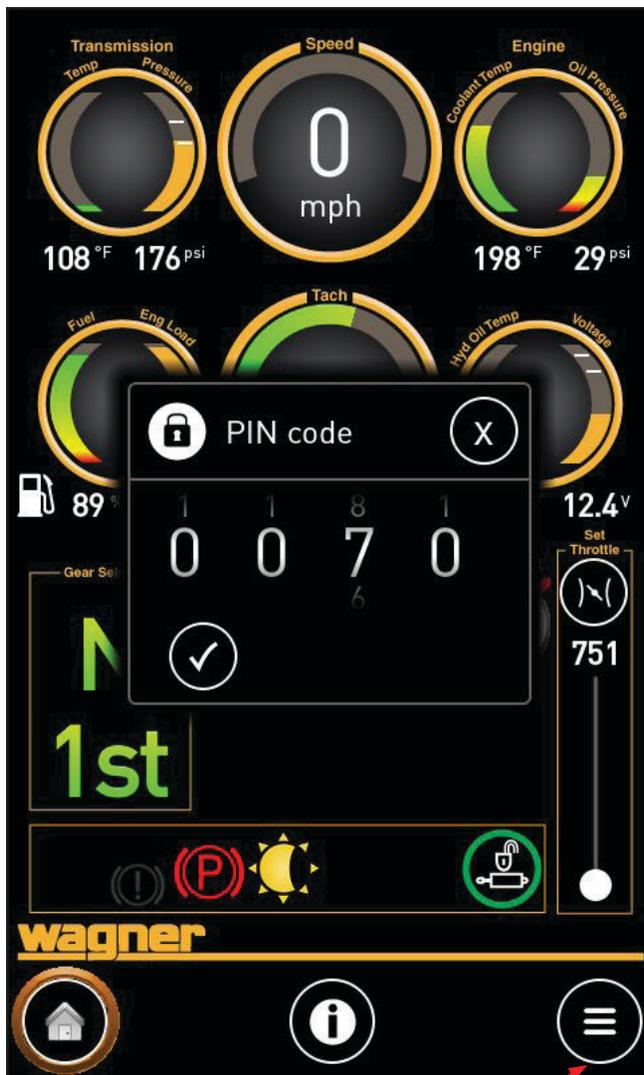
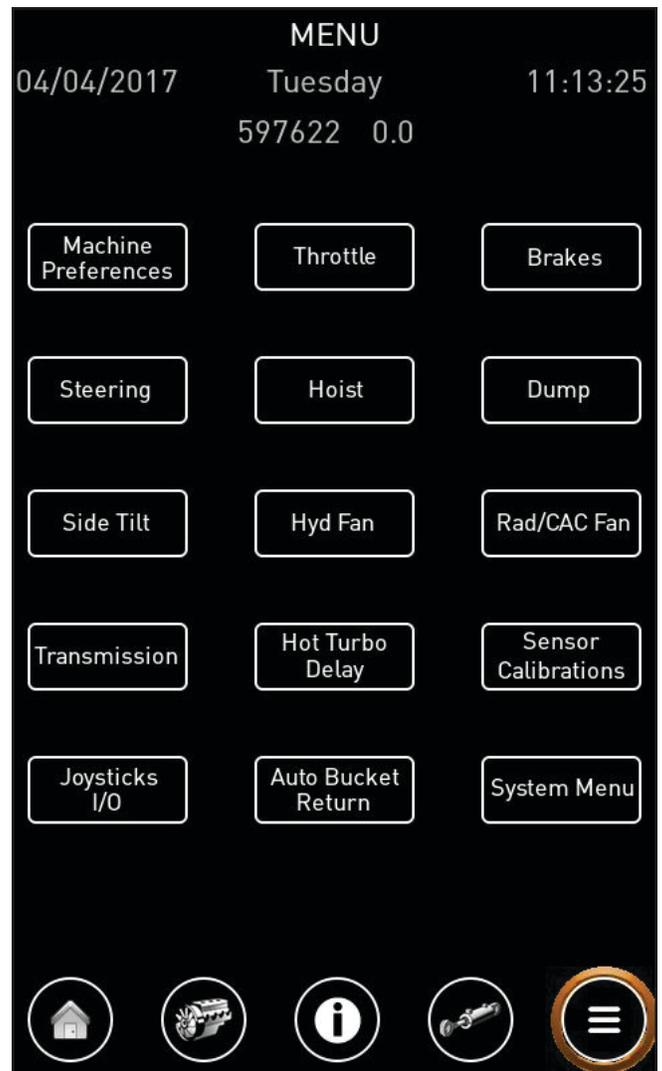


## IQAN Service/Troubleshooting screens



Menu Button



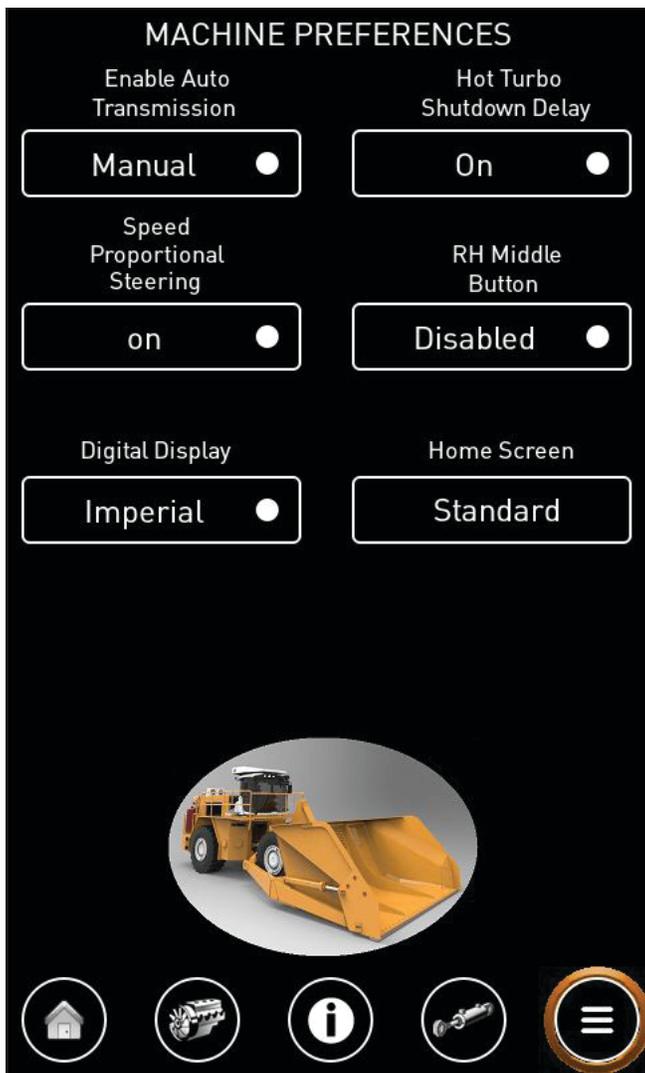
### PIN code login

When you first click on the “Menu” button, you will be prompted for a PIN code. Enter 0070 and click the check mark. This will allow you to access the Menu Screen, which has links to all setup and troubleshooting screens. Two additional buttons will also appear on the bottom row; one for engine, and one for hydraulics.

Once the PIN code is entered, the menu screen, engine screen, and the hydraulics screen will be available to select until the machine is powered down. When the machine is next started, those screens will not be available until the PIN code is reentered.

### Menu Screen

Once the PIN code is accepted, the main menu screen is available. The menu options may be selected to open various screens for setting up preferences, calibrating, and troubleshooting.



## Machine Preferences

The Machine Preferences screen allows you to configure the machine based on operator or site preferences.

### Enable Auto Transmission

The transmission may be set to:

- **Manual** - Only manual shifting is allowed.
- **Auto** - Full automatic shifting in forward and reverse. May be toggled between Auto and Manual with the joystick button.
- **Auto REV** - Automatic shifting only in reverse. May be toggled between Auto REV and Manual with the joystick button.

### Speed Proportional Steering

- **On** - *Recommended.* Joystick steering becomes less responsive as ground speed increases.
- **Off** - Joystick steering is consistent regardless of ground speed.

### Digital Display

Configures units on the home screen. Settings:

- **Imperial**
- **Metric**

### Hot Turbo Shutdown Delay

- **Off** - The engine will shut down immediately after the key is turned off.
- **On** - *Recommended.* The engine may continue to idle for some time after the key is turned off. This allows oil to continue to circulate to cool the turbo. The time until the engine shuts down is determined by intake manifold temperature, and may range from 0 to 3 minutes.

### RH Middle Button

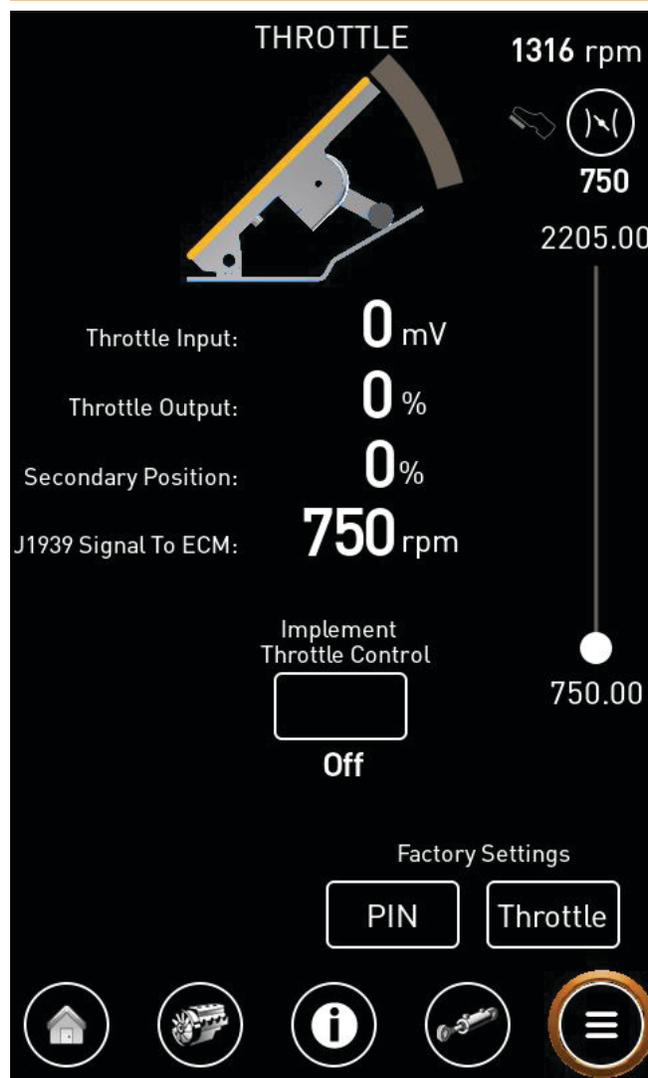
The middle button on the RH joystick may be configured as followed:

- **Disabled** - The button will not activate any function.
- **Bucket Return** - Pressing the button will automate a sequence in which the bucket tilts back, lowers, and bucket float is engaged.

### Home Screen

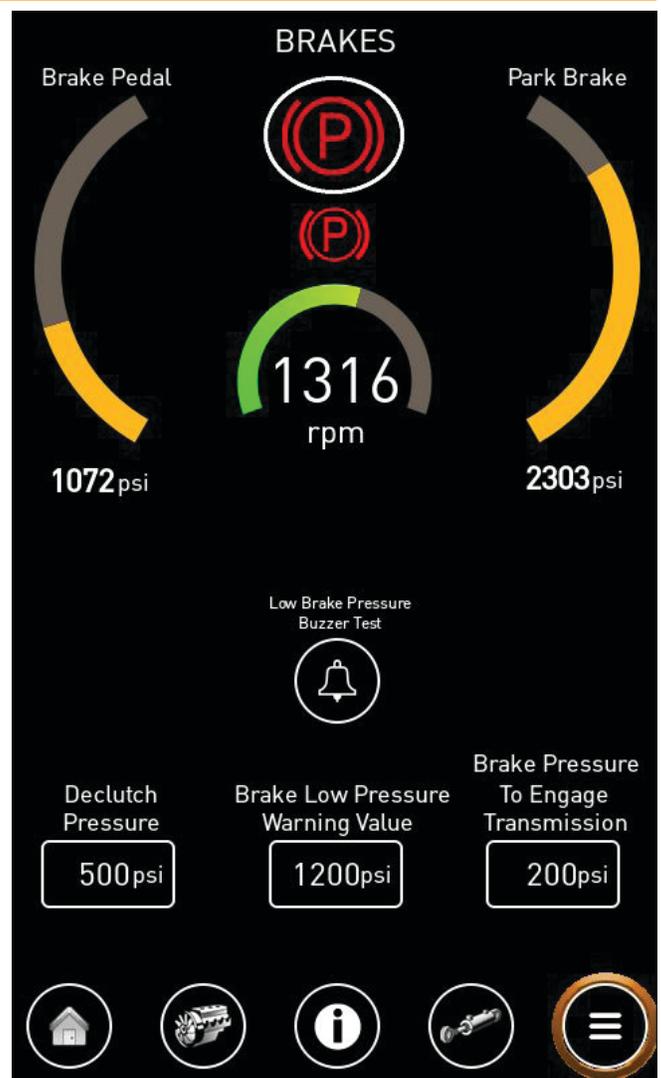
Sets the layout of the home screen. Settings:

- **Standard** - Standard 6 gauge layout - *Default*
- **Alternate** - 3 gauge layout. Will revert back to standard 6 gauge layout when the machine is restarted.



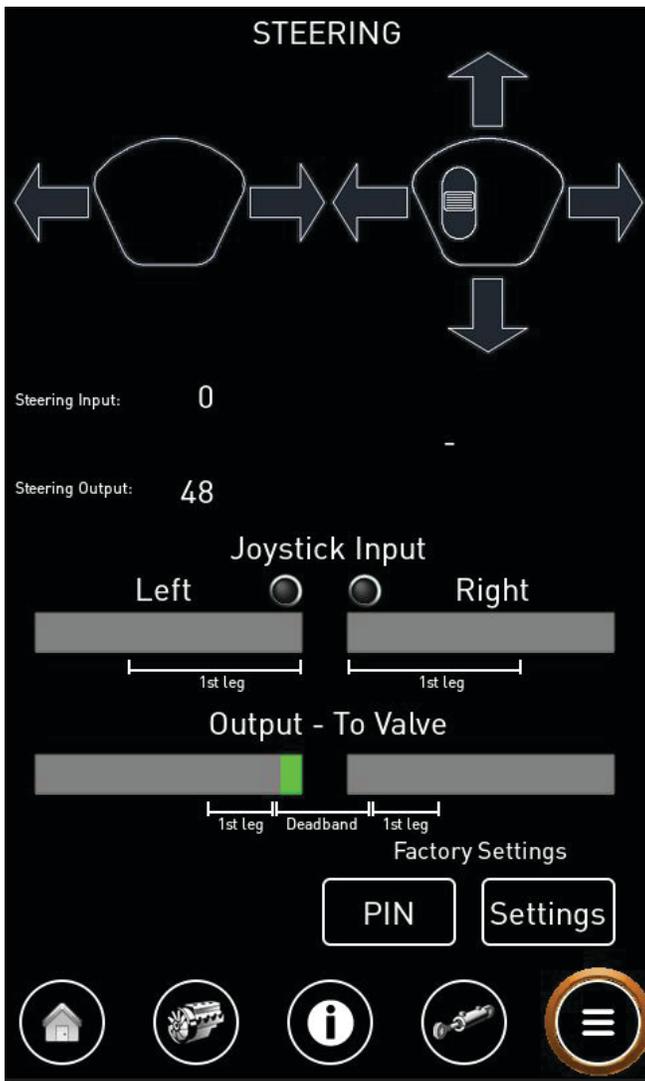
## Throttle

The Throttle screen displays the throttle pedal inputs and the output signal to the ECM. Implement throttle control allows the joysticks to ramp up throttle at the end of the stroke during active declutch.



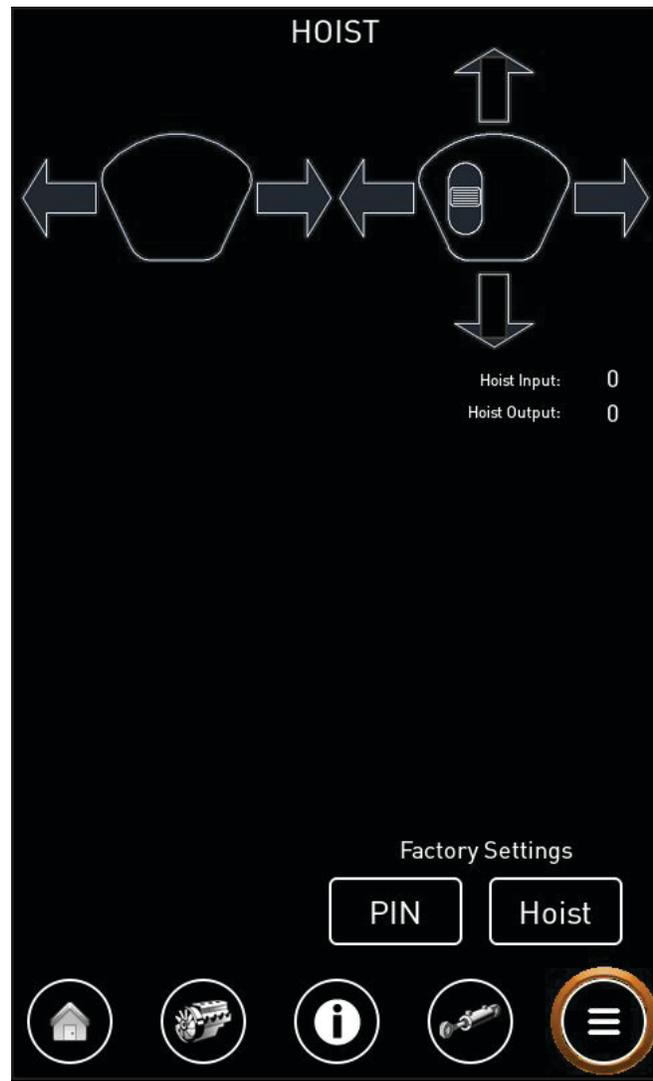
## Brakes

The Brakes screen displays service brake and park brake pressures, and allows you to test the low brake pressure alarm. Declutch Pressure allows you to adjust the brake pressure point that disengages transmission for declutch. Brake Pressure To Engage Transmission adjusts the amount of brake pressure (which is directly related to brake pedal force) required to come out of park.



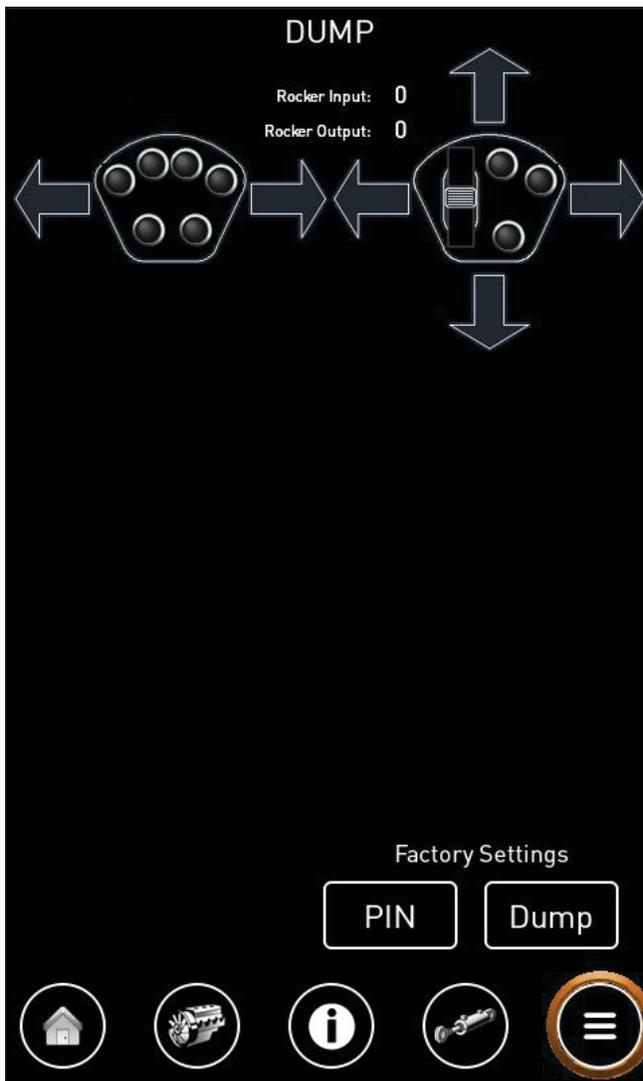
## Steering

The Steering screen is used to view the joystick steering performance. The stroke of the joystick is split into a dual ramp functionality. The stroke of the 1st leg corresponds to the 1st leg of the output to valve. The remainder of the stroke then corresponds to the remainder of the output to valve. This is to smooth out the steering control.



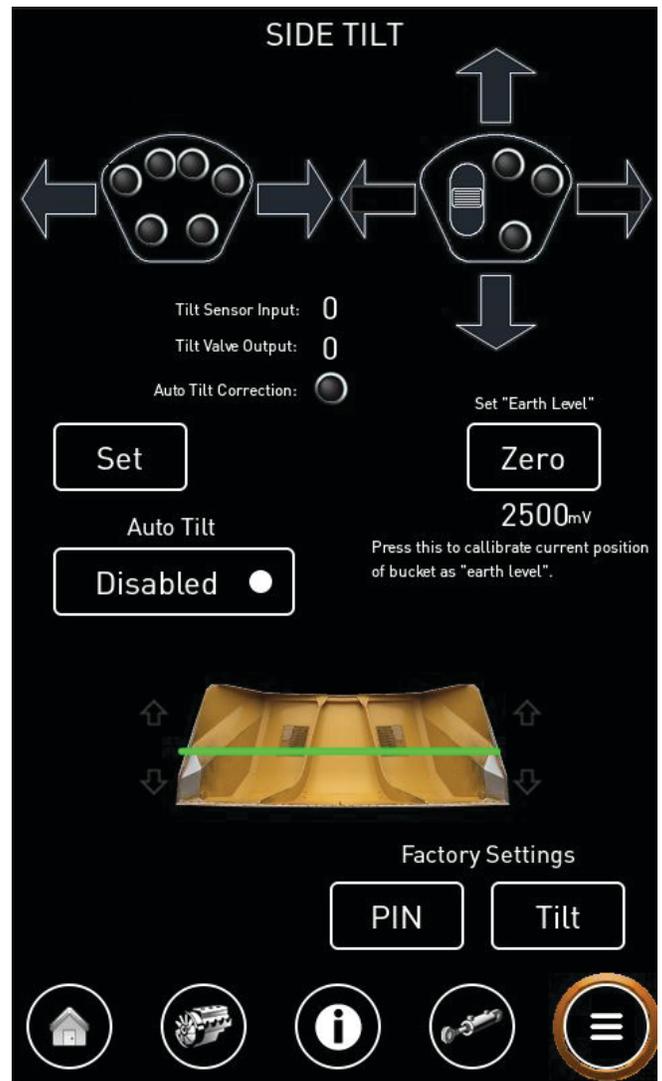
## Hoist

The Hoist screen displays the hoist input and output. Factory settings adjust deadband and current to start movement.



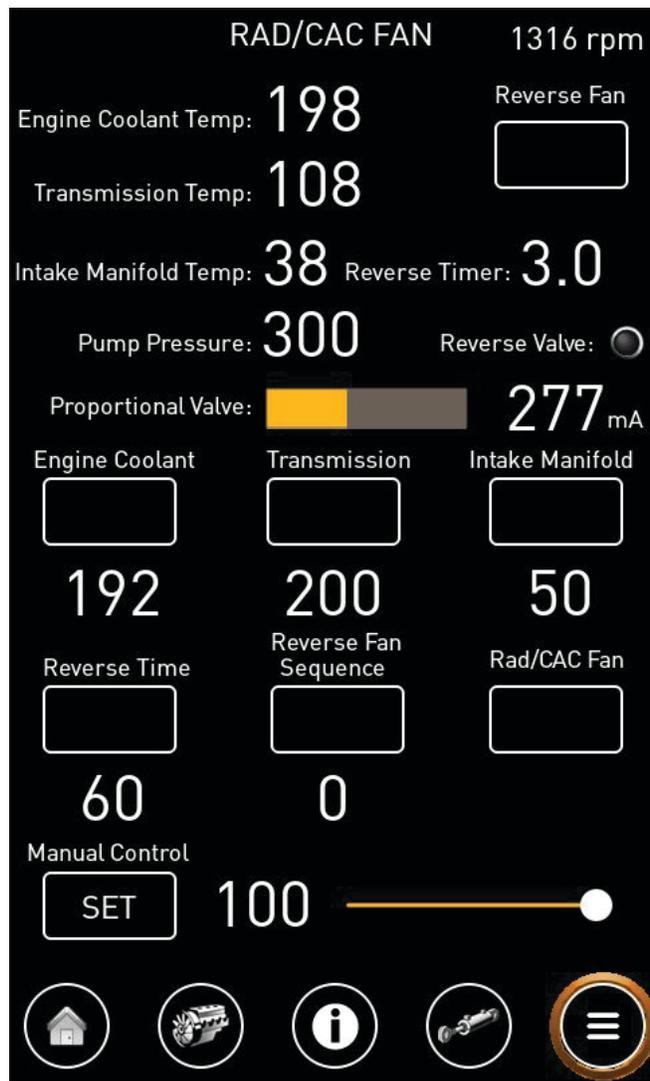
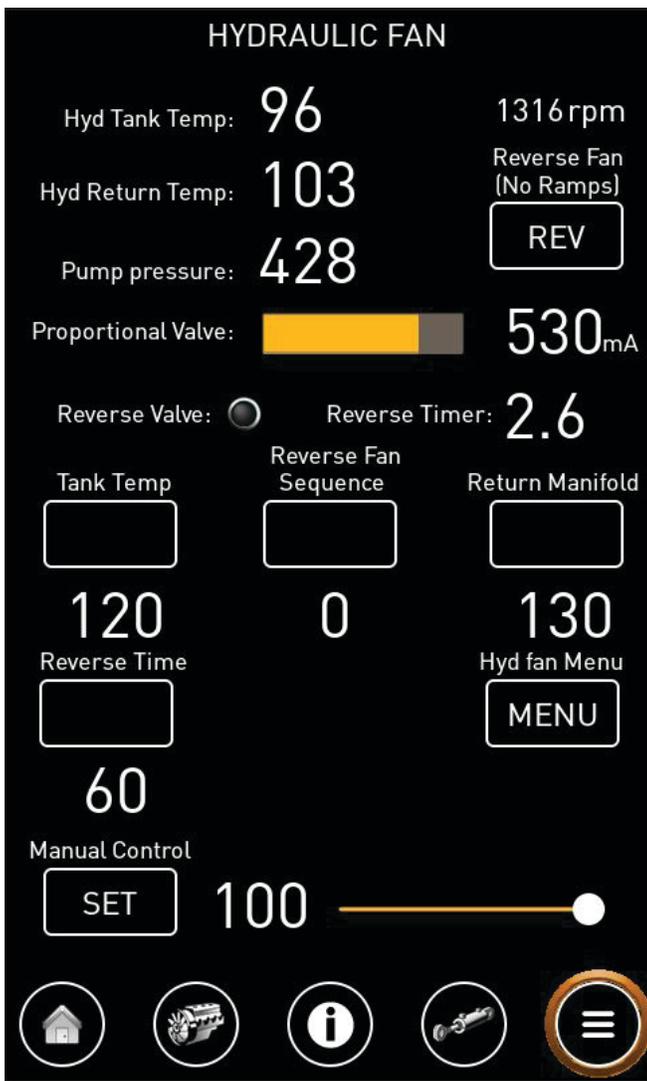
## Dump

The Dump screen displays the dump input and output. Factory settings adjust deadband and current to start movement.



## Side Tilt

The Side Tilt screen displays the side tilt input and output, as well as side tilt accelerometer input and adjustments.

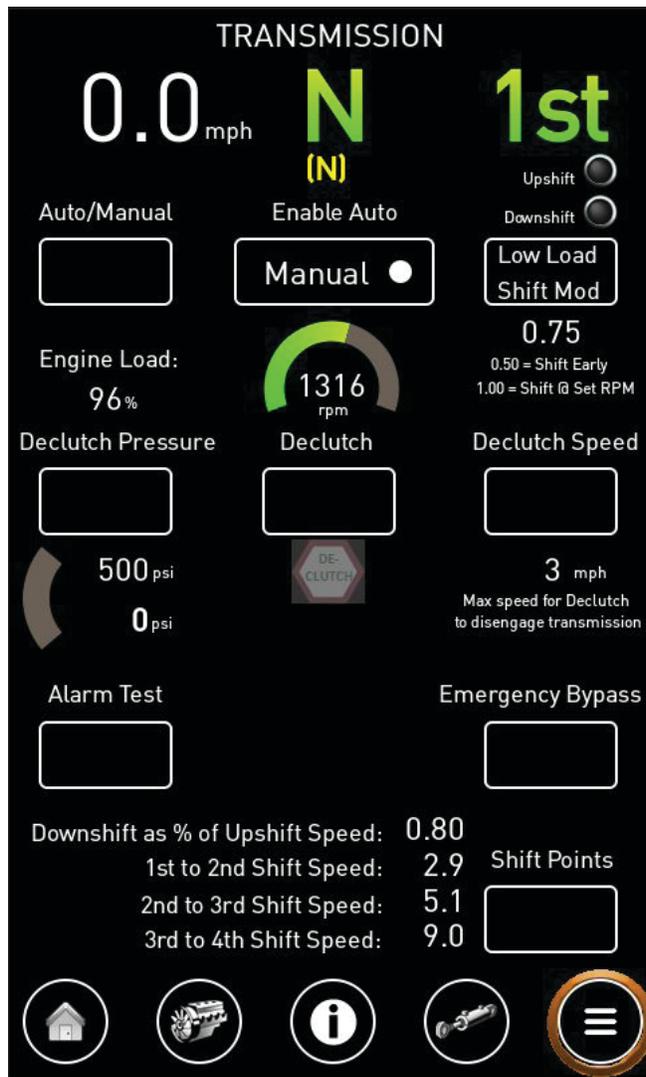


## Hydraulic Fan

The Hydraulic Fan screen is for diagnosing and adjusting the hydraulic cooler fan. The tank and return manifold temps are where the fan will begin ramping on, and will reach full speed 20 degrees above this point. Pressing “reverse fan sequence” will run the fan through the reverse cycle, ramping down and up between direction changes. Reverse time is the number of minutes between auto reverse cycles. Manual control and the slider bar allows setting a valve current value to manually drive the fan.

## Rad/CAC Fan

Similar to Hydraulic Fan screen, the Rad/CAC Fan screen monitors and adjusts the engine cooling fan. “Engine coolant temp” is the beginning of fan ramp with max speed 10 degrees above this point. Reverse time is the number of minutes between auto reverse cycles. Transmission ramps up to 20 degrees over this while intake manifold is 10 degrees over for max speed.



## Transmission

The Transmission screen allows you to monitor, setup, and tune the transmission.

**Auto/Manual** - Toggles between Automatic shifting and Manual shifting. This control only functions when Enable Auto is not set to Manual.

**Enable Auto** - Allows you to set the transmission to Manual, Auto, or Auto REV.

**Low Load Shift Mod** - *Requires Factory Pin.* Allows the transmission to shift up early and down late if engine is under low load. To shift right at shift speeds set to 1.

**Declutch Pressure** - Sets pressure to disengage.

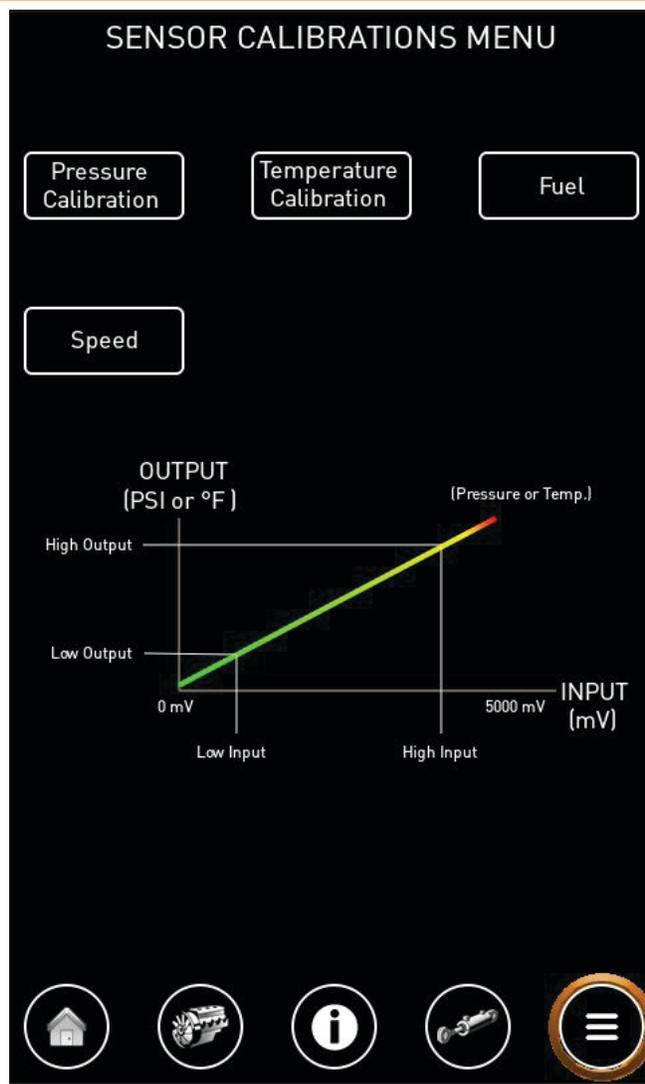
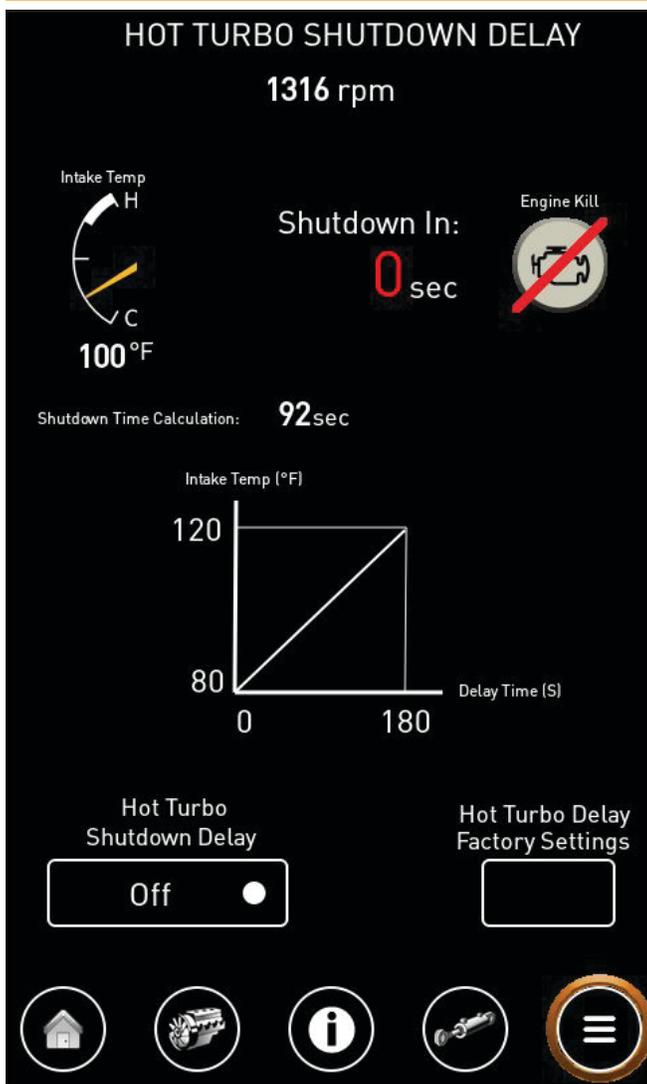
**Declutch** - Enables and Disables declutch.

**Declutch Speed** - *Requires Factory Pin.* Sets the maximum speed at which declutch will engage (to maximize engine braking while slowing).

**Alarm Test** - Tests the reverse alarm.

**Emergency Bypass** - Removes safety features, allowing the transmission to go into gear without brake input (limp mode in case of a sensor failure).

**Shift Points** - *Requires Factory Pin.* Adjusts shift points.



## Hot Turbo Shutdown Delay

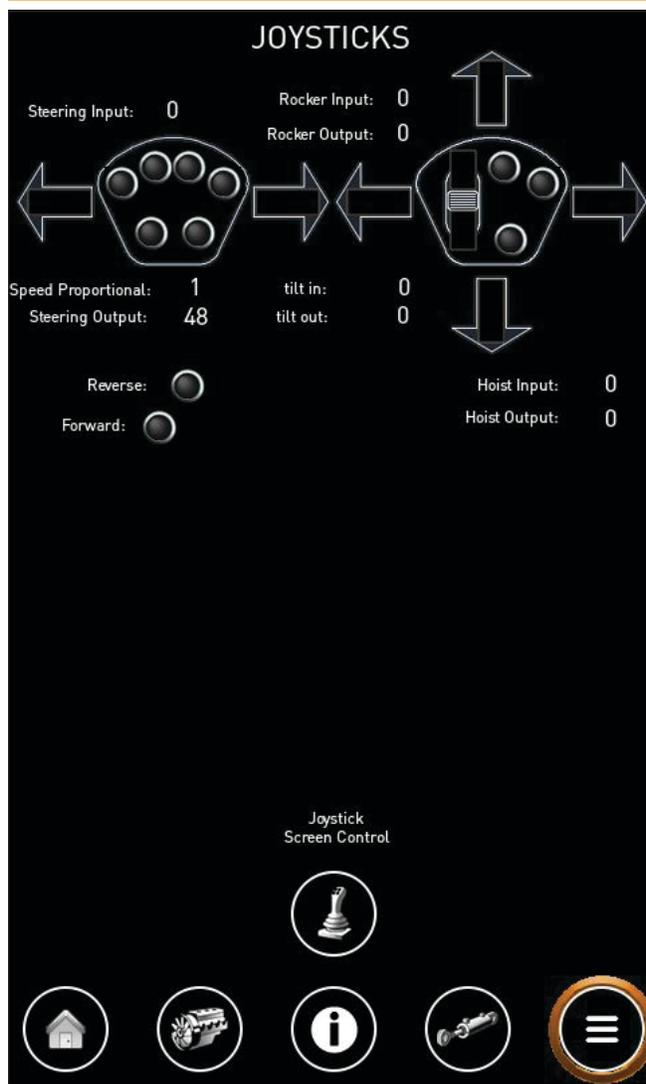
The Hot Turbo Shutdown Delay screen displays the state of the function, including current intake temperature, and current time to engine shutdown.

When enabled, the hot turbo shutdown delay will capture the engine intake manifold temperature at the point the key is cycled off and calculate the time until shutdown. By default, intake temps below 80 degrees F will not delay shutdown and temps above 120 degrees will delay shutdown for a maximum of 3 minutes. When in the shutdown cycle, throttle and implement controls are disabled.

The Engine Kill button may be selected in emergency situations when it is more important to shutdown the engine immediately than it is to protect the turbo.

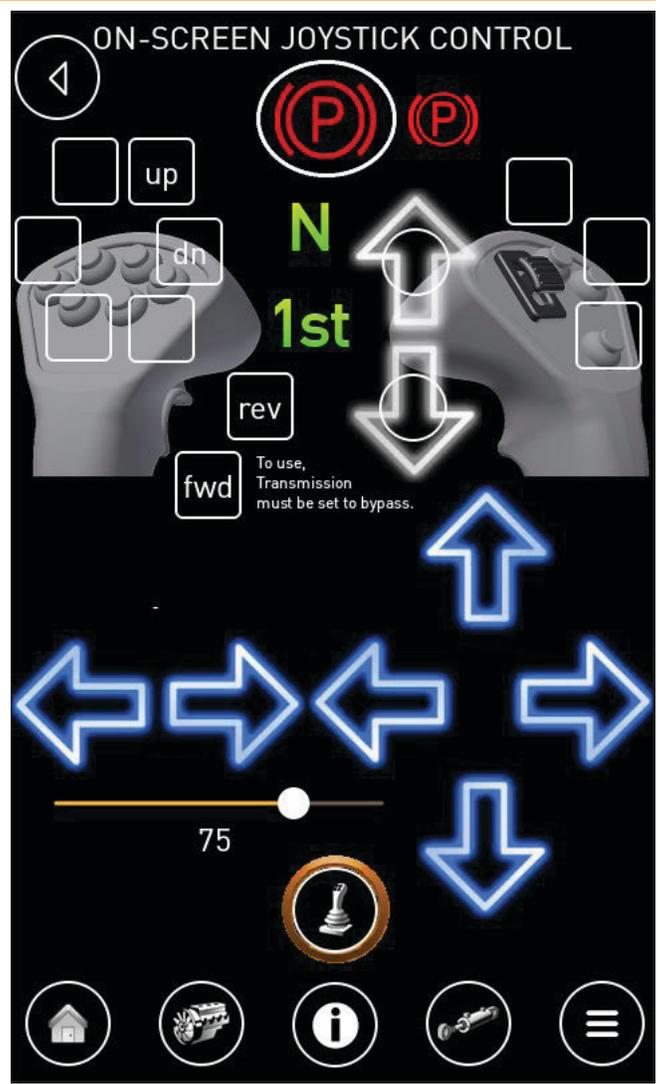
## Sensor Calibrations Menu

The Sensor Calibrations Menu allows the factory to calibrate various sensors. The diagram shows the 2-point calibration used on all sensors except the speed sensor.



## Joysticks

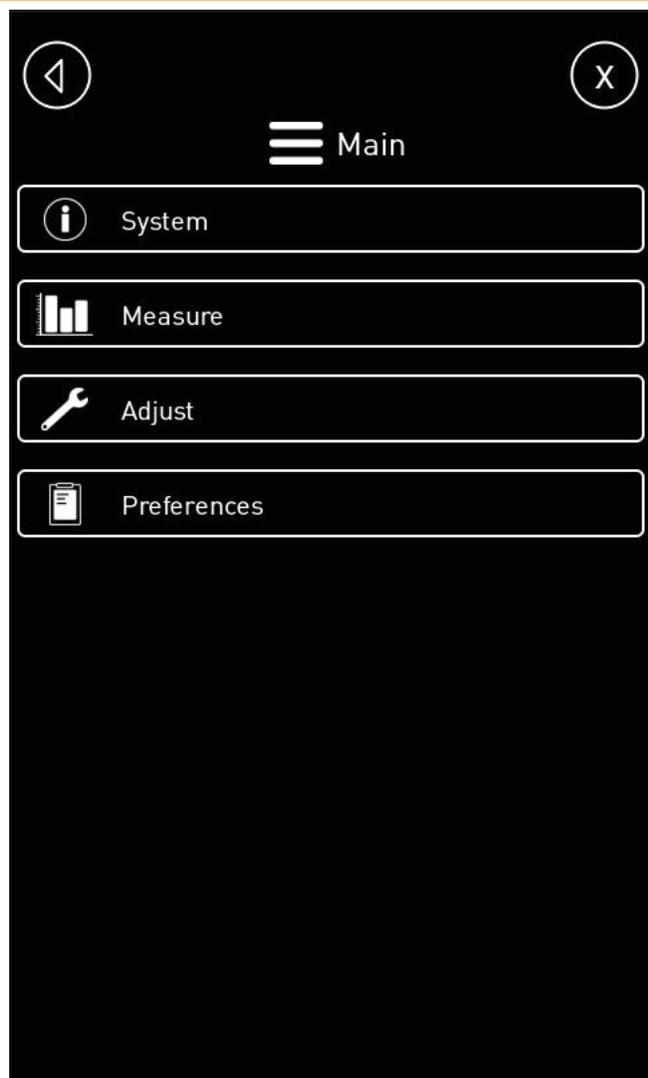
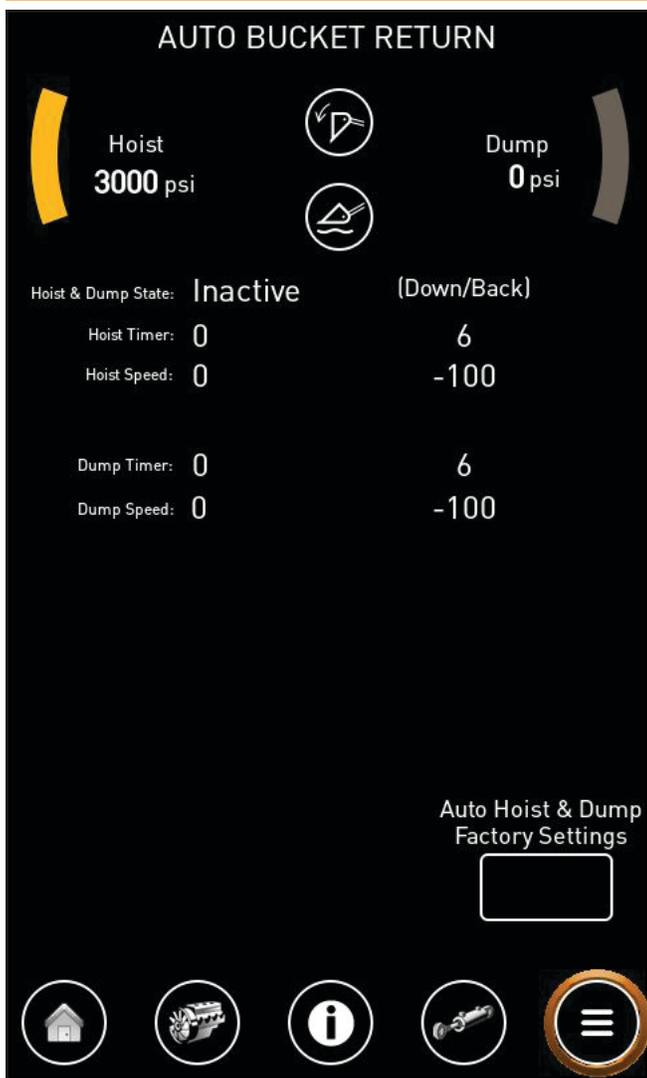
The Joysticks screen displays all the joystick inputs for troubleshooting. Joystick Screen Control opens the On-Screen Joystick Control screen.



## On-Screen Joystick Control

The On-Screen Joystick Control screen allows you to operate all joystick functions from the screen. This screen may be used when there is a malfunction with either joystick that prevents the operator from being able to use the joystick(s) to control the machine.

The slider allows you to adjust the signal for proportional controls. For example, with the slider set to "75" as shown above, pressing an arrow button will be equivalent to pushing the joystick to 75 percent of its total travel.



## Auto Bucket Return

The Auto Bucket Return screen displays the current state of the function.

When engaged, the bucket will roll back for three seconds. The bucket will continue to roll back and lower simultaneously for three seconds. Then the bucket will continue to lower for another three seconds. Finally, bucket float is engaged.

Moving the joysticks for hoist or dump more than 1/3rd of their travel cancels the function.

## Menu System

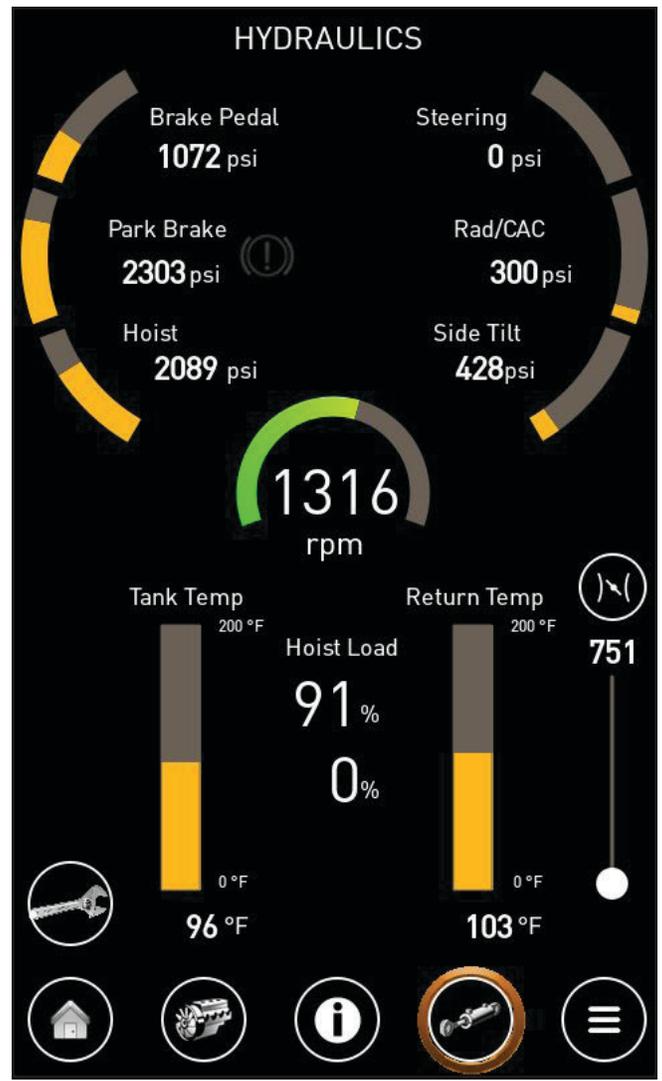
The Menu System page is a built-in menu that accesses all parameters. The engine may be reached under “system” and then “J1939 Engine” where ECM codes can be retrieved. All relevant adjustments should be made outside of this menu system.



## Engine

The Engine page contains more specific engine gauges.

If Ether start is installed, it may be injected from this screen.



## Hydraulics

The Hydraulics screen displays all the hydraulic pressures and temperatures.

Press the Wrench button to access the relief pressure setup page.



## Relief Setup

The Relief Setup screen may be used when a technician working alone needs to set relief pressures.

Click on the information button on this screen for operating instructions for this feature.