



**jaltest**  
**OHW**  
OFF-HIGHWAY VEHICLES

INNOVATIONS 24.2

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.

# BRANDS AND MODELS

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## OHW - HEAVY EQUIPMENT

This version includes the **PONSSE** brand, manufacturer of forestry machines.

### LIEBHERR

New models, including 6 models of **R Series** crawl excavators.

## OHW - COMPACT EQUIPMENT

Increased number of models in **DOOSAN**, **MECALAC** and **WACKER NEUSON** brands.

### MECALAC

15 new models and 4 new families, such as **MRAIL Series** crawl excavators.

## STATIONARY ENGINE

Increased number of models in the **KHOLER** brand, these are gasoline engines with Delphi injection control system.

## MULTI-PURPOSE VEHICLE

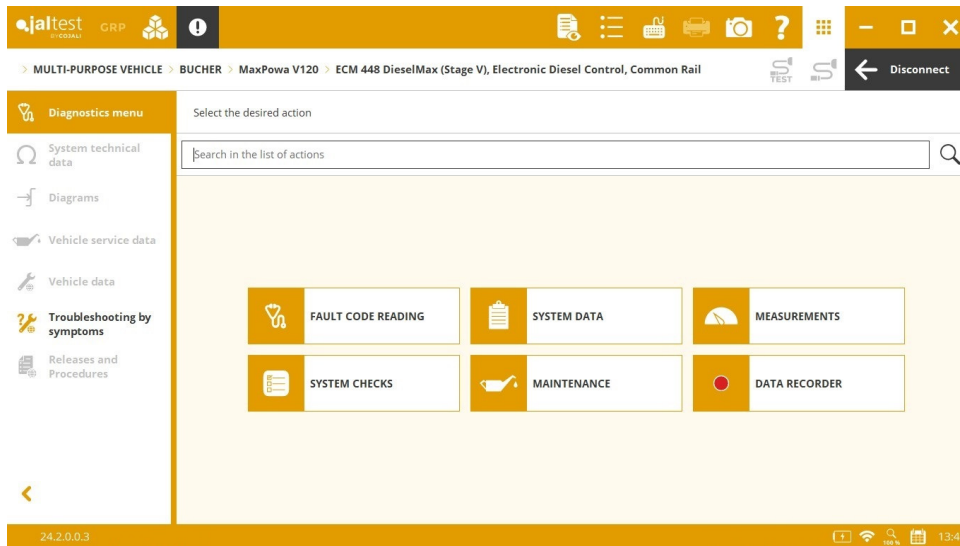
This version includes the **GLOBAL ENVIRONMENTAL PRODUCTS** brand and new models in the **RAVO** brand.

# DIAGNOSTICS AND SYSTEMS

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This version has a larger number of **wiring diagram configurations** among the most relevant engine control systems following any selection path in the different brands. This coverage is available thanks to a functionality which grants access to the generic diagram of the engine part without considering specific equipment components.

It is important to note the development of new advanced actions such as the exhaust gas aftertreatment system checks in the **DieselMax 448** engine control system in **JCB STAGE V** engines. This system is available for STATIONARY ENGINE and other brands such as **BUCHER**.



## OHW - HEAVY EQUIPMENT

### AMMANN

**EMR5 EDC MD1** (on SAE J1939) engine control system, new checks.

### CASE CE

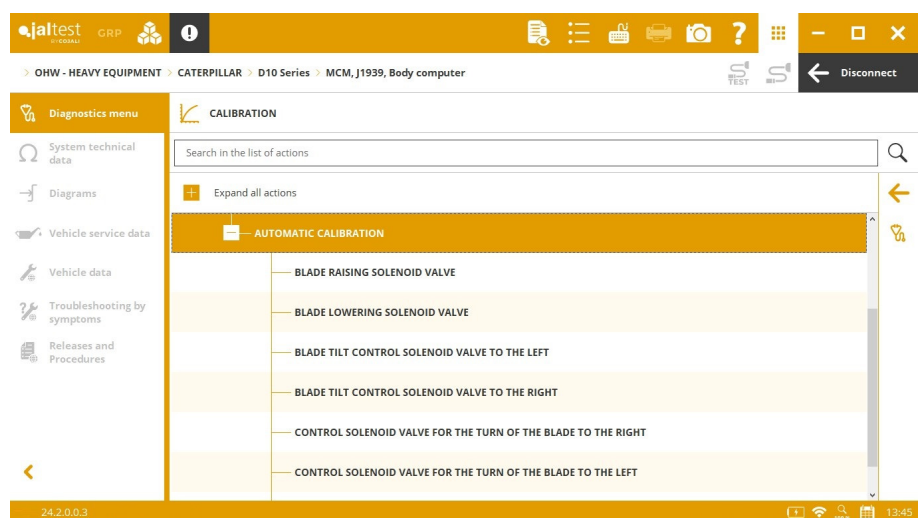
**Troubleshooting guides by symptom** in the **4HK1, 4JJI** (on SAE J1939) engine control system.

### CATERPILLAR

**C-27 / C-32** (on SAE J1939) engine control system, injector parameters.

**C-18** (on SAE J1939) engine control system, injector parameters and check of errors in CAN communication lines.

**MCM** (on SAE J1939) central computer for **D Series**, new calibrations.



## HYDREMA

**1104D** (on SAE J1939) engine control system, accelerator parameters.

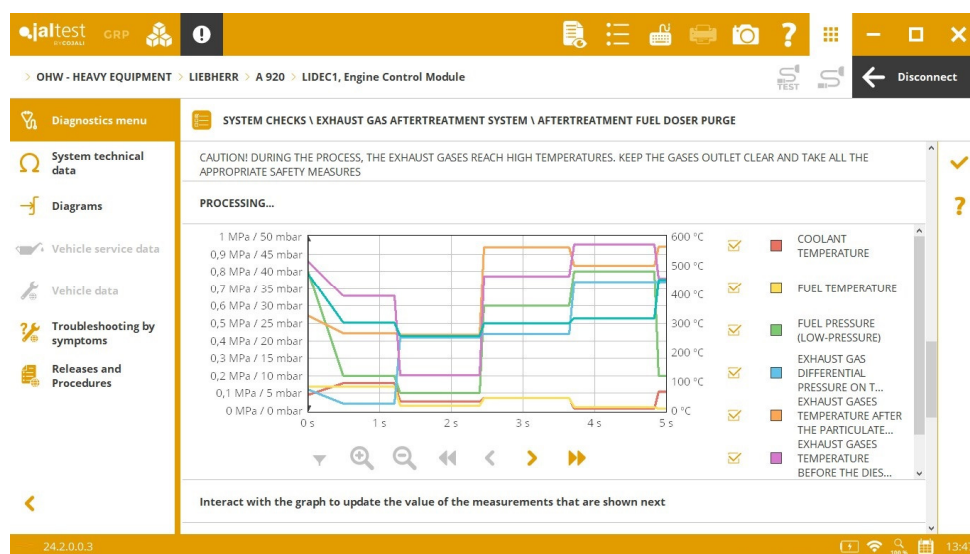
## HITACHI

New wiring diagram configurations in **4HK1 / 4JJ1** (on J1939) systems for **ZX100W-7 Series, ZX200-7 Series, ZX100-6 Series** and **ZX100-5 Series**.

**Fault code troubleshooting guides** in the **6HK1** engine control system.

## LIEBHERR

**LIDEC1** (on RS232) engine control system, new checks and maintenance services.



# OHW - COMPACT EQUIPMENT

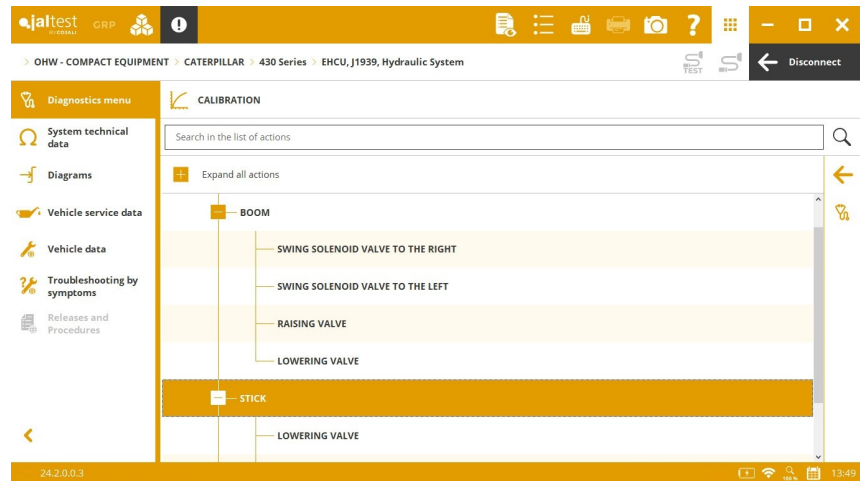
Advanced actions have been developed in the actuations, checks and service menus for the **ECU3** (on UDS) engine control system of **LIEBHERR**.

## CATERPILLAR

⊕ **EHCU** hydraulic system for **400 Series** (on SAE J1939).

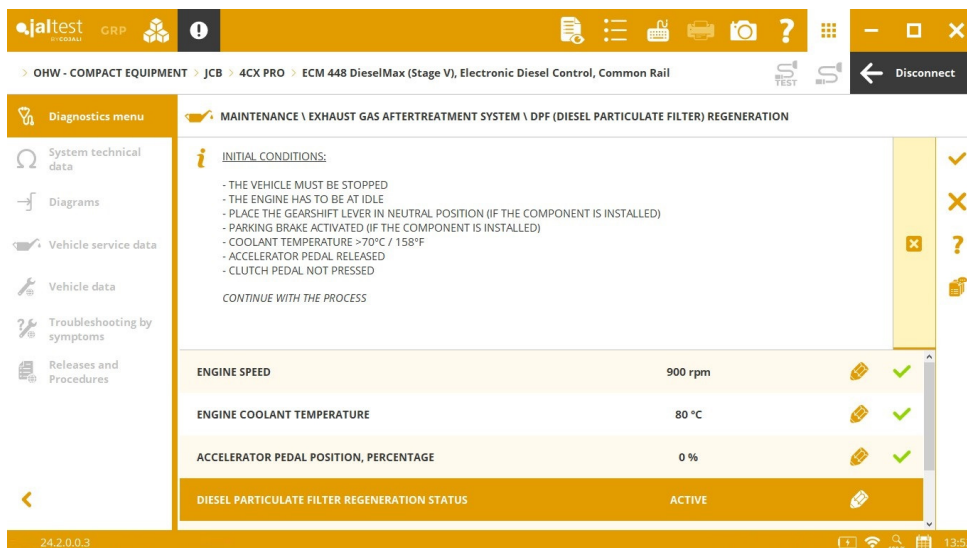
⊕ **SCM** steering control system for **400 Series** (on SAE J1939).

**MCM** central computer for **D Series** (on SAE J1939), calibrations of the implement control valves and automatic calibrations.



## JCB

⊕ **DIESELMAX 448** (on J1939) engine control system for **Stage V** engines.



## KOMATSU

New wiring diagram configurations in the **PUM** (on SAE J1939) hydraulic system in **PC 80-100 Series**.

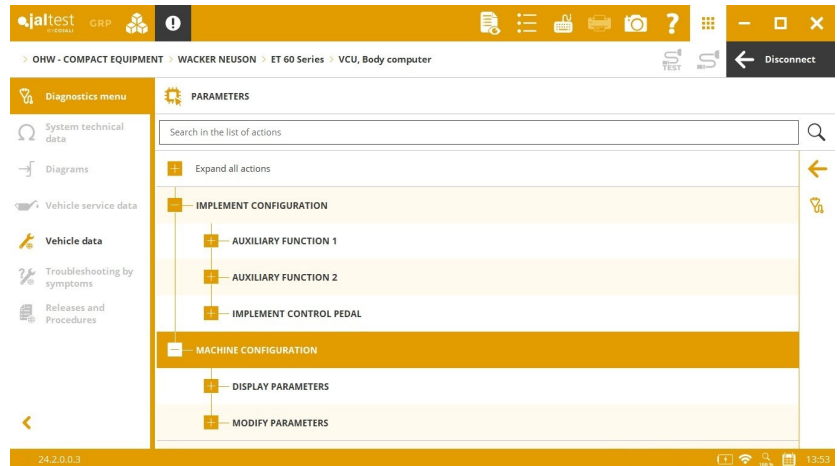
## LIEBHERR

**ECU3** (on UDS) engine control system, new advanced actions in actuations and checks; reset of the long-lasting fault code memory.

## WACKER NEUSON

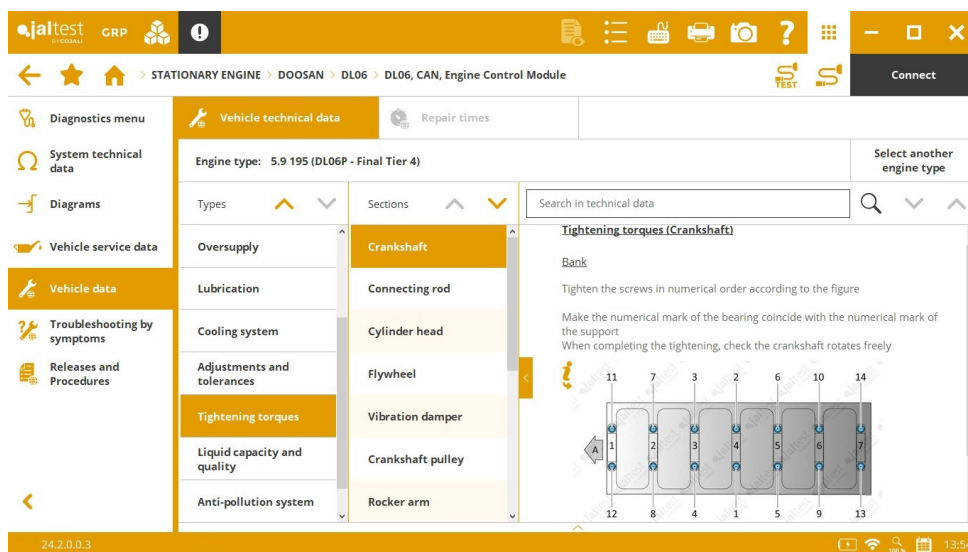
**IC** (on SAE J1939) instrument cluster for compact wheel loaders.

**VCU** (on SAE J1939) central computer for compact excavators, implement and machine configurations.



## STATIONARY ENGINE

Overall, technical data included in new **DOOSAN** engine types.



## CATERPILLAR

**C-27 and C-32** (on SAE J1939) engine control system, injector parameters.

**C-18** (on SAE J1939) engine control system, injector parameters and check of errors in CAN communication lines.

New **fault code troubleshooting guides** for **C-2.8** and **C-3.6** engine control systems.

## DEUTZ

**EMR5 EDC MD1** (on SAE J1939) engine control system, checks of the air filter restriction switch and the engine protection.

**EMR4 EDC17 CV52** (on SAE J1939) engine control system, EGR system test and EGR valve reset.



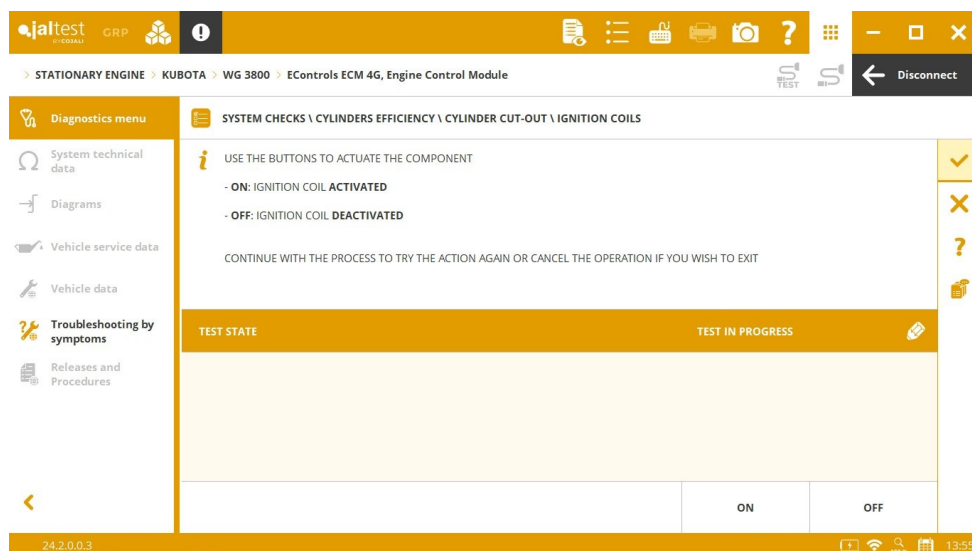
**Jaltest Central Services:** Clearance of permanent fault codes.

## ISUZU

New **fault code troubleshooting guides** for **4HK1**, **4JJ1** and **6HK1** engine control systems.

## KUBOTA

**EControls ECM 4G** (on SAE J1939) engine control system, actuations, checks and maintenance services.



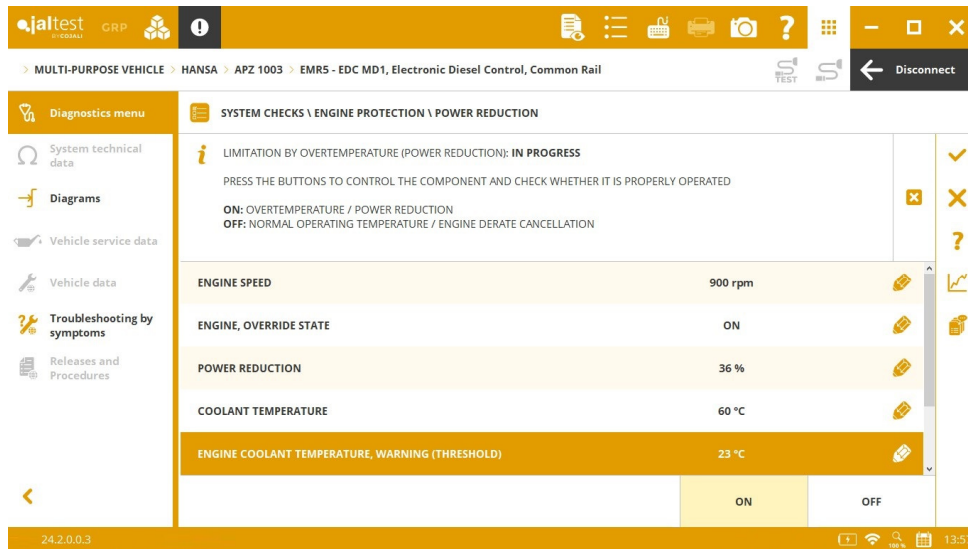
## PERKINS

**1204F / 1206F** (on SAE J1939) engine control system, check of errors in CAN communication lines.

**904J** (on SAE J1939) engine control system, maintenance for the AdBlue/DEF module cleaning.

# MULTI-PURPOSE VEHICLE

Extended diagnostics coverage for engine control systems. It is important to note new functionalities in **DEUTZ STAGE V** engines in the **HANSA** brand.



The screenshot displays the jaltest diagnostic interface for a MULTI-PURPOSE VEHICLE. The breadcrumb trail indicates the vehicle is a HANSA APZ 1003 with an EMR5 - EDC MD1, Electronic Diesel Control, Common Rail engine. The main diagnostic area is titled 'SYSTEM CHECKS \ ENGINE PROTECTION \ POWER REDUCTION'. It shows a warning for 'LIMITATION BY OVERTEMPERATURE (POWER REDUCTION): IN PROGRESS' with instructions to press buttons to control the component. Below this, a table displays various engine parameters:

ENGINE SPEED	900 rpm	[Control Icon]	[Graph Icon]
ENGINE, OVERRIDE STATE	ON	[Control Icon]	[List Icon]
POWER REDUCTION	36 %	[Control Icon]	
COOLANT TEMPERATURE	60 °C	[Control Icon]	
ENGINE COOLANT TEMPERATURE, WARNING (THRESHOLD)	23 °C	[Control Icon]	

At the bottom of the table, there are two buttons labeled 'ON' and 'OFF'. The interface also includes a left-hand navigation menu with options like 'System technical data', 'Diagrams', and 'Troubleshooting by symptoms'. The bottom status bar shows the software version '24.2.0.0.3' and the time '13:57'.