



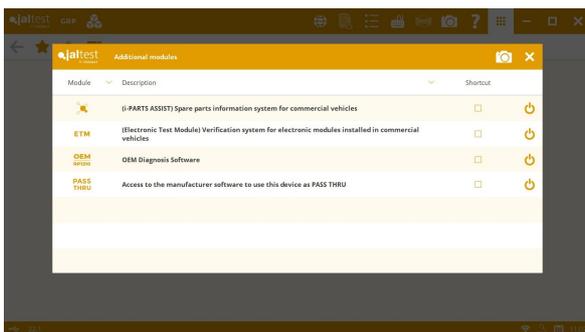
## INNOVATIONS 22.1

# SOFTWARE INNOVATIONS

The new software version Jaltest 22.1 once again offers more improvements and innovations that consolidate this tool as a benchmark in multi-brand diagnostics for commercial and agricultural vehicles, OHW (Off-Highway) and MHE (Material Handling Equipment) applications, and vessels.

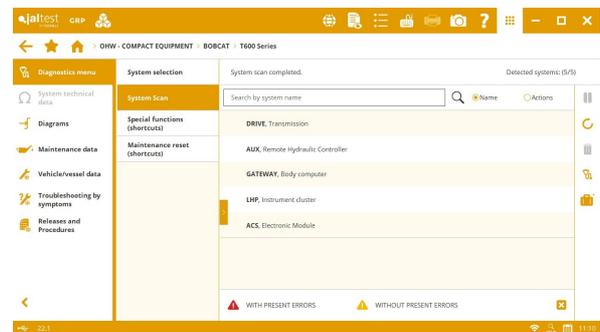
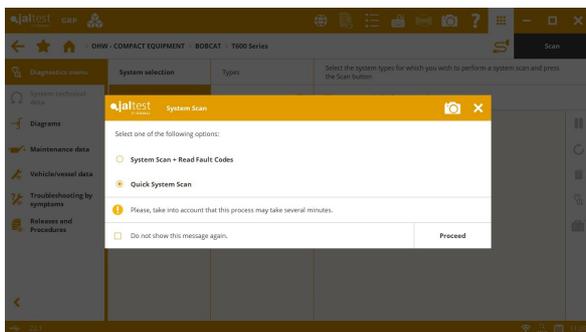
This version, the **additional modules** of Jaltest, except GRP, have been grouped in the upper navigation bar. However, it is possible to personalise it and create shortcuts.

Also, the software usage times and the registration process have been improved, the number of systems with variant control through web service has increased, etc.



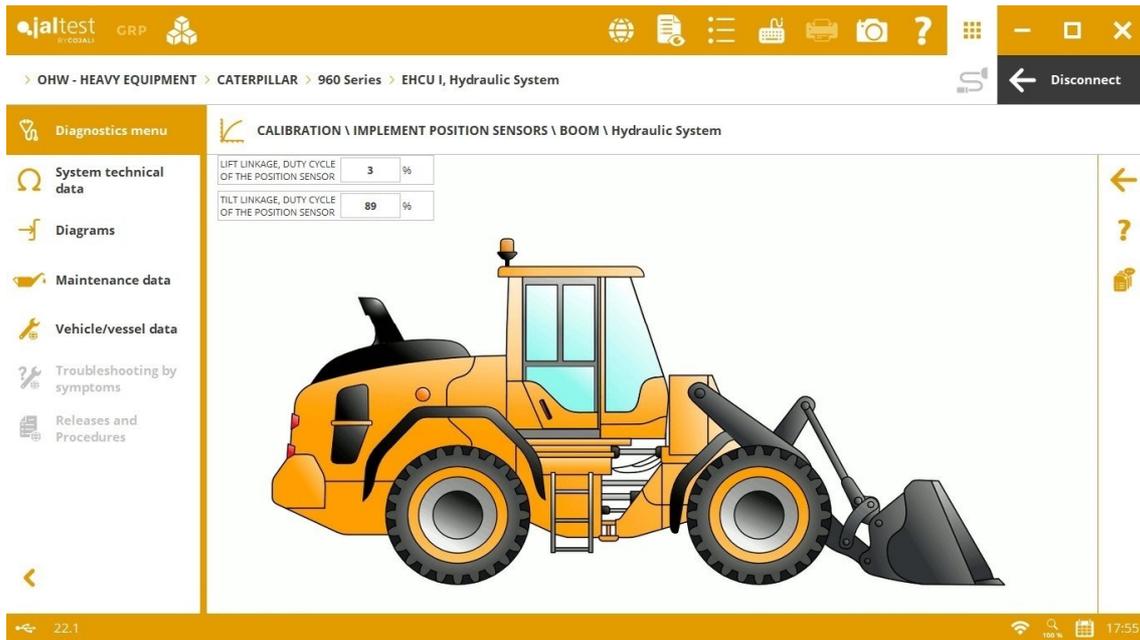
## Quick system scan

Possibility of performing a quick system scan and knowing which systems are installed in the machine. In some models, special scan systems that allow the result achievement in just a few seconds are used.



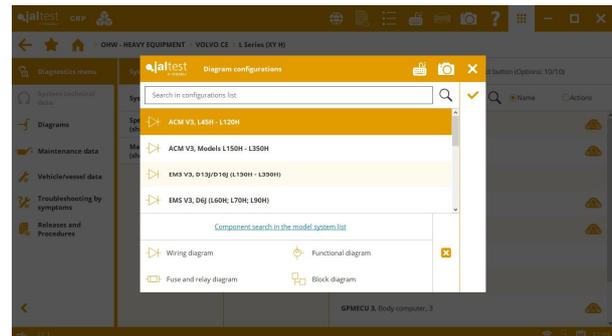
## Dynamic display of System Display

GIF format in System Display that allows the variation of an image depending on the measurement value.



## Display of all system diagrams of the model

With this version, the user can access all system diagrams of the model together with fuse and relay boxes, etc. by simply selecting the model.



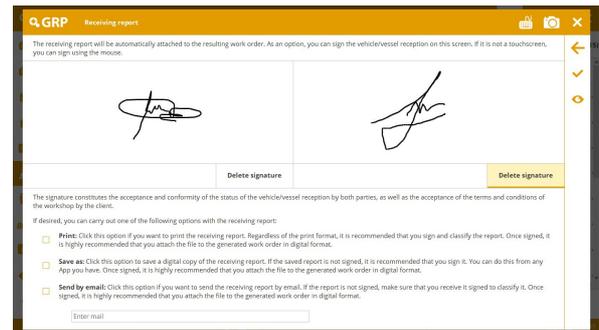
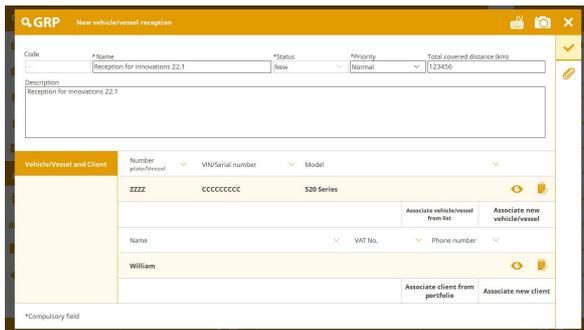
## Other functionalities

- Maintenance and notification processing when installing and running the software in Windows 7.
- Classification of Jaltest videos by licence applications.
- Improvement when adding comments in diagrams by model and in fuse and relay boxes.
- Standardisation process developed of the display order regarding the types and intervals of maintenance services.
- Automatic display of system mileage and service hours in reports.

# GRP

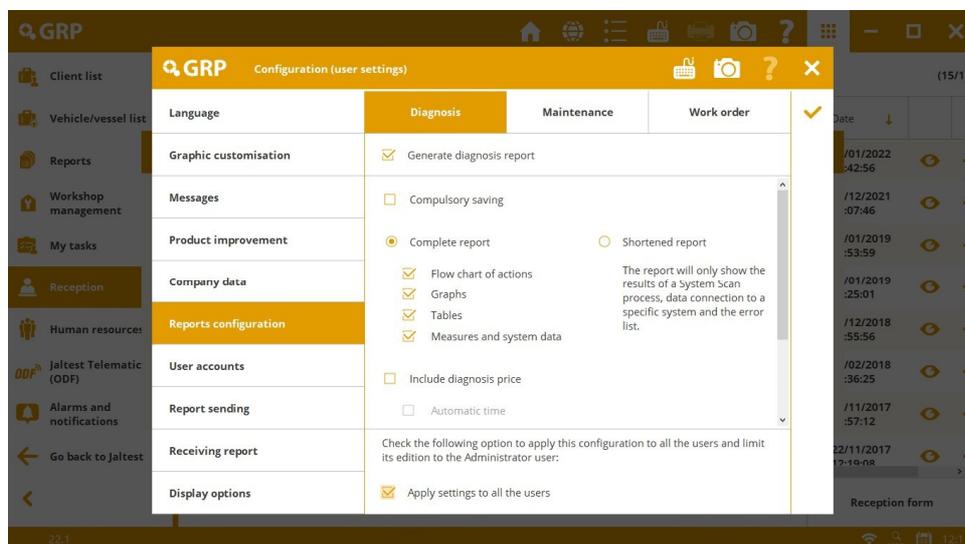
## Generation and signature of reception reports in GRP

At the vehicle reception, a reception report is generated and it is automatically associated as document with the work order created. Furthermore, different methods for the signature of receptions have been added.



## Report configuration

New options to compulsory save the report and possibility of locking the configuration by the Administrator.



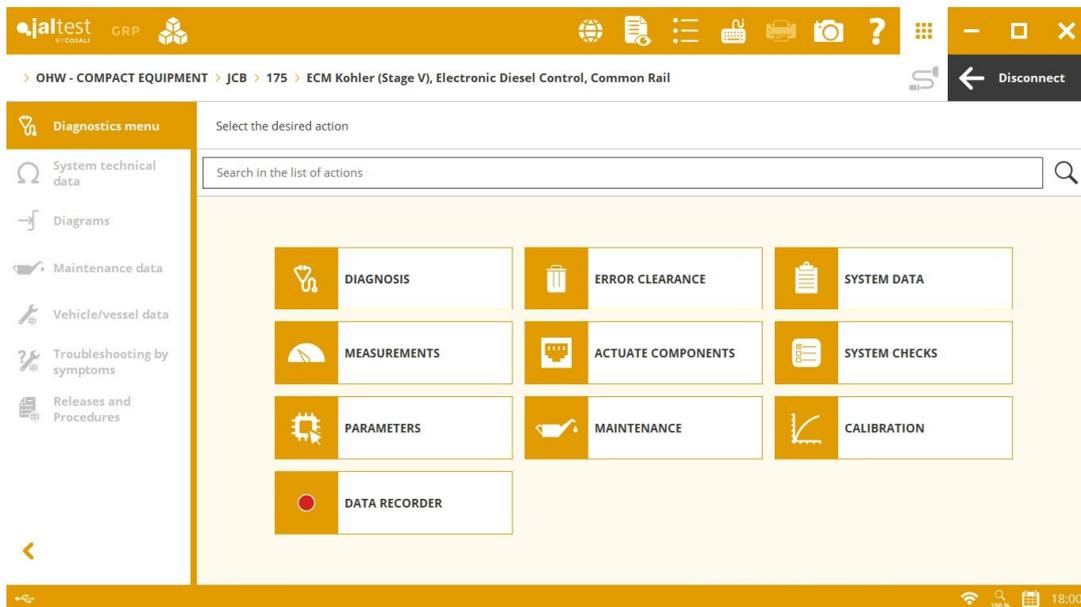
## Other functionalities

- Improvements in the data synchronisation.
- Possibility of assigning a diagnostics report of a model to a vehicle despite not matching. In this case, the client is informed, who now is able to associate reports even after selecting a wrong model or accessing through MANUFACTURERS.
- Access to the application through a GRP user. It is only necessary to fill in the data once and these will be filled in automatically in Jaltest Feedback.
- Modification of the GRP closure, new button "Go back to Jaltest".

# BRANDS AND MODELS

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.

It is important to highlight that the development of the control system of **KOHLER Stage V** engines, which has advanced diagnostics functions, has made it possible to create this brand in STATIONARY ENGINES. Several brands such as **JCB, KRAMER** or **PIQUERSA** have this engine in their models.



Likewise, the control system of **PERKINS 403J** and **404J** engines, available for brands such as **JCB** or **WACKER NEUSON**, has been developed.

## OHW - HEAVY EQUIPMENT

In this version the following new brands have been included: **MANITOWOC, PAUS** and **SPIERINGS**. Some of the brands with new models in Jaltest are listed below.

### DOOSAN

New models in **DL Series** and **DX Series** families.

### DRESSTA

New models in **RD Series** motor graders.

### KOMATSU

New models in tractors and crawl excavators.

## LIEBHERR

New models in **LB Series** drills and **LR Series** cranes on tracks.

Also, new models in **SANY** and **SANDVIK** brands.

## OHW - COMPACT EQUIPMENT

Brands with new models: **DOOSAN**, **DRESSTA**, **KOMATSU**, **KUBOTA** and **WACKER NEUSON**.

# 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.

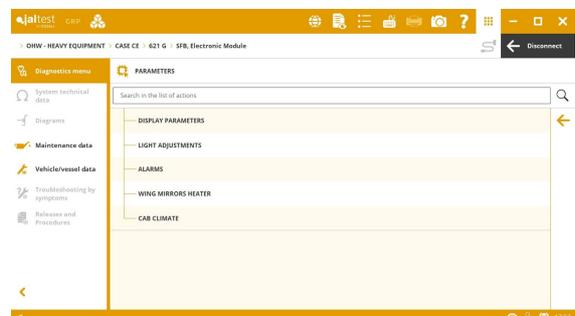
**DEUTZ EMR5-EDC MD1** engine control system, injector coding in brands such as **AHLMANN**, or **SCARAB** street sweepers.

## OHW - HEAVY EQUIPMENT

### CASE CE

⊕ **Smart Fuse Box** system for wheel loaders.

In addition, new wiring diagram configurations available in the **UCM** system and new engine types with technical data and maintenance services available in **G Series** models.



### CATERPILLAR

Models with **C-9.3** (SAE J1939) engines, operation test of the fuel system and the Exhaust Gas Recirculation system.

**TCM** transmission for **100/20/10 Series** motor graders, calibrations of transmission, inching pedal, etc.

**MCM** central computer for **M Series** and **300 Series** excavators, parameter modification of the hydraulic circuit.

New wiring diagram configurations available in several brand systems and new **C-7** engine types. In addition, dynamic System Displays have been added in calibrations for wheel loaders.

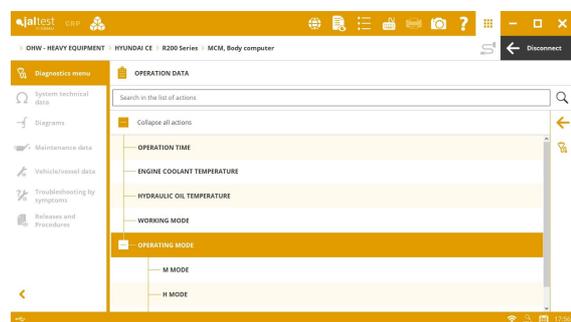
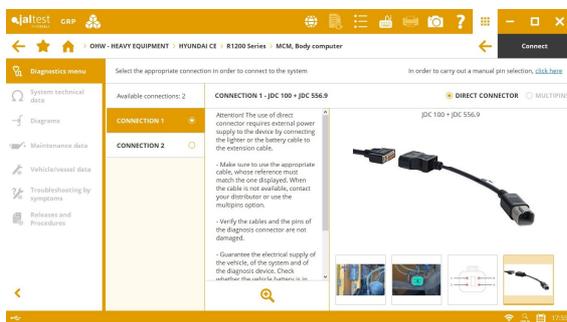
## DOOSAN

Scania **EMS XPI** engine control system, calibrations of the exhaust brake and the Exhaust Gas Recirculation system.

## HYUNDAI CE

- ⊕ **JDC 556A** diagnostics cable.
- ⊕ **MCM** central computer for **Robex Series** excavators.

Mitsubishi **D04FD-TAA** engine control system for **Robex R100 Series** wheel excavators, verification test of the fuel system and injector coding.

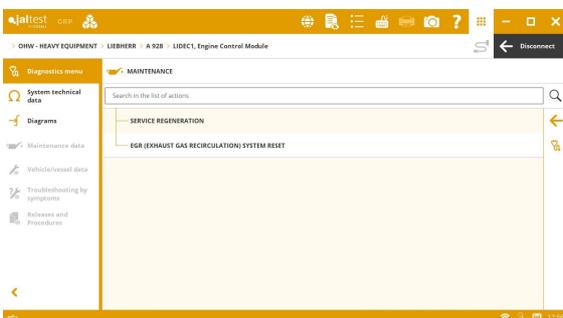


## JOHN DEERE CE

**LIDEC 1** engine control system in **950J** and **1050J** bulldozers, service regeneration of the Diesel Particulate Filter.

Maintenance services in engine types with **Level 23**, **Level 33** and **Level 34** control systems.

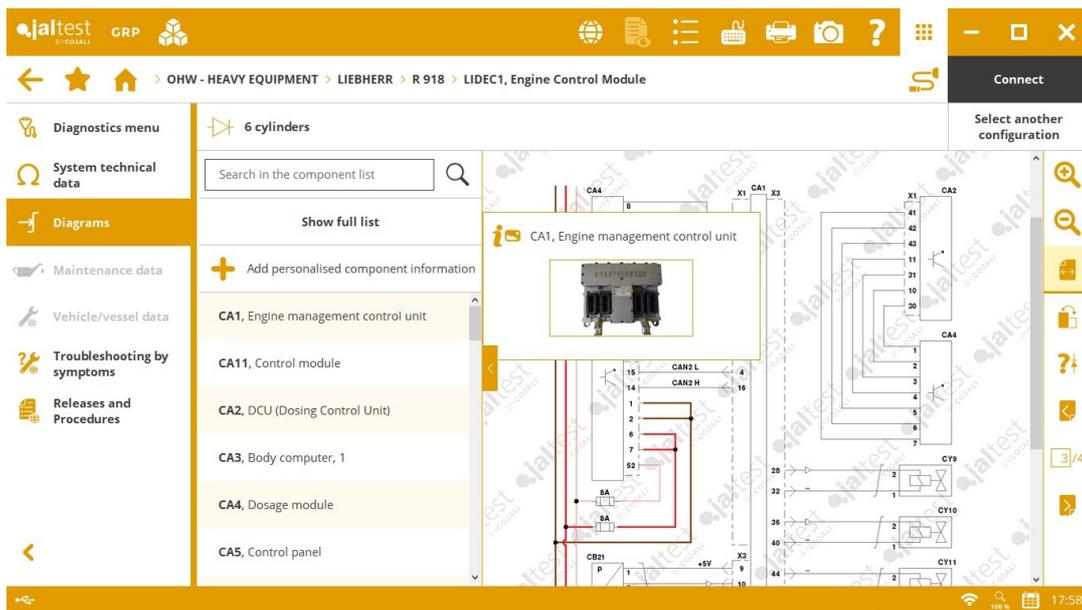
## LIEBHERR



- ⊕ **Master 4** (RS232) central computer for **L Series** wheel loaders.

**LIDEC 1** engine control system, reset of the Exhaust Gas Recirculation system.

In addition, new wiring diagram configurations available in brand systems and new engine types with technical data available in several models.



## SANDVIK

**Caterpillar C-3.6** (SAE J1939) engine control system, checks such as AdBlue dosing check or injection rail pressure check among others, injector coding and maintenance reset.

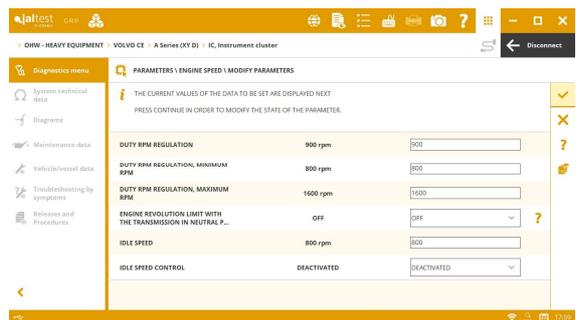
## VOLVO CE

**EMS V3** engine control system, activation and calibration of the Exhaust Gas Recirculation valve.

**GPMECU1** and **GPMECU2** central computers, new advanced functionalities in both systems.

**VECU** vehicle control system for crawl excavators, activation of the float control solenoid valve.

**IC** instrument cluster for **A Series** articulated haulers, parameter modification of the idle shutdown timer control and the engine speed rate control.



In addition, System Displays have been added for wheel loaders in the **GPMECU3** system.

## WEILER

**Caterpillar C-3.6** (SAE J1939) engine control system, AdBlue/DEF injector activation, injector switch-off test, AdBlue/DEF leak control test, AdBlue/DEF system heater test and many more.

## OHW - COMPACT EQUIPMENT

### BOBCAT

**D24NAP** and **D34NAP** engine types with available technical data and maintenance services in several brand models, such as **A700**, **E40**, **T700**, **S500**, etc.

### CATERPILLAR

**MCM** central computer for **300 Series** compact crawl excavators, parameter modification of the hydraulic circuit.

**MCM** central computer for **D Series** compact bulldozers, calibration of transmission, brake pressure, steering control joystick, etc.

In addition, new system wiring diagram configurations available in **300 Series** models.

### HYUNDAI CE

⊕ **JDC 556A** diagnostics cable.

⊕ **MCM** central computer for **Robex Series** excavators.

Maintenance reset procedure in **HX 140 Series** models.

### JCB

**DieselMax** and **EcoMax** engine types with available technical data.

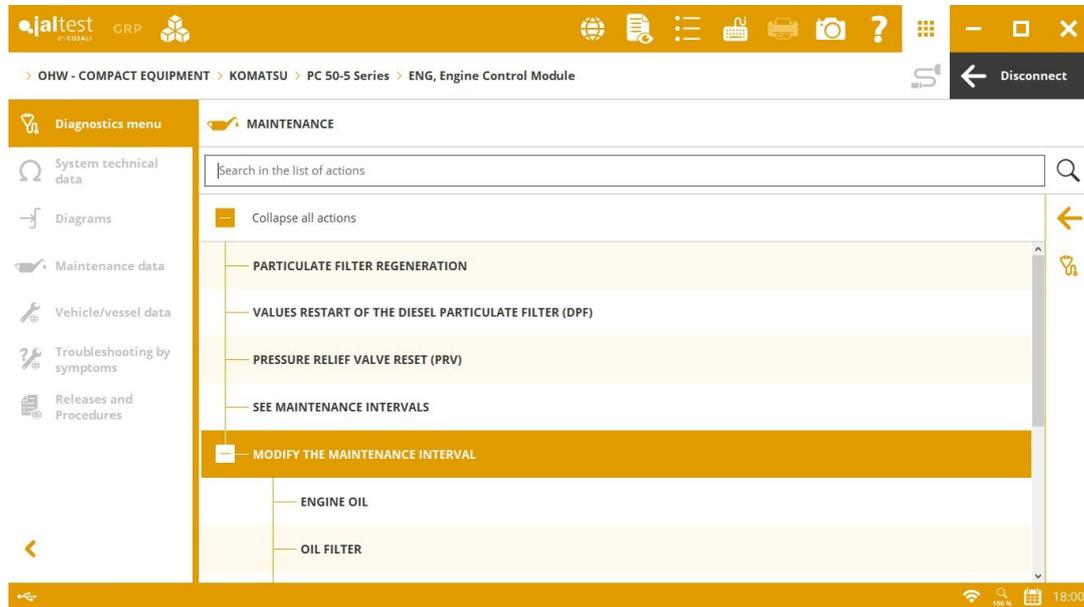
### JOHN DEERE CE

⊕ Joystick control systems of the right **JSR** and left **JSL** for skid-steer loaders.

Maintenance services in engine types with **Level 23** control systems.

## KOMATSU

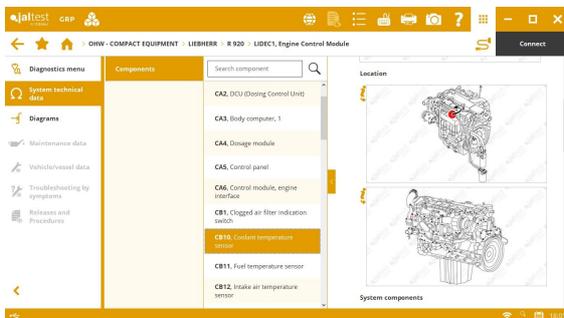
⊕ **ENG** engine control system for compact excavators.



## NEW HOLLAND CE

⊕ **Smart Fuse Box** system for wheel loaders.

## LIEBHERR



**LIDEC 1** engine control system, reset of the Exhaust Gas Recirculation system.

In addition, new technical data and new wiring diagram configurations available in several systems from the brand.

## VOLVO CE

**GPMECU1** and **GPMECU2** central computers, new advanced functionalities in both systems.

**VECU** vehicle control system for compact crawl excavators, activation of the float control solenoid valve.

In addition, System Displays have been added for **L Series (XY H)** wheel loaders in the **GPMECU3** system.

# STATIONARY ENGINE

## CATERPILLAR

Models with **C-9.3** (SAE J1939) engines, operation test of the fuel system and the Exhaust Gas Recirculation system.

**C-3.6** (SAE J1939) engine control system, activations, checks of the fuel Pressure Relief Valve and the intake and exhaust valves among others, injector coding and maintenance reset.

## CUMMINS

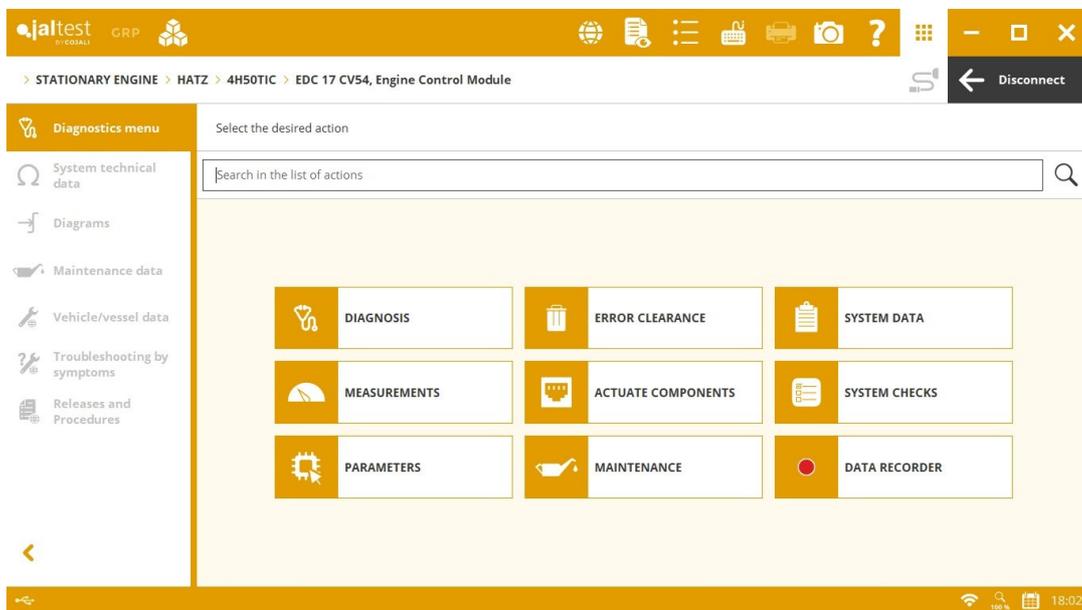
**CM2450** engine control system, injector calibration and installation and calibration procedure of the Variable Geometry Turbine. In addition, new troubleshooting and component replacement guides available.

**CM2350** engine control system, parameter setting of the engine protection, PTO control and many more.

Component replacement guides in engines with **B6.7N, L9N** and **ISX12N CM 2380** control systems.

## HATZ

⊕ **EDC 17 CV54** engine control system.



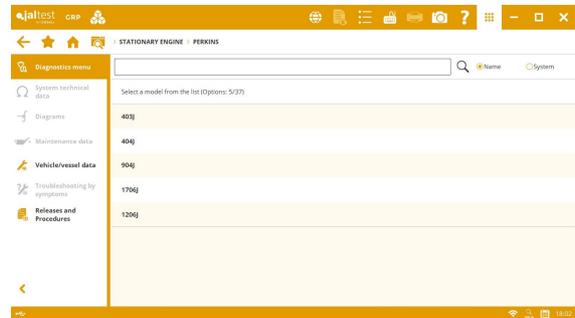
## LIEBHERR

**LIDEC 1** engine control system, reset of the Exhaust Gas Recirculation system.

## PERKINS

⊕ Control system of **403J** and **404J Stage V** engines.

New advanced functions available in the SAE J1939 control system of the **904J** engine which includes new wiring diagrams.



## VOLVO PENTA

**EMS V3** engine control system, activation and calibration of the Exhaust Gas Recirculation valve.

## STREET SWEEPER

## JOHNSTON

Maintenance reset procedure in the **C 400** model.