



## INNOVATIONS 23.1

# SOFTWARE INNOVATIONS

The new software version Jaltest 23.1 once again offers more improvements and innovations that consolidate this tool as a benchmark in multi-brand diagnostics for commercial vehicles, agricultural equipment, OHW equipment, material handling equipment and vessels.

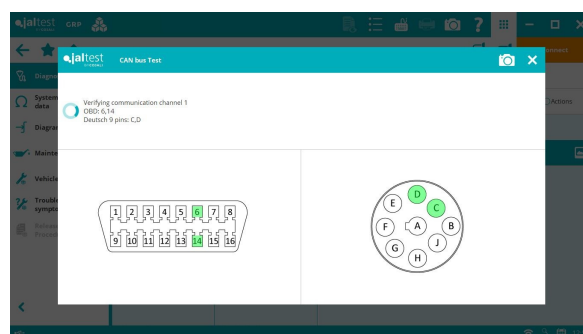
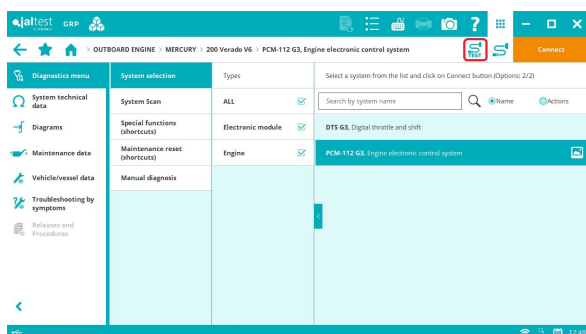
Overall, there are new improvements in the software usage, including:

- Ordering the measurement display by the user.
- Displaying the support information of a System Display in an action.
- Improved parameter confirmation with more limits, conditions and exceptions.

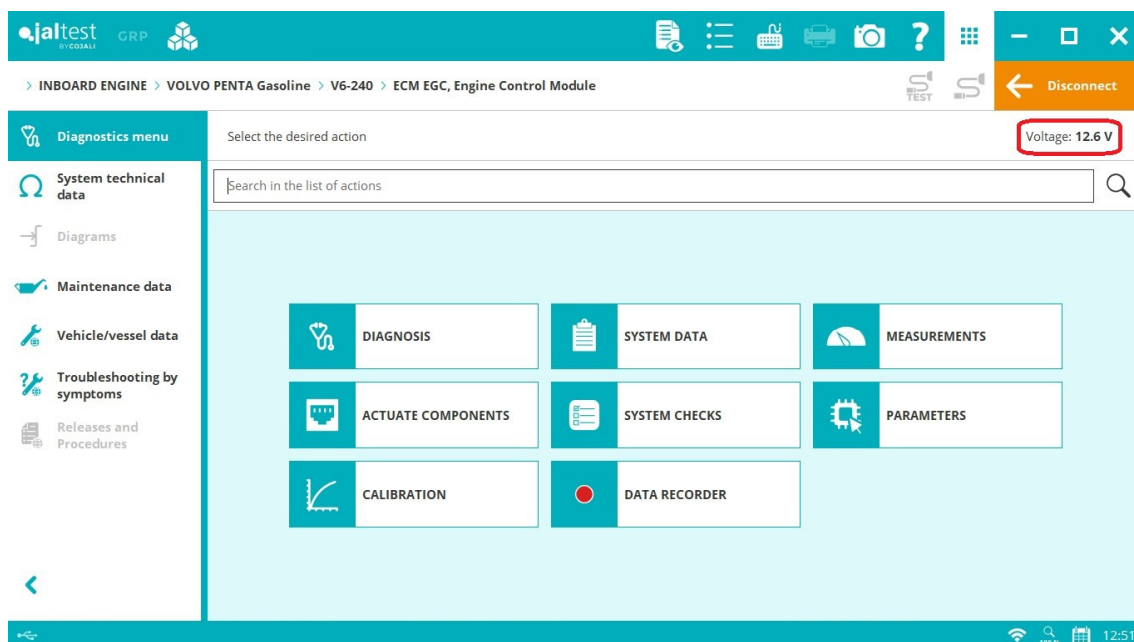
This version also enables the download of the **Jaltest University** training program from additional modules.

## Connection test and communication bus test

Shortcut to the connection test and the communication bus test of the vessel, allowing to verify the power supply, as well as the connection and communication errors in the diagnostics connector of the vessel. In addition, enhanced display of the communication bus test by indicating the pins of the OBD and 9-pin Deutsch connectors that are checked.



The supply voltage of the system is also displayed throughout the diagnostics session.

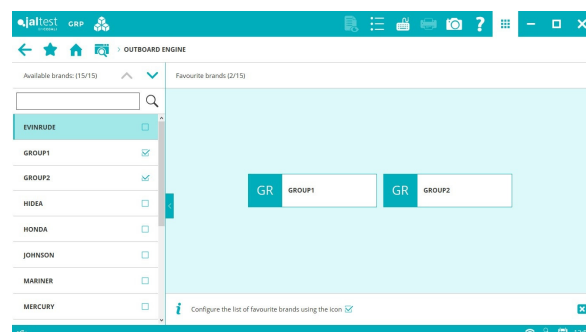
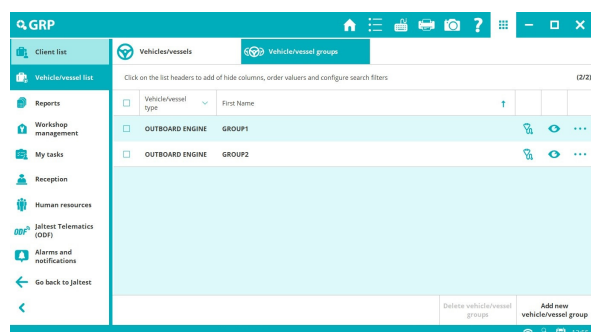


## GRP

Improved user experience in GRP thanks to the following innovations:

- Saving audios assigned to a report.
- Creating alarms from client lists, vessels or reports.
- Improved management of report e-mail sending.
- GRP Analytics information by device in GRP Enterprise.

In addition, shortcuts to GRP vessels can be created as favourites in brand forms. The management is performed from the vessel list. This allows the user to create shortcuts to client fleets, vessels, etc.

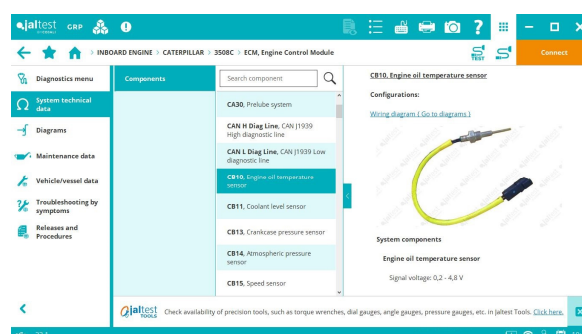


# DIAGNOSTICS AND SYSTEMS

Take into account that this document is only a summary of the most relevant information of this new version. For further information, please visit Jaltest Report.

## INBOARD CATERPILLAR

Wiring diagrams and technical data for **3508C** and **3512C** models.

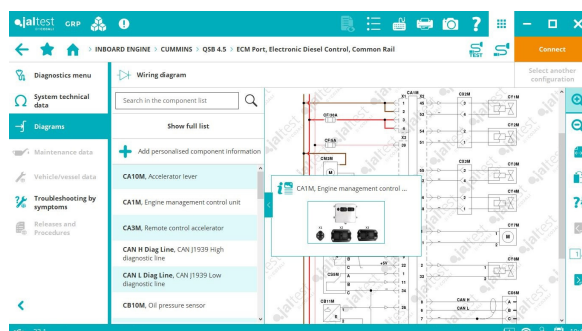


## CRUSADER

**ECM GCP** engine control system, oxygen probe test of engines with catalytic converter. It allows the verification of the status of the engine aftertreatment system.

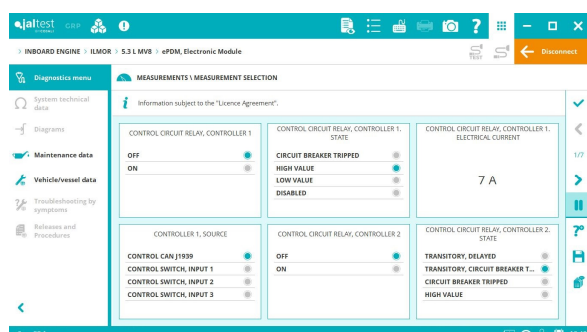
## CUMMINS

Wiring diagrams and technical data of component for **ECM Port/Starboard** engine control systems of the **QSB 4.5** model.



## ILMOR

⊕ Distribution control system of the engine and command post power: **ePDM**.



Available for: **5.3 L GDI**, **5.3 L GDI-S**, **5.3 L MV8**, **5.7 L MV8**, **6.0 L MPI**, **6.0 L MPI-S**, **6.0 L MV8**, **6.2 L GDI**, **6.2 L GDI-S** and **6.2 L MV8**.

New models: **5.3 L MV8** and **7.4 L MV8** with **ECM MV8** and **ePDM** systems.

**ECM EControls** engine control system, oxygen probe test of engines with catalytic converter. It allows the verification of the status of the engine aftertreatment system.

Vessel technical data and maintenance data for the following models: **5.3 L GDI, 5.3 L GDI-S, 5.3 L MV8, 5.7 L MV8, 6.0 L MPI, 6.0 L MPI-S, 6.0 L MV8, 6.2 L GDI, 6.2 L GDI-S, 6.2 L MV8, 7.4 L MPI, 7.4 L MPI-S, 7.4 L MPI-S, 7.4 L MV8** and **MV8 570**.

Wiring diagrams, component technical data, engine types and maintenance services for the **MV10** model.

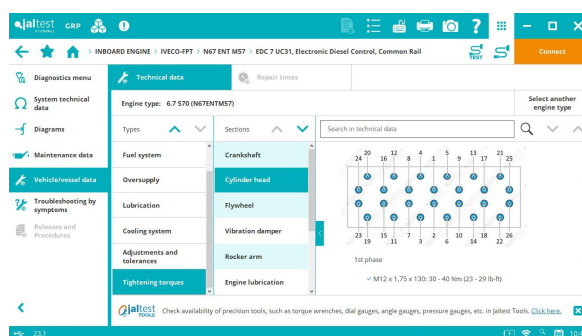
## INDMAR

**ECM 4G** and **ECM MV8** engine control systems, oxygen probe test of engines with catalytic converter. It allows the verification of the status of the engine aftertreatment system.

Vessel technical data and maintenance data for **5.7 L, 5.7 L HO, 60, 6.2** and **8.1** models.

## IVECO-FPT

Advanced technical data of vessel and maintenance service for **N60 ENT M37, N60 ENT M40, N67 ENT M45** and **N67 ENT M57** models.



## MALIBU

**ECM 4G** engine control system, oxygen probe test of engines with catalytic converter. It allows the verification of the status of the engine aftertreatment system.

Vessel technical data and maintenance data for **M5Di** and **M6Di** models.

## MERCURY

New software references for **PCM-112 G3** and **ECM/PCM G3** engine control units that apply to different years.

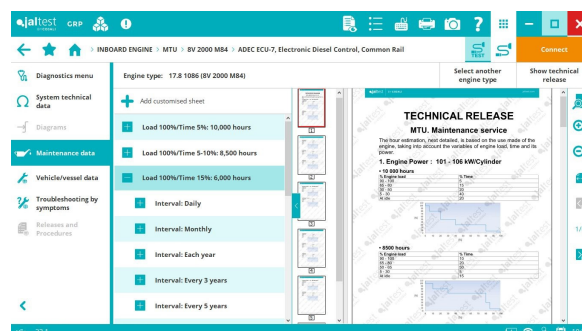
## MTU

New engine models with **ADEC ECU-7** control unit: **10V 2000 M72, 10V 2000 M92, 12V 2000 M94** and **20V 4000 M93**, among others.

Vessel technical data for models with **ADEC ECU-7** control unit.

Maintenance data for most models with ADEC ECU-7 engine system.

Smart troubleshooting guides by symptoms.



## PCM

**ECM GCP** engine control system, oxygen probe test of engines with catalytic converter. It allows the verification of the status of the engine aftertreatment system.

## SCANIA

Vessel technical data and maintenance data for the following models: **DI13 076M**, **DI13 087M**, **DI13 088M** and **DI16 076M** with the **EMS XPI** engine control system.

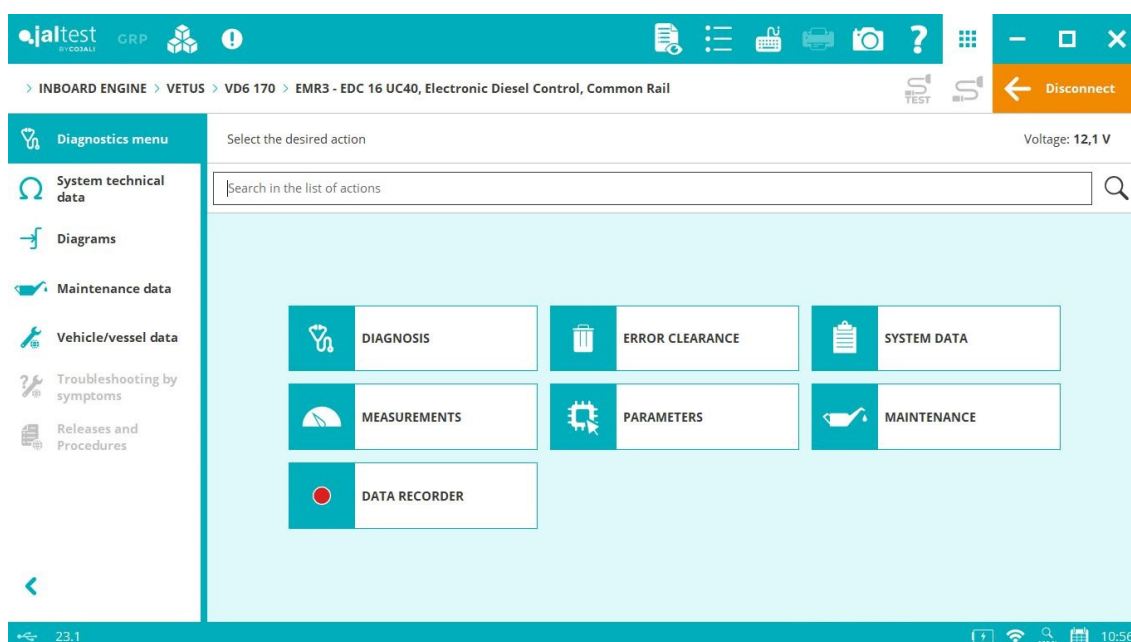
Smart troubleshooting guides by symptoms of **DI13 076M**, **DI13 087M**, **DI13 088M** and **DI16 076M** models.

## VETUS New brand

⊕ **EMR3-EDC 16 UC40** and **EDC CMD** systems that apply to **D-Line** and **F-Line** series respectively, of the Dutch brand that adapts engines for Marine application.

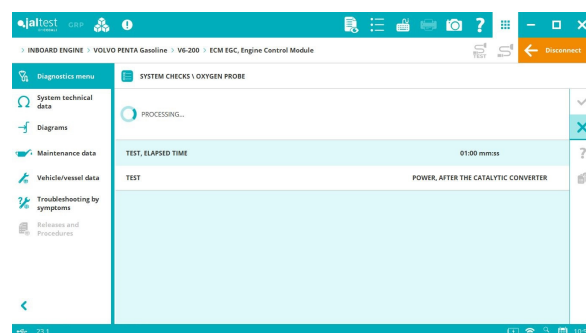
Models: **VF4 140**, **VF4 145**, **VF4 170**, **VF4 180**, **VF4 190**, **VF4 200**, **VF5 220**, **VF5 250**, **VD4 120**, **VD4 140**, **VD4 170** and **VD4 210**.

Both series offer complete diagnostics functionalities: fault code reading, ECU data, measurements, actuations and checks. Technical information: diagrams, component technical data, vessel technical data and maintenance data.



## VOLVO PENTA GASOLINE

Advanced actions of the **EGC** engine control system: acceleration sensor check, oxygen probe check, adaptation value reset, misfire counter reset and fuel adaptation value reset.



## YAMAHA

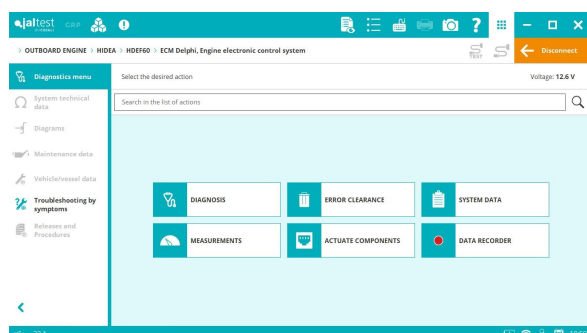
New models: **998cc** and **1052cc HO**, both with the **ECM EFI** system with all the diagnostics functionalities and technical information: diagrams, component technical data, vessel technical data and maintenance data.

New Smart troubleshooting guides by symptoms for all inboard models.

## OUTBOARD

### HIDEA New brand

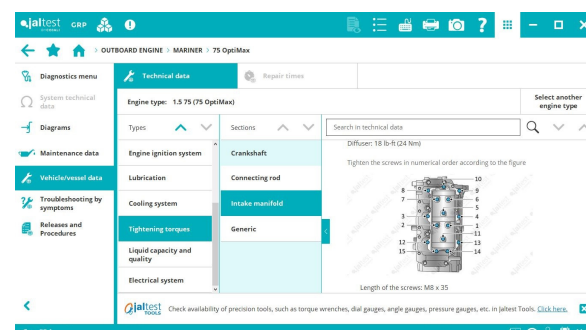
⊕ **ECM Delphi** engine control system that applies to the Chinese brand of outboard engines. The system has fault code reading, ECU data, measurements and IAC and injector actuations.



Available for **HDEF40, HDEF40 SK, HDEF50, HDEF60, HDEF115** and **HDEF130** models.

## MARINER

Vessel technical data and maintenance data for the following models: **75, 90, 115, 125, 135, 150, 175, 200** and **225 Optimax**.



## MERCURY RACING

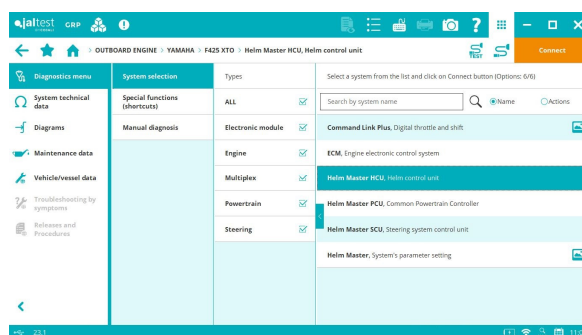
New software references for the **PCM-112 G3** engine control unit of the **Verado 450R V8** model.



## YAMAHA

⊕ Yamaha systems: **Helm Master HCU**, **Helm Master PCU** and **Helm Master SCU** that apply to the following models: **150, 175, 200, 225, 250, 300, 350, 375 XTO** and **425 XTO** of **F, FL** and **LF** families.

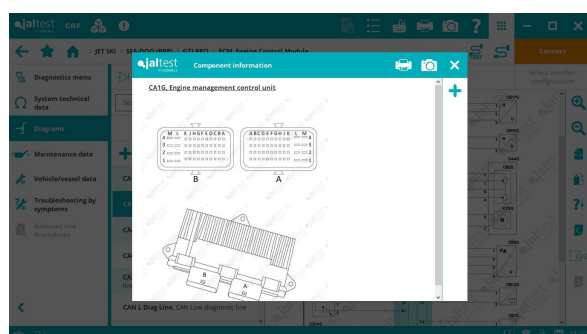
Fuse and relay diagrams that apply to **F375 XTO**, **FL375 XTO**, **F425 XTO** and **FL425 XTO** models.



## JET SKI

### SEA-DOO (BRP)

New **GTI PRO** model with **iBR**, **INS**, and **ECM** systems with wiring diagrams, component technical data, vessel technical data, maintenance data and troubleshooting guides by symptoms.

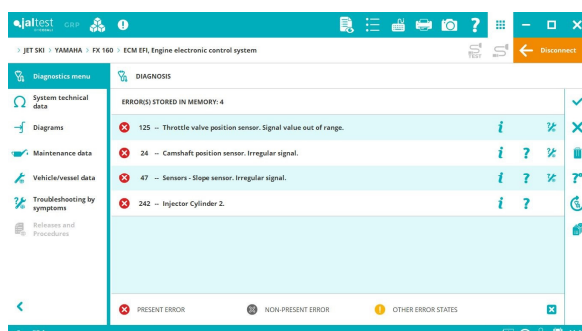


Wiring diagram configuration for the following models: **GTI (4-TEC)**, **GTI SE (4-TEC)**, **GTX DI**, **GTX (4-TEC)**, **GTX LIMITED (4-TEC)**, **GTX LIMITED IS (4-TEC)**, **GTX WAKE (4-TEC)**, **GTX PRO**, **RXP (4-TEC)**, **RXP-X (4-TEC)**, **RXT (4-TEC)**, **RXT-X (4-TEC)**, **RXT IS (4-TEC)**, **SPARK**, **SPARK TRIXX**, **WAKE** and **WAKE PRO**.

Advanced technical data of vessel and maintenance service data for jet ski models from 2018 to 2022. This innovation applies to the following engine types: 0.9 60 (900 ACE), 0.9 90 (900 HO ACE), 1.5 130 (1503 4-TEC), 1.5 155 (1503 NA 4-TEC), 1.5 230 (1500 HO ACE), 1.6 130 (1630 ACE), 1.6 170 (1630 ACE), 1.6 230 (1630 ACE) and 1.6 300 (1630 ACE).

## YAMAHA

New models: **FX 160** and **FX 160 Cruiser**, both with the **ECM EFI** system with all the diagnostics functionalities and technical information: diagrams, component technical data, engine type technical data and maintenance data.





## STATIONARY ENGINE

### CATERPILLAR

**Caterpillar C-3.6** (on SAE J1939) engine control system, maintenance for the recovery process of the exhaust gas aftertreatment system.

**Caterpillar C-4.4** and **C-6.6** (on SAE J1939) engine control systems, actuations of the exhaust gas pressure regulator and the fuel pump relay.

**Caterpillar C-7.1** (on SAE J1939) engine control system, exhaust and intake system check, maintenance for the ash cleaning regeneration and high-pressure pump calibration of the fuel system.

### CUMMINS

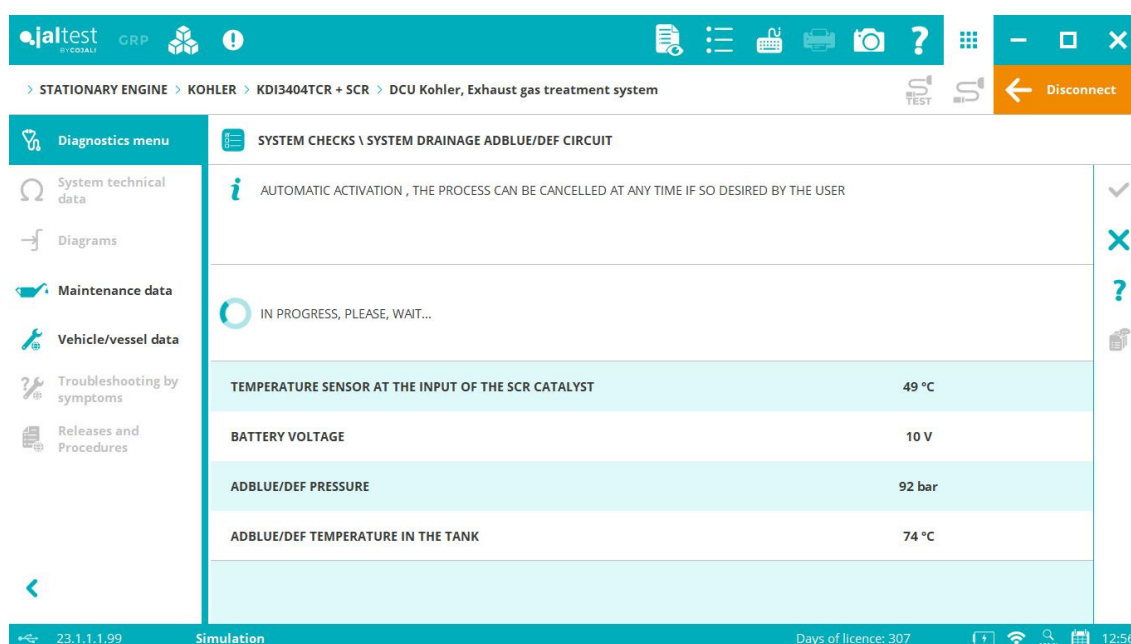
More than 500 references of **CUMMINS** systems have been included. In these systems, the display format of parameters has also been improved.

**B4.5/6.7 CM2350**, **QSB4.5/6.7 CM2350**, **QSF3.8 CM2350** and **L9 CM2350** engine control systems, among others. New advanced diagnostics functions such as the cylinder cut-out and the parameter configuration.

New equipment technical data, engine types, technical releases and procedures in **X15**, **X12**, **B4.5/6.7**, **L9** and **QSB6.7** engines, among others.

### KOHLER

**DCU** exhaust gas aftertreatment system, actuation of the AdBlue/DEF system heating elements, return pump check, AdBlue/DEF injector check, AdBlue/DEF dosing check, AdBlue/DEF leakage control check, etc.



The screenshot displays the jaltest marine software interface. The top bar shows the logo and navigation icons. The main menu on the left includes 'Diagnostics menu', 'System technical data', 'Diagrams', 'Maintenance data', 'Vehicle/vessel data', 'Troubleshooting by symptoms', and 'Releases and Procedures'. The central area shows the 'SYSTEM CHECKS \ SYSTEM DRAINAGE ADBLUE/DEF CIRCUIT' with a status 'IN PROGRESS, PLEASE, WAIT...'. Below this, a table lists several parameters:

Parameter	Value
TEMPERATURE SENSOR AT THE INPUT OF THE SCR CATALYST	49 °C
BATTERY VOLTAGE	10 V
ADBLUE/DEF PRESSURE	92 bar
ADBLUE/DEF TEMPERATURE IN THE TANK	74 °C

The bottom status bar indicates the version '23.1.1.1.99', 'Simulation' mode, 'Days of licence: 307', and the time '12:56'.

## VM MOTORI

**Stage IV/Euro 6 EDC R754/R756** engine control system, actuations, histograms and operation data.