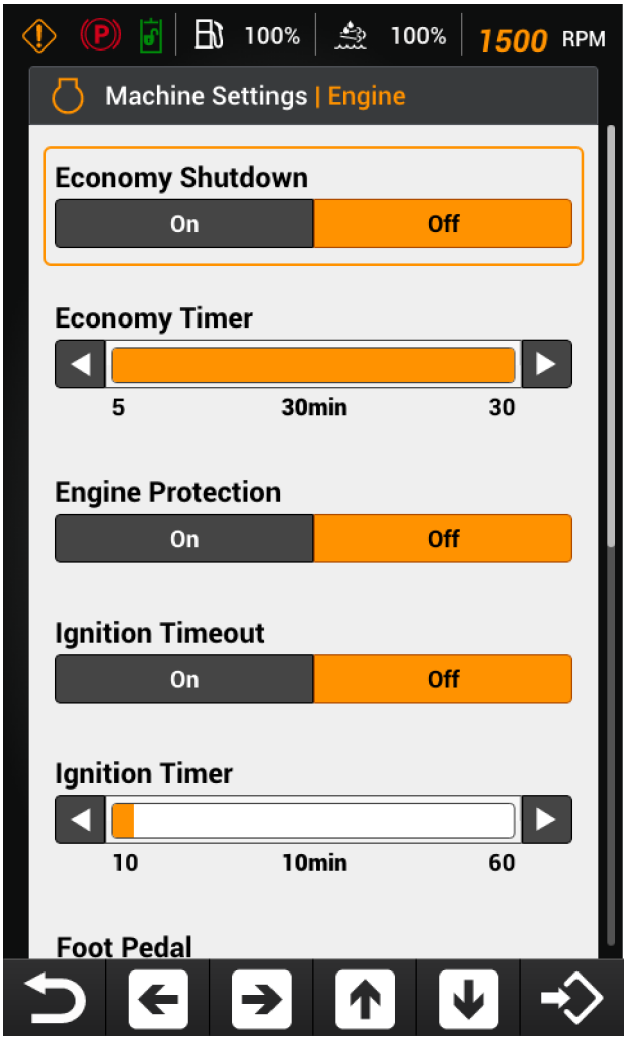


RAIL21SSL0282RA 2

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.
   - 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.



RAIL21SSL0646RA 3

Economy Shutdown

Turn this feature ON to auto shutdown the engine if 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.

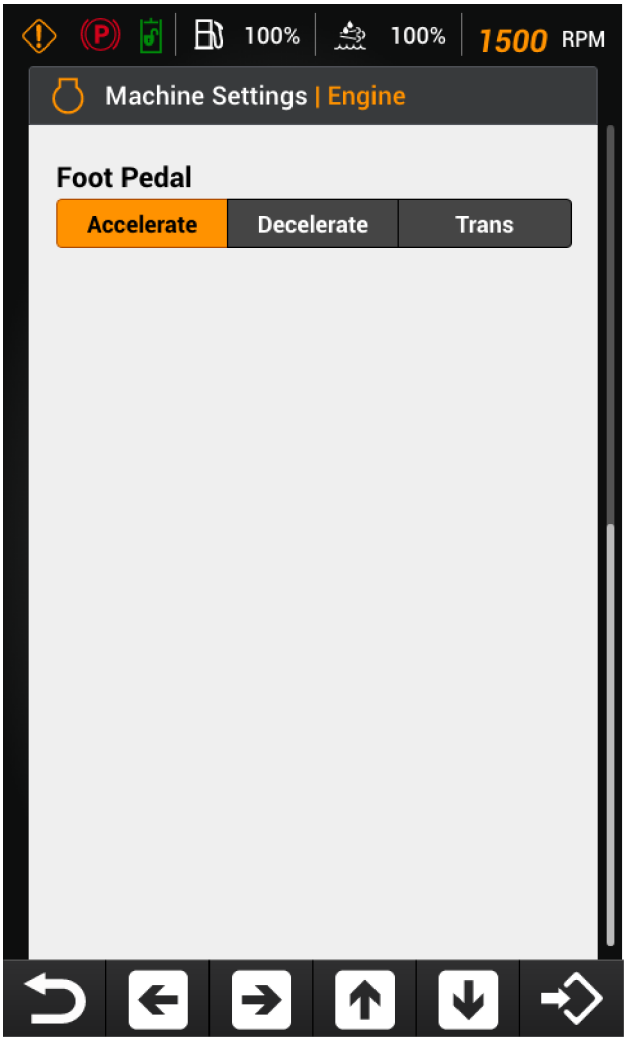
Ignition Timer

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



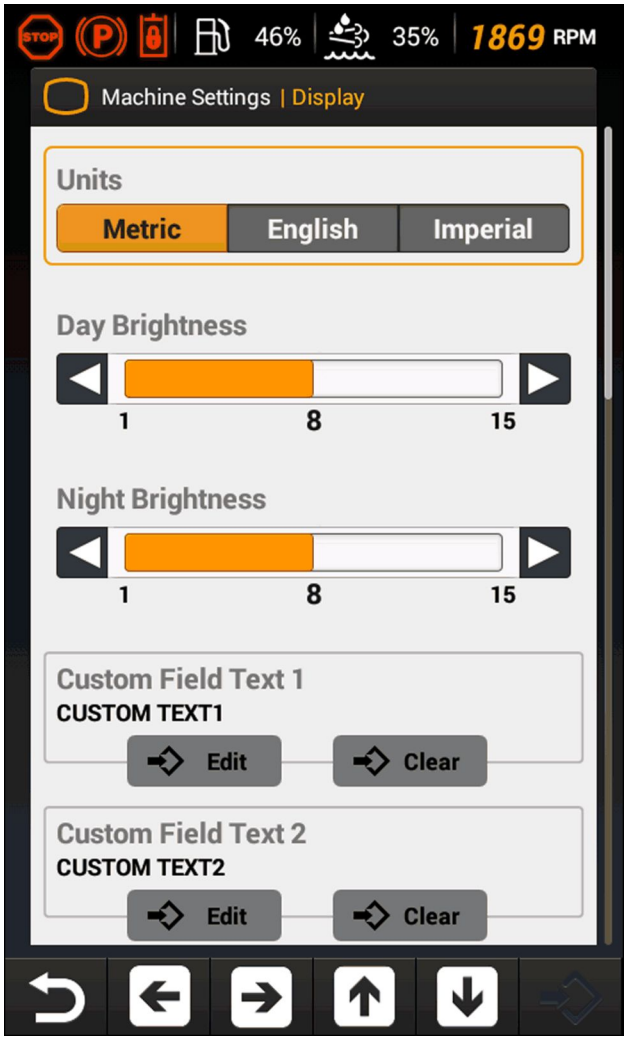
RAIL21SSL0647RA 4

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

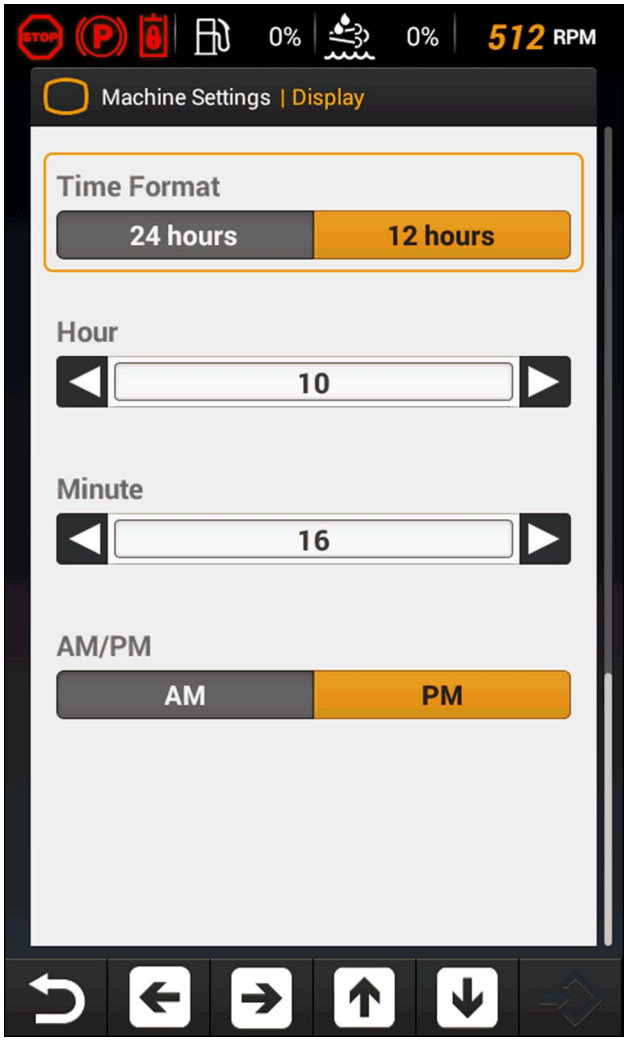
Middle section of the Display settings.

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.

RAIL19SSL0303RA 6

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.

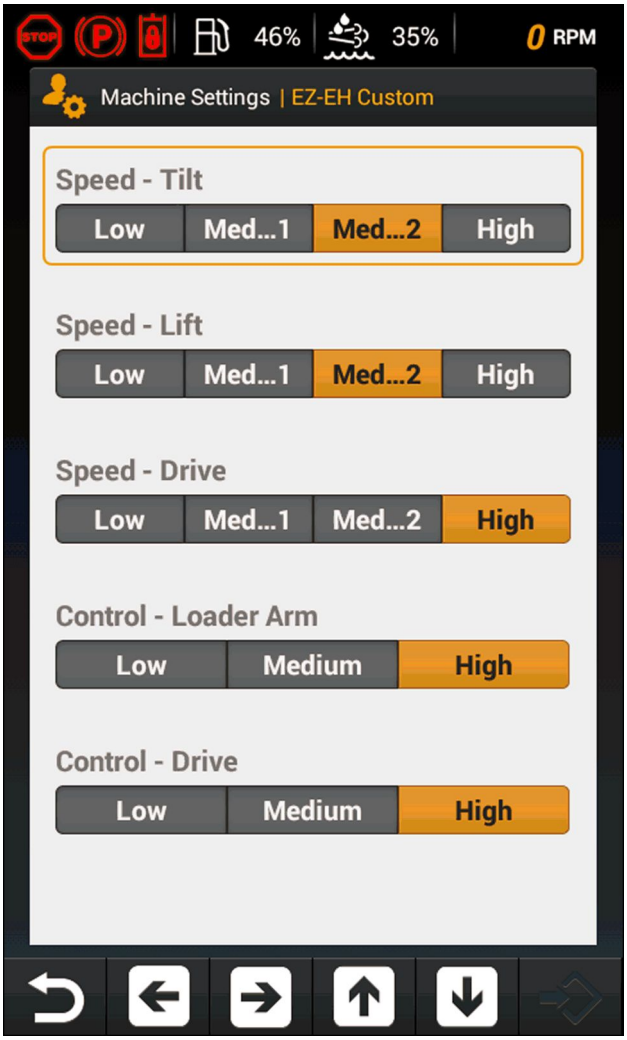


RAIL19SSL0302RA 7

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 and drive response to the movement of the control levers. Use the following tables as guides.



RAIL19SSL0298RA 8

Speed – Tilt, Lift, and Drive

Setting	Action
Low	Slow response to control lever movement
Med...1	Medium/slow response to control lever movement
Med...2	Medium/quick response to control lever movement
High	Quick response to control lever movement

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

1. Press the arrow keys ↑ ↓ to scroll between the following Display settings.
   - Speed – Tilt
   - Speed – Lift
   - Speed – Drive
   - Control – Loader Arm
   - Control – Drive
2. Press the arrow keys ← → to adjust the number settings or select the available option.
3. 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

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.*

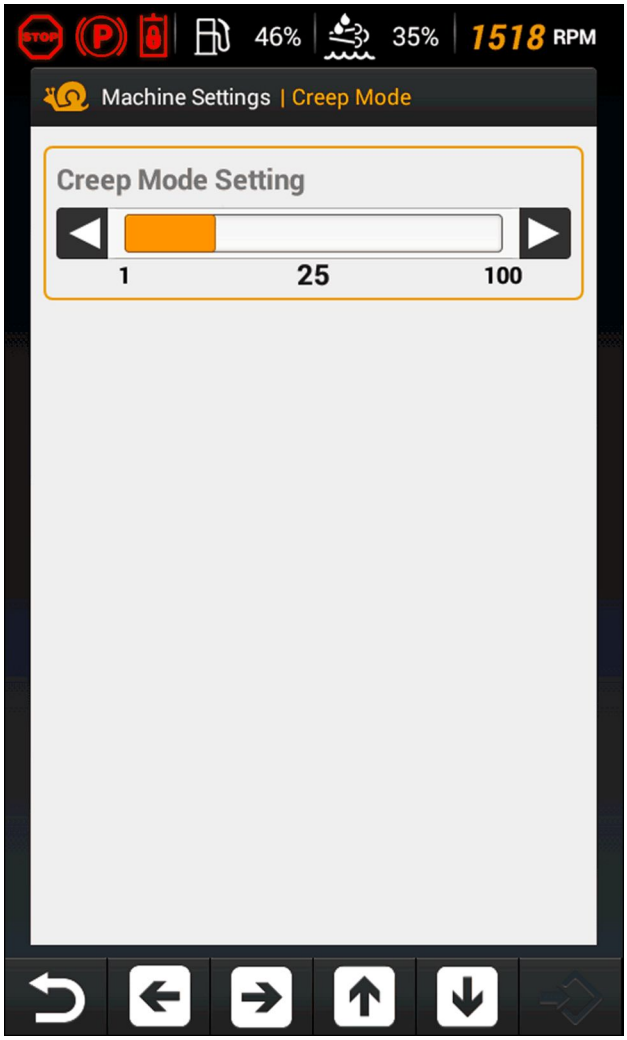
The Creep Mode setting allows the operator to adjust the creep speed setting from 1 to 100. The factory default Creep Mode setting is 50.

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)"* ***3-32*** *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.



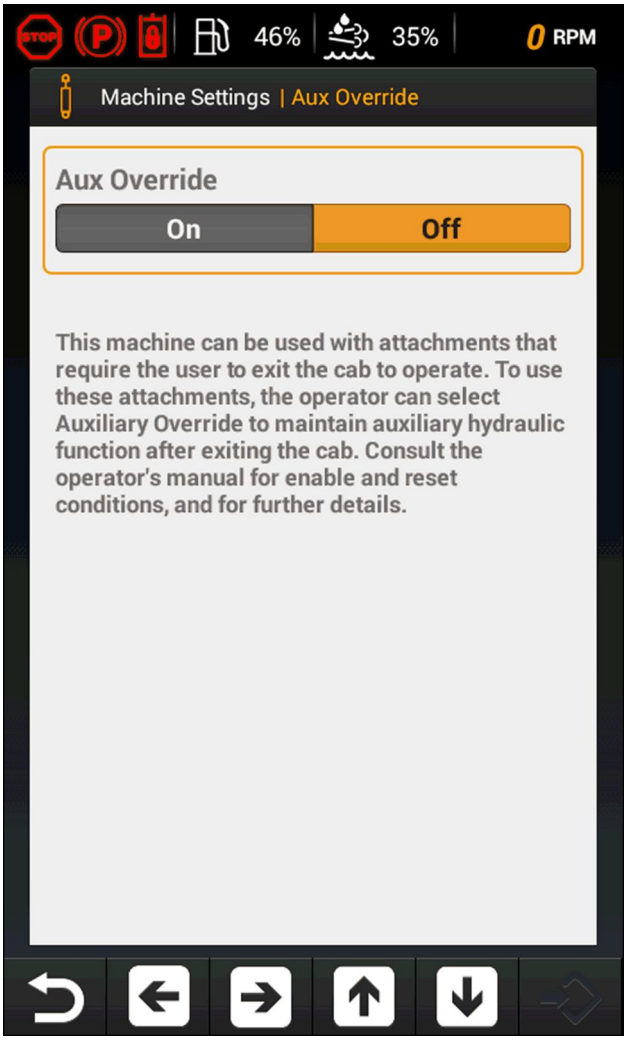
RAIL19SSL0306RA 9

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” **6-9** 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 10

Fan Control

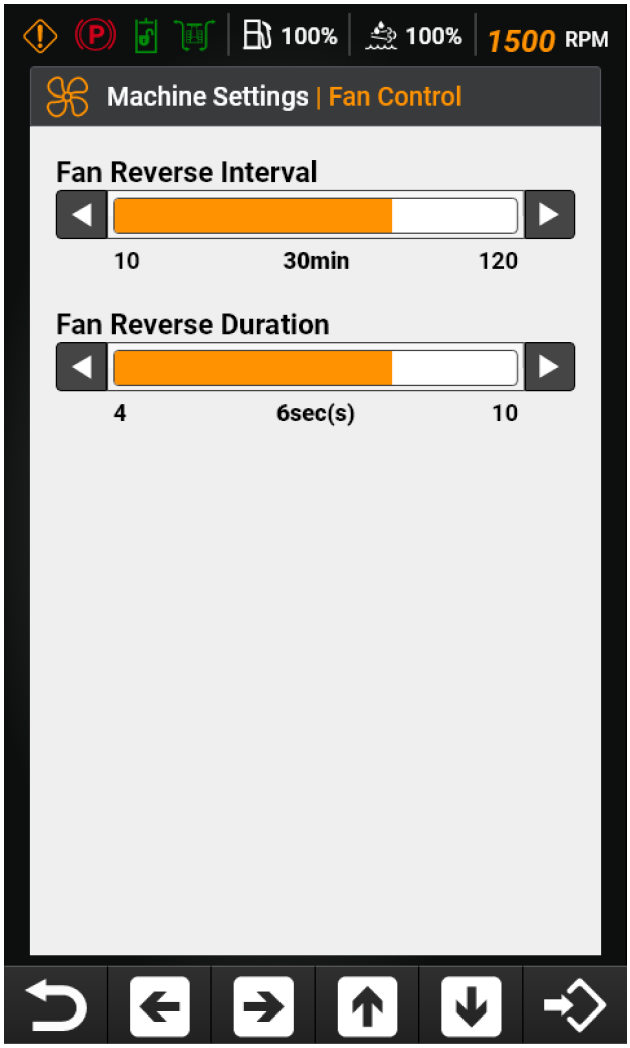
NOTE: *If passcodes are used, you must have an Administrator or Advanced level four digit passcode to enter the Fan Control settings screens. Contact your dealer for assistance.*

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

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

See “Fan Reversing” **3-34** 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.



RAIL21SSL0651RA 11

Implement Auxiliary Flow Control

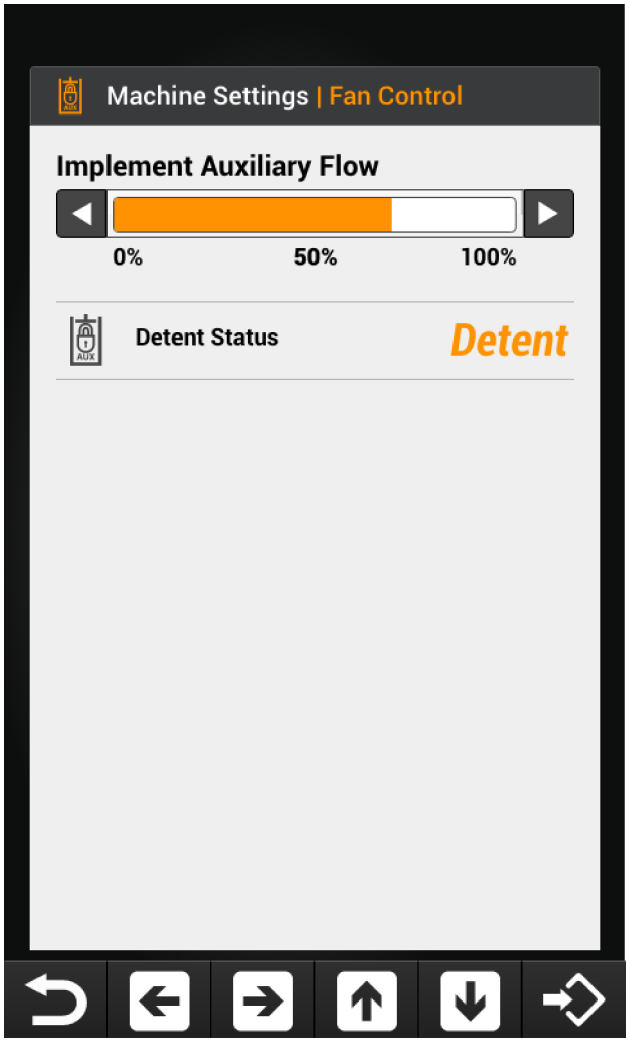
The Implement Auxiliary Flow Control setting allows the operator to adjust the upper limit of hydraulic flow to auxiliary attachments for High Flow or Enhanced High Flow (EHF) auxiliary hydraulics.

1. Press the arrow keys ← → to adjust the flow setting from **10 – 100%** in **10%** increments.
2. 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 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.



RAIL21SSL0285RA 12

Auto-Ride Control™

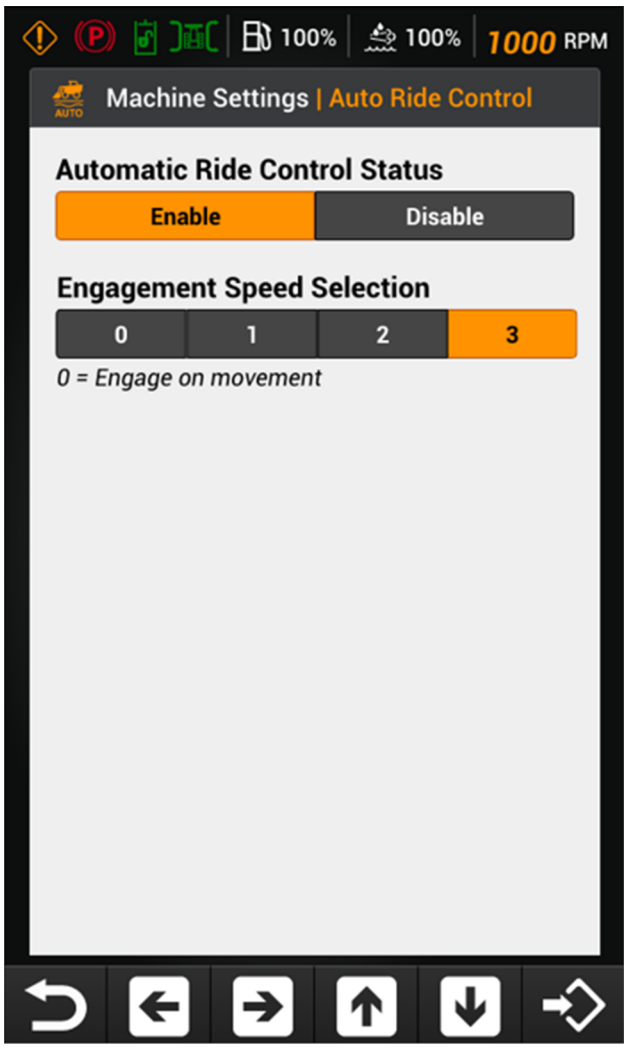
When you enable the **Auto-Ride Control™** feature, ride control becomes active when the vehicle exceeds the activation speed selection you make in the display. The **Ride Control™** feature reduces machine rocking motion during transport and material hauling operations. See **3-36** for more details.

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.

Setting	Auto-Ride Control™ Activation Speed
0	Engage on movement
1	**4.0 km/h** (**2.5 mph**)
2	**6.4 km/h** (**4.0 mph**)
3	**8.9 km/h** (**5.5 mph**)

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.*

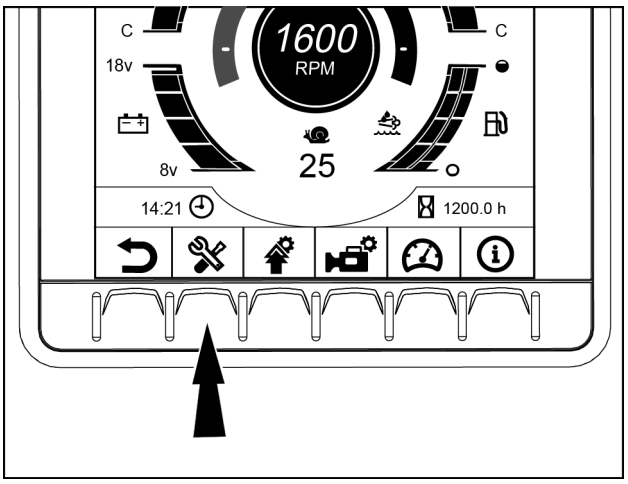


RAIL20SSL0460RA 13

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 .

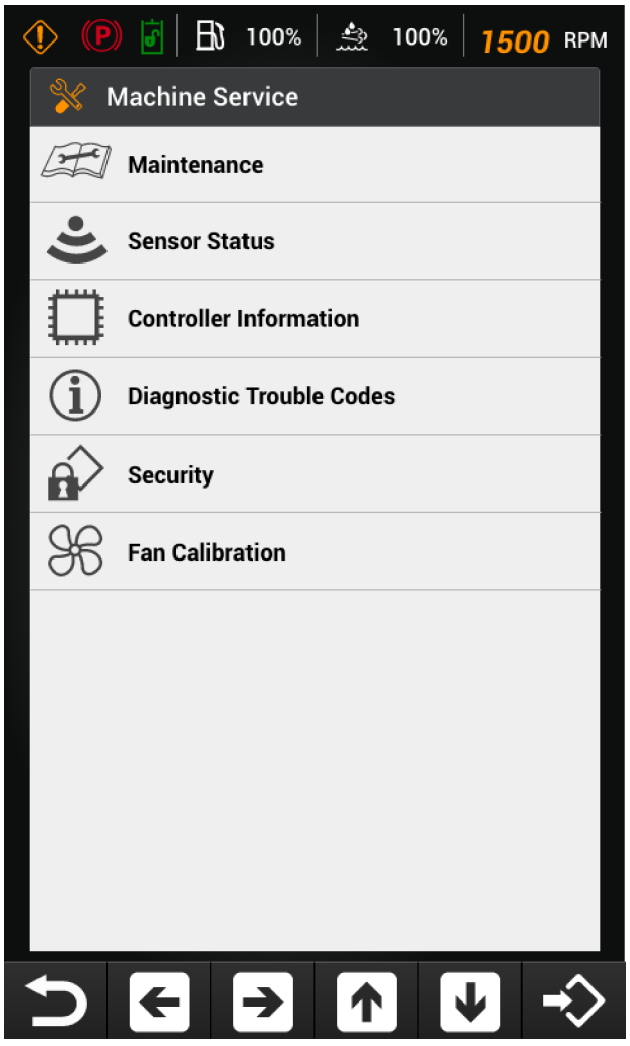


RAIL19SSL0081BA 1

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"* ***7-30*** *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:

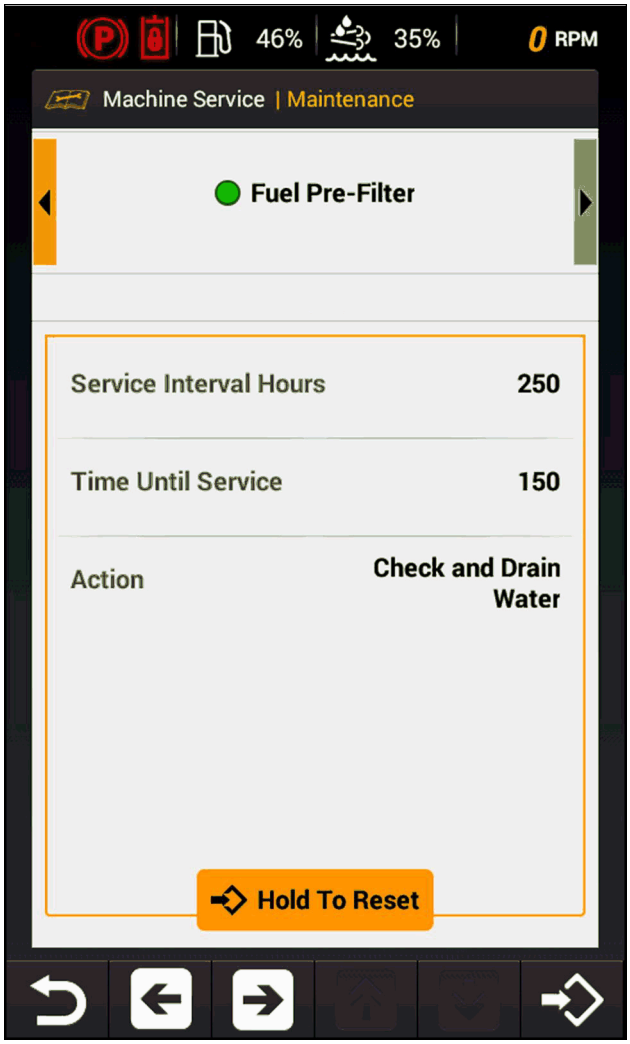
- - Service is not required.
- - Service is due in **25 h** or less.
- - Service is due or past due.

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.

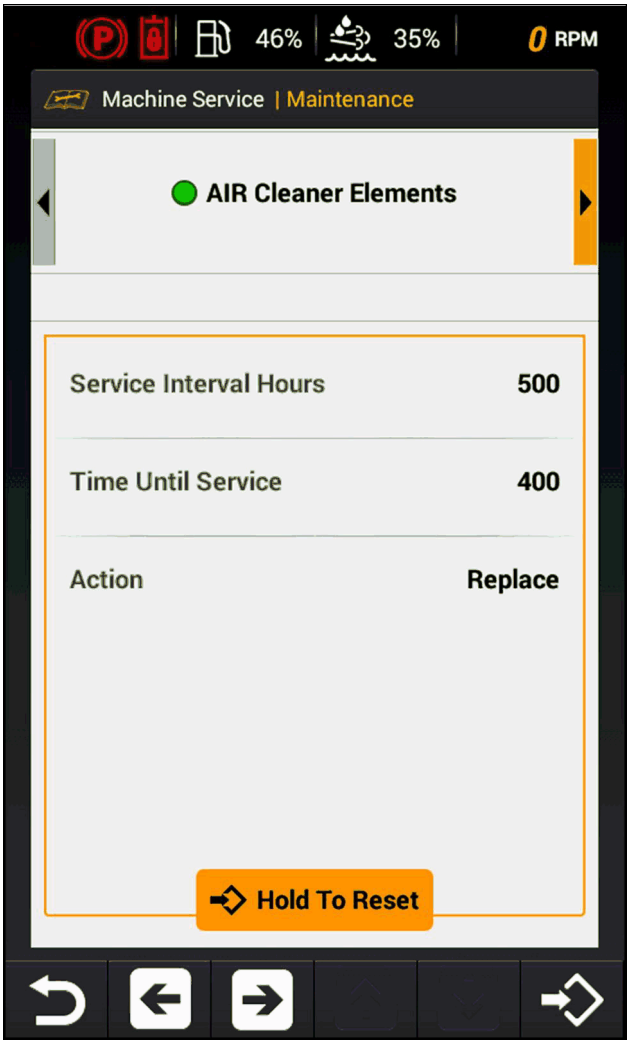


RAIL19SSL0357RA 1

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.

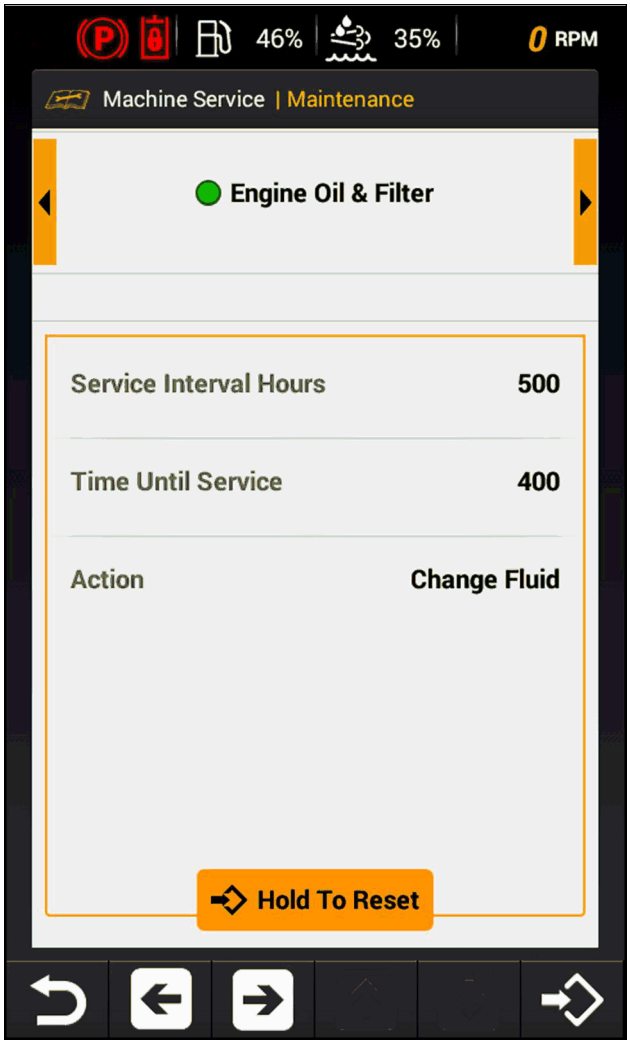


RAIL19SSL0358RA 2

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.

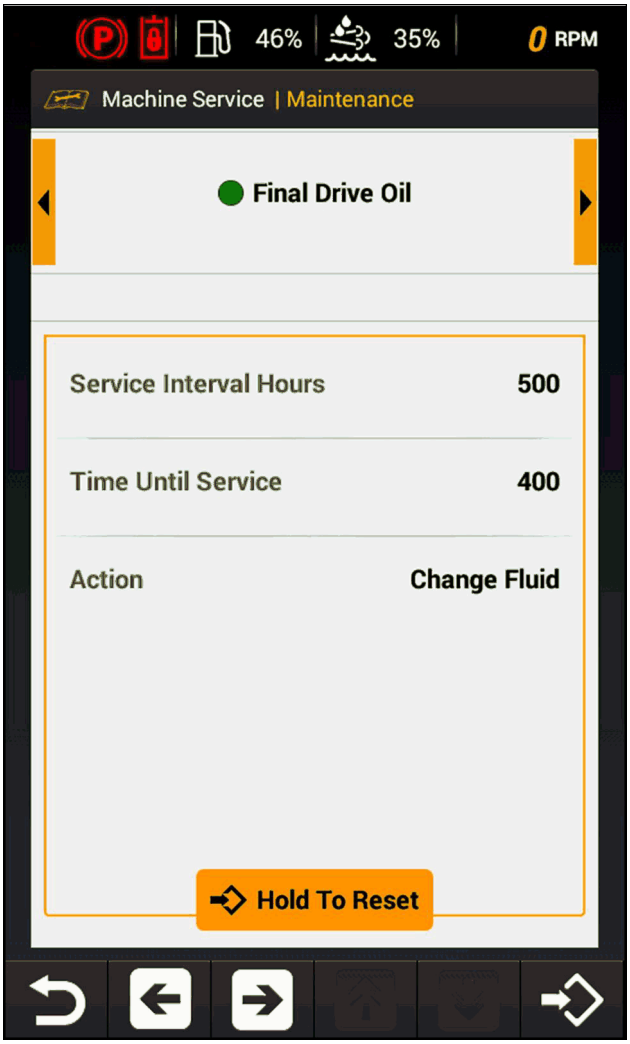


RAIL19SSL0359RA 3

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.

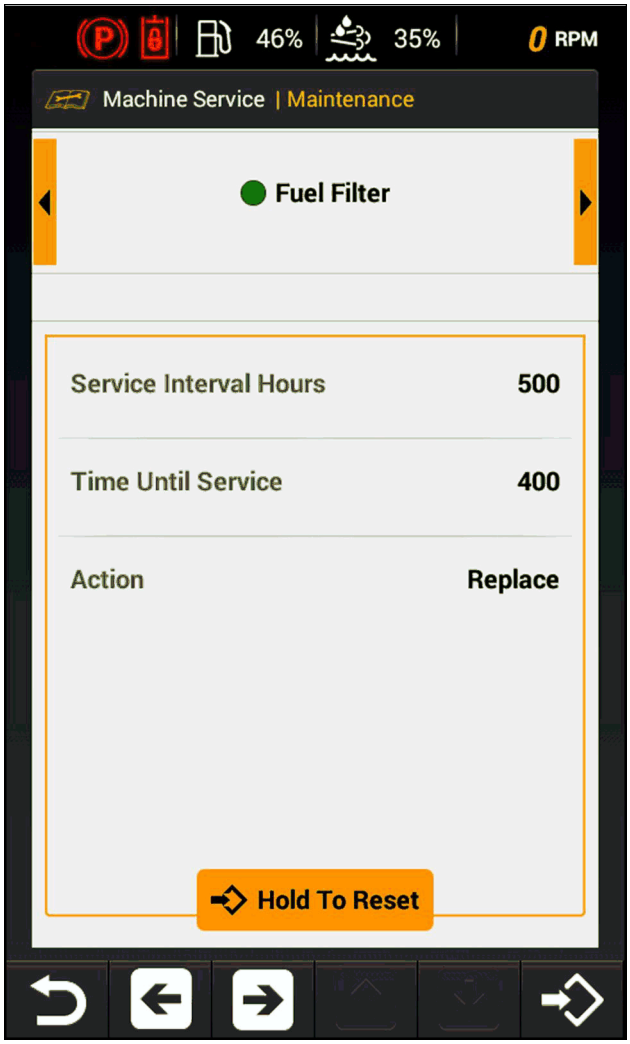


RAIL19SSL0367RA 4

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.

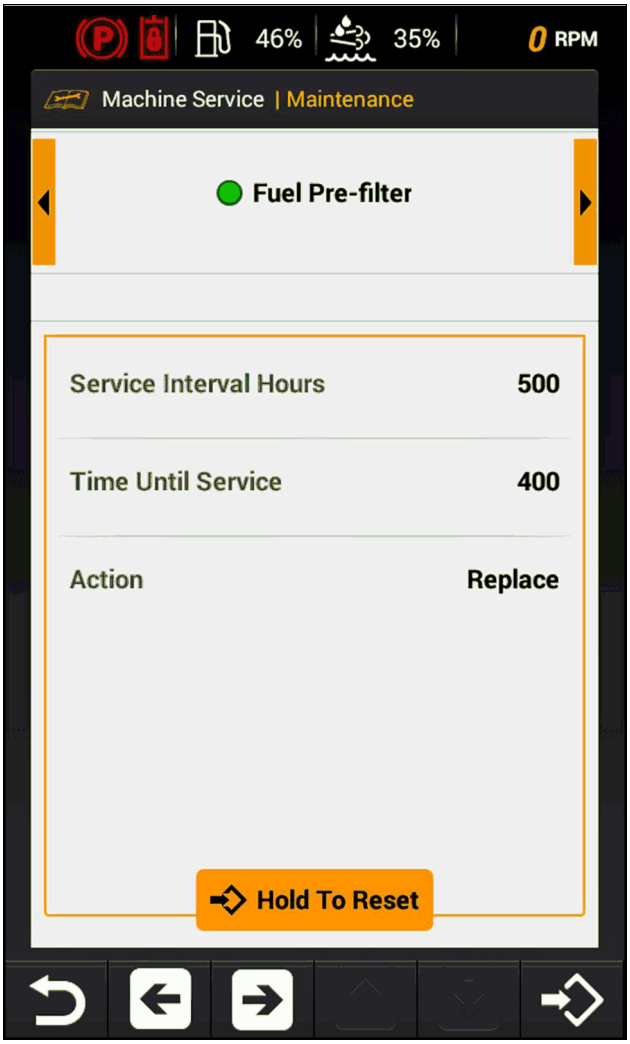


RAIL19SSL0360RA 5

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.

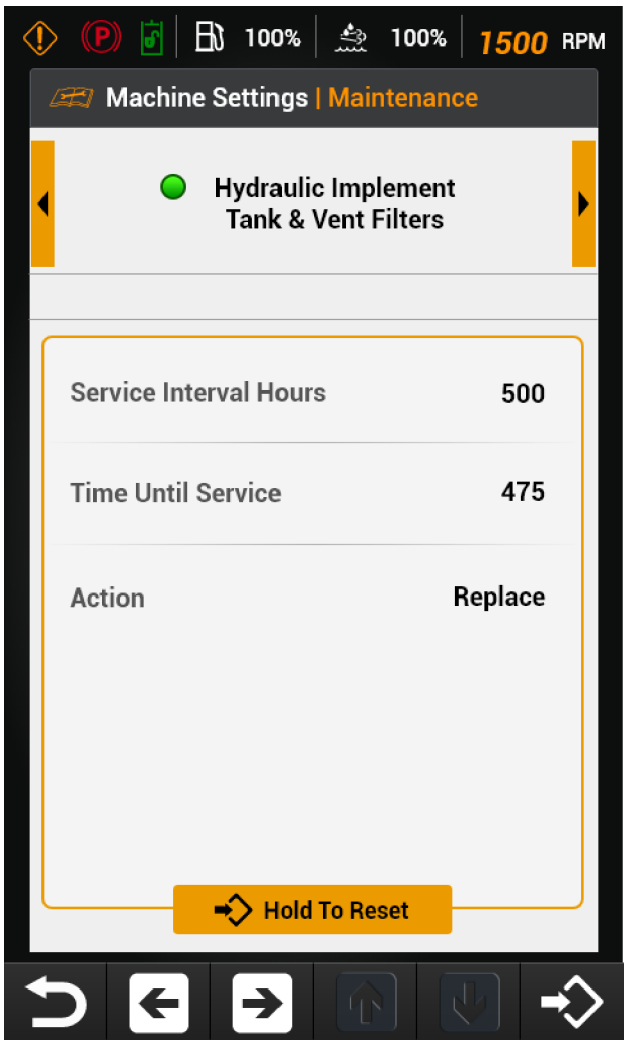


RAIL19SSL0361RA 6

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.

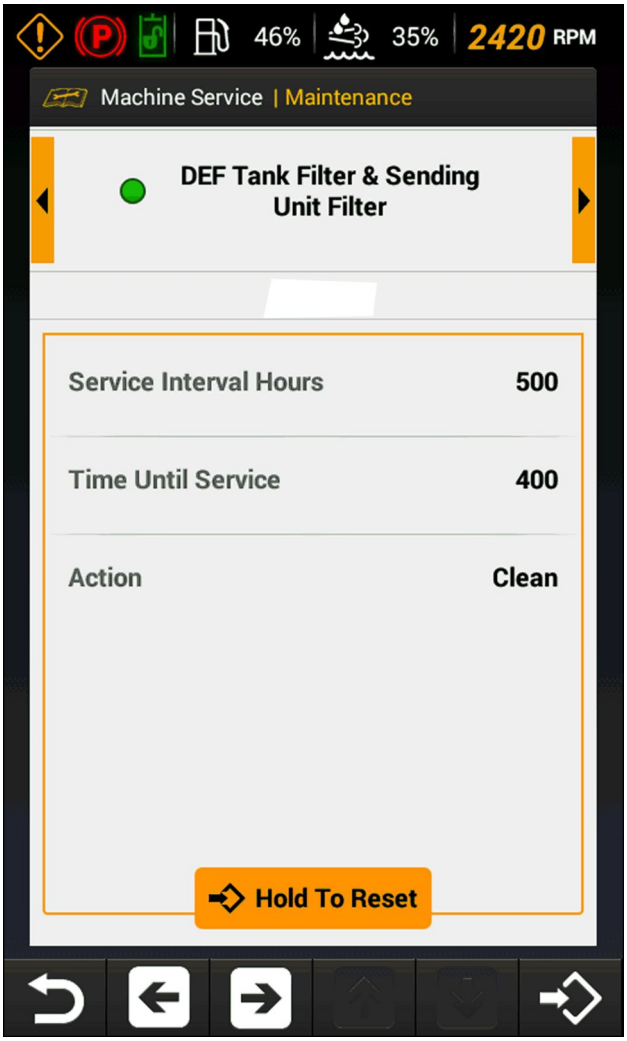


RAIL21SSL0653RA 7

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.

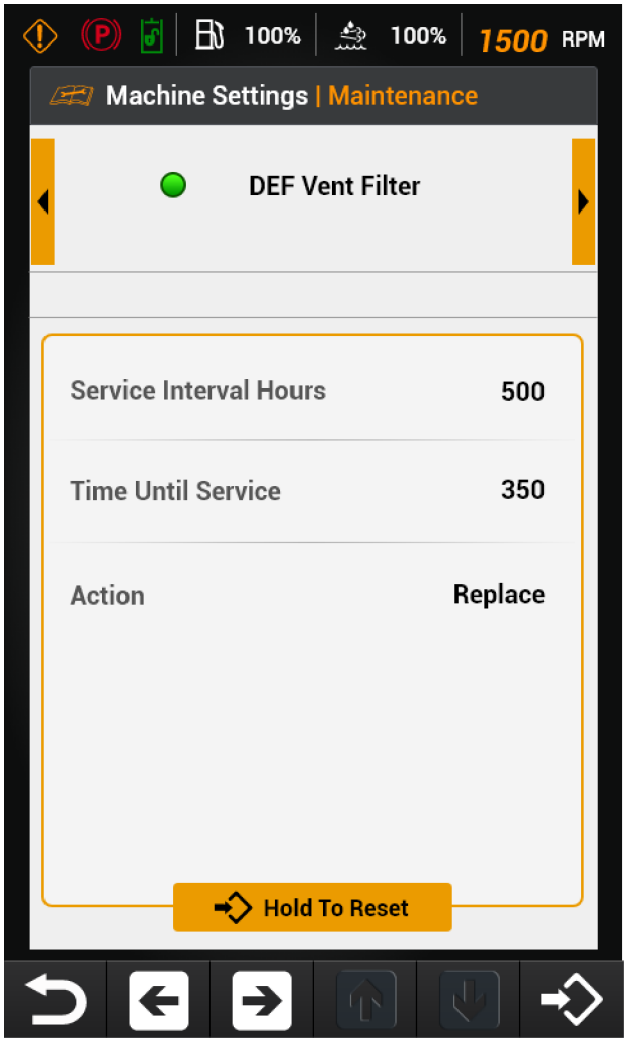


RAIL19SSL0289RA 8

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.

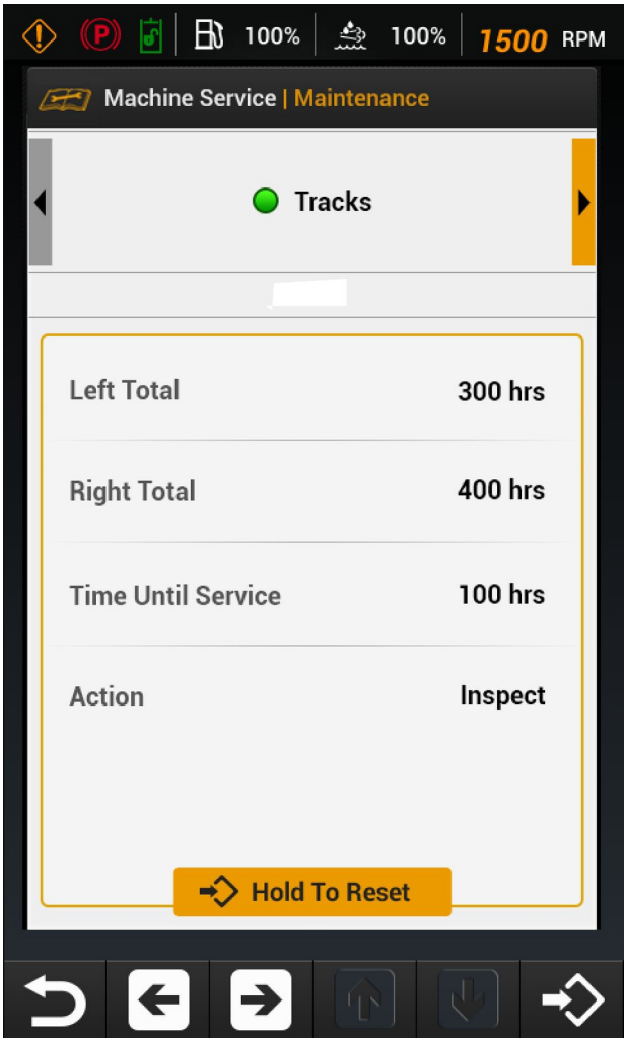


RAIL21SSL0652RA 9

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.



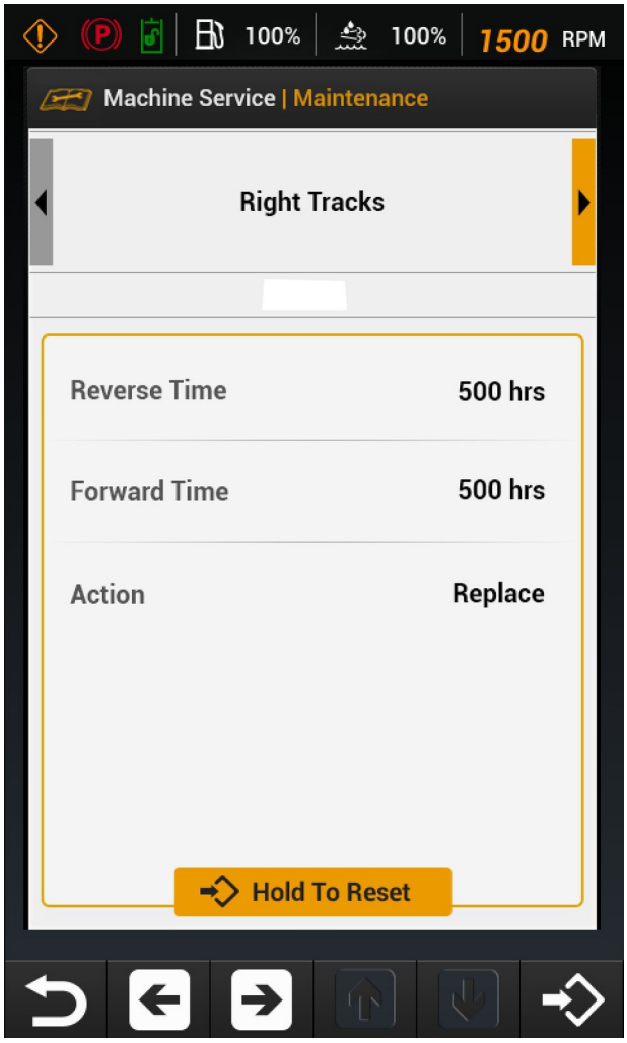
RAIL21SSL0289RA 10

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.



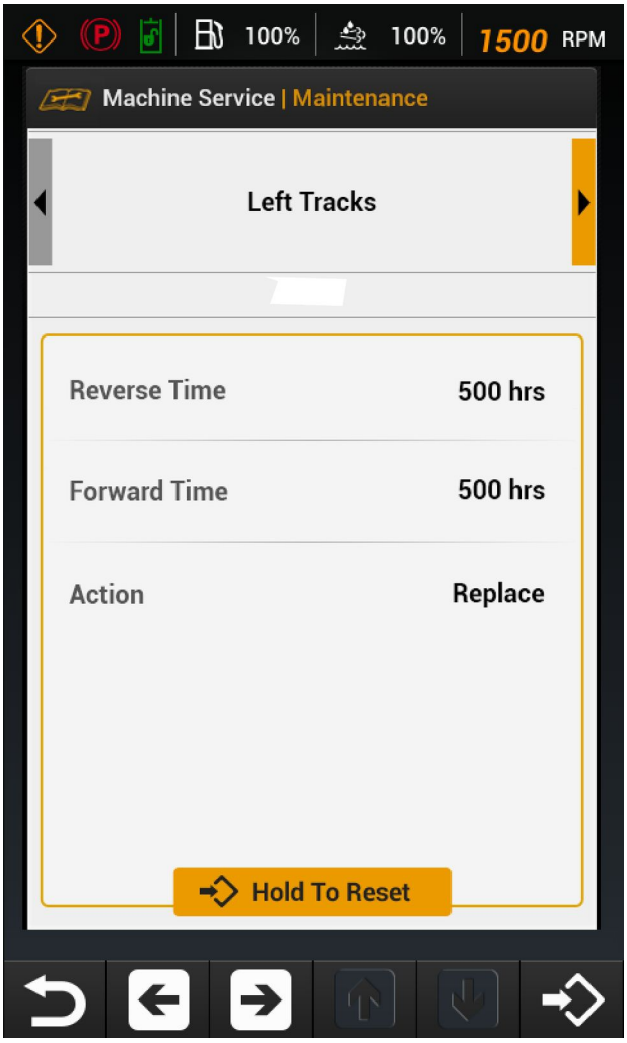
RAIL21SSL0638RA 11

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.

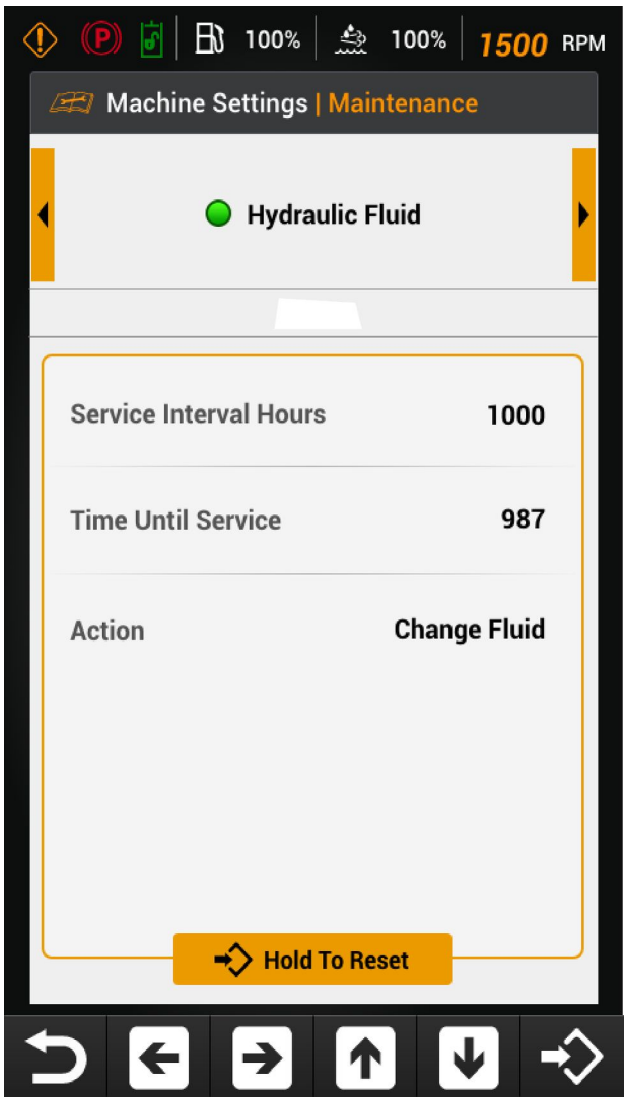


RAIL21SSL0637RA 12

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.

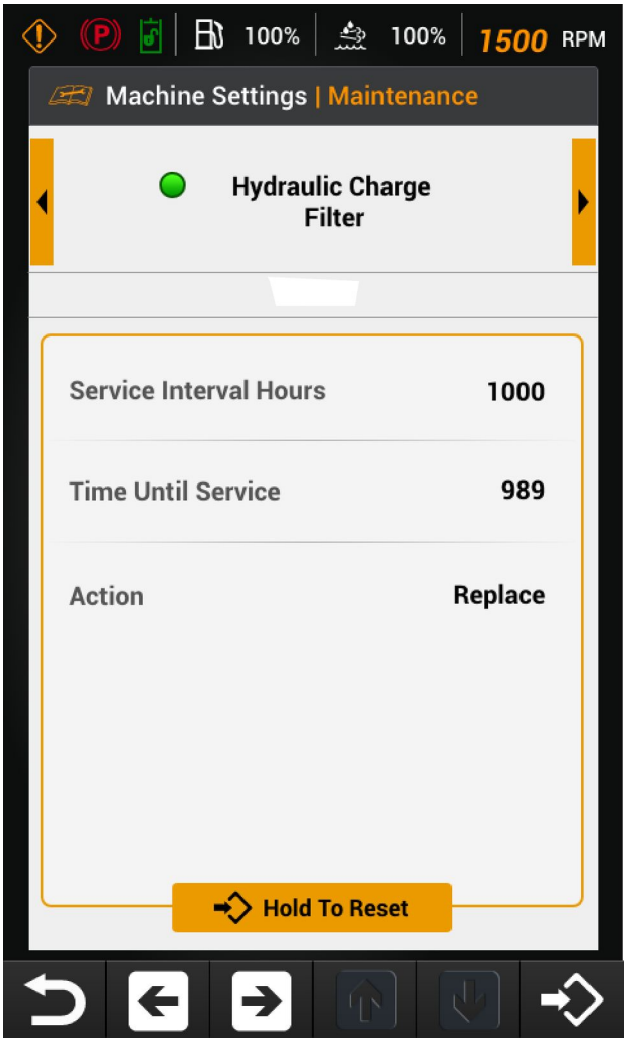


RAIL21SSL0290RA 13

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.

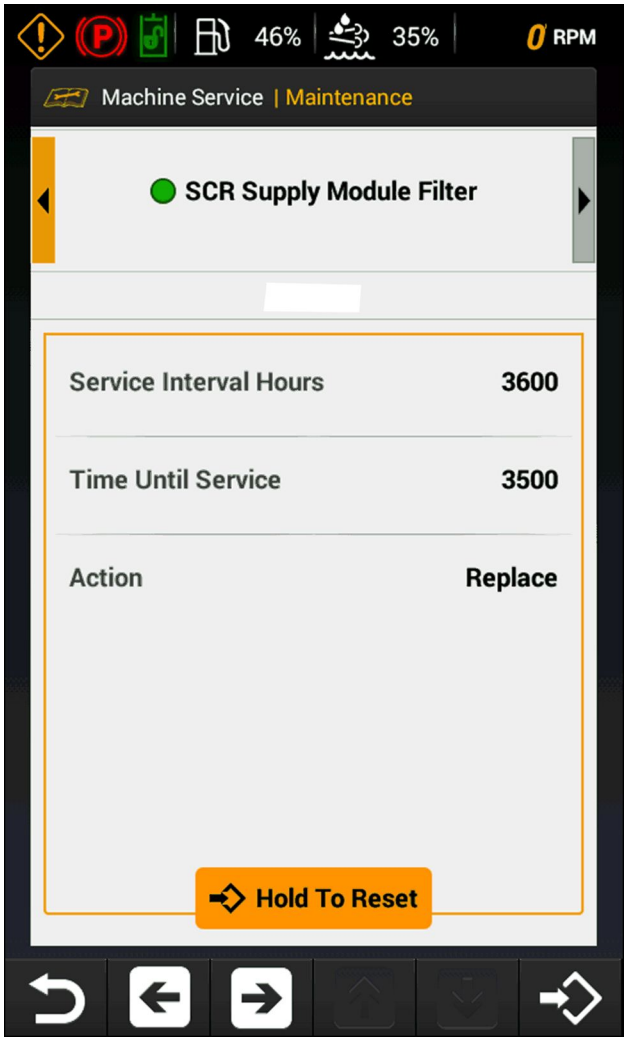


RAIL21SSL0291RA 14

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.

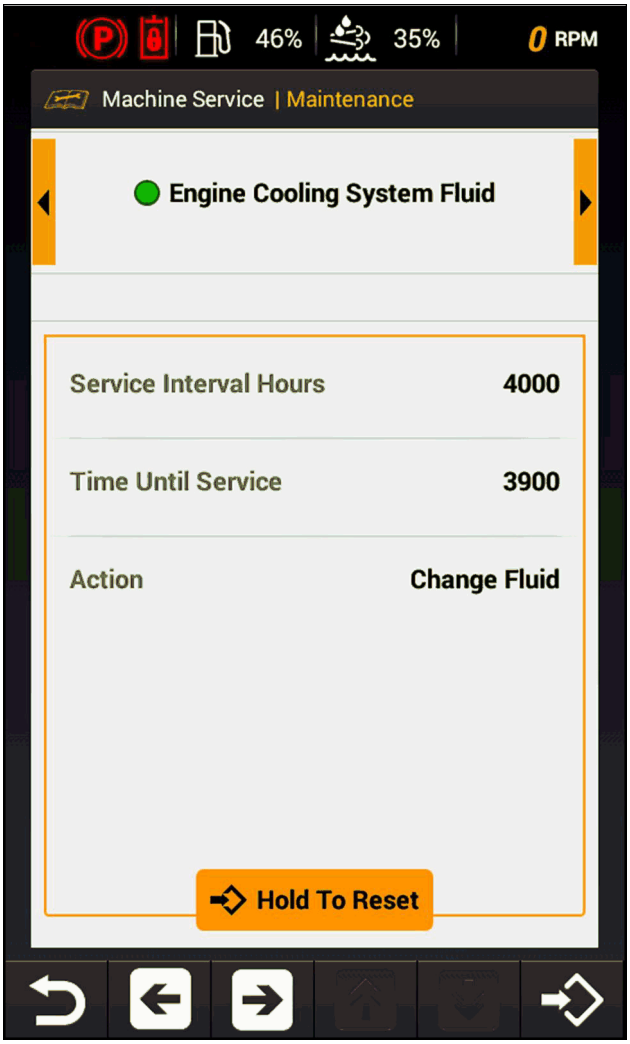


RAIL19SSL0275RA 15

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.



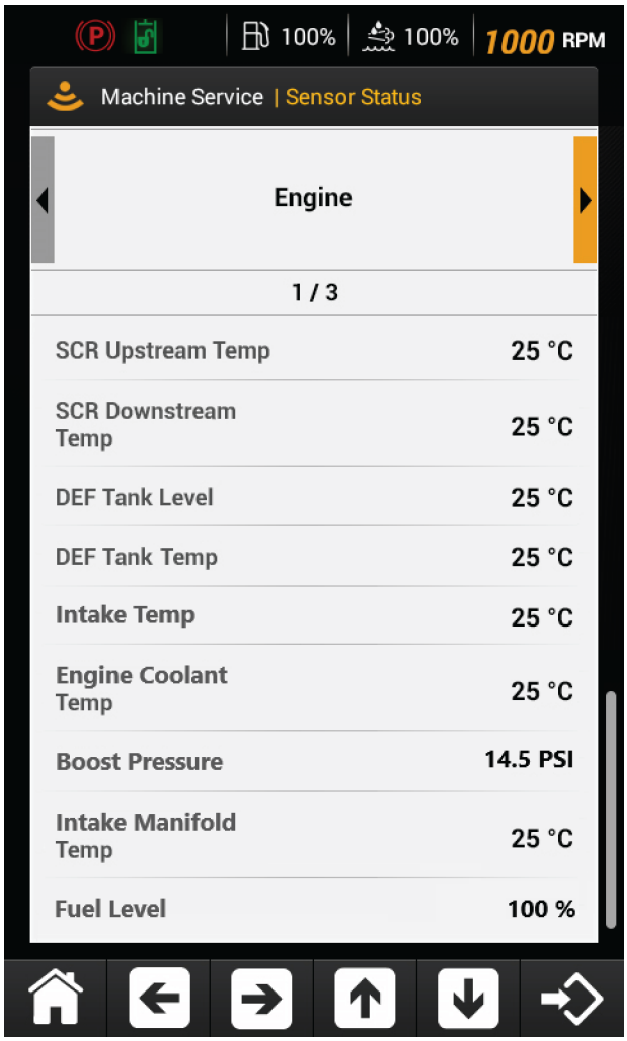
RAIL19SSL0366RA 16

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.

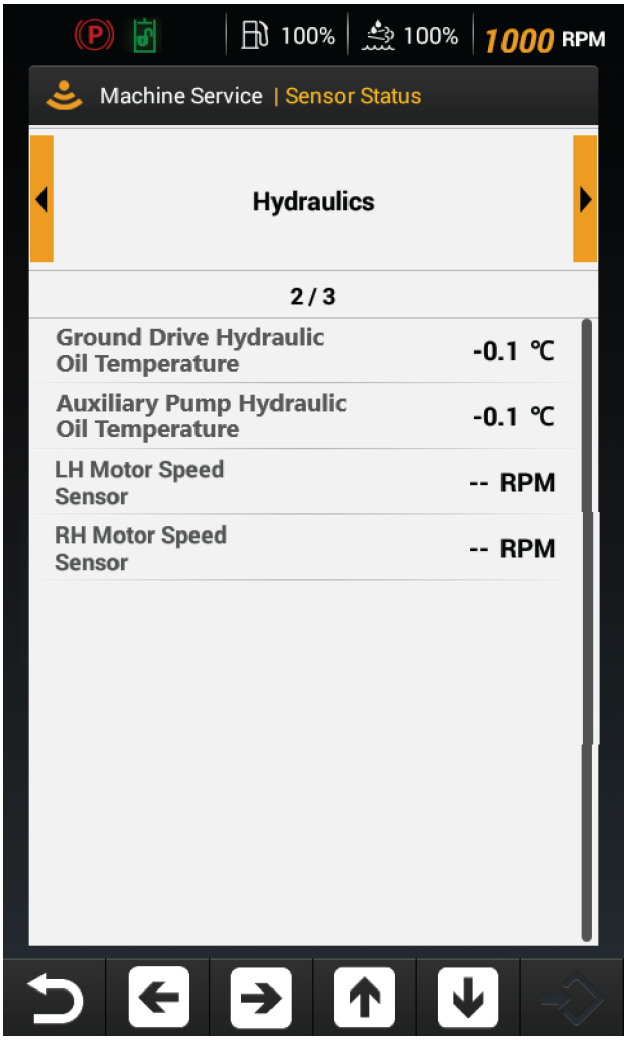


RAIL21SSL0648RA 1

Hydraulics

- Ground Drive Hydraulic Oil Temperature
- Auxiliary Pump Hydraulic Oil Temperature
- LH Motor Speed Sensor
- RH Motor Speed 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.



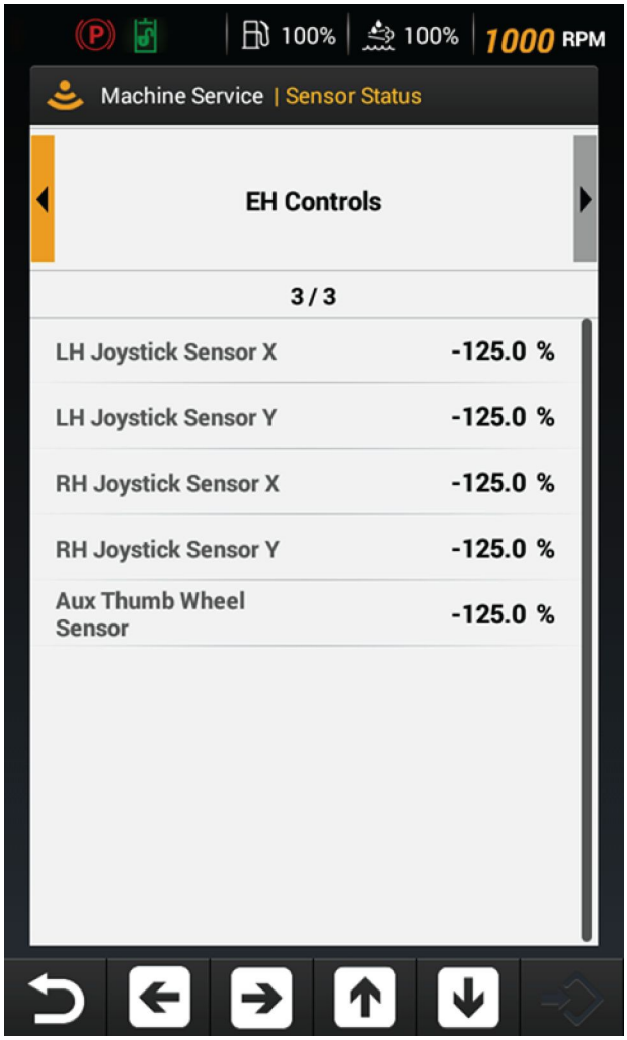
RAIL21SSL0650RA 2

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

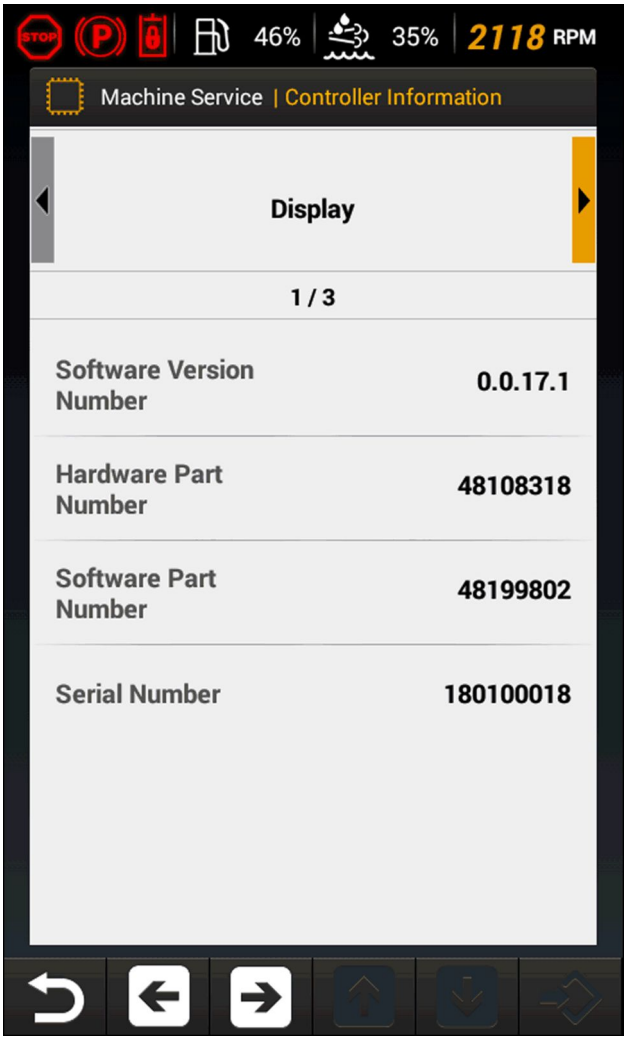
Controller Information

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.



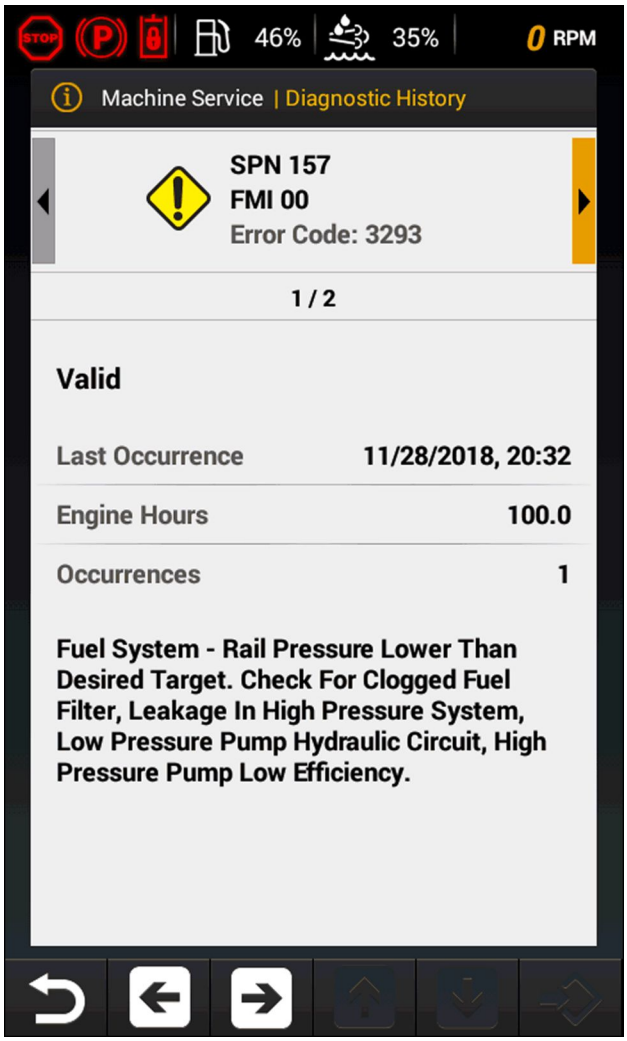
RAIL19SSL0307RA 1

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.

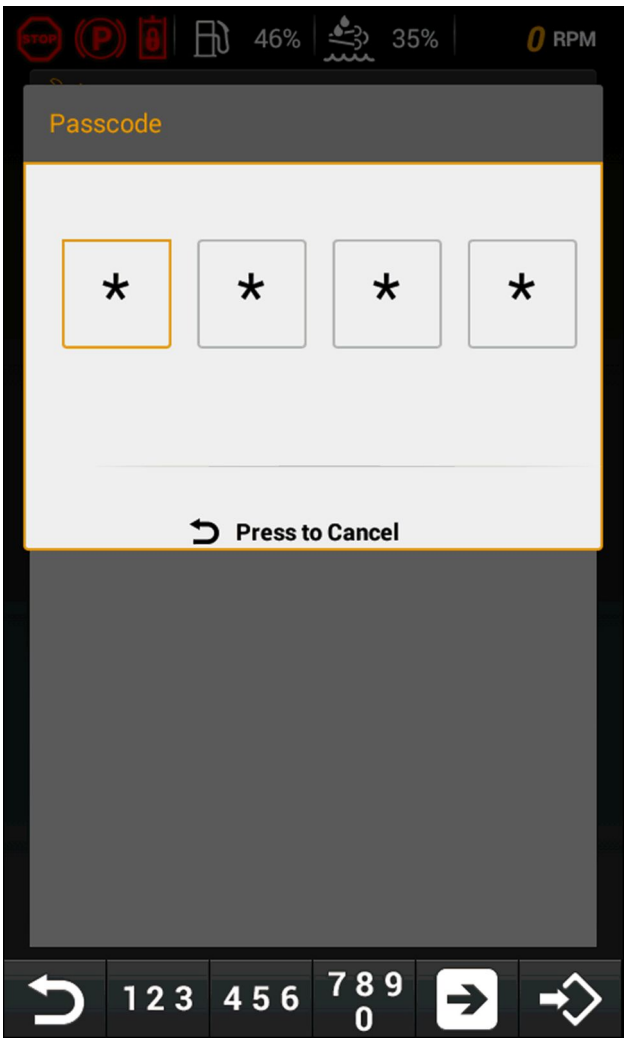


RAIL19SSL0301RA 1

Security Code

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

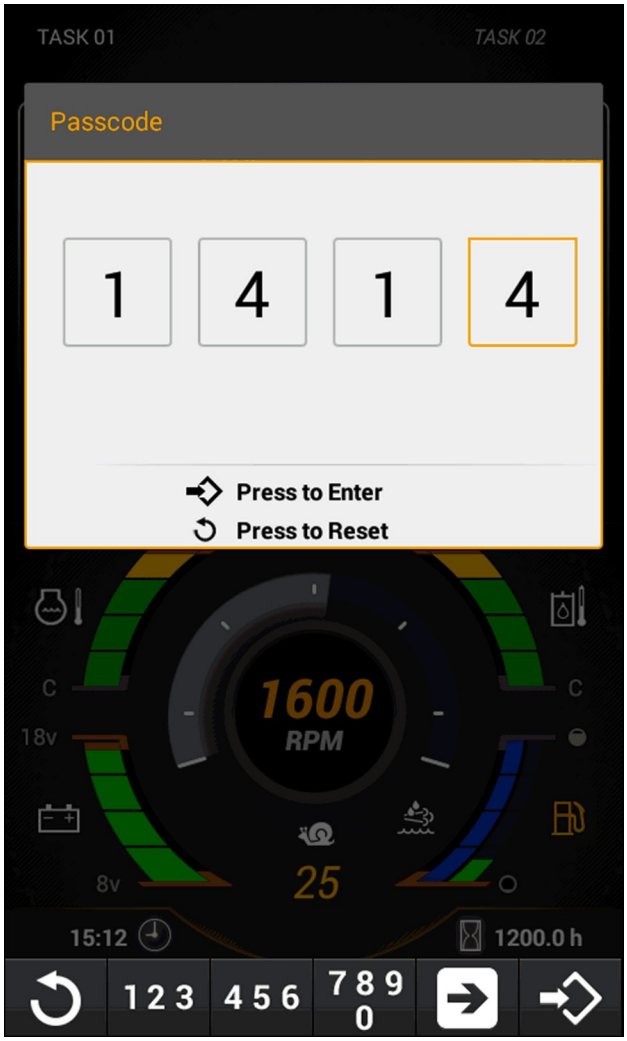
1. Use the keypad at the bottom of the display to enter the passcode.
2. Press the arrow key ➔ to move to the next passcode box.



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.

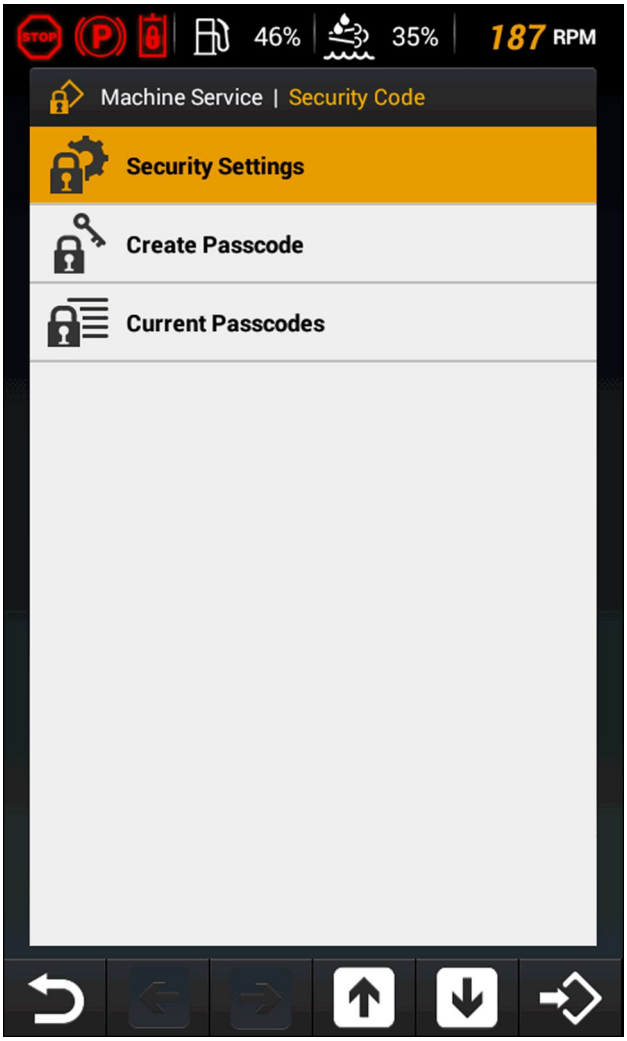


RAIL19SSL0353RA 2

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.

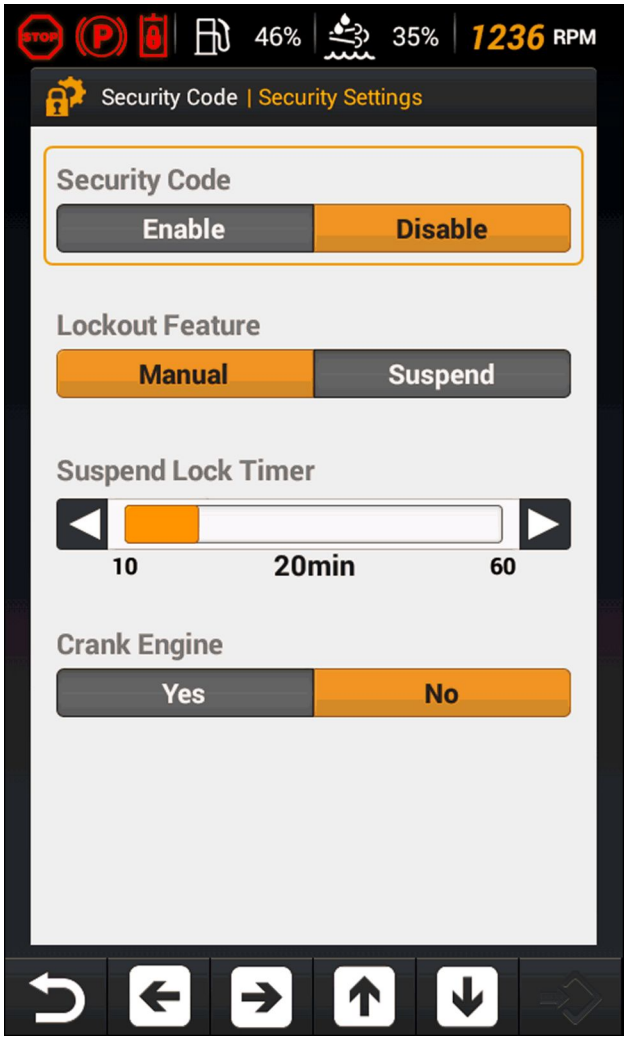


RAIL19SSL0273RA 3

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 option of the Create Passcode options

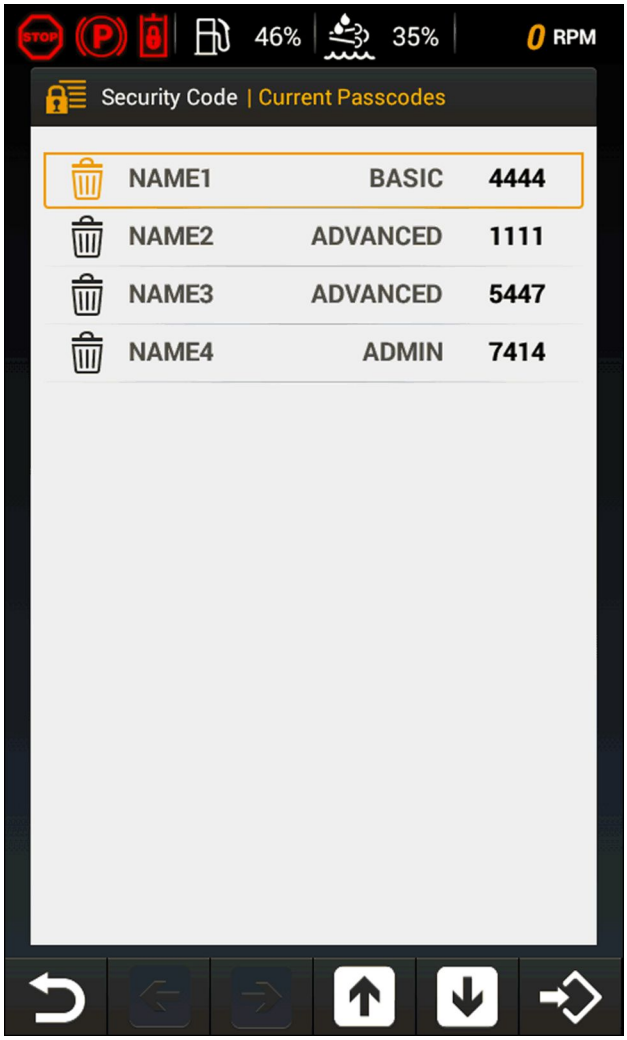
1. Press the arrow keys ↑ ↓ to scroll between the following options.
   - User Levels
   - Name
   - Passcode
2. Press the arrow keys ← → to highlight a setting.
3. If applicable or if prompted , press the Enter key ⇨ to Complete, Edit, Default, or Clear a Create Passcode setting.
4. Press the Return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

Selective Catalytic Reduction (SCR) exhaust treatment - Overview

Diesel Exhaust Fluid (DEF)/AdBlue® instrumentation warning

ATTENTION: *The fuel system, exhaust after-treatment system, and engine on your machine are designed and built to government emissions standards. Tampering by dealers, customers, operators, and users is strictly prohibited by law. Failure to comply could result in government fines, rework charges, invalid warranty, legal action, and possible confiscation of the machine until rework to original condition is completed. Engine service and/or repairs must be done by a certified technician only!*

Your CASE CONSTRUCTION machine is equipped with a warning system to inform the operator of the DEF/AdBlue® level, system malfunctions, and engine power loss that may result from the SCR system for reducing exhaust emissions.

Warning symbols

Stop engine light

Warning/Fault light

DEF level inducement displays

Display	Description	Warning lamps and alarms	Corrective action
DEF/AdBlue level LOW	**DEF/AdBlue®** level is less than **10%** tank volume. No engine power loss at this level.	One second audible alarm every **3 min**	Fill **DEF/AdBlue®** tank.
DEF/AdBlue tank is EMPTY Power Limitation	**DEF/AdBlue®** level is less than **5%** of tank volume. Torque reduction and engine speed reduction will occur.	Continuous alarm; DEF level bar flashes	Fill **DEF/AdBlue®** tank immediately. Cycle the key switch (or the POWER button) OFF then ON.
DEF/AdBlue tank is EMPTY Extreme Power Limitation	**DEF/AdBlue®** level is empty. Torque reduction and engine speed reduction will occur.	Continuous alarm; DEF level bar flashes	Fill **DEF/AdBlue®** tank immediately. Cycle the key switch (or the POWER button) OFF then ON.

DEF quality inducement displays

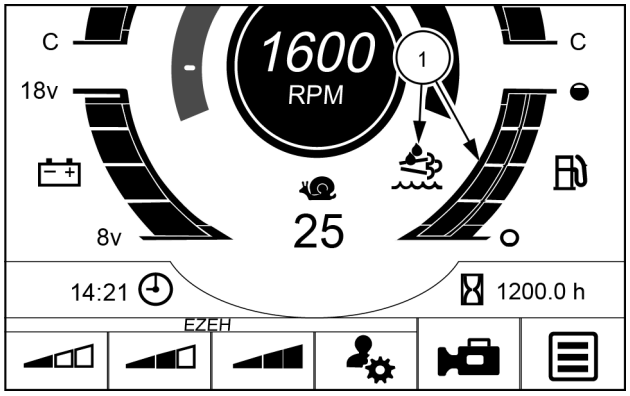
Display	Description	Warning lamps and alarms	Corrective action
Poor DEF/AdBlue quality detected	**DEF/AdBlue®** quality / concentration is questionable.	One second audible alarm every **3 min**	Drain the **DEF/AdBlue®** tank. Fill the tank with approved **DEF/AdBlue®**. Contact your authorized dealer if the failure persists.
Poor DEF/AdBlue quality detected Power Limitation	**DEF/AdBlue®** quality / concentration is questionable **60 min** after the initial warning. Torque reduction and engine speed reduction will occur.	Continuous alarm	Drain the **DEF/AdBlue®** tank. Fill the tank with approved **DEF/AdBlue®**. Contact your authorized dealer if the failure persists.
Poor DEF/AdBlue quality detected Extreme Power Limitation	**DEF/AdBlue®** quality / concentration is questionable **4 h** after the initial warning. Torque reduction and engine speed reduction will occur.	Continuous alarm	Drain the **DEF/AdBlue®** tank. Fill the tank with approved **DEF/AdBlue®**. Contact your authorized dealer if the failure persists.

DEF technical failure inducement

Display	Description	Warning lamps and alarms	Corrective action
DEF/AdBlue injection failure Power Limitation	SCR fault/failure detected. Torque reduction and engine speed reduction will occur.	 One second audible alarm every **3 min**	Contact your authorized dealer for repair.
DEF/AdBlue injection failure Power Limitation	SCR fault/failure detected **60 min** after the initial warning. Torque reduction and engine speed reduction will occur.	 Continuous alarm	Contact your authorized dealer for repair.
DEF/AdBlue injection failure Extreme Power Limitation	SCR fault/failure detected **4 h** after the initial warning. Torque reduction and engine speed reduction will occur.	 Continuous alarm	Contact your authorized dealer for repair.

Display

During normal operation of your CASE CONSTRUCTION machine, the display shows the DEF/AdBlue® fluid level **(1)** at all times.



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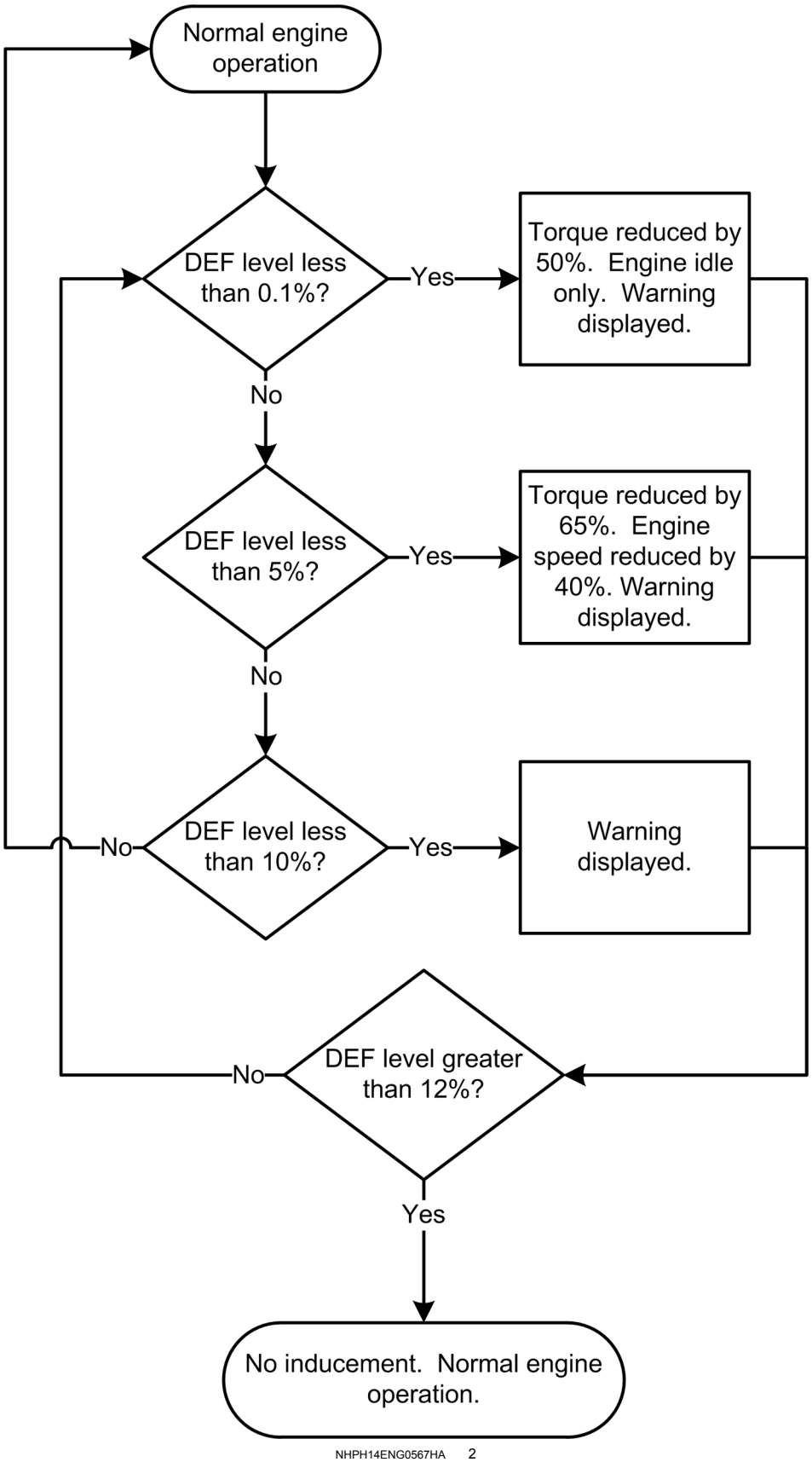
DEF/AdBlue® level faults, failures, and engine power loss levels



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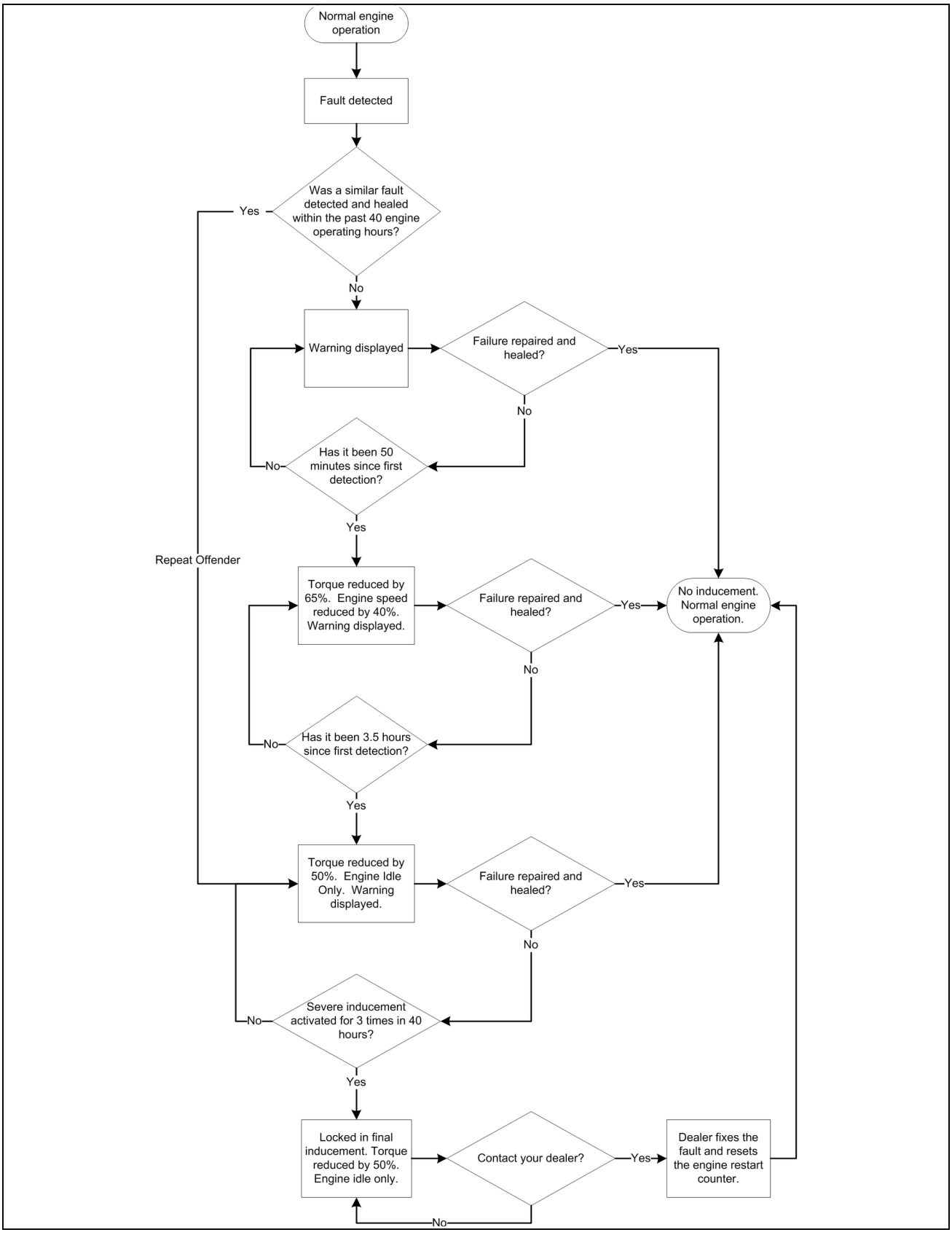
DEF/AdBlue® quality faults, failures, and engine power loss levels



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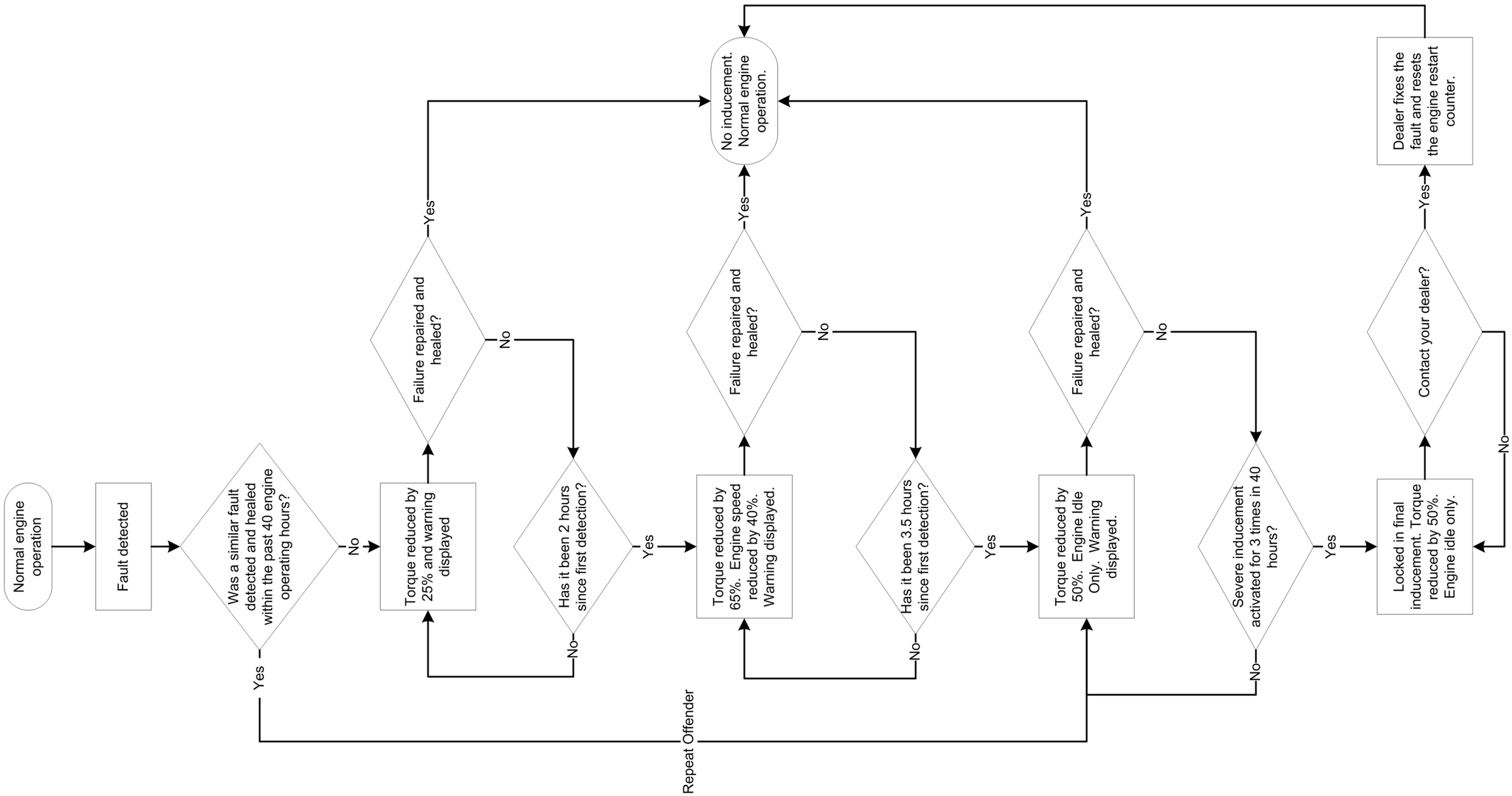
SCR system technical faults, failures, and engine power loss levels

There are two types of strategies that are applied to your machine based on the type of failure that occurs.

- For electrical failures, use figure **4**.
- For failures that require the SCR system to be operational, use figure **5** and see the section on validation re-starts.

NOTE: *You can restart the engine and receive full engine power up to two times at any point after the machine detects a fault. However, if the machine detects the same fault within 40 operating hours, torque will be reduced to 50% and the engine will be reduced to idle immediately. If you attempt a third restart, the engine will be locked at 50% torque and engine idle. Contact your CASE CONSTRUCTION dealer to reset the engine restart counter and resolve the fault causing the loss of productivity.*



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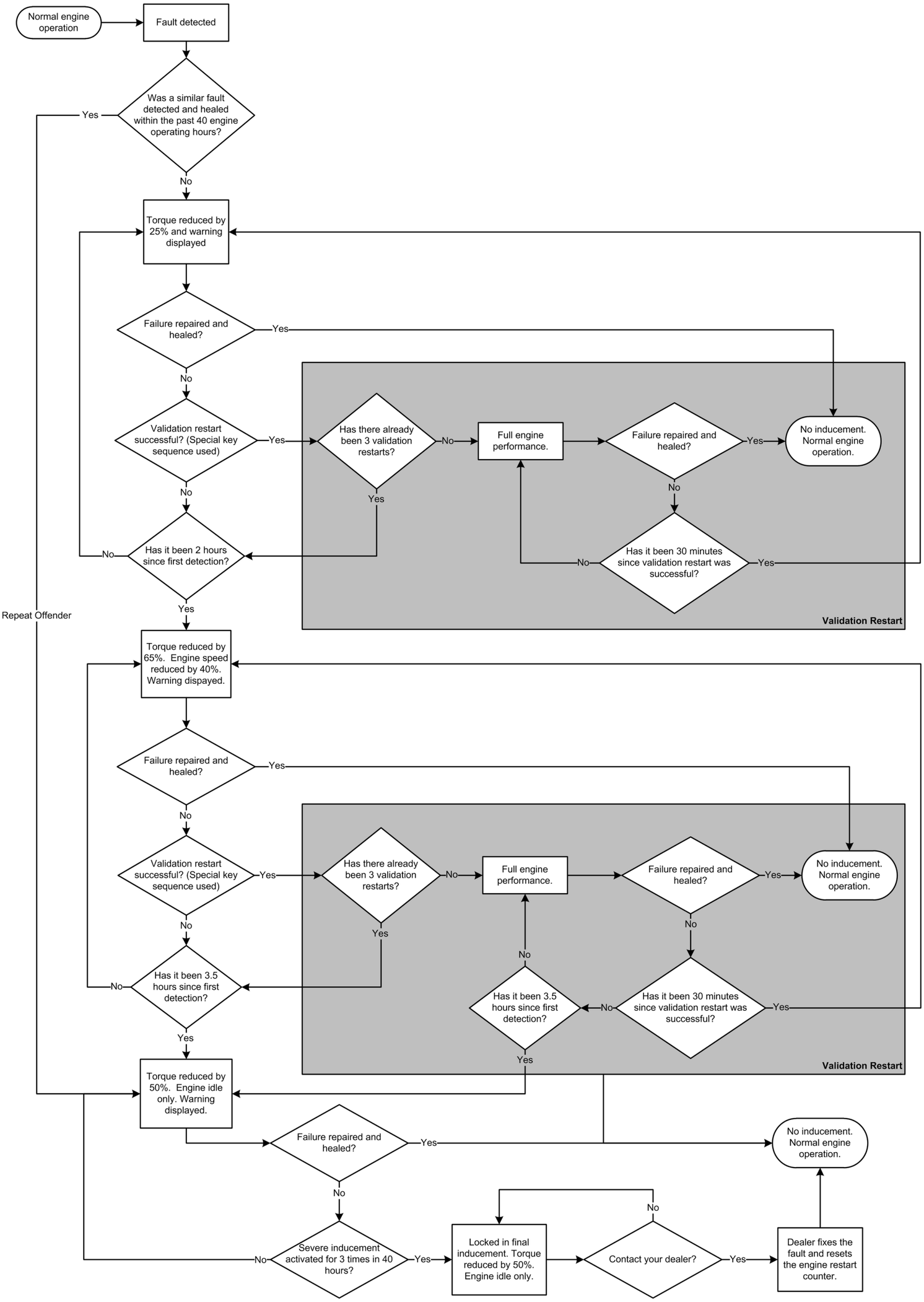

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Validation re-starts

Validation re-starts allow operation of the machine for up to **30 min** without power loss after a poor DEF/AdBlue® quality or SCR system fault has been detected. Up to three re-starts are permitted. Re-starts are counted if either of the following conditions are met:

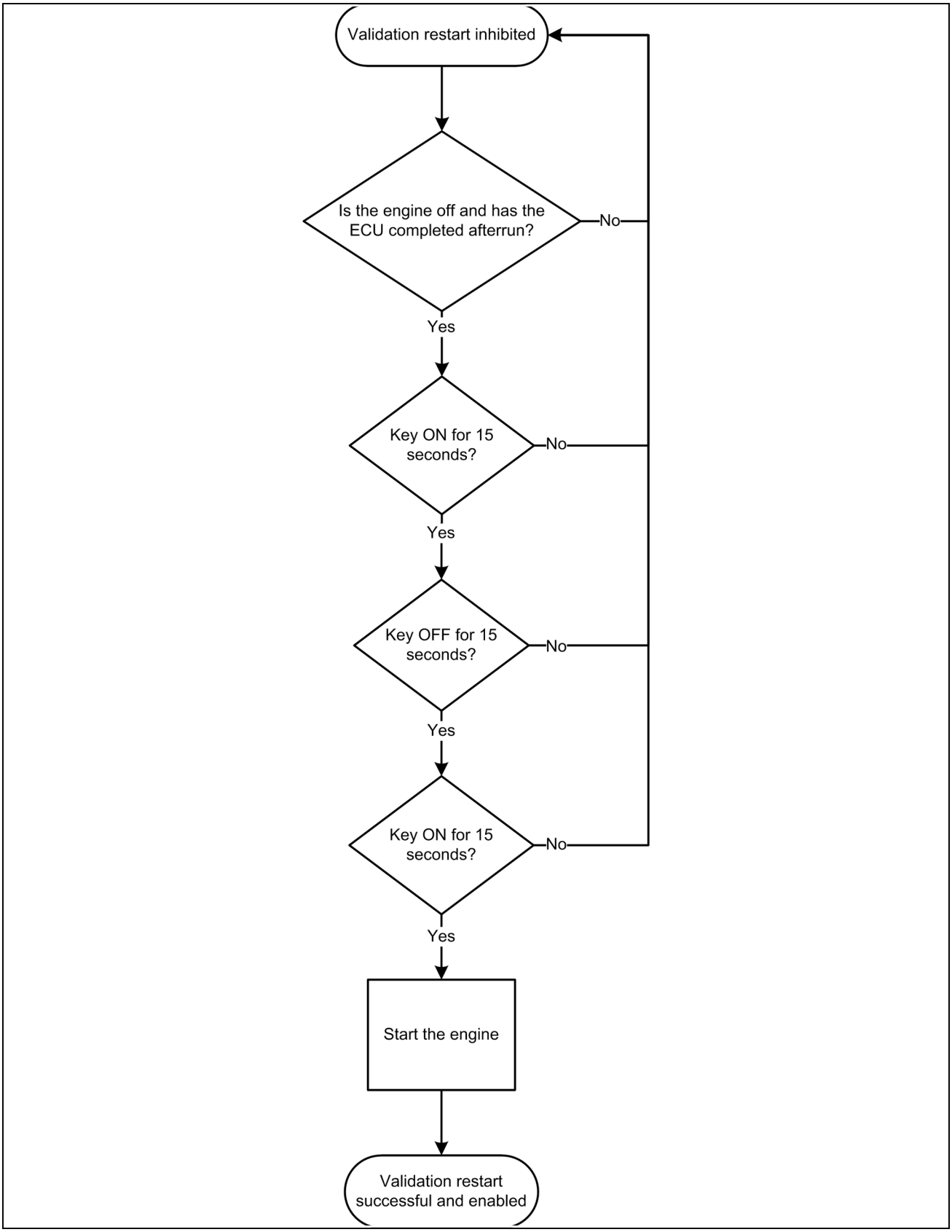
- Engine speed exceeds **1000 RPM**
- Engine running time exceeds **5 min**

Normal operation will resume if a reset is detected within the **30 min** window.

If a reset is not detected within **30 min**, power loss will occur as described in the flowcharts.

If all three validation re-starts have been used and the system has not been reset, the machine is limited to **50%** torque and engine idle only. See your local authorized CASE CONSTRUCTION dealer for repair.

Follow the sequence in figure **6** to activate validation re-starts.



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Resetting the Selective Catalytic Reduction (SCR) system

For DEF/AdBlue® storage tank fluid level faults, failures that can cause engine power loss:

- The DEF/AdBlue® tank level must be raised above **12%** total volume.
- The key switch must be cycled to the Off position or throttle returned to low idle position.

For DEF/AdBlue® quality and SCR system technical faults, failures that can cause engine power loss:

- To fully reset the system, the component/failure causing the fault must be repaired or replaced.
- Switching off the engine will reset the system and the engine will restart at full power.
- If the same failure is re-detected within **40 h** of engine operation, the maximum engine power loss level will be introduced.
- If the same failure is detected three consecutive times within **40 h** of engine operation, maximum engine power loss will remain active after engine restart until the system is repaired.
- Please contact your authorized CASE CONSTRUCTION dealer for service.