



## INNOVATIONS 22.3

**CV**  
COMMERCIAL  
VEHICLE

**AGV**  
AGRICULTURAL  
EQUIPMENT

**OHV**  
OFF-HIGHWAY  
EQUIPMENT

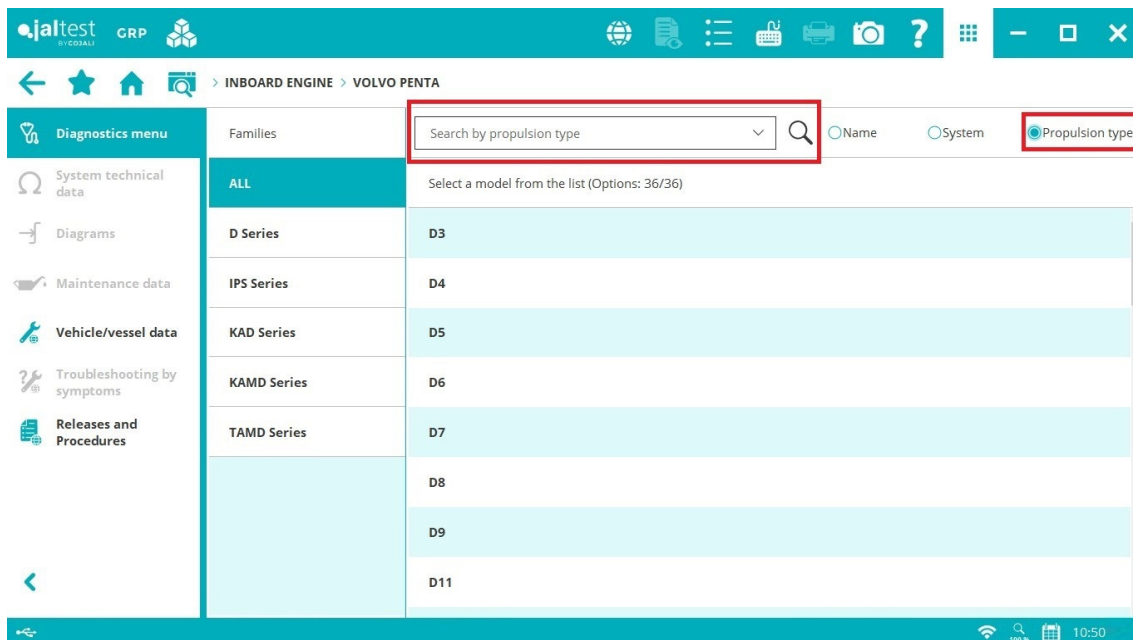
**MHE**  
MATERIAL  
HANDLING

**marine**  
VESSELS

# SOFTWARE INNOVATIONS

The new software version Jaltest 22.3 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.

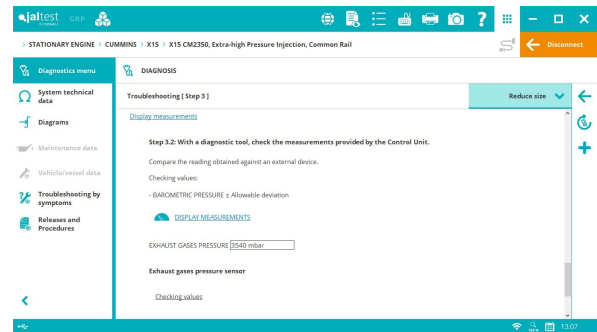
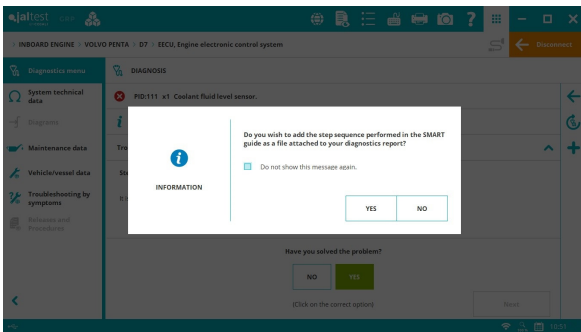
Overall, some improvements in the software usage have been included, for example, new descriptions for each of the additional modules grouped on the upper toolbar of the application. It is also important to highlight the group of models categorised by propulsion type (gasoline engine, diesel engine, etc.) or the extension in the data recorder duration.



In Jaltest Feedback forms, the phone number and other fields are automatically filled provided that they have been previously configured in the user and company data in GRP.

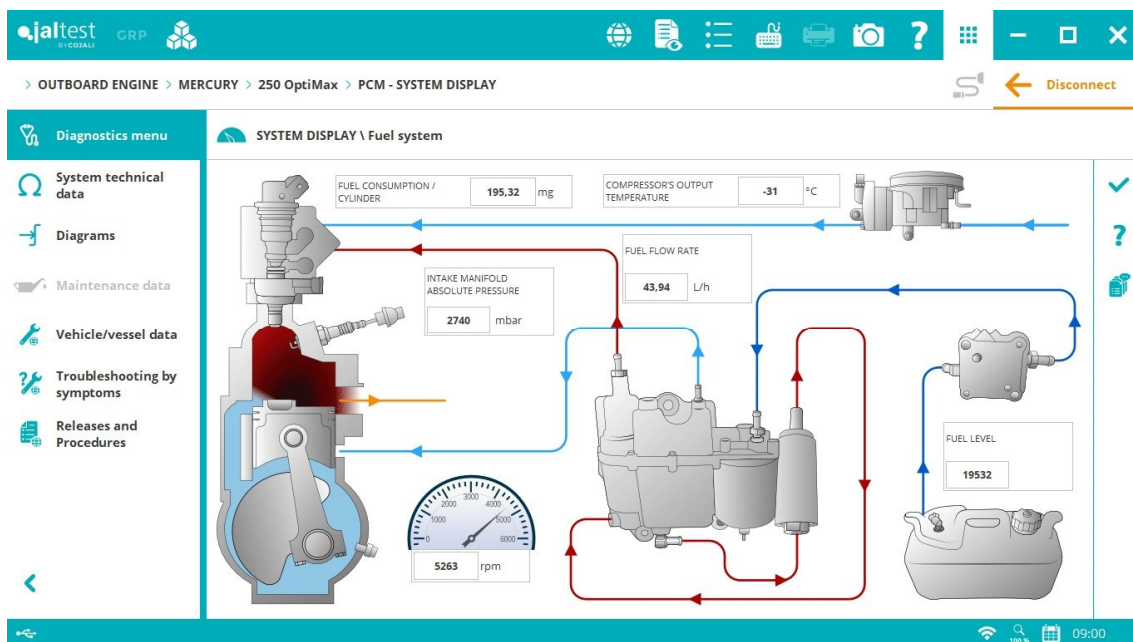
## SMART guides

Several innovations have been included in SMART guides. This version, the step sequence of a SMART guide can be attached as file to the diagnostics report, in the steps of these guides the values of the system measurements, as well as the result of performing a reading or error clearance can also be displayed. In addition, there are text boxes so that the user can enter measured values manually, etc.



## System Display

From this version, in System Display, different elements from the image can move independently depending on the measurement value and new types of measurement graphic representation have been included. In addition, during the execution of a check or activation, steps can be displayed directly through a System Display.



## GRP

The user experience has been significantly improved in GRP, taking into account the following innovations:

- Improved database lookup times of the GRP synchronisation.
- The possibility of creating alarms and notifications from Reports.
- The possibility of entering phone number by user.
- Improved management and display of files attached to GRP entities.
- Access to "Human Resources" menu for service managers.

# DIAGNOSTICS AND SYSTEMS

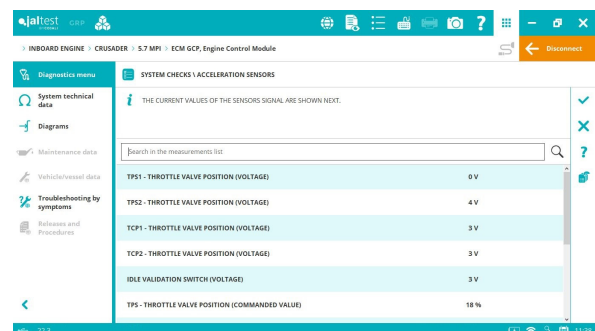
Take into account that this document is only a summary of the most relevant information of this new version. For further information, please visit Jaltest Report.

## INBOARD CATERPILLAR

Technical data and wiring diagrams in the **3516C** model.

### CRUSADER

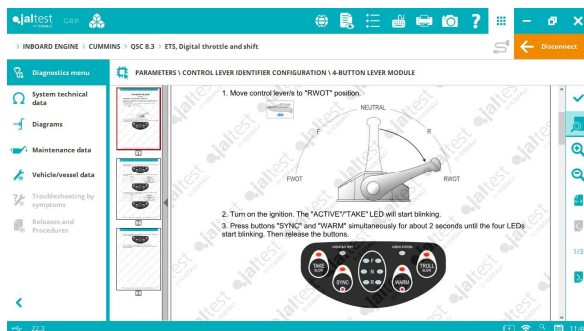
**ECM GCP** engine control system, acceleration sensor test, compression test and reset of fuel system adaptation values.



### CUMMINS

⊕ **ECM CM850** port and starboard engine control system in the **QSB6.7** model.

New **QSB 4.5** model that includes port and starboard engine control systems.



⊕ **ETS** lever control system, lever calibration and Joystick parameter setting.

In addition, technical data and configurations of wiring diagrams, fuse and relay boxes, etc. have been included.

### ILMOR

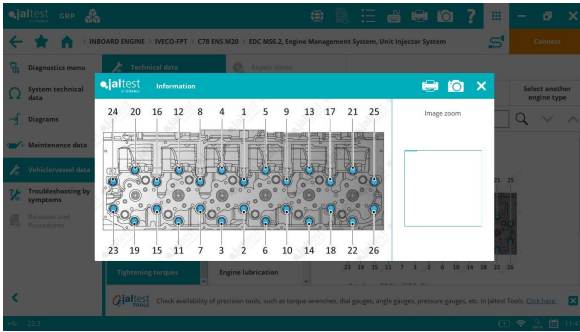
**ECM 4G** and **ECM MV8** engine control systems, acceleration sensor test, compression test and reset of fuel system adaptation values.

### INDMAR

**ECM EControls** engine control system, acceleration sensor test, compression test and reset of fuel system adaptation values.

## IVECO FPT

Technical information in the **S30 ENT M23** model that includes configurations of wiring diagrams, fuse and relay boxes, as well as technical data, component location images, etc.



Technical data of the vessel, as well as maintenance services in several brand models of the brand, such as **C78 ENS M20, C78 ENT M55, C87 ENT M38, C87 ENT M62, C13 ENT M50** and **C13 ENT M83** among others.

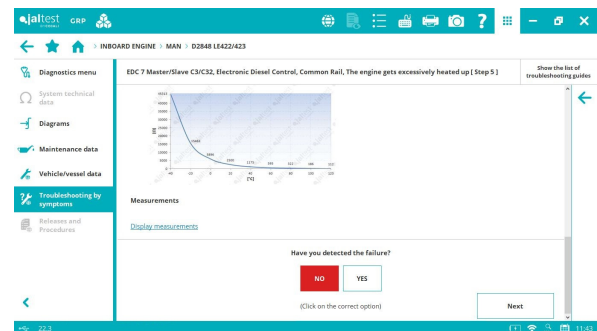
## MALIBU

**ECM 4G** engine control systems, acceleration sensor test, compression test and reset of fuel system adaptation values.

## MAN

Engine models in V Common Rail:

- **D2868 LE426**
- **D2868 LE433/436**
- **D2862 LE423/426**
- **D2862 LE 443/446/463**
- **D2862 LE 433/436**
- **D2862 LE 453/456**
- **D2862 LE 476**

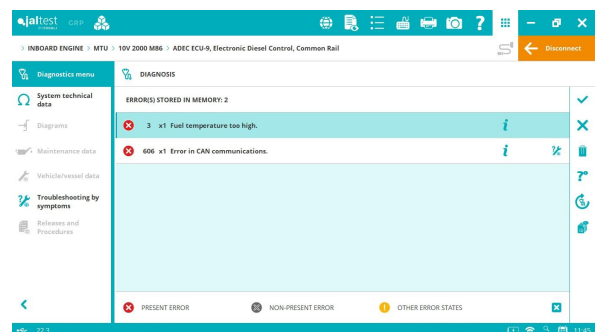


All of them with **EDC 7** engine control system, **Marex** digital throttle and shift and **SFFR** engine control interface.

In addition, **SMART** guides by symptom are included in all engines in V Common Rail of the brand.

## MTU

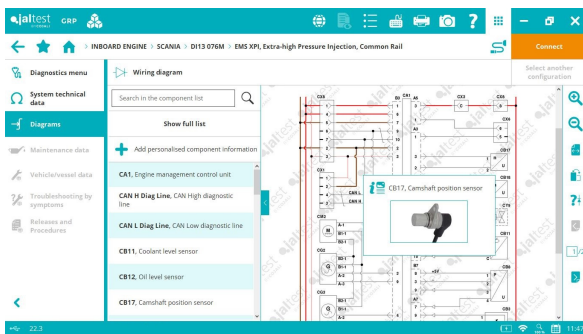
⊕ **ADEC ECU9** engine control system in several brand models, such as **10V 2000 M86, 16V 2000 M96, 12V 2000 M96L/X, 12V 2000 M96** and **10V 2000 M96L/X** among others.



## PCM

**ECM GCP** engine control systems, acceleration sensor test, compression test and reset of fuel system adaptation values.

## SCANIA



Technical information in models with the **EMS XPI** engine control system that includes configurations of wiring diagrams, fuse and relay boxes, as well as technical data, component location images, etc.

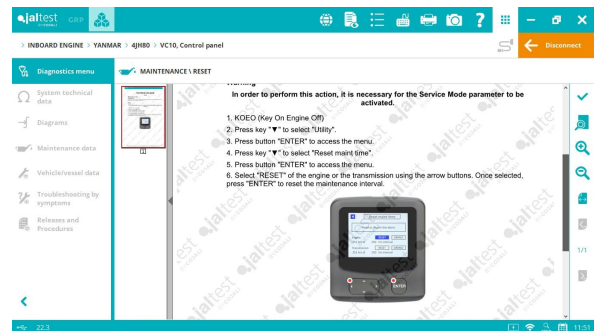
Wiring diagram configurations in models with the **EMS PDE** engine control system.

## VOLVO PENTA

⊕ **SCU** electronic steering system.

## YANMAR

⊕ **VC10** vessel control system that includes lever calibration functions and maintenance reset.



## OUTBOARD

### EVINRUDE

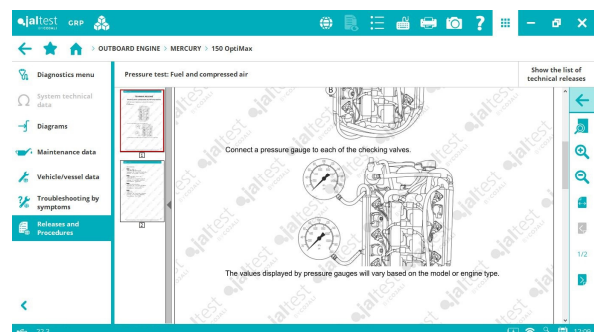
**EST** electronic lever control module, control lever calibration and actuations in models of the **E-TEC G2** and **E-TEC HO G2** families.

### MARINER

Technical data of the vessel, as well as maintenance services in several brand models, such as **75, 90, 135, 150, 200** and **250 Optimax** among others.

### MERCURY

Operating diagrams and guide on how to perform the fuel and compressed air pressure test in **Optimax** engines.



## JET SKI

### YAMAHA

Also, there are new software references of control units in systems prior to 2021.

## STATIONARY ENGINE

Overall, technical data in new engine types in brands such as **ISUZU**, **JCB**, **KOHLER**, **LIEBHERR**, **PERKINS** and **VOLVO PENTA** has been included.

### CATERPILLAR

**Caterpillar** (on SAE J1939) engine control systems among others, ignition system check and the system heater check have been developed in the **ARD** exhaust gas aftertreatment system.

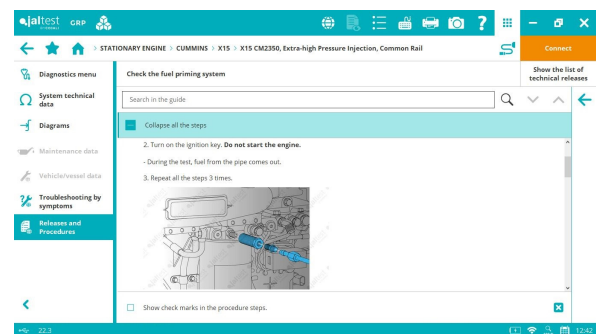
Wiring diagram configurations have been included in **C-3.6**, **C-4.4**, **C-7.1**, **C-15**, **C-18**, **C-27** and **C-32** engines.

### CUMMINS

More than 500 references of **CUMMINS** systems have been included. In these systems, the display format of parameters has also been improved. In addition, the System Display has been included in engine control systems such as **B4.5/6.7** and **L9 CM2350**. The parameter copying and pasting to the control unit is also available in these systems.

**ISF/F 3.8 CM2350** and **QSF 3.8 CM2350** engine control systems, there are new advanced diagnostics functions such as the cylinder cut-out and the parameter configuration.

Technical releases and procedures in X15 engines such as “Check the fuel pump” or “Check for leaks in the oil cooler”, among others.



### DOOSAN

**DL06/DL08** (K line) engine control system, compression test.

### ISUZU

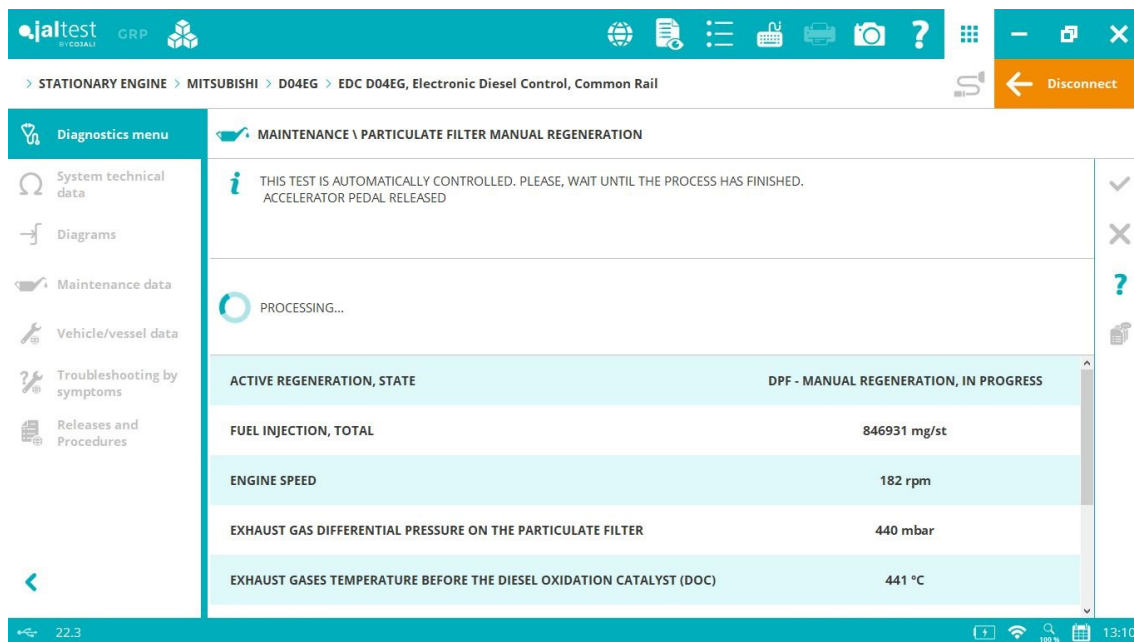
**6HK1** (on CAN) engine control system, catalyst cleaning process and exhaust gas aftertreatment system reset.

## KOHLER

- ⊕ **DCU** exhaust gas aftertreatment system.

## MITSUBISHI

- ⊕ **Tier IV EDC D04EG** engine control system.



The screenshot shows the jaltest diagnostic software interface. The top navigation bar includes the jaltest logo, 'CRP', and various icons. The breadcrumb trail reads: STATIONARY ENGINE > MITSUBISHI > D04EG > EDC D04EG, Electronic Diesel Control, Common Rail. A 'Disconnect' button is visible in the top right. The main area is titled 'MAINTENANCE \ PARTICULATE FILTER MANUAL REGENERATION'. A message states: 'THIS TEST IS AUTOMATICALLY CONTROLLED. PLEASE, WAIT UNTIL THE PROCESS HAS FINISHED. ACCELERATOR PEDAL RELEASED'. Below this, a 'PROCESSING...' indicator is shown. A table displays the following data:

ACTIVE REGENERATION, STATE	DPF - MANUAL REGENERATION, IN PROGRESS
FUEL INJECTION, TOTAL	846931 mg/st
ENGINE SPEED	182 rpm
EXHAUST GAS DIFFERENTIAL PRESSURE ON THE PARTICULATE FILTER	440 mbar
EXHAUST GASES TEMPERATURE BEFORE THE DIESEL OXIDATION CATALYST (DOC)	441 °C

The bottom status bar shows '22.3' and system icons for Wi-Fi, battery (100%), and time (13:10).

## PERKINS

Extended diagnostics coverage for **404J** and **904 J** (on SAE J1939) engine control systems.

## VM MOTORI

**EDC R754/R756 Stage IV/Euro 6** engine control system, AdBlue/DEF actuations and checks of the SCR exhaust gas aftertreatment system.

## VOLVO PENTA

**EMS V4** engine control system, high-pressure fuel circuit check and System Display.