

CAMPAR User Guide

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Introduction

Computer-Aided Marine Performance Analysis Report (CAMPAR) is an integrated component of Service Interlink. In order to access CAMPAR, log into the Service Interlink site with a valid CWS Id and click on the CAMPAR link located in the main menu.



CAMPAR is designed to provide Caterpillar Certified Marine Analysts with the ability to:

- Formulate actual and factory-specified test results for marine propulsion engines and transmissions.
- Produce a graphic representation of the actual and factory-specified fuel rate, boost pressure and exhaust temperature results for propulsion systems utilizing fixed pitch propellers under normal operating conditions.
- Make consistent interpretations and recommendations from the test results, for marine propulsion engines and transmissions.
- Provide versatility for the analysis of Electronic Control Module equipped Caterpillar engines, as well as the ability to plot the engine fuel rate for comparison to TMI specifications for mechanically governed engines.

CAMPAR contains a Caterpillar specification database for the most common engine models and ratings. It also provides the analyst with the capability to formulate specification data for unique and non-current engine models and ratings.

Acronyms

The following are the common terms that are used within the scope of this document.

Acronym	Description
CAMPAR	Computer-Aided Marine Performance Analysis Report
ET	Caterpillar Electronic Technician software
SSD – Now prepared in .TXT format	Steady State Document file (created by ET Sea Trial Datalogger). The .TXT format is required for CAMPAR.
TXT	General Information Document file (created by ET Sea Trial Datalogger)
TMI	Technical Marketing Information that is imported into the CAMPAR analysis report process.

Cat Dealer CAMPAR Information and Training

Additional information and training course updates can be found on the [Cat Dealer Sea Trial & Campar](#) page.

Contact Support

Please refer to this user guide for general program usage instructions. For additional assistance, you may contact the support team as follows.

Hotline Hours

Monday through Friday

6:00 AM to 7:00 PM - United States Central Standard Time

Telephone Numbers

800-901-8777 (United States only)

309-266-9749 (From all other locations)

309-263-0127 (FAX)

Internet Email

enginesoftware@catsupport.com

Cat ET Files for CAMPAR Use

The CAMPAR application is compatible with Cat ET v2016C or newer General Information .TXT and Steady State .TXT files (the .SSD will not be imported). It is recommended that the latest version of Cat ET be utilized for all new sea trials.

CAMPAR Entry Point

The radio button selections available on this page serve as the entry point into the CAMPAR process and are defined as follows:



CAMPAR options:

- Add a new Sea Trial in CAMPAR from local CAT ET files
- View existing analysis or import CAT ET files from Service Interlink
- Add a new manual sea trial in CAMPAR

Next

- *Add a new Sea Trial in CAMPAR from local Cat ET files.* This option allows the user to start a new analysis of sea trial files produced from Caterpillar Electronic Technician. This option assumes the files have not previously been uploaded as Sea Trial attachments in Service Interlink.
- *View existing analysis or import Cat ET files from Service Interlink.* This option allows the user to create a new analysis from Cat ET files previously uploaded. Or, open an existing CAMPAR analysis.
- *Add a new manual sea trial in CAMPAR.* This option allows the user to start a new manual analysis in CAMPAR without the assistance of Cat ET files.

Creating a new analysis by importing ET files

Click on the ‘Add a new Sea Trial in CAMPAR from local Cat ET files’ radio button on the main menu to add a new analysis using sea trial files produced from Caterpillar Electronic Technician.

The screenshot shows a web form titled "Add a New Sea Trial in CAMPAR from Local ET Export Files". The form includes the following elements:

- Instructions:** "Browse to the location of Cat ET files to upload each file type. Cat ET v2016C or newer is supported in English format only. Both the General Information and the Steady State files must be the .TXT format exported from Cat ET." and "Select the unit of measure preference for display of the imported Cat ET data and the TMI spec data." and "Type a name for the analysis record you are creating with this import process."
- Section Header:** "Create New Analysis from Cat ET Files" (highlighted in yellow).
- File Selection:** Two sections for file selection, each with a "Browse" button and a text input field:
 - "Cat ET General Information Document (TXT) file:"
 - "Cat ET Steady State Document (TXT) file:"
- Unit Preference:** A dropdown menu labeled "Unit Preference:" with a red "X" icon and a checkmark.
- Analysis Name:** A text input field labeled "Analysis Name:" with a red "X" icon.
- Action:** A yellow "Create Analysis" button.

After clicking on the ‘Add a New Trial in CAMPAR from Local ET Export files’ radio button, browse to locate and select the desired General Information and Steady State Data files. Select a unit preference. Provide a unique Analysis name and click the “Create Analysis” button.

The ‘Add a New Sea Trial in CAMPAR from local ET Files’ page will display with the search field for the Serial Number defaulted to the Serial Number specified in the files imported. To search on additional fields, the Advanced Search checkbox enables searching on Serial Number, Vessel Name, Hull ID, and IMO number. The original Serial Number, Vessel Name, and Hull ID contained in the imported files will be shown as read-only fields to the right of the search fields in a column labeled ‘ET Values’.

A list of vessels with matching associated data will appear in the search results grid. To associate a new sea trial analysis to an already created vessel, click on the ‘select’ link next to the vessel.

CATERPILLAR **Marine Power Systems - Service Interlink**

Search | Add Vessel | Administration | What's New | Help | CAMPAR | Tools | Switch Market | Certificate Analyst Help

Add a New Sea Trial in CAMPAR from Local ET Files

Search existing Service Interlink vessel records for the serial number found in the import file (see the ET Values field). The sea trial analysis should be associated to an existing vessel or if necessary, a new vessel should be added. Enter the vessel information to search the Service Interlink records.

Vessel Search Values ET Values

Serial Number: C1Z01446 C1Z01446 Advanced Search

Vessel Name: Voyager

Hull ID: 367309580

IMO Number:

[Search](#) [Add New Vessel](#)

Click Select next to the existing Service Interlink vessel record to associate to the imported sea trial data.

Showing 1 through 2 Of 2

Action	Vessel Name	Hull ID	Shipyard Builder	Serial Number(s)
Select	Voyager	367309580	VARD Brattvaag AS	C1Z01446
Select	Voyager	367309580	ABG SHIPYARD	C1Z01446

Once the vessel is selected from the results grid, the General Info page will display. All available data from the selected files will be imported in. If the information was not available in the import process, additional information may need to be manually entered.

NOTE: if multiple serial numbers are used in the analysis, toggle back and forth between the serial numbers to view imported data for each serial number and to manually enter in required data.

CATERPILLAR **Marine Power Systems - Service Interlink**

Search | Add Vessel | Administration | What's New | Help | CAMPAR | Tools | Switch Market | Certificate Analyst Help

Add New Vessel

Service Interlink requires specific information to create a new vessel record. This is information that will be available and can be updated from Service Interlink.

In some instances, CAMPAR will offer options to customize for report purposes. Complete the required fields and click Add Vessel.

Type: Custom Commercial Serial Number(s): C1Z01446

Shipyard: Equipment Type: Cat Propulsion Engine

Shipyard Model: Engine Location: Starboard

Hull ID Number: 367309580

Vessel Name: Voyager

IMO Number: [Add Vessel](#)

IMO Number Not Available

In the event the vessel associated with the sea trial analysis is not found in the Service Interlink database, or if you to make a new one, click the 'Add New Vessel' link to add a new vessel.

Vessel Type, Shipyard, Shipyard Model, Hull ID Number, Vessel Name, IMO Number, Serial Number(s), Equipment Type, and Engine Location fields will default to the information contained within the imported Cat ET files. The Serial Number(s), and Engine Location field is not editable.

CATERPILLAR Marine Power Systems - Service Interlink

Search | Add Vessel | Administration | What's New | Help | CAMPAR | Tools | Switch Market | Certificate Analyst Help

Add New Vessel

Service Interlink requires specific information to create a new vessel record. This is information that will be available and can be updated from Service Interlink.
In some instances, CAMPAR will offer options to customize for report purposes. Complete the required fields and click Add Vessel.

Type:	Custom Commercial	Serial Number(s):	C1Z01446
Shipyard:	GIBDOCK	Equipment Type:	Cat Propulsion Engine
Shipyard Model:	3412C	Engine Location:	Starboard
Hull ID Number:	367309580		
Vessel Name:	Voyager		
IMO Number:	2272017		

IMO Number Not Available

Add Vessel

Once the required information has been added, click on the 'Add Vessel' button.

CATERPILLAR Marine Power Systems - Service Interlink

Search | Add Vessel | Administration | What's New | Help | CAMPAR | Tools | Switch Market | Certificate Analyst Help

Add New Vessel

Service Interlink requires specific information to create a new vessel record. This is information that will be available and can be updated from Service Interlink.
In some instances, CAMPAR will offer options to customize for report purposes. Complete the required fields and click Add Vessel.

Type:	Custom Commercial	Serial Number(s):	C1Z01446
Shipyard:	GIBDOCK	Equipment Type:	Cat Propulsion Engine
Shipyard Model:	3412C	Engine Location:	Starboard
Hull ID Number:	367309580		
Vessel Name:	Voyager		
IMO Number:	2272017		

IMO Number Not Available

Add Additional Serial Numbers **Continue Analysis (Attach Vessel)**

Once a new vessel has been created, additional serial numbers may be added or the sea trial analysis can begin. Information will be imported into the 'General Info', 'Pre Test', 'Sea Trial Data Selection', 'PAR Test Data', 'Fuel Rate & Boost Data', 'Fuel Rate Curve', 'Boost Curve', 'Fixed Speed Data' pages. Through the collection of all of this data, applicable fuel and boost graphs, as well as a final report will be generated. A formal analysis report will be available when the analysis is complete.

Manual Entry Process

To add a new Sea Trial manually, select the ‘Add a new manual sea trial in CAMPAR’ option from the CAMPAR home page

The screenshot shows the top navigation bar with the Caterpillar logo and the title 'Marine Power Systems - Service Interlink'. Below the navigation bar, the page title is 'CAMPAR'. There are links for 'CAMPAR User Guide' and 'What's New for CAMPAR'. The main content area contains instructions for using the tool, including options to add a new sea trial from local files, import from Service Interlink, or add a new manual sea trial. The 'Add a new manual sea trial in CAMPAR' option is highlighted with a red box. A 'Next' button is visible below the options. At the bottom, there is a note for IE users regarding compatibility mode.

The Add a New Manual Sea Trial page will display:

The screenshot shows the 'Add a New Manual Sea Trial' form. It includes instructions to enter at least one serial number, select a unit of measure preference, and type a name for the analysis record. The form contains four input fields: 'Serial 1', 'Serial 2', 'Unit Preference', and 'Analysis Name'. Each field has a red border and a small red icon with a white flame symbol. A 'Create Analysis' button is located at the bottom of the form.

Enter in a valid serial number (or numbers), select a Unit Preference, and provide a unique Analysis Name and click on the ‘Create Analysis’ button. All vessels with that specific serial number will be shown in the results grid. The options to associate the sea trial with an existing vessel or to create a new vessel is available. Click on the Advanced Search option to broaden the search results.

CATERPILLAR Marine Power Systems - Service Interlink

Search | Add Vessel | Administration | What's New | Help | CAMPAR | Tools | Switch Market | Certificate Analyst Help

Add a New Manual Sea Trial

Search existing Service Interlink vessel records for the serial number found in the import file (see the ET Values field). The sea trial analysis should be associated to an existing vessel or if necessary, a new vessel should be added. Enter the vessel information to search the Service Interlink records.

Vessel Search Values: Serial Number: E3X00202
 ET Values: E3X00202 Advanced Search

[Search](#) [Add New Vessel](#)

Click Select next to the existing Service Interlink vessel record to associate to the imported sea trial data.

Showing 1 through 5 Of 5

Action	Vessel Name	Hull ID	Shipyard Builder	Serial Number(s)
Select	D. A Grimm	275049	[Unknown]	E3X00202
Select	D. A Grimm	275049	Campbell Transportation Company	E3X00202
Select	CSE qa	2282017 1105	ARMON VIGO ASTILLERO	E3x00202, e3x00204
Select	JHW CSE	228 1109	Aabenraa Værft	e3x00202
Select	CSEQA	228 1114	AAROS MARINE LTD	e3x00202

Click on the ‘Select’ Link next to the vessel that the analysis should be associated to. In the event the vessel was not found in the Service Interlink database, click the ‘Add New Vessel’ link to create a new vessel. Once data is entered into the required fields, and an analysis name has been entered, click on the ‘Continue to Analysis’ button. This will open the General Info page and allow manual entry of data throughout the data collection process. Continue through this help file to review high level description of data entry pages.

CATERPILLAR Marine Power Systems - Service Interlink

Search | Add Vessel | Administration | What's New | Help | CAMPAR | Tools | Switch Market | Certificate Analyst Help

Add New Vessel

Service Interlink requires specific information to create a new vessel record. This is information that will be available and can be updated from Service Interlink.

In some instances, CAMPAR will offer options to customize for report purposes. Complete the required fields and click Add Vessel.

Type: Production Commercial
 Serial Number(s): E3X00202
 Shipyard: AB Yachts
 Equipment Type: Cat Propulsion Engine
 Shipyard Model: AB 58
 Engine Location:
 Hull ID Number: 3320171054
 Vessel Name: The Integrity
 IMO Number:
 IMO Number Not Available

[Add Vessel](#)

View Existing Sea Trial

To view an existing analysis or import Cat ET files from Service Interlink click on the ‘View existing analysis or import Cat ET files from Service Interlink’ option on the CAMPAR home page.

The screenshot shows the CAMPAR web interface. At the top, there is a yellow navigation bar with the Caterpillar logo and the text 'Marine Power Systems - Service Interlink'. Below this is a black navigation bar with links for Search, Add Vessel, Administration, What's New, Help, CAMPAR, Tools, Switch Market, and Certificate Analyst Help. The main content area is titled 'CAMPAR' and contains several sections: 'CAMPAR User Guide', 'What's New for CAMPAR', a paragraph about supported file formats, three bullet points describing different ways to add or view sea trials, a 'NOTE' about TMI sea trial data, and a 'CAMPAR options:' section with three radio button options. The second option, 'View existing analysis or import CAT ET files from Service Interlink', is selected and highlighted with a red box. Below the options is a 'Next' button and a note for IE users.

CATERPILLAR Marine Power Systems - Service Interlink

Search | Add Vessel | Administration | What's New | Help | CAMPAR | Tools | Switch Market | Certificate Analyst Help

CAMPAR

[CAMPAR User Guide](#)
[What's New for CAMPAR](#)

CAMPAR supports the Cat ET v2016C or newer files in English format only. The manual option can be used to enter sea trial information gathered in unsupported versions of Cat ET. Described below are the options available for utilizing the CAMPAR tool.

- *Add a new Sea Trial in CAMPAR from local CAT ET files: locate and upload the v2016C or newer General Information .TXT and Steady State .TXT files from a local directory.
- *View existing analysis or import CAT ET files from Service Interlink: identify vessel stored in Service Interlink, select either the Cat ET files already stored on the vessel Sea Trial Data section, or select a report already stored in CAMPAR.
- *Add a new manual sea trial in CAMPAR: enter mechanical engine information for analysis. Or, you can manually enter sea trial data when collected from an unsupported version of Cat ET.

NOTE: The CAMPAR tool relies on data from the TMI sea trial tab to generate its analysis. This TMI sea trial data has been fully populated for Tier 2 / IMOII and newer engines. If CAMPAR is being used to run a sea trial analysis on a legacy engine, prior to Tier 2, there may be unpopulated specifications which could lead to incomplete reports. If missing data is found on a Tier 2 / IMOII or newer engine, please contact ASC to populate these missing specifications.

CAMPAR options:

- Add a new Sea Trial in CAMPAR from local CAT ET files
- View existing analysis or import CAT ET files from Service Interlink
- Add a new manual sea trial in CAMPAR

Next

IE Users: You may experience issues using Internet Explorer if compatibility mode is enabled. If you experience issues using IE, please disable/remove compatibility mode for cat.com based websites.
[Managing Compatibility Settings](#)

When entering the View Existing Analysis page lists of the most recent vessels and the most recent analysis records you have created will appear.

CATERPILLAR Marine Power Systems - Service Interlink

Search | Add Vessel | Administration | What's New | Help | CAMPAR | Tools | Switch Market | Certificate Analyst Help

View Existing Analysis or Import ET Files From Service Interlink

Search existing Service Interlink vessel records and select the vessel whose associated files and analysis you want to view.

Vessel Search Values

Serial Number: Advanced Search

[Search](#) [Recent Activity](#)

Showing the 5 most recent vessels you have created.

Action	Vessel Name	Hull ID	Shipyard Builder	Serial Number(s)
Select	The Integrity	3320171054	AB Yachts	E3X00202
Select	CSEQA	228 1114	AAROS MARINE LTD	e3x00202
Select	JHW CSE	228 1109	Aabenraa Værft	e3x00202
Select	CSE qa	2282017 1105	ARMON VIGO ASTILLERO	E3x00202, e3x00204
Select	Voyager	367309580	GIBDOCK	C1Z01446

Showing the 5 most recent analysis' that you have modified.

Action	Analysis Name	Serial Numbers	Engine Hours	Created Date	Last Modified Date	Sea Trial Date	Finalized Date	Report (PDF)	Submitted By
View Clone	JHW 3-3-2017 1038	E3X00202		3/3/2017 10:38:59 AM	3/3/2017 11:02:30 AM				V2139S0jw
View Clone	JHW 3-2-2017 1053	MR900200	0.0019	3/2/2017 10:53:56 AM	3/2/2017 4:16:08 PM	01-04-2017			V2139S0jw
View Clone	JHW 3-2-2017 144	MR900200	0.0019	3/2/2017 10:44:42 AM	3/2/2017 10:48:04 AM	01-04-2017			V2139S0jw

However, the option to search by serial number only or option to use the Advance Search is available. Once the search criteria is entered, click the Search button. All vessels matching the search criteria entered will be shown in the results grid. Click on the 'Select' link next to the vessel of choice to associate to the analysis record.

CATERPILLAR Marine Power Systems - Service Interlink

Search | Add Vessel | Administration | What's New | Help | CAMPAR | Tools | Switch Market | Certificate Analyst Help

View Existing Analysis or Import ET Files From Service Interlink

Search existing Service Interlink vessel records and select the vessel whose associated files and analysis you want to view.

Vessel Search Values

Serial Number: Advanced Search

Vessel Name:

Hull ID:

IMO Number:

[Search](#) [Recent Activity](#)

Showing 1 through 10 Of 18

Action	Vessel Name	Hull ID	Shipyard Builder	Serial Number(s)
Select	TEST_VESSEL	TEST_VESSEL	[Unknown]	SDN00101
Select	C32 Miami	186	John's Shipyard	SDN00101
Select	C32 Miami	186	Andy's Shipyard	SDN00101, AAPortCatProp
Select	C32 Miami	186	Andy's Shipyard	SDN00101
Select	C32 Miami	186	Andy's Shipyard	SDN00101, SDN00103, SDN00100, THX00203
Select	C32 Miami	186	Andy's Shipyard	SDN00101, def23456, abd12345
Select	C32 Miami	186	Andy's Shipyard	SDN00101
Select	C32 Miami	186	Andy's Shipyard	SDN00101, eee12345
Select	C32 Miami	186	ZZzzzzTestShipYard	SDN00101
Select	C32 Miami	186	Andy's Shipyard	SDN00101

1 2

Once a vessel is selected you will have an option to either view an existing analysis record, if available. Or, if there are Cat ET files already uploaded for this vessel, you may select applicable files and generate a new analysis record.

If you select an analysis record that you have not created, you will be able to view it in ‘read-only’ mode. You can clone it if you wish to edit/add information and complete the analysis.

If you select an analysis that you have created you can view it in edit mode unless it has been ‘finalized’. Finalized analysis records can be cloned if you wish to edit/add information.

CATERPILLAR Marine Power Systems - Service Interlink

Search | Add Vessel | Administration | What's New | Help | CAMPAR | Tools | Switch Market | Certificate Analyst Help

View Existing Analysis or Import ET Files From Service Interlink

Search existing Service Interlink vessel records and select the vessel whose associated files and analysis you want to view.

Vessel Search Values

Serial Number: Advanced Search

[Search](#) [Recent Activity](#)

[Back To Search](#)

View Existing Analysis | Click view link to review existing sea trial analysis

Viewing Files For Vessel: Voyager Hull ID: 367309580 Serial Number: All Serial Numbers

Action	Analysis Name	Serial Numbers	Engine Hours	Created Date	Last Modified Date	Sea Trial Date	Finalized Date	Report (PDF)	Submitted By
View Clone	JHW 2272017 1034	C1201446	50	02/27/2017	02/27/2017	06/10/2016			V2139S0lv

Import ET Files From Service Interlink | Select a General Information & Steady State file to create a new sea trial analysis.

Viewing Files For Vessel: Voyager Hull ID: 367309580 Serial Number: All Serial Numbers

Select	Action	File Name	Submitted By	File Type	Serial Numbers	Sea Trial Date
<input type="checkbox"/>	View	C1201446_6102016_ETSS_PERF.TXT	V2139S0lv	Steady State Document	C1201446	06/10/2016
<input type="checkbox"/>	View	C1201446_6102016_ETGI_PERF.TXT	V2139S0lv	General Information File	C1201446	06/10/2016

Unit Preference:

Analysis Name:

[Create Analysis](#)

If creating a new analysis, the Unit Preference (English or Metric) and Analysis name is required.

Click the Create Analysis button to generate the new analysis.

Whether selecting an existing analysis or creating a new one, the next page to appear will be the General Information.

General Information

The General Info page is the first page of the analysis record whether creating a new analysis through an import, viewing an existing analysis or entering a manual analysis. In each of the three options, selecting a vessel and/or existing analysis will lead to this page.

The General Info page displays the following vessel information by category: General vessel information, Engine serial number(s) and location, installed transmissions, fuel and water measurements, hull dimensions, marine gear, and propeller information.

In the Vessel Information section displays CAMPAR Report Values on the left, this information is coming from the Cat ET files in most instances. The SI Vessel Values on the right come from the vessel information that is stored in Service Interlink. The left and right arrow buttons between the columns allow updating of either column.

General Info Pre Test Sea Trial Data Selection PAR Test Data Fuel Rate & Boost Data Fuel Rate Curve Boost Curve Warning Summary Report

- Analysis Info & Legend [Click to Open/Close Section](#)

Analysis Name: JHW 3-3-2017 1038 Created Date: 3/3/2017 10:38:59 AM Vessel Name: The Integrity [Clone](#)

Non-Required Missing Data Required Missing Data Information Tool Tip Available Navigation Unavailable Navigation

- Spec Data and Report Unit of Measure [Click to Open/Close Section](#)

English
 Metric

- Vessel Information [Click to Open/Close Section](#)

	CAMPAR Report Value		SI Vessel Value
Vessel Name:	<input type="text" value="The Integrity"/>		<input type="text" value="The Integrity"/>
Shipyard:	<input type="text" value="AB Yachts"/>		<input type="text" value="AB Yachts"/>
Customer:	<input type="text" value="CSE QA"/>		
Hull ID:	<input type="text" value="3320171054"/>		<input type="text" value="3320171054"/>
IMO Number:	<input type="text" value="3320171143"/>		<input type="text"/>
	<input type="checkbox"/> IMO Number Not Available		<input checked="" type="checkbox"/> IMO Number Not Available
Vessel Type:	<input type="text" value="Production Commercial"/>		<input type="text" value="Production Commercial"/>
Analysis Name:	<input type="text" value="JHW 3-3-2017 1038"/>		

- Engine #1 Information [Click to Open/Close Section](#)

	CAMPAR Report Value		SI Vessel Value
Engine #1 Basic Information			
Serial Number:	<input type="text" value="E3X00202"/>		<input type="text" value="E3X00202"/>
Engine Location:	<input type="text" value="port"/>		<input type="text"/>
Engine Model (TMI):	<input type="text" value="3512C"/>		
Hours:	<input type="text"/>		
Engine #1 Performance Data Per TMI:			
Rated Power:	<input type="text" value="1301"/>		HP
Rated Speed:	<input type="text" value="1200"/>		RPM
Peak Torque:	<input type="text" value="6564.3"/>		LB-FT
Peak Torque Speed:	<input type="text" value="1100"/>		RPM
Default Low Idle	<input type="text" value="450"/>		RPM

Saving and Navigating

Click the 'Save', 'Save and Next', and 'Cancel' buttons on each page to navigate through the pages. Clicking 'Save and Next' saves any edits made to the pages and advances to the next page. Clicking 'Cancel' will return the fields back to the values present when the page opened. You can also navigate through the pages by clicking the tabs where data has been entered into each required field.



Analysis Info & Legend

At the top of the analysis record on each page is a section that contains some analysis record information as well as some icon explanation.

There are some fields that are required (red icon) before advancing to next page is allowed.

There are some fields that are not required but will contribute to a better report (yellow icon).

Some fields have an information (i) tip available upon rollover and text will appear to assist with field entry.

As the analysis process advances, some tabs will be available when all required fields are completed (black tab, green checkmark) and some tabs will not be available due to missing data (gray tab).



Also in this section is an option to Clone the analysis record you are viewing.

In the upper right of this section as well as the other sections throughout the pages, is a link "Click to Open/Close Section". This allows the sections to be collapsed for easier navigation throughout the page.

The Pre Test

The Pre Test page contains information collected prior to the start of the sea trial. Complete as many of the fields as you are able for best results. All required fields must be completed before advancing to the next page. Navigation is at the top and bottom of page as well as by clicking the next tab.

General Info **Pre Test** Sea Trial Data Selection PAR Test Data Fuel Rate & Boost Data Fuel Rate Curve Boost Curve Warning Summary Report

- Analysis Info & Legend [Click to Open/Close Section](#)

Analysis Name: JHW 3-3-2017 1038 Created Date: 3/3/2017 10:38:59 AM Vessel Name: The Integrity [Clone](#)

Non-Required Missing Data Required Missing Data Information Tool Tip Available Navigation Unavailable Navigation

- Pre Test Data [Click to Open/Close Section](#)

CAMPAR Report Value

Sea Trial Date: 2017-03-03

Commissioning Engineer:

Vessel Location at Sea Trial:

Fuel System

Measured Fuel API Gravity: API

Measured Fuel Temp: F

Vessel Ambient Conditions During Test

Outside Air Temp: F

Sea Water Temp: F

Sea Water Depth: FEET

Engine Room Ambient Air Temp: F

Operating Conditions (Sea Conditions):

Vessel Ambient Design Conditions

Outside Air Temp: F

Sea Water Temp: F

- Engine Application Data for Fuel and Boost Curves [Click to Open/Close Section](#)

Variable Speed

- Free Running
- Bollard Pull - Fixed Pitch
- Bollard Pull - Variable Pitch

Fixed Speed

- Engine Configuration Data [Click to Open/Close Section](#)

Aftercooler System Naturally Aspirated, Non-Aftercooled (NA)

Sea Trial Data Selection

The Sea Trial Data Selection page is used to select a test data row or to enter data and select the applicable data points to generate the fuel and boost curves.

General Info
Pre Test
Sea Trial Data Selection
PAR Test Data
Fuel Rate & Boost Data
Fuel Rate Curve
Boost Curve
Warning Summary
Report

- Analysis Info & Legend Click to Open/Close Section

Analysis Name: JHW 3-3-2017 1252 Created Date: 3/3/2017 12:52:40 PM Vessel Name: Concordia Clone

🔔 Non-Required Missing Data
 🔴 Required Missing Data
 ℹ️ Information Tool Tip
 ■ Available Navigation
 ■ Unavailable Navigation

1) Please select a PAR test data row. This is the test point to be used for the PAR to evaluate all temperatures and pressures. This is typically rated speed and load, which is usually indicated by the highest rated speed. Only one test point can be selected - this can be changed at any point in the analysis if desired.

2) Please select the test points desired to generate the fuel and boost curves. Guidelines per the commissioning guide are given below. At least 1 and no more than 10 test points should be selected to generate the curve - these can be changed at any point in the analysis if desired.

- Engines rated up to 1400 rpm — Low idle, then 600 rpm and every 100 rpm up to full throttle.
- Engines rated between 1401 to 1800 rpm — Low idle, then 1000 rpm and every 100 rpm up to full throttle.
- Engines rated 1801 and above — Low idle, then 1000 rpm and every 200 rpm up to 300 rpm below rated. Then every 100 rpm to full throttle.

Engine 1: SDN00112

PAR Test Data	Variable Speed Fuel/Boost Curve Data	Run Point	Desired Engine Speed (rpm)	Actual Engine Speed (rpm)	Actual Engine % Load	Boost (Inlet Manifold Pressure - 911) (kPa)	Fuel Rate (969) (L/HR)	Manual Fuel Rate (992) (L/HR)
<input type="radio"/>	<input checked="" type="checkbox"/>	1	600	600	0	8	8	
<input type="radio"/>	<input checked="" type="checkbox"/>	2	1500	1500	40	160	95	
<input type="radio"/>	<input checked="" type="checkbox"/>	3	1800	1800	65	200	170	
<input type="radio"/>	<input checked="" type="checkbox"/>	4	2000	2000	86	220	230	
<input type="radio"/>	<input checked="" type="checkbox"/>	5	2078	2000	86	220	230	
<input type="radio"/>	<input checked="" type="checkbox"/>	6	2205	2100	100	240	260	

Engine 2: NFL05062

PAR Test Data	Variable Speed Fuel/Boost Curve Data	Run Point	Desired Engine Speed (rpm)	Actual Engine Speed (rpm)	Actual Engine % Load	Boost (Inlet Manifold Pressure - 911) (kPa)	Fuel Rate (969) (L/HR)	Manual Fuel Rate (992) (L/HR)
<input type="radio"/>	<input checked="" type="checkbox"/>	1	600	500	116	1	10	50
<input type="radio"/>	<input checked="" type="checkbox"/>	2	1500	600	116	3	10	50
<input type="radio"/>	<input checked="" type="checkbox"/>	3	1800	800	116	4	10	50
<input type="radio"/>	<input checked="" type="checkbox"/>	4	2000	900	116	6	10	50
<input type="radio"/>	<input checked="" type="checkbox"/>	5	2078	900	116	6	10	50
<input type="radio"/>	<input checked="" type="checkbox"/>	6	2205	1000	116	6.5	10	50

Save
Save and Next
Cancel

PAR Test Data

The PAR Test Data page allows the user to input (in the case of a manual analysis), or review and edit (in the case of an analysis originating from Cat ET output files) 900 “actual” measurement values. For ease of use, click the “Click to Open/Close Section” as you complete each section.

Display for some of the sections is conditional based on selections made on the Pre Test page.

Complete as many of the fields as you are able for best results. All required fields must be completed before advancing to the next page.

General Info
Pre Test
Sea Trial Data Selection
PAR Test Data
Fuel Rate & Boost Data
Fuel Rate Curve
Boost Curve
Warning Summary
Report

SDN00112 (Center) Analysis Info & Legend Click to Open/Close Section

Analysis Name: JHW 3-3-2017 1252 Created Date: 3/3/2017 12:52:40 PM Vessel Name: Concordia Clone

✔ Non-Required Missing Data
 ✘ Required Missing Data
 ℹ Information Tool Tip
 Available Navigation
Unavailable Navigation

Note: You must view each serial number at least once to generate PAR Test Data warning messages for that serial number.

SDN00112 (Center) Engine Serial Numbers Click to Open/Close Section

- SDN00112 (Center)
- NFL05062 (Starboard)

SDN00112 (Center) Jacket Water System Click to Open/Close Section

	CAMPAR Report Value		
922 - Jacket water temp from HEX outlet:	<input type="text" value=""/> C		TMI Max Spec <input type="text" value="77.8"/> C
901 - Jacket water engine outlet temperature (before regulators):	<input type="text" value="87"/> C		<input type="text" value="99"/> C
902 - Jacket water engine inlet temperature:	<input type="text" value="73"/> C		<input type="text" value="79.2"/> C
(901 - 902) - Jacket water engine temperature delta (dT):	<input type="text" value="14.0"/> C	<input type="text" value="13.4"/> C	<input type="text" value="21.2"/> C
920 - Jacket water pump inlet pressure:	<input type="text" value="10"/> kPa	<input type="text" value="3.4"/> kPa	
919 - Jacket water pressure at pump outlet:	<input type="text" value="150"/> kPa		

SDN00112 (Center) Raw Water System Click to Open/Close Section

	CAMPAR Report Value		
966 - Raw / sea water pump inlet temperature:	<input type="text" value="30"/> C		TMI Max Spec <input type="text" value="32"/> C
957 - Raw / sea water temp from HEX outlet (high temp or parallel):	<input type="text" value="37"/> C		<input type="text" value="54"/> C
954 - Raw / sea water temp to HEX inlet (low temp or parallel):	<input type="text" value="30"/> C		
(957 - 954) - Raw water cooling system temperature delta:	<input type="text" value="7.0"/> C	<input type="text" value="22.4"/> C	<input type="text" value="27.8"/> C
964 - Raw / sea water pressure from HEX outlet (high temp or parallel):	<input type="text" value="50"/> kPa		<input type="text" value="141.2"/> kPa
965 - Raw / sea water pump inlet pressure:	<input type="text" value="-20"/> kPa	<input type="text" value="-24"/> kPa	
963 - Raw / sea water pump outlet pressure:	<input type="text" value="116"/> kPa		

SDN00112 (Center) Air Inlet System Click to Open/Close Section

Fuel Rate & Boost Data

This page allows the user to select data source, plot format, and plot inclusion for how graphs are to be displayed. NOTE: Graphs are not available for Fixed Speed engines.

Complete as many of the fields as you are able for best results. All required fields must be completed before advancing to the next page.

General Info
Pre Test
Sea Trial Data Selection
PAR Test Data
Fuel Rate & Boost Data
Fuel Rate Curve
Boost Curve
Warning Summary
Report

- Analysis Info & Legend Click to Open/Close Section

Analysis Name: JHW 3-3-2017 1252 Created Date: 3/3/2017 12:52:40 PM Vessel Name: Concordia Clone

Non-Required Missing Data
 Required Missing Data
 Information Tool Tip
 Available Navigation
 Unavailable Navigation

- Fuel Rate data points are selected, added, or removed on the Sea Trial Data Selection page.

- Fuel Flow Data Source Click to Open/Close Section

Use Manually Captured Fuel Flowmeter Data (992) (recommended)
 Use ECM Fuel Flow Rate data (969)

- Data Plot Format Click to Open/Close Section

Plot engine curves on individual graphs
 Plot engine curves on single graph

Note: Data Plot Formatting options available only for analysis' with multiple engines that share performance numbers.

ENGINE 1: SDN00112 Location: Center ENGINE LOAD STEPS

Select To Include Plot In Report ?

	1	2	3	4	5	6
Engine Speed (RPM):	1500	1500	1800	2000	2000	2100
<input checked="" type="checkbox"/> Fuel Rate (969) (L/HR):	8	95	170	230	230	260
<input checked="" type="checkbox"/> Boost (Inlet Manifold Pressure - 911) (kPa):	8	160	200	220	220	240
<input type="checkbox"/> Boost - Left (Optional) (kPa):						
<input type="checkbox"/> Boost - Right (Optional) (kPa):						

ENGINE 2: NFL05062 Location: Starboard ENGINE LOAD STEPS

Select To Include Plot In Report ?

	1	2	3	4	5	6
Engine Speed (RPM):	500	600	800	900	900	1000
<input checked="" type="checkbox"/> Fuel Rate (969) (L/HR):	10	10	10	10	10	10
<input checked="" type="checkbox"/> Boost (Inlet Manifold Pressure - 911) (kPa):	1	3	4	6	6	6.5
<input type="checkbox"/> Boost - Left (Optional) (kPa):						
<input type="checkbox"/> Boost - Right (Optional) (kPa):						

Fixed Speed Load Test (not applicable for variable speed engines)

The Fixed Speed Load Test page is available when the 'Fixed Speed' option is selected on the Pre Test page in the 'Engine Application Data for Fuel and Boost Curves' section. When Fixed Speed is the application type, the Fuel Rate Curve and the Fuel Boost Curve pages will not be available.

The Fixed Speed Load Test page displays load point information associated with the engine(s).

Complete as many of the fields as you are able for best results. All required fields must be completed before advancing to the next page.

General Info Pre Test Sea Trial Data Selection PAR Test Data Fuel Rate & Boost Data Fixed Speed Load Test Warning Summary Report

- SDN00112 (Center) Analysis Info & Legend Click to Open/Close Section

Analysis Name: JHW 3-3-2017 144 Created Date: 3/3/2017 1:45:01 PM Vessel Name: Concordia Clone
Non-Required Missing Data Required Missing Data Information Tool Tip Available Navigation Unavailable Navigation

- Engine Serial Numbers Click to Open/Close Section

SDN00112 (Center)
 NFL05062 (Starboard)

- SDN00112 (Center) Performance Click to Open/Close Section

900 Number	Description	Units	Fixed Speed Load Points						Spec Min	Spec Max
			1	2	3	4	5	6		
910	Engine speed:	RPM	600	1500	1800	2000	2000	2100		
991	Engine load from ECM:	%	0	40	65	86	86	100		
969	Fuel consumption from ECM:	LHR	8	95	170	230	230	260		
992	Fuel flow meter consumption (Manual Entry):	LHR								

- SDN00112 (Center) Jacket Water Click to Open/Close Section

900 Number	Description	Units	Fixed Speed Load Points						Spec Min	Spec Max
			1	2	3	4	5	6		
922	Jacket water temp from HEX outlet:	C							70	77.8
901	Jacket water engine outlet temperature (before regulators):	C	75	80	83	87	87	87		99
902	Jacket water engine inlet temperature :	C	73	73	73	73	73	73		79.2
901-902	Engine Jacket Water (Out-In) (901 and 902):	C	2.0	7.0	10.0	14.0	14.0	14.0	13.4	21.2

- SDN00112 (Center) Aftercooler Click to Open/Close Section

900 Number	Description	Units	Fixed Speed Load Points						Spec Min	Spec Max
			1	2	3	4	5	6		
903	Aftercooler water inlet temp to engine :	C	42	42	42	42	42	42		52
903A	Aftercooler water outlet temp from engine:	C	52	52	52	52	52	52		
903A-903	Aftercooler Water (Outlet-Inlet) (903A and 903):	C	10.0	10.0	10.0	10.0	10.0	10.0	9.7	15

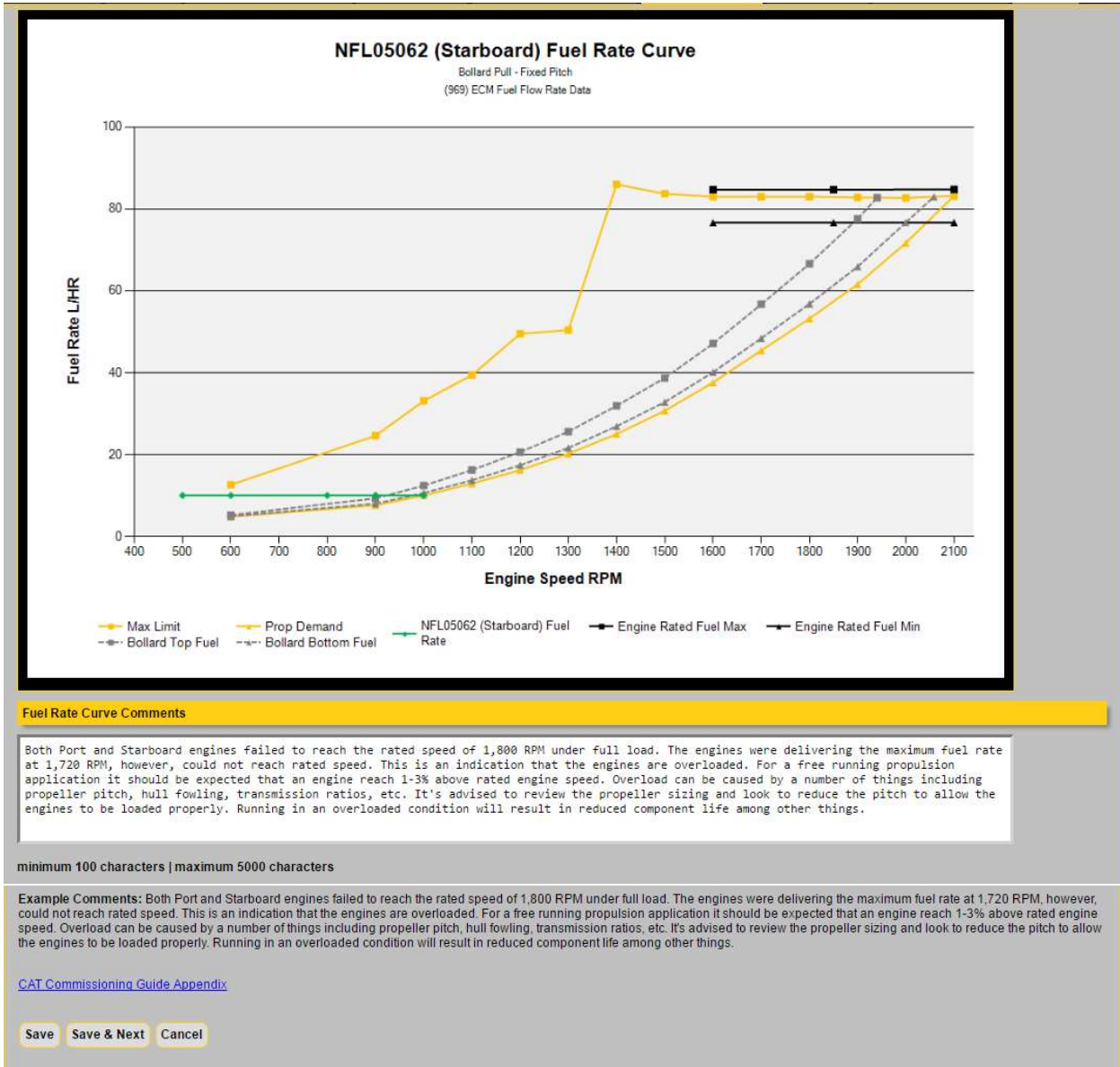
- SDN00112 (Center) Raw Water Click to Open/Close Section

900 Number	Description	Units	Fixed Speed Load Points						Spec Min	Spec Max
			1	2	3	4	5	6		
966	Raw / sea water pump inlet temperature:	C	30	30	30	30	30	30		32
957	Raw / sea water temp from HEX outlet (high temp or parallel):	C	37	37	37	37	37	37		
954	Raw / sea water temp to HEX inlet (low temp or parallel):	C	30	30	30	30	30	30		

20

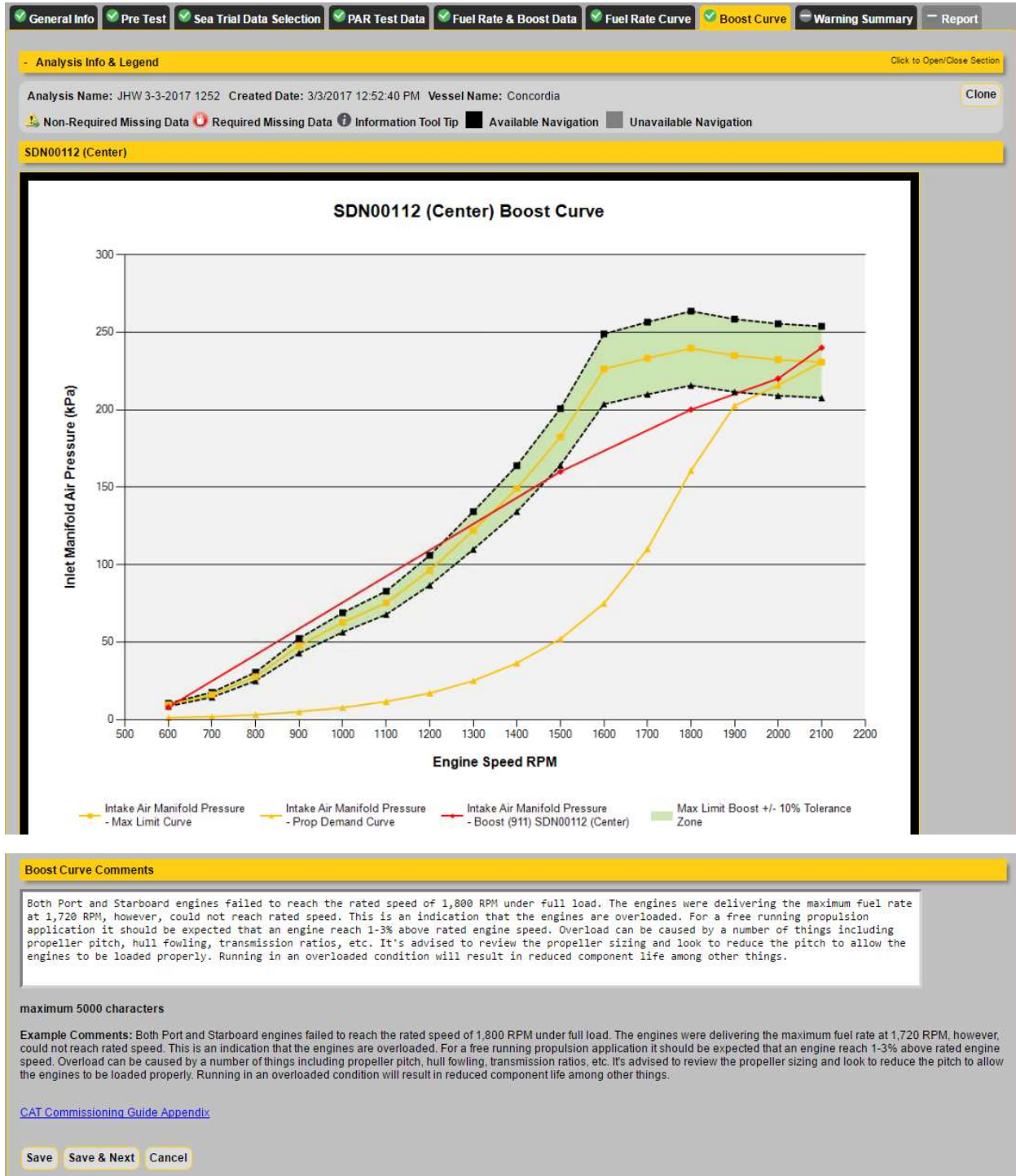
Fuel Rate Curve (available for variable speed engines only)

Displays the graph generated from data entered on previous pages. Comments are required before advancing to next page.



Boost Curve (available for variable speed engines only)

This graph shows the boost pressures of the engine.



Warning Summary

The Warning Summary tab can be clicked and will open the warning popup from non-corresponding tabs. Or, when the previous pages have all required fields filled, the Warning Summary page can be accessed. It will display all of the current required field messages that apply for the supplied information in the analysis.

The screenshot displays a software interface with a 'Warning Summary' popup window. The interface has a top navigation bar with tabs: 'Fuel Rate Curve' (checked), 'Boost Curve', 'Warning Summary' (selected), and 'Report'. Below the navigation bar, there is a section with a 'Unavailable Navigation' button. The main area is titled 'Curve' and shows a plot with several data series: a solid yellow line with square markers, a solid black line with square markers, a dashed grey line with square markers, and a solid red line with square markers. The 'Warning Summary' popup window is overlaid on the right side of the plot. It has a close button (X) in the top right corner and a list of warning categories:

- General Info Warnings**
 - DEF Load on Board is missing.
 - Total DEF Bulk Tank Capacity is missing.
 - DEF Concentration is missing.
- Pre Test Warnings**
- Sea Trial Data Selection Warnings**
- PAR Test Data Warnings**
 - SDN00112: 922 - Jacket water temp from HEX outlet is missing.
 - SDN00112: 912C - Exhaust manifold left front turbo temp is missing.
 - SDN00112: 912D - Exhaust manifold left rear turbo temp is missing.
- Fuel Rate & Boost Data Warnings**
- Fuel Rate Curve Warnings**
- Boost Curve Warnings**

[General Info](#)
[Pre Test](#)
[Sea Trial Data Selection](#)
[PAR Test Data](#)
[Fuel Rate & Boost Data](#)
[Fuel Rate Curve](#)
[Boost Curve](#)
[Warning Summary](#)
[Report](#)

- Analysis Info & Legend Click to Open/Close Section

Analysis Name: JHW 3-3-2017 1252 Created Date: 3/3/2017 12:52:40 PM Vessel Name: Concordia Clone

✔ Non-Required Missing Data
 ❌ Required Missing Data
 ℹ Information Tool Tip
 ■ Available Navigation
 ■ Unavailable Navigation

- General Info Warnings Click to Open/Close Section

DEF Load on Board is missing.
 Total DEF Bulk Tank Capacity is missing.
 DEF Concentration is missing.

- Pre Test Warnings Click to Open/Close Section

- Sea Trial Data Selection Warnings Click to Open/Close Section

- PAR Test Data Warnings Click to Open/Close Section

SDN00112: 922 - Jacket water temp from HEX outlet is missing.
 SDN00112: 912C - Exhaust manifold left front turbo temp is missing.
 SDN00112: 912D - Exhaust manifold left rear turbo temp is missing.

- Fuel Rate & Boost Data Warnings Click to Open/Close Section

- Fuel Rate Curve Warnings Click to Open/Close Section

- Boost Curve Warnings Click to Open/Close Section

[Previous](#) [Next](#)

Generate Report

The report is the final product of your analysis and represents all the collected and calculated data for the vessel. This page presents an interface opportunity to add notes for every section of the report. Click the Generate Report button to display it in the report viewer. You can select to export the report in either XLS, Word, or PDF Format by selecting the format from the dropdown and clicking on the 'Export' link.

Use the 'Finalize Report' button to save the Report to the Sea Trial Data tab in Service Interlink.

The screenshot displays the 'Generate Report' interface. At the top, a navigation bar contains tabs for: General Info, Pre Test, Sea Trial Data Selection, PAR Test Data, Fuel Rate & Boost Data, Fuel Rate Curve, Boost Curve, Warning Summary, and Report. Below this is a yellow header bar for 'Analysis Info & Legend' with a 'Click to Open/Close Section' link. The main content area includes:

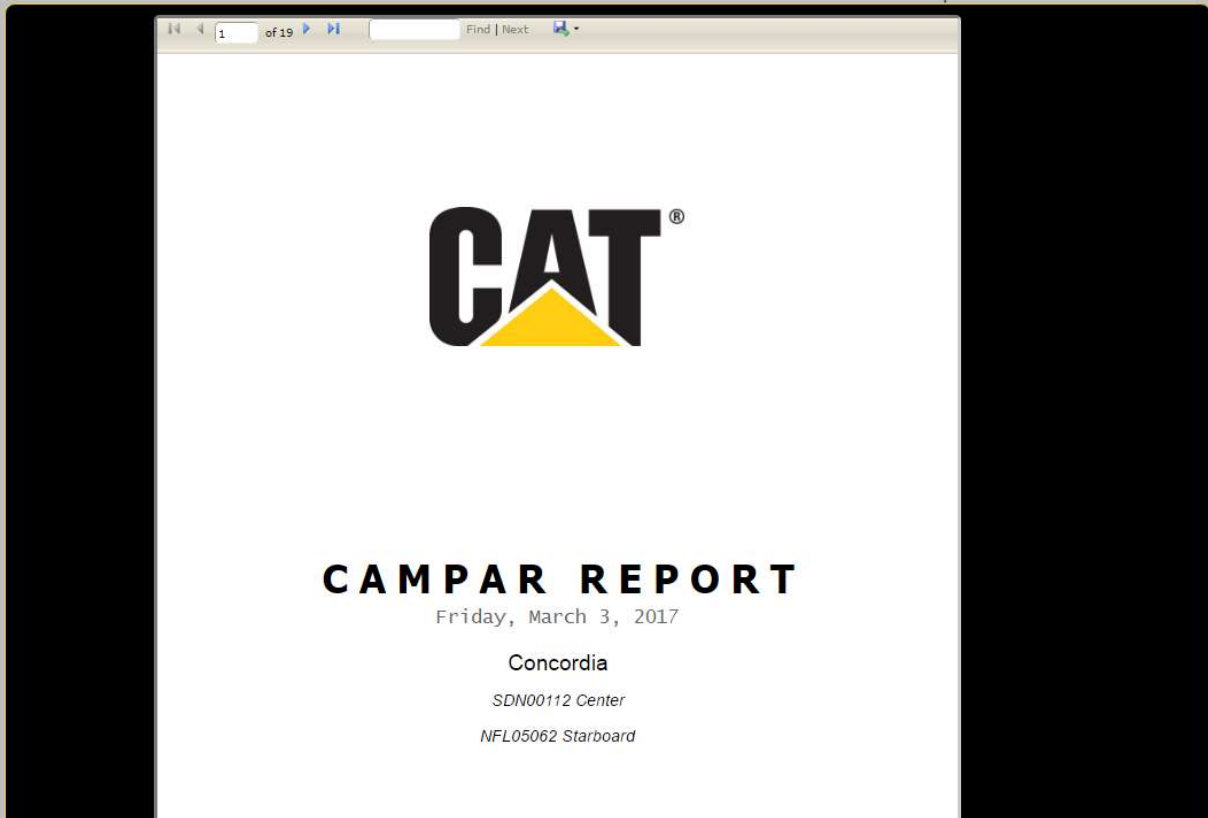
- Analysis Name: JHW 3-3-2017 1252, Created Date: 3/3/2017 12:52:40 PM, Vessel Name: Concordia, and a 'Clone' button.
- Legend for data status: Non-Required Missing Data (green), Required Missing Data (red), Information Tool Tip (blue), Available Navigation (black), and Unavailable Navigation (grey).
- A list of instructions for generating the report.
- A sidebar menu with 'General' selected, listing: Jacket Water System, Raw Water System, Air Inlet System, Exhaust System, Lube System, Fuel System, Engine Power, and Marine Gear.
- An 'Enter Comment:' text area containing a detailed report on engine performance issues, with a '313 characters remaining' indicator below it.
- Logo Guidelines: must be JPG, JPEG, BMP, or PNG. Images will be re-scaled to max height of 115px.
- A 'Choose your logo below:' section with a 'Choose File' button and 'No file chosen' text.
- 'Save' and 'Generate Report' buttons at the bottom.

Logo Guidelines: must be JPG, JPEG, BMP, or PNG. Images will be re-scaled to max height of 115px.

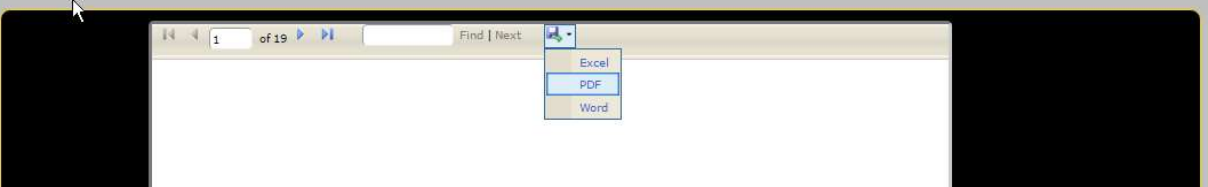
Choose your logo below:

Choose File No file chosen

Save Generate Report Finalize Report ***Click 'Finalize Report' to save report to the vessel Sea Trial Data section.



Save Generate Report Finalize Report ***Click 'Finalize Report' to save report to the vessel Sea Trial Data section.



Finalize a Report

Click 'Finalize Report' to save report to the vessel Sea Trial Data section. Once the report is finalized, the analysis is read-only. A clone of the analysis can be done if editing is desired.



General Info
 Pre Test
 Sea Trial Data Selection
 PAR Test Data
 Fuel Rate & Boost Data
 Fuel Rate Curve
 Boost Curve
 Warning Summary
 Report

- Analysis Info & Legend Click to Open/Close Section

Analysis Name: JHW 3-3-2017 1252 Created Date: 3/3/2017 12:52:40 PM Vessel Name: Concordia Clone

Non-Required Missing Data
 Required Missing Data
 Information Tool Tip
 Available Navigation
 Unavailable Navigation

Type	File Description	Date Created	Sea Trial Date	Date Finalized	Submitted By	Engine Hours	
Campar Report (.pdf)	Campar Report	3/3/2017	5/10/2016	3/3/2017 1:30:09 PM	V2139S0iw	33	SDN00112_332017_OTHR_PERF.pdf
ET General Information (.txt)	Performance Sea Trial	3/3/2017	5/10/2016		V2139S0iw	33	SDN00112_332017_ETGI_PERF.txt
ET Steady State (.txt)	Performance Sea Trial	3/3/2017	5/10/2016		V2139S0iw	33	SDN00112_332017_ETSS_PERF.txt

Clone an Analysis

Several opportunities to clone an analysis are now available. Click the 'Clone' button from the search results or from anywhere within an existing analysis in order to create a new copied record. The cloned analysis can then be edited. Cloning a finalized analysis will save the new analysis in a non-finalized state and will refresh the TMI spec data.

Clone is available when viewing your own analysis records or that of another user.

When viewing your own analysis it is editable until you choose to finalize the report. When viewing another user's analysis record, you are not able to edit it even when it is not finalized. That may be an instance where clone could be utilized if needing to complete an analysis started by another user.