Fuel

App Guide

English

Software version: 2.1

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This product's safety, disclaimer and compliance statements are supplied as a separate document.

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Some features in this product use an internet connection to perform data downloads and uploads. Internet usage via a connected mobile/cell phone internet connection or a pay-per-MB type internet connection may require large data usage. Your service provider may charge you based on the amount of data you transfer. If you are unsure, contact your service provider to confirm rates and restrictions.

More information

Document version: 001

This document was prepared using software version 2.0.

Features described in this document may vary from your unit due to connected devices, settings, brand, and continuous software development.

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ABOUT THE APP

The Fuel app presents a dashboard which helps track fuel consumption at a given speed and provides graphical insights on instantaneous fuel economy and estimated range. You should use the app to record your fuel top ups for accurate data representation.

⚠ **WARNING:** To ensure accurate fuel calculations on the virtual tank, turn on the MFD before starting the engines. This enhances the precision of the remaining fuel displayed.

REQUIREMENTS

To display accurate information on the Fuel app, suitable hardware must be installed and commissioned on your vessel.

➔ *Note: The Fuel app will display only when a fuel level sensor or a fuel flow sensor is connected to the network.*

For engines which provide fuel rate data:

Mercury engines:

A SmartCraft Connect gateway and a Navico fuel data manager (SKU 000-11522-001) are required.

Non-Mercury engines:

Fuel flow data support from the engine manufacturer and a Navico fuel data manager (SKU 000-11522-001) are both required.

➔ *Note: For engines without fuel flow data, a Navico fuel flow rate sensor (SKU 000-11517-001) is required.*

ℹ If your vessel has more than 3 engines, a second data manager is required.

For vessels with fuel level sensors:

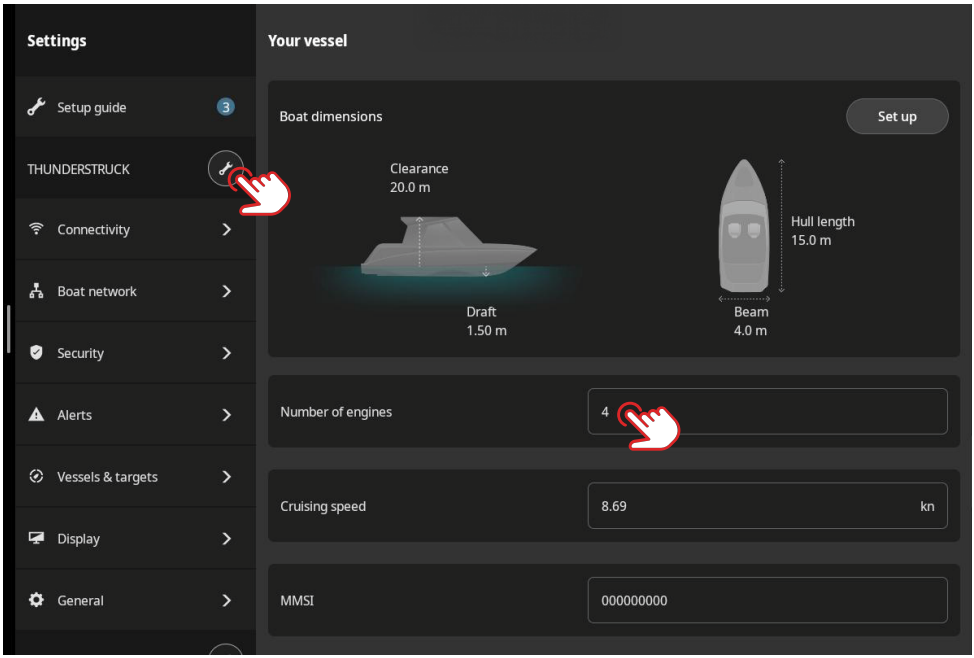
A Navico fuel level sensor (SKU 000-11518-001) or a Mercury fuel level sensor connected via a SmartCraft Connect gateway is required.

INITIAL SETUP

Please follow the on-screen prompts when you first open the app. The **Setup wizard** will guide you to provide the necessary information for your installed hardware.

Engine set up

To set up the number of engines on your vessel, navigate to **Settings > Vessel > Number of engines**.

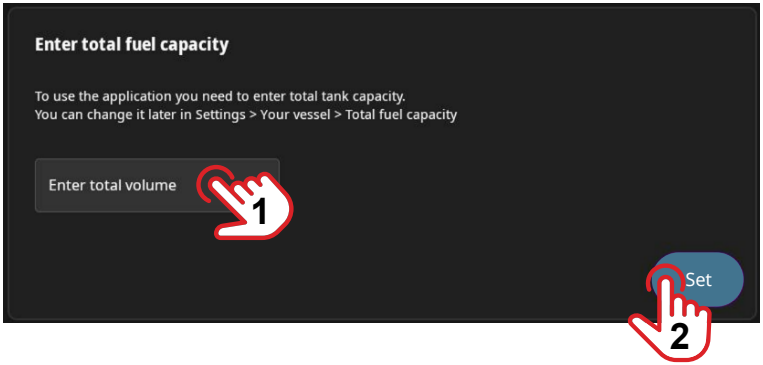


➔ *Note: It is important to set up the number of engines correct for accurate fuel data readings.*

Total fuel capacity

Total fuel capacity must be specified when a fuel flow sensor is connected.

The total fuel capacity of the vessel must be set up for the Fuel app to display accurate information. On launching the app for the first time, enter the total fuel capacity in the dialog box (**1**), then select **Set** (**2**).



If necessary, you can modify the total fuel capacity, simply navigate to **Settings > Vessel > Fuel capacity > Setup**.

Fluid level and fuel flow rate sensors

Install and connect a fluid level sensor and a fuel rate sensor to the NMEA 2000® network.

To configure these sensors, navigate to **Settings >Boat network > Devices**, locate the connected devices, then follow the setup wizard.

FUEL DASHBOARD

1 Instant consumption — shows instantaneous fuel economy.

2 Speed — shows the current speed over ground derived from the GPS sensor.

3 Range — shows the estimated instantaneous range available based on the speed, current fuel consumption rate, and available fuel.

4 Fuel data source —

- Select **Rate sensor** to see a calculated fuel level value based on recorded fuel burn.
- Select **Level sensor** to see the current fuel level based on data from the tank level sensor.

➔ *Note: If only one of the above sensor types is connected, the option to select a sensor is not displayed.*

5 Virtual tank level — shows a graphical representation of the fuel remaining based on selection of rate sensor or level sensor.

6 Fuel level — shows an approximate fuel capacity against the total fuel capacity and selection of rate sensor or level sensor.

7 Add fuel — select to add the top-up refill fuel volume.

8 Fuel economy graph — shows the current economy logged over time.
A target economy (most economical state of the boat under average conditions) can be set. See baseline efficiency below.

9 Time selector — select the time over which to see fuel consumption data.

10 Baseline efficiency — select to set the baseline fuel economy of the engines. This appears as the **Target** line on the graph.

FUEL DATA SOURCE

Rate sensor

A (fuel) rate sensor captures data on fuel consumed by one or more engines. A rate sensor is more accurate than a tank level sensor and in the Fuel app, it is required to illustrate the fuel economy, range and fuel consumption graphs.

➔ *Note: One rate sensor per engine is required.*

Remember to select **Add fuel** to record your fuel fills.

➔ *Note: A fuel data storage device is required, which records and stores fuel consumed even when the display unit is turned off. This device may be included with some engines. If required, we recommend you install a Navico fuel data manager (SKU 000-11522-001).*

➔ *Note: An **Add fuel** button displays in the app only when a fuel rate sensor is connected.*

Level sensor

A (tank) level sensor captures data on the fuel level in the tank and this is illustrated on the virtual tank level.

Typically, a level sensor is less accurate than a rate sensor due to the tank shape or fuel movement in the tank.

RECORDING FUEL FILLS

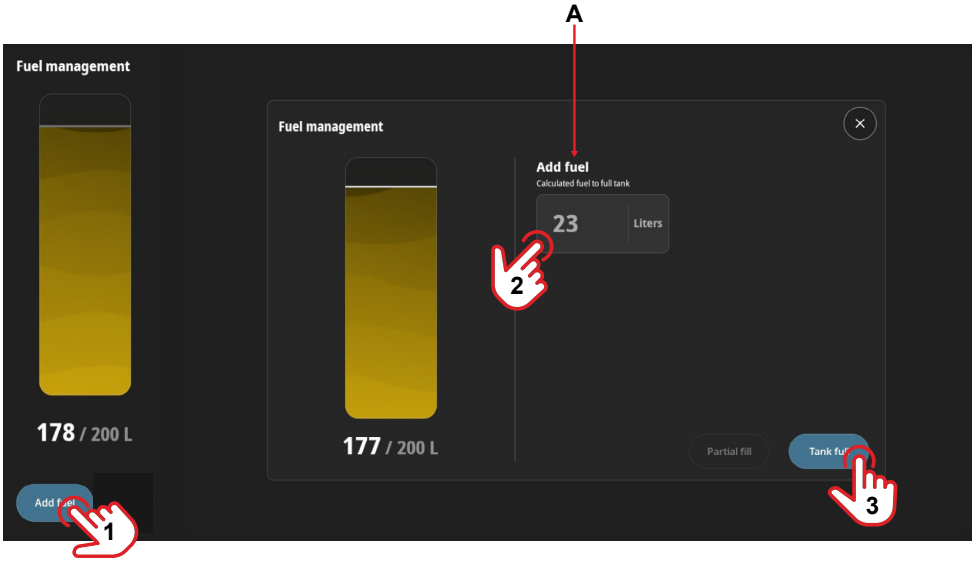
It is important to record fuel fills if you use a fuel rate sensor to measure fuel economy and synchronize the app's virtual tank with the fuel volume in the physical tanks.

➔ *Note: The **Add fuel** button displays in the app only when a fuel rate sensor is connected.*

The system suggests the amount of fuel required for a full tank (**A**). This is a calculated value based on historic fuel consumption data.

Select **Add fuel** (**1**) to see the **Fuel management** dialog. Select the fuel quantity field (**2**) and input the fuel volume.

Select **Tank full** (**3**) to complete recording your fuel fill.



Select **Reset statistics** to reset all fuel economy data. This does not impact your fuel tank capacity settings.

INSTANT CONSUMPTION

The **Instant consumption** indicator shows the current fuel economy of the vessel as indicated numerically and by a colored ring. The ring color changes based on the proximity to the pre-set baseline efficiency (target economy).

Green – Best economy

Vessel is running at or close to the target economy.

Blue – Good economy

Vessel is running less efficiently than target economy.

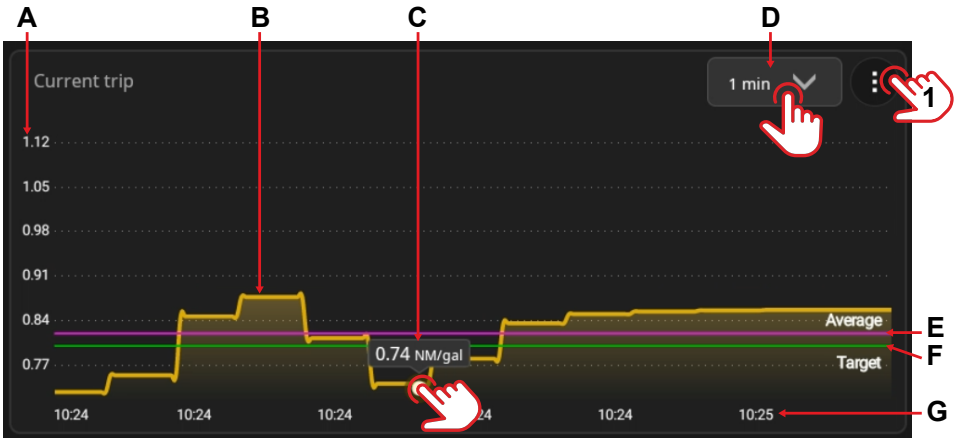
Red – Poor economy

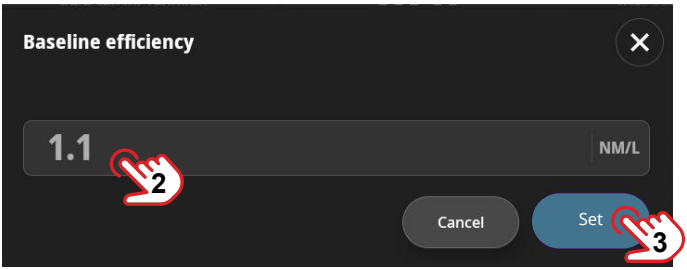
Vessel is running inefficiently compared to target. Vary throttle and check target efficiency.

➔ *Note: Navigate to **Settings > Preferences > Economy** to set up economy units.*

CURRENT TRIP GRAPH

The current trip graph shows the current economy logged over time.





A Fuel economy level (vertical axis)
B Fuel economy line
C Select a point on the fuel economy line to see the historical value.
D Range selector — select a time range for the graph.
E Average fuel economy line — this is an average of the highest and lowest fuel economy over the selected time (**D**).
F Target economy line (see further below)
G Time range (horizontal axis)

Target economy

Target economy is the most economical state of the vessel's engines under normal operating conditions.

The **Target** economy line is based on the value set in the **Baseline efficiency** dialog. Select the menu button (**1**), then add the economy value (**2**), and select **Set** (**3**).