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JALTEST OHW 18.1



INDEX

1. INTRODUCTION TO JALTEST OHW.....	5
2. NEW SOFTWARE FUNCTIONS.....	6
2.1 IMPROVEMENT IN THE MANAGEMENT OF JALTEST FEEDBACK.....	6
2.2 VEHICLE BUS COMMUNICATIONS TEST.....	7
2.3 SEARCH TOOL IN THE SYSTEM ACTION TREE.....	8
2.4 POSSIBILIY TO ADD CUSTOMISED TROUBLESHOOTING GUIDES TO AN ERROR.....	9
2.5 MODEL SEARCH BY CATEGORY.....	10
2.6 OTHERS INNOVATIONS.....	10
3. JALTEST OHW 18.1. COVERAGE IMPROVEMENT AND INNOVATIONS.....	11
3.1 OHW VEHICLES & CONSTRUCTION EQUIPMENT.....	11
3.1.1 CATERPILLAR.....	11
3.1.2 JCB.....	13
3.1.3 DOOSAN NEW!	15
3.1.4 KÄSSBOHRER GELÄNDEFahrZEUG NEW!	17
3.1.5 LINK-BELT NEW!	18
3.1.6 LINDE NEW!	19
3.1.7 SANDVIK NEW!	20
3.1.8 SUNWARD NEW!	21
3.1.9 TIGERCAT NEW!	22
3.2 STATIONARY ENGINES.....	23
3.2.1 CATERPILLAR.....	24
3.2.2 JCB.....	27
3.2.3 PERKINS.....	28
3.2.4 MERCEDES-BENZ.....	31
3.3 STREET SWEEPERS.....	32
3.3.1 DULEVO.....	32
3.3.2 EUROVOIRE.....	33
3.3.3 MATHIEU-YNO.....	34

IMAGE INDEX

Image 1 Jaltest Feedback menu	6
Image 2 Jaltest Feedback, Send Jaltest Feedback.....	6
Image 3 Jaltest Feedback history	7
Image 4 Running vehicle communications test.....	7
Image 5 Results of vehicle communications test. CAN bus.....	8
Image 6 Action EGR Filter in JCB Ecomax 4 cylinder +56kW Final Tier 4.....	9
Image 7 Custom troubleshooting added to error.....	9
Image 8 Search by category in Case CE	10
Image 9 ECM C-7 wiring diagram in Caterpillar 100/20/10 Series.....	12
Image 10 ECM C-11 in Caterpillar 700 Series	12
Image 11 ECM C-15 wiring diagram in Caterpillar 900 Series.....	13
Image 12 JCB HYDRAULICS system in 500 Series (Final Tier 4 / Stage IV).....	13
Image 13 JCB JOYSTICK in 500 Series model (Tier 3 / Stage III – Interim Tier 4 / Stage IIIB)	14
Image 14 JCB CLUSTER system in CX Series model.....	14
Image 15 4HK1, 4JJ1 EDC system in JCB JS Series model.....	15
Image 16 Doosan models	16
Image 17 Engine QSB 4.5 / 6.7 CM2350 connection in Doosan DX Series model.....	16
Image 18 Engine QSB 4.5 / 6.7 CM2350 wiring diagram in Doosan DX Series model.....	17
Image 19 KÄSSBOHRER GELÄNDEFAHRZEUG models.....	18
Image 20 MR/PLD connection in PistenBully 100 Series	18
Image 21 LINK-BELT models	19
Image 22 4HK1, 4JJ1 system in LINK-BELT X3 Series model.....	19
Image 23 Linde models.....	20
Image 24 EMR3 - EDC 7 UC31 system in Linde H50-80 Series model.....	20
Image 25 Sandvik models.....	21
Image 26 EDC Volvo in Sandvik TH Series model.....	21
Image 27 6HK1 EDC in Sunward SWE Series model.....	22
Image 28 Tigercat models.....	23
Image 29 EDC 17 CV41 in Tigercat 600 Series model.....	23
Image 30 Models of Caterpillar Diesel Engines in Stationary Engines.....	25
Image 31 Models of Caterpillar Gas Engines in Stationary Engines.....	25
Image 32 Caterpillar 3406E, injection activation pressure help.....	26
Image 33 Caterpillar C-7, injector calibration menu.....	26
Image 34 Caterpillar C-7, injector calibration help	27
Image 35 Caterpillar C-7, wiring diagram	27
Image 36 JCB EcoMax +56kW Interim Tier 4, injector calibration menu.....	28
Image 37 Perkins models in Stationary Engines	29
Image 38 Perkins 854E, J1939, injector code menu	29
Image 39 Perkins 1506D, PDL, system checks menu	30
Image 40 Perkins 1103D, PDL, wiring diagram.....	30
Image 41 SCR Bluetec in Mercedes-Benz Engines, maintenance menu	31
Image 42 SCR Bluetec in Mercedes-Benz Engines, SCR-Related Memory Reset help.....	31
Image 43 Dulevo models.....	33
Image 44 Metafuel 3TM (CNG) in Dulevo 5000 Evolution Series model.....	33
Image 45 Eurovoirie models.....	34

Image 46 EDC 17 CV41 + Denox 2.2 in Eurovoirie CityCat 5006 model 34
Image 47 Mathieu-Yno models 35
Image 48 Kubota - V3800 in Mathieu-Yno Aquadyne Series model 35



1. INTRODUCTION TO JALTEST OHW

The **latest software version Jaltest OHW 18.1** offers once more new improvements and innovations, which consolidate this tool as a benchmark in multibrand diagnosis for Construction and Off-Highway Machines, Stationary Engines, Street Sweepers and much more..

-Improvement in the management of Jaltest Feedback. In this version, it is possible to save them and send them later.

-Improvement in the model classification in some brands, including new search filters.

-Access to specific relevant technical data from a maintenance service.

-New vehicle communications test.

- And much more...

Below is a summary of this Jaltest OHW version update, which includes, among others, the following innovations:

- New **Caterpillar engines** with **new functionalities**.
- New **JCB systems and engines**.
- New brands in **Off-Highway & Construction Equipment**.
- **SCR Bluetech Memory Reset** in **Mercedes-Benz**.
- New **Perkins engines** with **new functionalities**.
- New **Street Sweepers models**.

Remember also that, for security reasons, the **Expert Mode** has changed in this first version of the year. Please, access the client area on the website to request it again.

If you wish, you can use **'Jaltest Report'** to access additional information about the specific coverage for each brand.

2. NEW SOFTWARE FUNCTIONS

2.1 IMPROVEMENT IN THE MANAGEMENT OF JALTEST FEEDBACK

A Jaltest Feedback history has been added, where you can check the saved and sent messages.

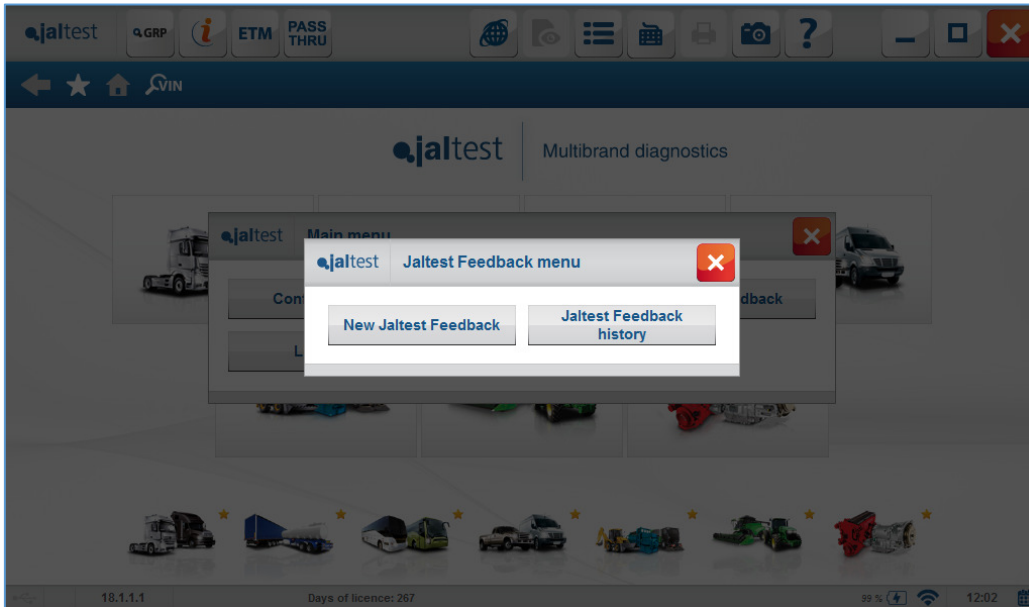


Image 1 Jaltest Feedback menu



Image 2 Jaltest Feedback, Send Jaltest Feedback

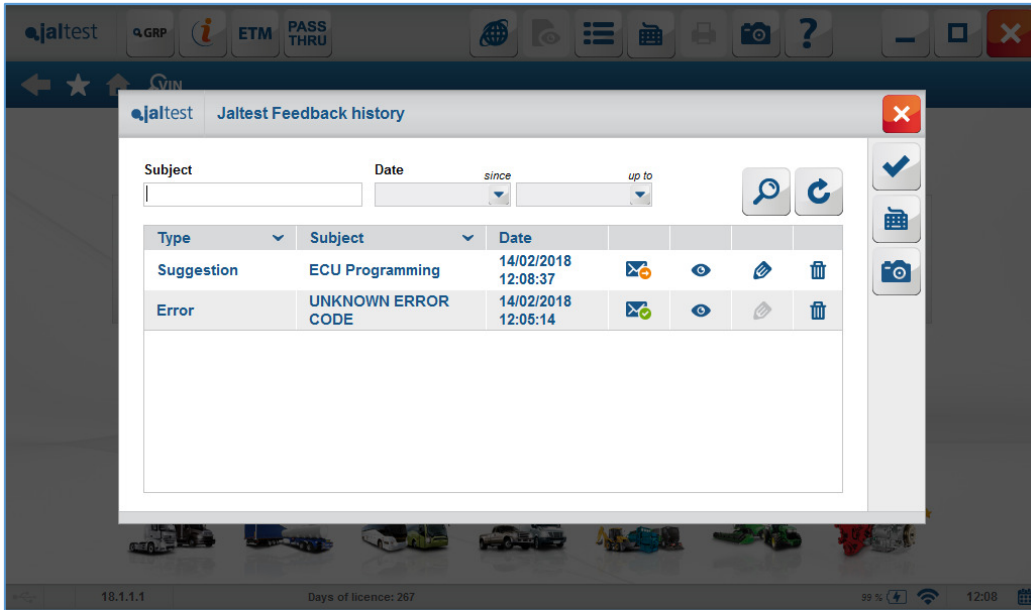


Image 3 Jaltest Feedback history

2.2 VEHICLE BUS COMMUNICATIONS TEST

This function allows to check if there is data traffic in the vehicle communications bus. By performing this test along with the connection test, which shows the voltage value of the diagnosis device, it is possible to detect and solve problems in the communication lines and the vehicle connector, or problems related to the connection with a system.

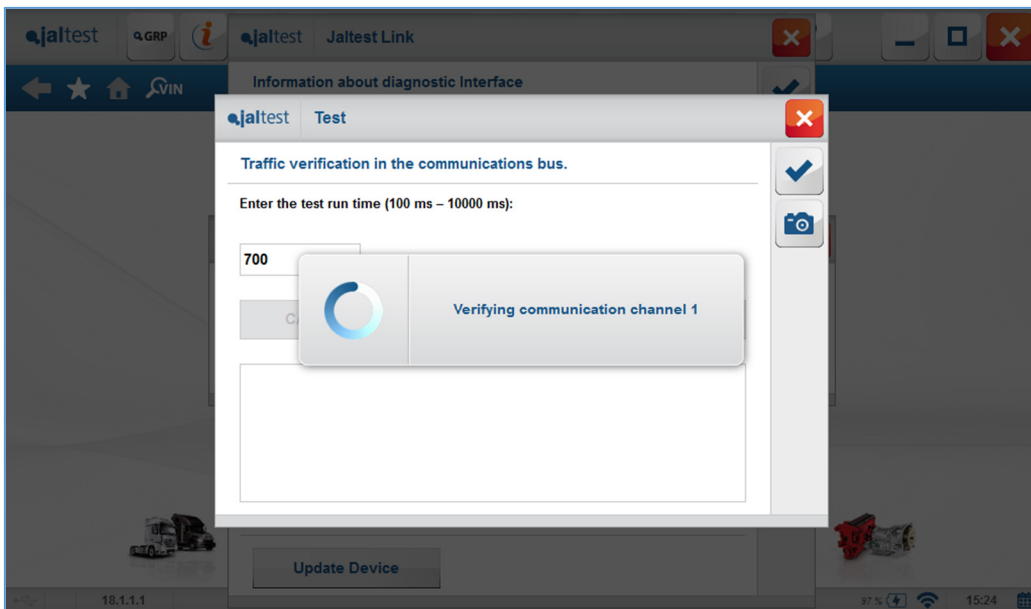


Image 4 Running vehicle communications test

It is possible to verify more than one CAN or bus SAE J1708 communication channel at the same time, since this test sweeps all the pins of the diagnosis connector.

First, the test duration time must be entered. Then, you only need to analyse the results. The following data are displayed:

- If no communication channel was detected.
- Possible signal errors.
- Communication speed.
- Number of messages read during the set time.

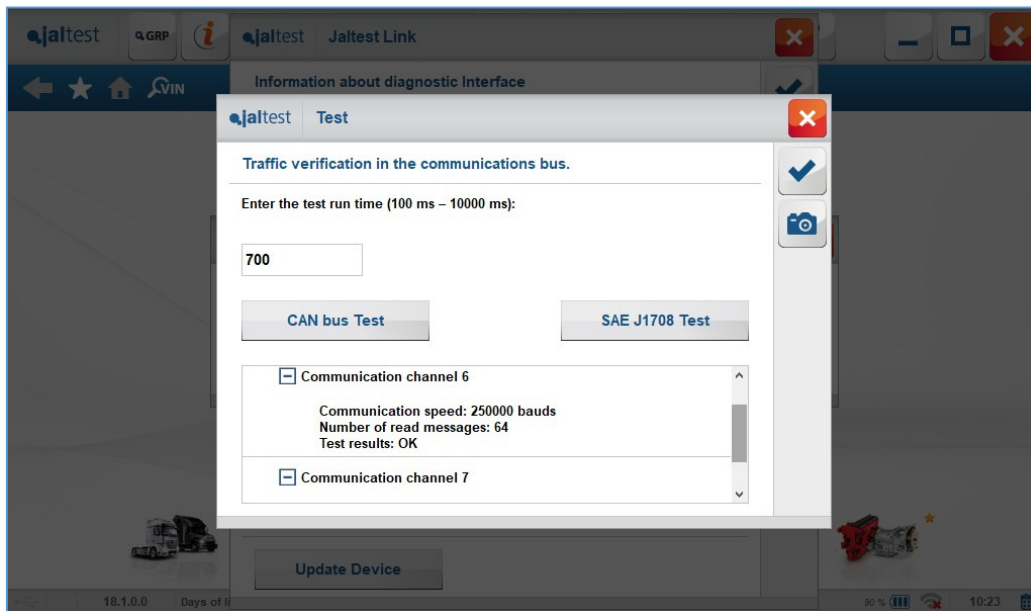


Image 5 Results of vehicle communications test. CAN bus

2.3 SEARCH TOOL IN THE SYSTEM ACTION TREE

This function allows to search a function inside the system actions menu. Use this filter with 'key' words to speed up the navigation through the diagnosis software. As shown in the image, the menu is reduced to the actions that contain the searched word. To display the complete menu again, all you need to do is delete the text that you entered and press the search button again.

Next, you will find a list with some examples that can be used in different systems:

- EGR
- VGT
- Injector
- Regeneration
- DPF
- Reset
- Operation data
-

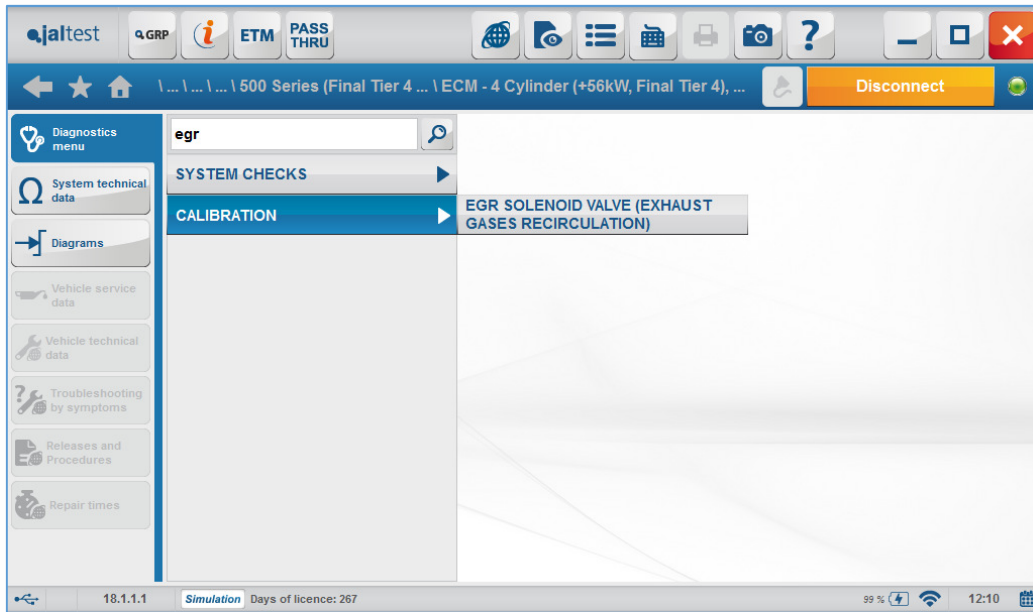


Image 6 Action EGR Filter in JCB Ecomax 4 cylinder +56kW Final Tier 4

2.4 POSSIBILIY TO ADD CUSTOMISED TROBLESHOOTING GUIDES TO AN ERROR

Last version, the software customisation was improved with the possibility to add customised troubleshooting guides by symptom. Now, they can be assigned to errors too.

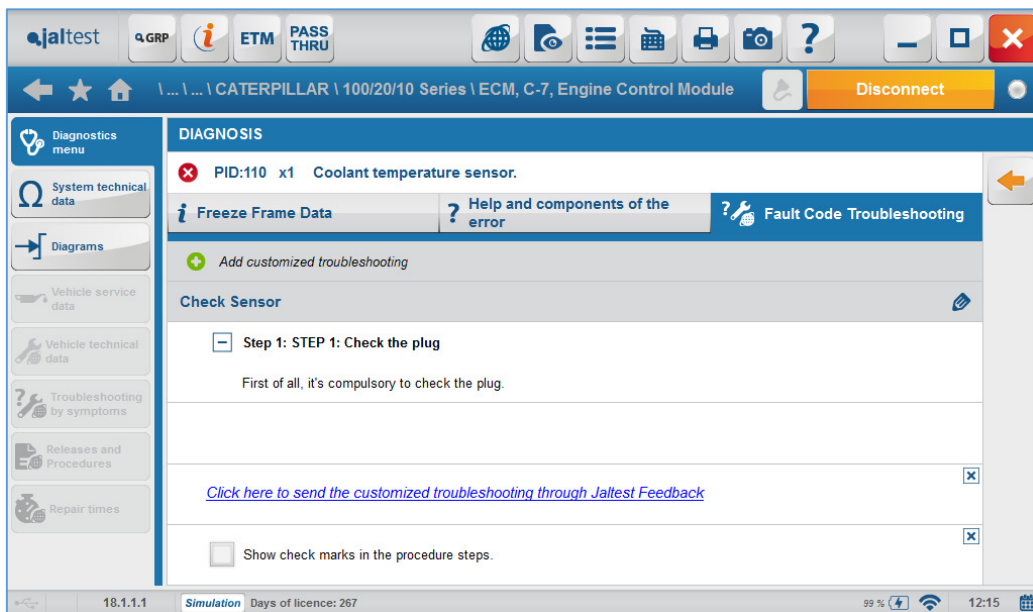


Image 7 Custom troubleshooting added to error

In the future, it will be possible to customise error help texts, maintenance sheets, and more...

2.5 MODEL SEARCH BY CATEGORY

The 'Search by category' filter has been created with the goal of improving the search of vehicle models. It can be combined with the text filter and the model family selection.

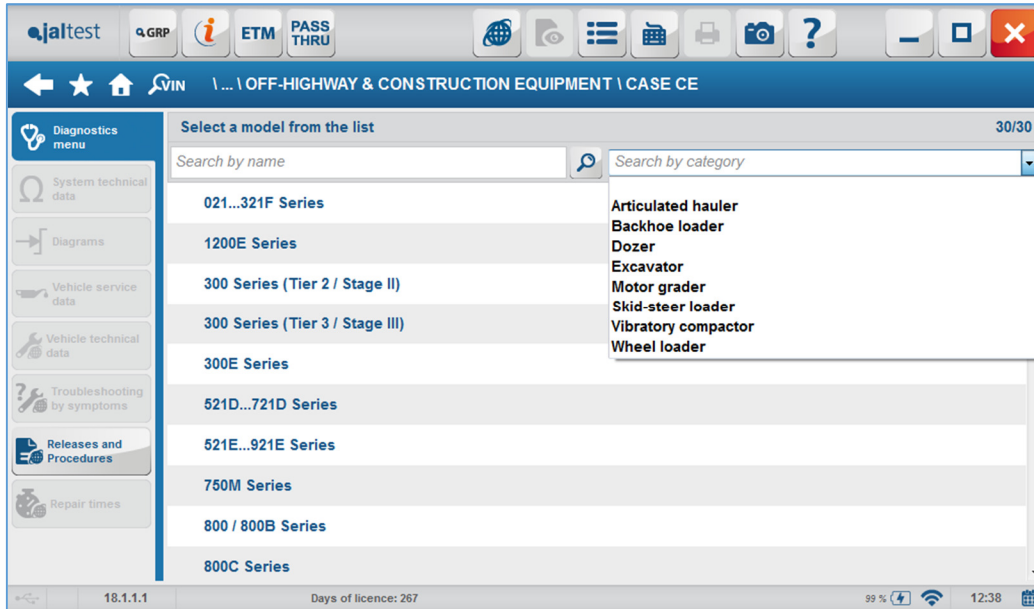


Image 8 Search by category in Case CE

2.6 OTHERS INNOVATIONS

In addition, other improvements and new functions have been added. Some are listed below:

- Improvements in the steps of parameter configuration actions, more available ranges and dependency between the values of the different parameters.

3. JALTEST OHW 18.1. COVERAGE IMPROVEMENT AND INNOVATIONS

3.1 OHW VEHICLES & CONSTRUCTION EQUIPMENT

Under this category you can find all construction and Off-Highway vehicles. Listed below are the brands with innovations in the Jaltest OHW 18.1 version.



3.1.1 CATERPILLAR

New systems have been added for the following models:

- 100/20/10 Series:
 - Engine C-11 with wiring diagram and technical information.
 - Engine C-7 with wiring diagram and technical information.

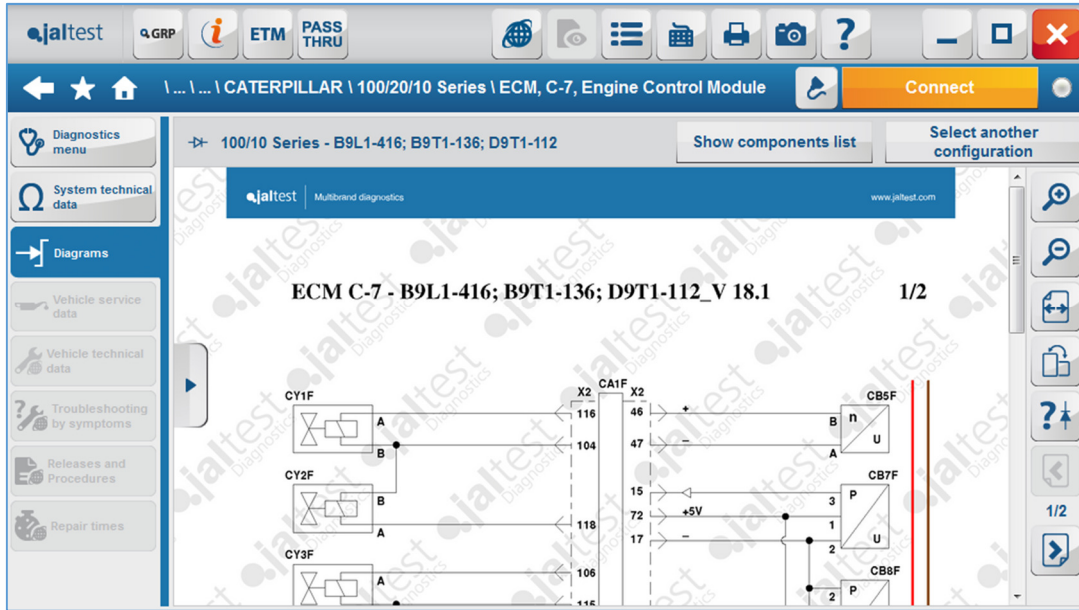


Image 9 ECM C-7 wiring diagram in Caterpillar 100/20/10 Series

- 700 Series:
 - o Engine C-11 with wiring diagram and technical information.

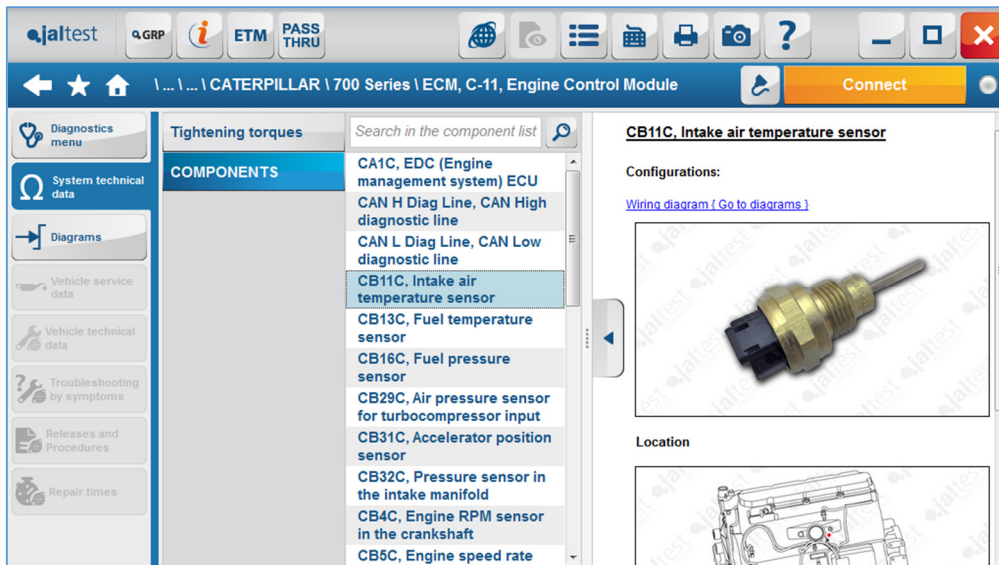


Image 10 ECM C-11 in Caterpillar 700 Series

- 900 Series:
 - o Engine C-11 with wiring diagram and technical information.
 - o Engine C-7 with wiring diagram and technical information.
 - o Engine C-15 with wiring diagram and technical information.

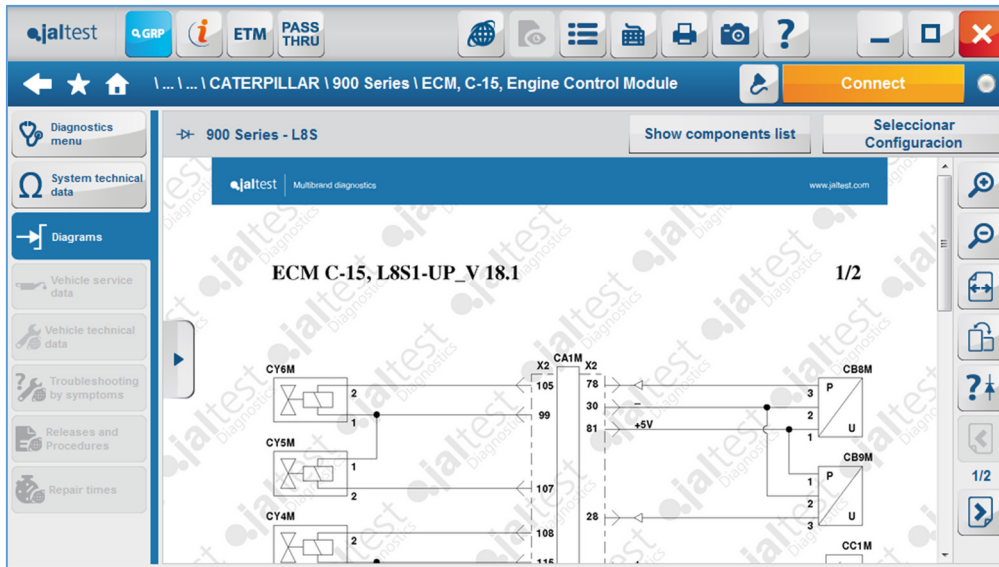


Image 11 ECM C-15 wiring diagram in Caterpillar 900 Series

3.1.2 JCB

The coverage for JCB has been improved with the development of new systems for the following models:

- 500 Series (Final Tier 4 / Stage IV): **NEW!**
 - o ECM.
 - o HYDRAULICS. **NEW!**
 - o TRANS. **NEW!**
 - o JOYSTICK. **NEW!**

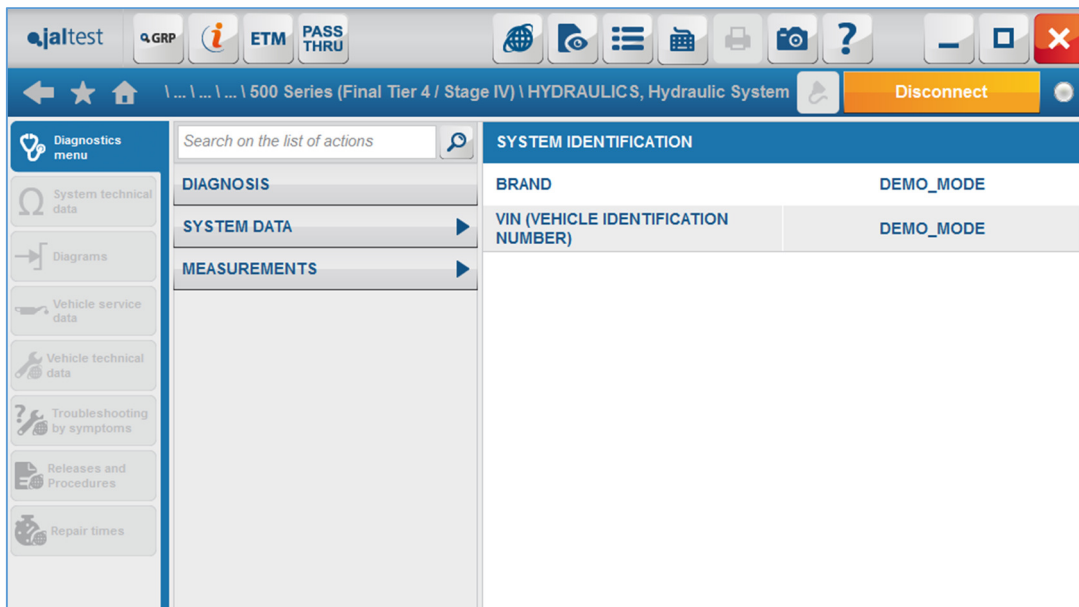


Image 12 JCB HYDRAULICS system in 500 Series (Final Tier 4 / Stage IV)

- 500 Series (Tier 3 / Stage III – Interim Tier 4 / Stage IIIB):
 - o HYDRAULICS. **NEW!**
 - o JOYSTICK. **NEW!**

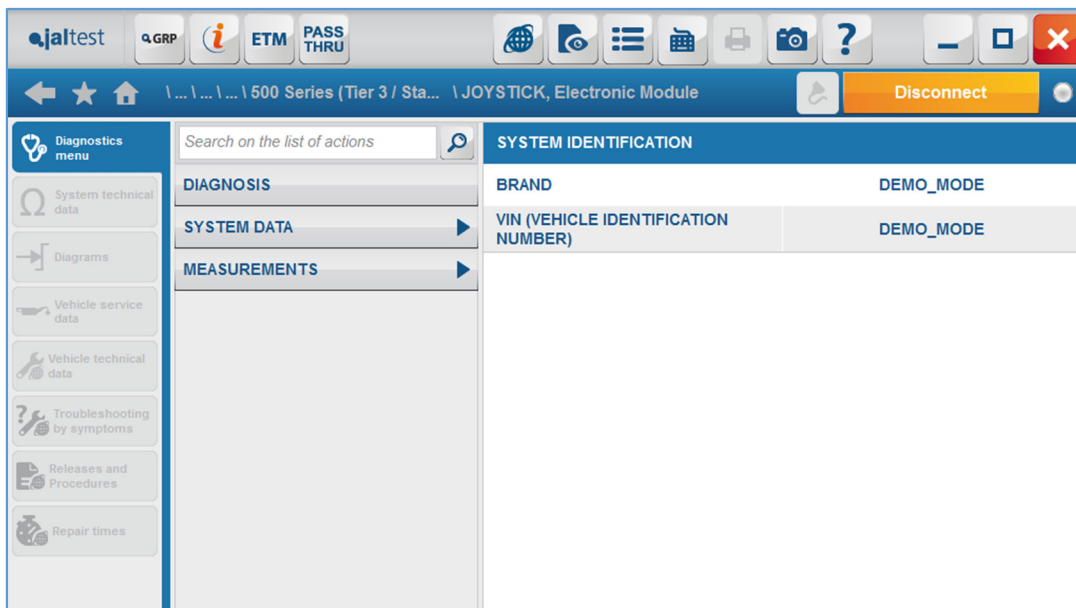


Image 13 JCB JOYSTICK in 500 Series model (Tier 3 / Stage III – Interim Tier 4 / Stage IIIB)

- CX Series:
 - o CLUSTER. **NEW!**

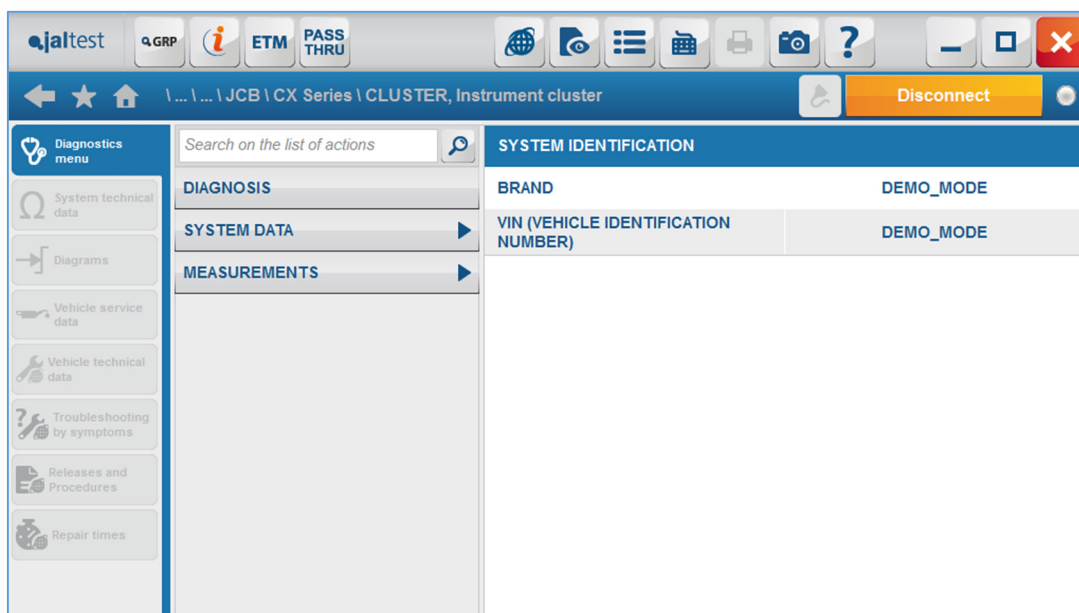


Image 14 JCB CLUSTER system in CX Series model

- JS Series:
 - o 4JJ1-TC & 4HK1-TC.
 - o 6HK1-TC.
- JZ Series:
 - o 4JJ1-TC & 4HK1-TC.
 - o 6HK1-TC.

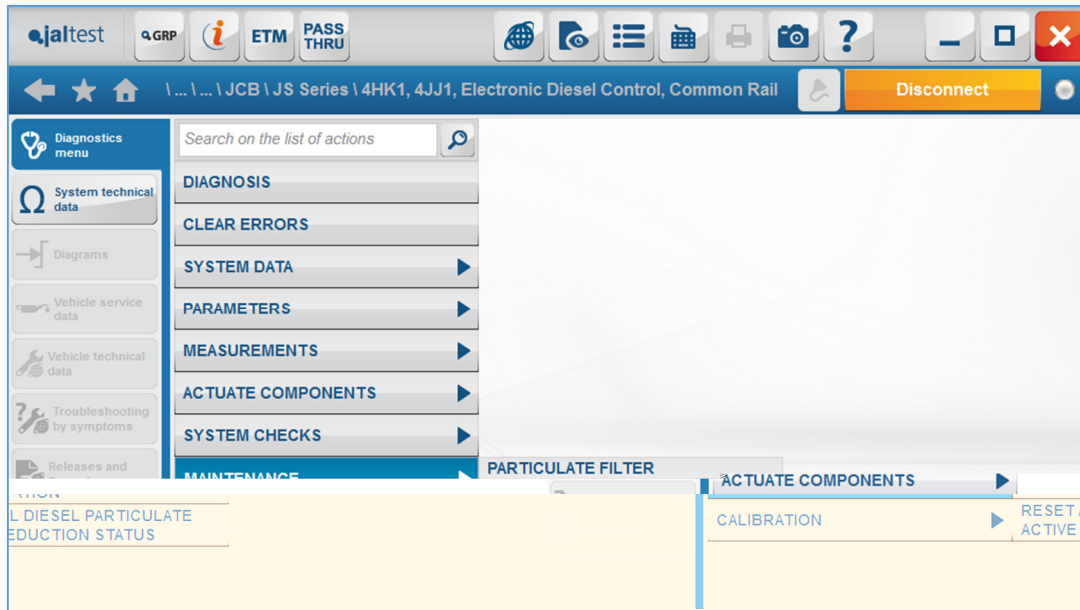


Image 15 4HK1, 4JJ1 EDC system in JCB JS Series model

The systems 4JJ1, 4HK1, 6HK1 and JCB ECM have advanced diagnosis functions like actuations, system checks, parameters and calibrations.

The following systems have only basic functions like ECU Data, diagnosis and measurements: CLUSTER, TRANS, HYDRAULIC and JOYSTICK.

3.1.3 DOOSAN **NEW!**

Incorporation of Doosan to the Jalttest OHW brand coverage. Excavator and wheel loader models have been added in this version.

The models currently available in Jalttest OHW are:

- DL Series
- DX Series

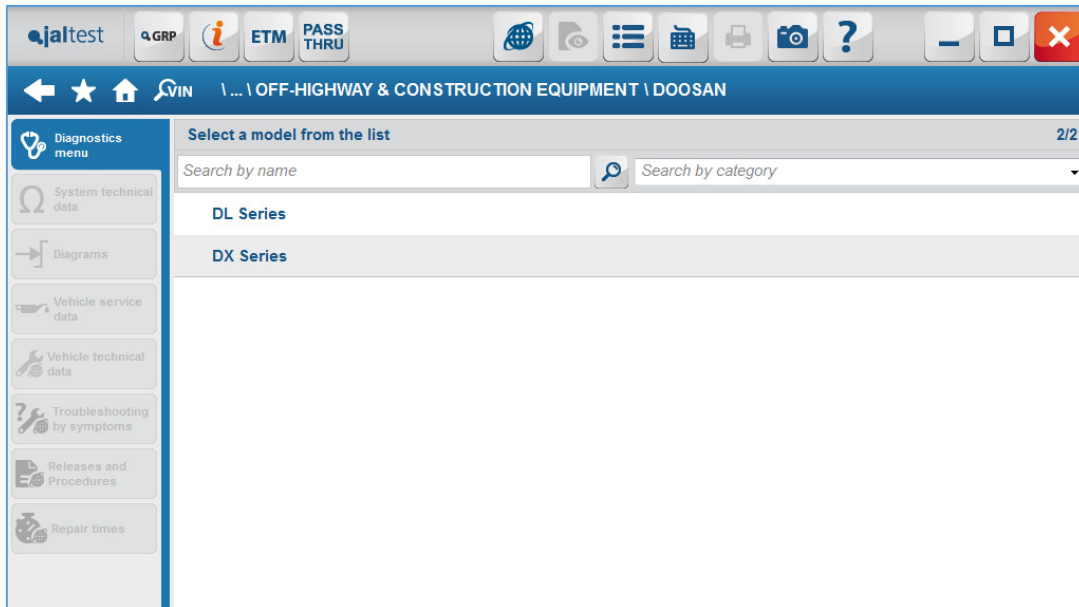


Image 16 Doosan models

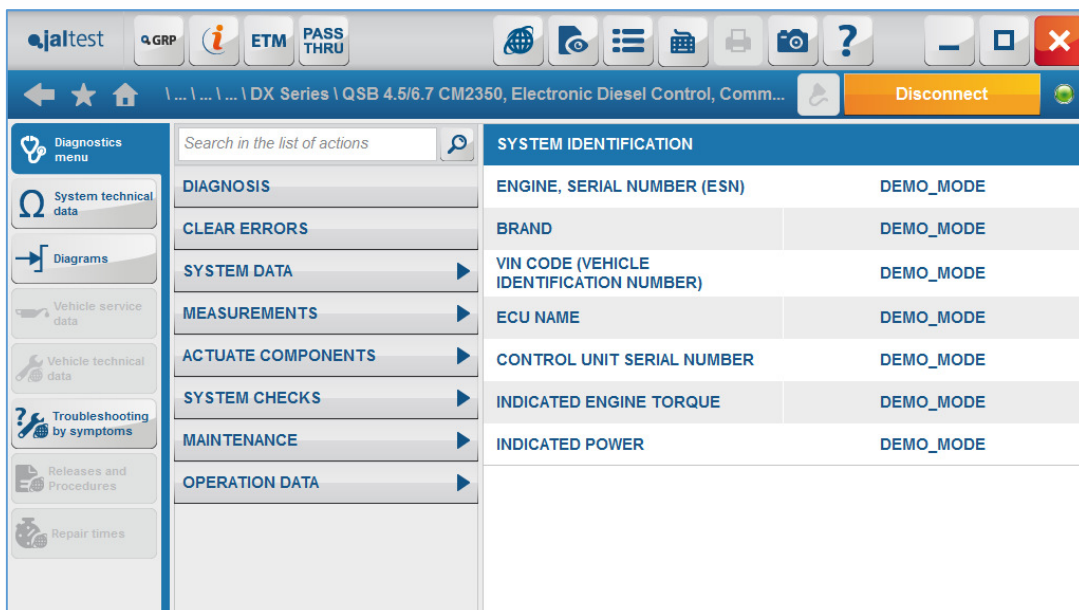


Image 17 Engine QSB 4.5 / 6.7 CM2350 connection in Doosan DX Series model

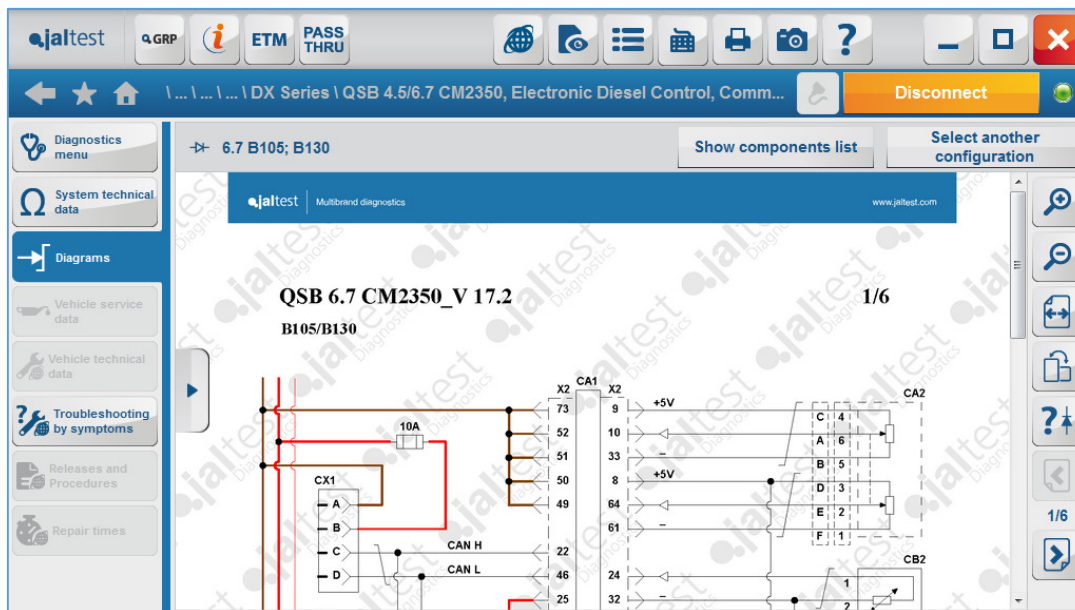


Image 18 Engine QSB 4.5 / 6.7 CM2350 wiring diagram in Doosan DX Series model

3.1.4 KÄSSBOHRER GELÄNDEFAHRZEUG **NEW!**

Incorporation of KÄSSBOHRER GELÄNDEFAHRZEUG (leading brand in snow machines) to the Jaltest OHW brand coverage.

The models currently available in Jaltest OHW are:

- Formatic Series
- PistenBully 100 Series
- PistenBully 200 Series
- PistenBully 300 Series
- PistenBully 400 Series
- PistenBully 600 Series
- PistenBully Canyon

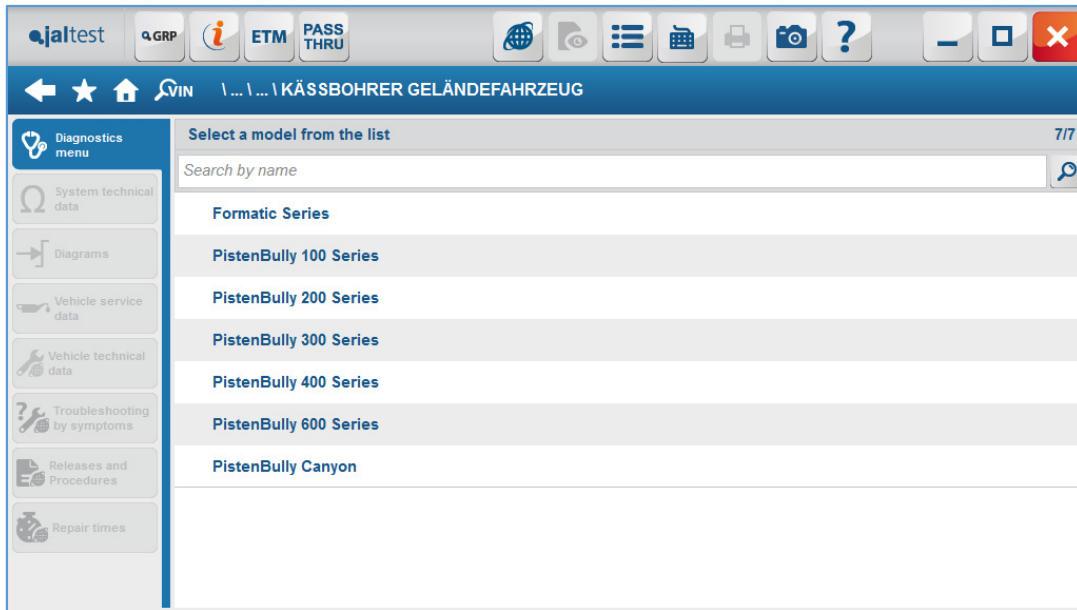


Image 19 KÄSSBOHRER GELÄNDEFahrZEUG models

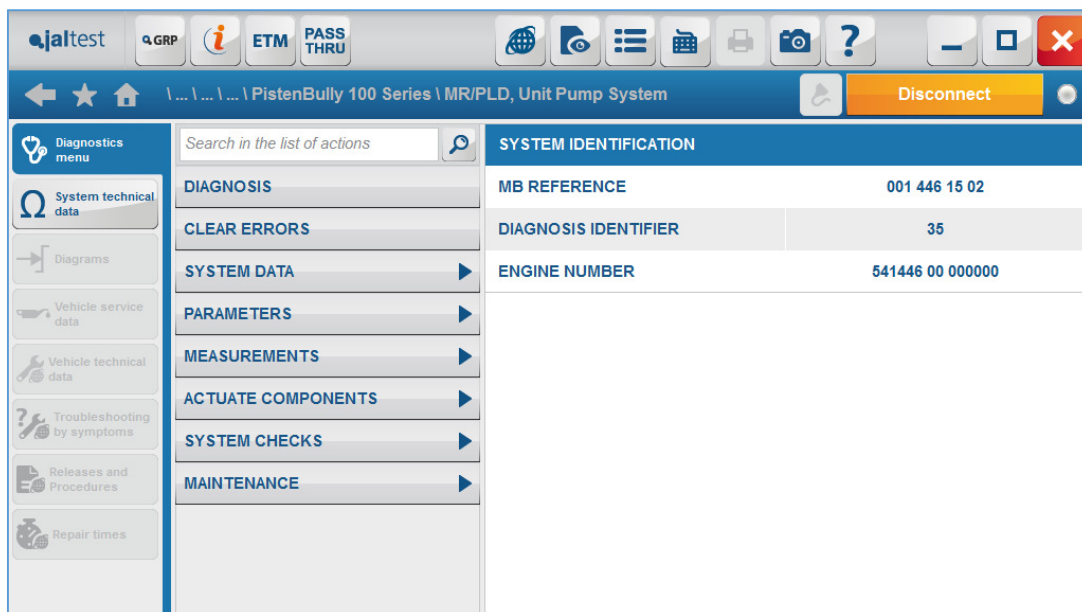


Image 20 MR/PLD connection in PistenBully 100 Series

3.1.5 LINK-BELT **NEW!**

Incorporation of Link/Belt to the Jaltest OHW brand coverage.

The new models added are:

- X2 Series
- X3 Series
- X4 Series

It has been included the diagnosis of the Isuzu engines 4HK1, 4JJ1 and 6HK1 which have advanced functions like injector calibration, actuations, system checks, maintenance and calibration.

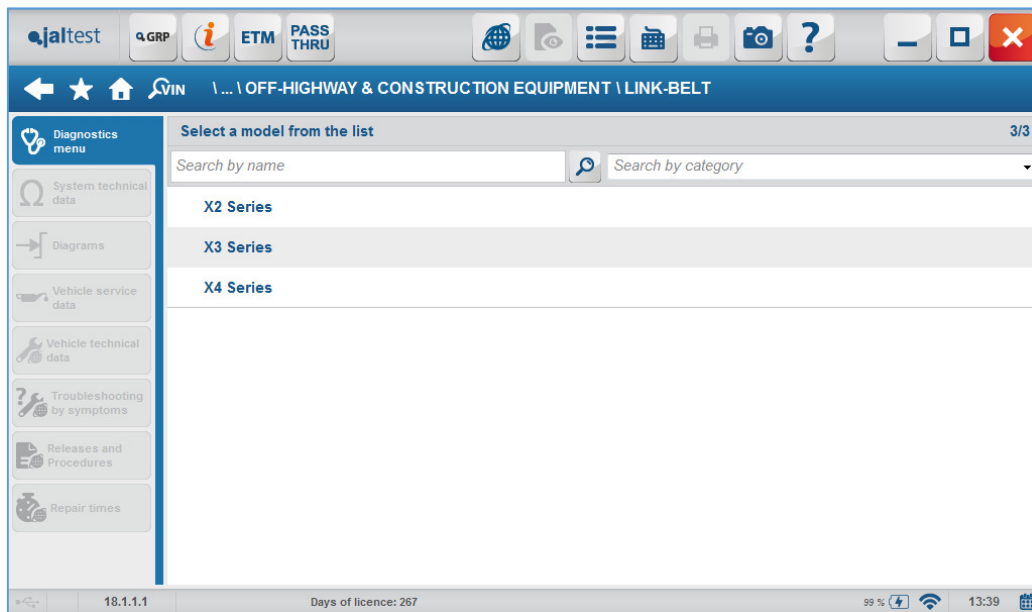


Image 21 LINK-BELT models

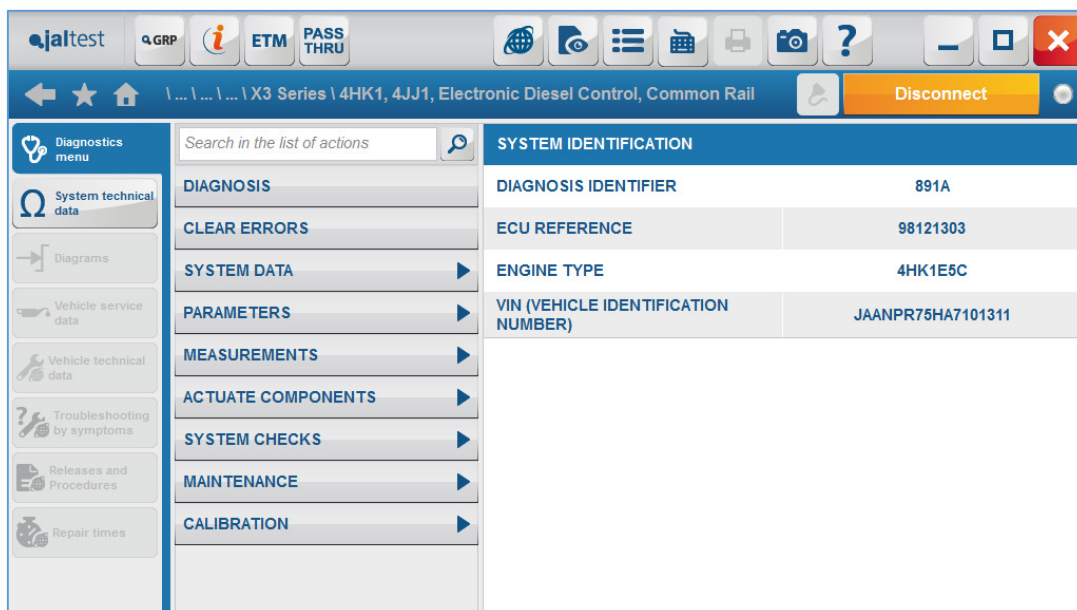


Image 22 4HK1, 4JJ1 system in LINK-BELT X3 Series model

3.1.6 LINDE **NEW!**

Incorporation of Linde to the Jalttest OHW brand coverage. This is a reference brand in fork lift machinery.

The new models are:

- H100-180 Series
- H14-18 Series
- H20-25 Series
- H25-35 Series
- H50-80 Series

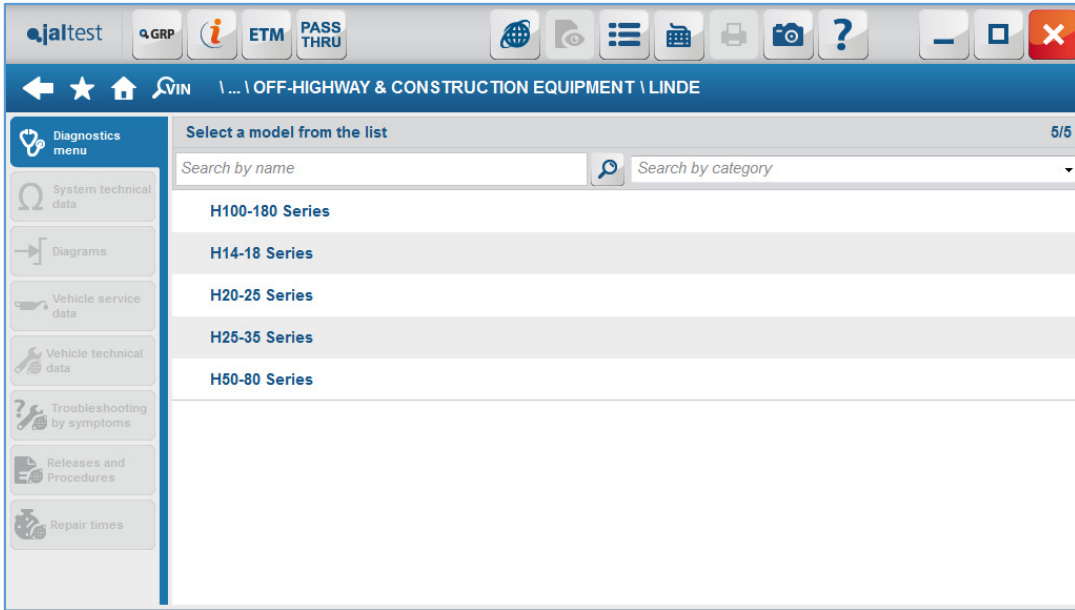


Image 23 Linde models

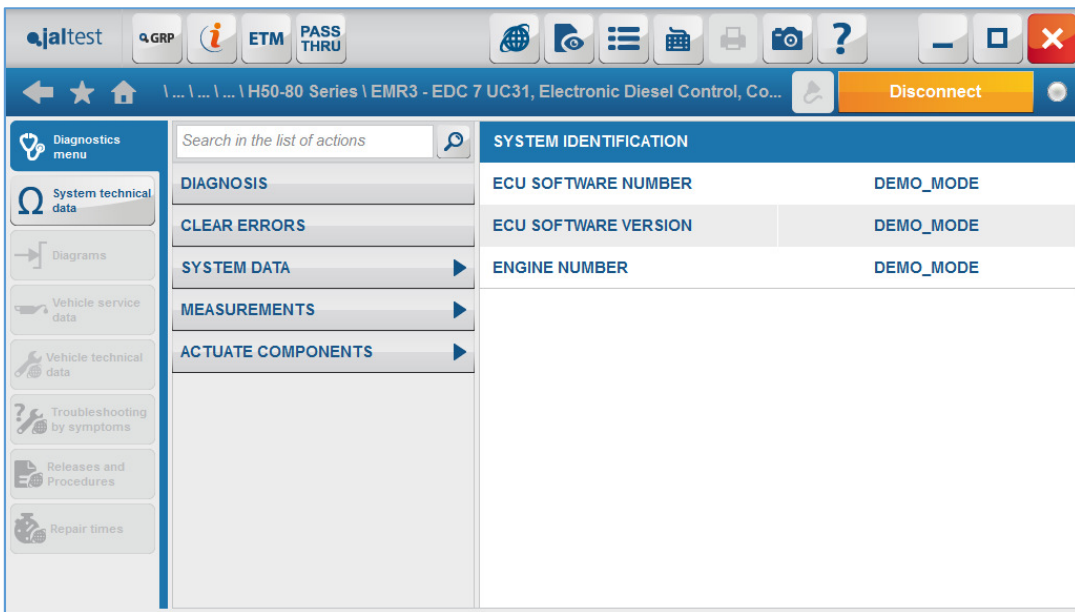


Image 24 EMR3 - EDC 7 UC31 system in Linde H50-80 Series model

3.1.7 SANDVIK **NEW!**

Incorporation of Sandvik to the Jaltest OHW brand coverage with the following models:

- DXi Series
- LH Series
- TH Series

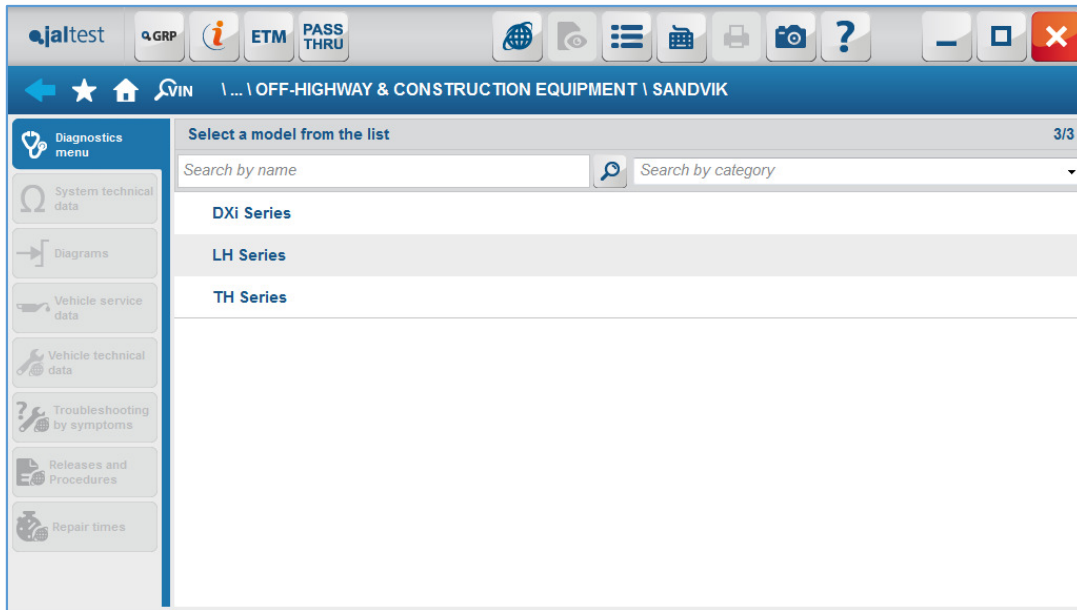


Image 25 Sandvik models

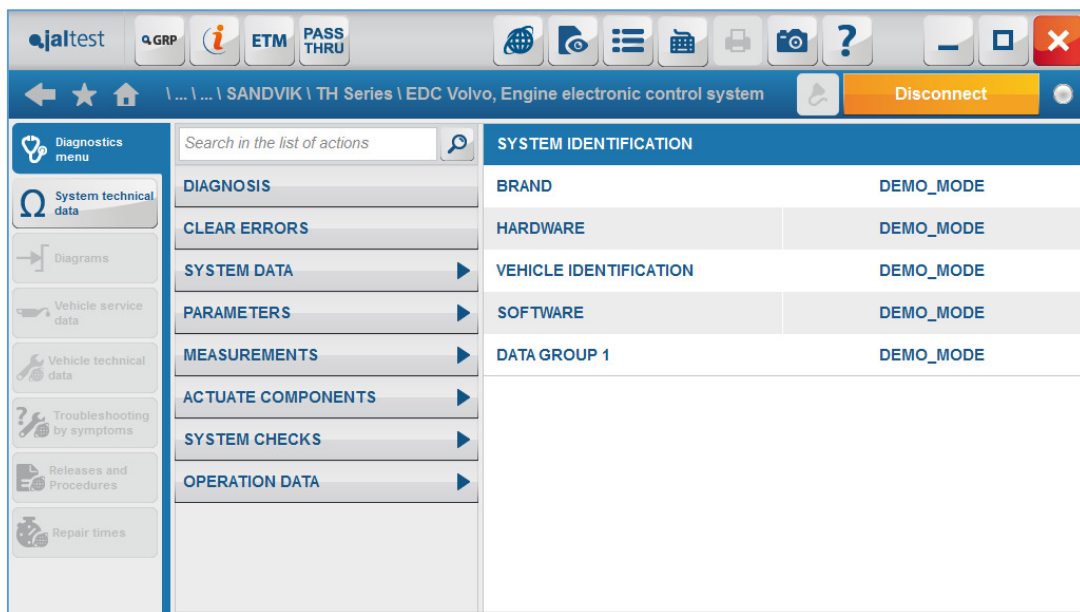


Image 26 EDC Volvo in Sandvik TH Series model

3.1.8 SUNWARD **NEW!**

Incorporation of Sunward to the Jaltest OHW brand coverage with the following model:

- SWE Series

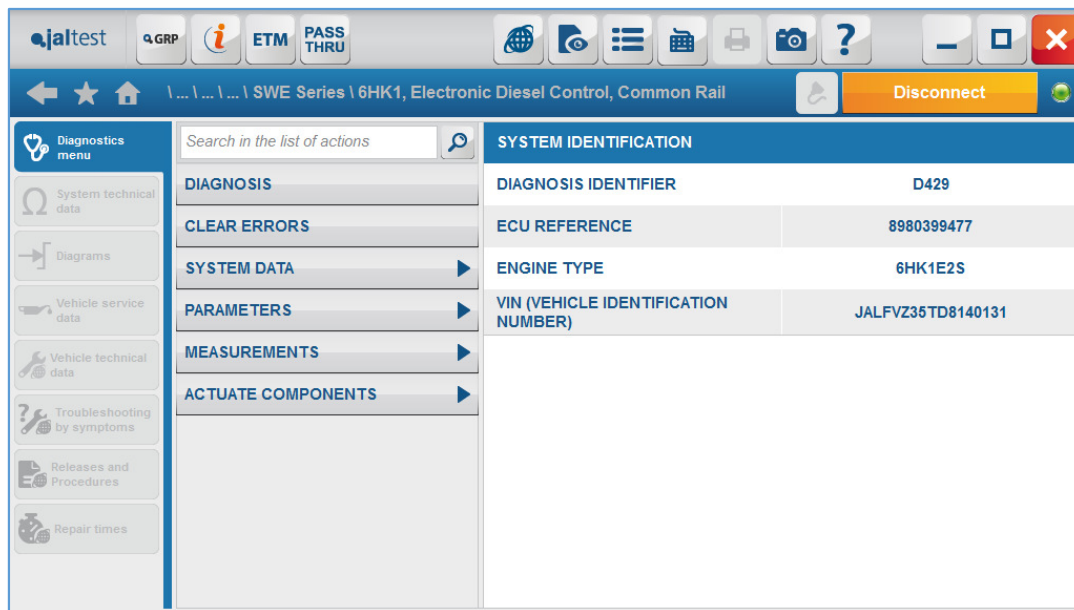


Image 27 6HK1 EDC in Sunward SWE Series model

3.1.9 TIGERCAT **NEW!**

Incorporation of Tigercat to the Jaltest OHW brand coverage. This brand manufacturers mainly forestry equipment. The following models have been added:

- 200 Series
- 400 Series
- 600 Series
- 700 Series
- 800 Series
- 1000 Series
- 1100 Series
- AD600 Series
- LH/H Series
- M700 Series

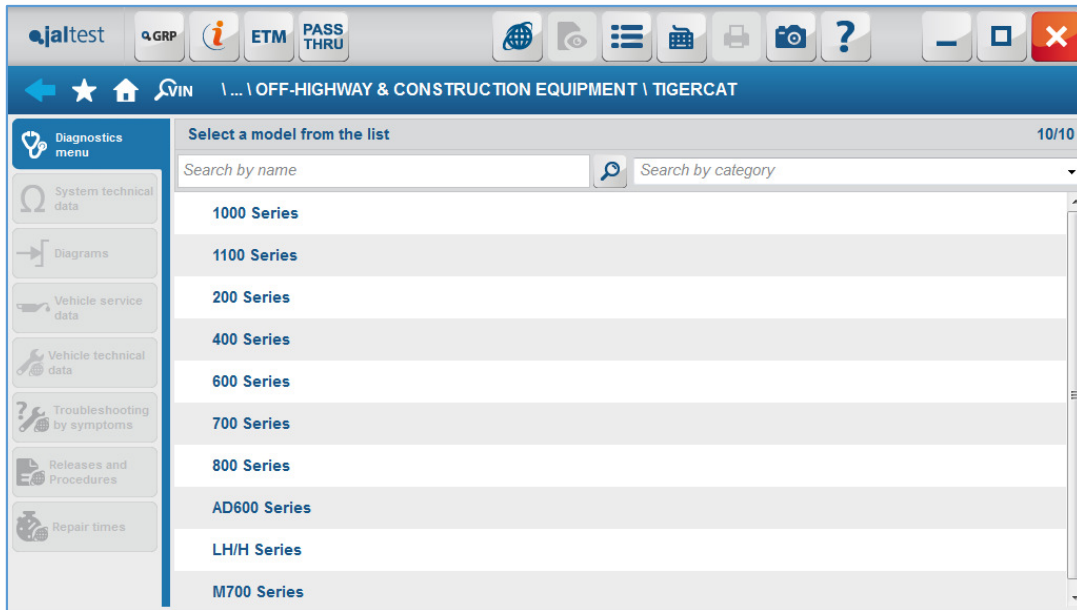


Image 28 Tigercat models

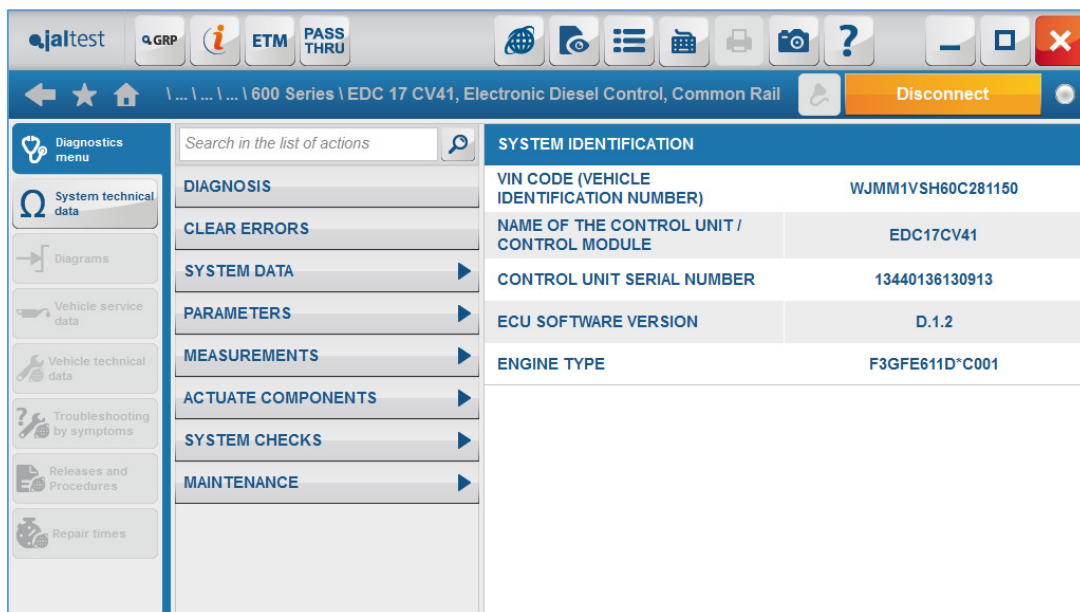


Image 29 EDC 17 CV41 in Tigercat 600 Series model

3.2 STATIONARY ENGINES

Under this category you can find all Stationary Engines. All engines included in the Jaltest OHW coverage use diesel or gas fuel.

Listed below are the brands with innovations in the version 18.1:



3.2.1 CATERPILLAR

In version 18.1, the majority of the engine management systems in Caterpillar models have been extended, including functions such as:

- Cylinder cut-out.
- Injector test.
- Intake air heater.
- Injection activation pressure.
- Injector calibration.

Below is the list of engine models where new functions have been added:

- | | | |
|----------------------------|-----------------------------|------------------------------|
| - 3054 (New model) | - 3516 (New model) | - C-32 (New model) |
| - 3054B (New model) | - 3516B (New model) | - G12CM34 (New model) |
| - 3056 (New model) | - 3606 (New model) | - G3304 (New model) |
| - 3126 (New model) | - 3608 (New model) | - G3306 (New model) |
| - 3176C (New model) | - 3612 (New model) | - G3406 (New model) |
| - 3196 (New model) | - 3616 (New model) | - G3408 (New model) |
| - 3406 (New model) | - C-1.1 (New model) | - G3412 (New model) |
| - 3406E (New model) | - C-2.2 (New model) | - G3508 (New model) |
| - 3408 (New model) | - C-2.4B (New model) | - G3508B (New model) |
| - 3408E (New model) | - C-3.4B (New model) | - G3512 (New model) |
| - 3412 (New model) | - C-4.4 (New model) | - G3512B (New model) |
| - 3412E (New model) | - C-6.6 (New model) | - G3516 (New model) |
| - 3456 (New model) | - C-7 (New model) | - G3516B (New model) |
| - 3508 (New model) | - C-10 (New model) | - G3520B (New model) |
| - 3508B (New model) | - C-11 (New model) | - G3606 (New model) |
| - 3512 (New model) | - C-16 (New model) | - G3608 (New model) |
| - 3512B (New model) | - C-18 (New model) | - G3612 (New model) |
| - 3512C (New model) | - C-27 (New model) | - G3616 (New model) |

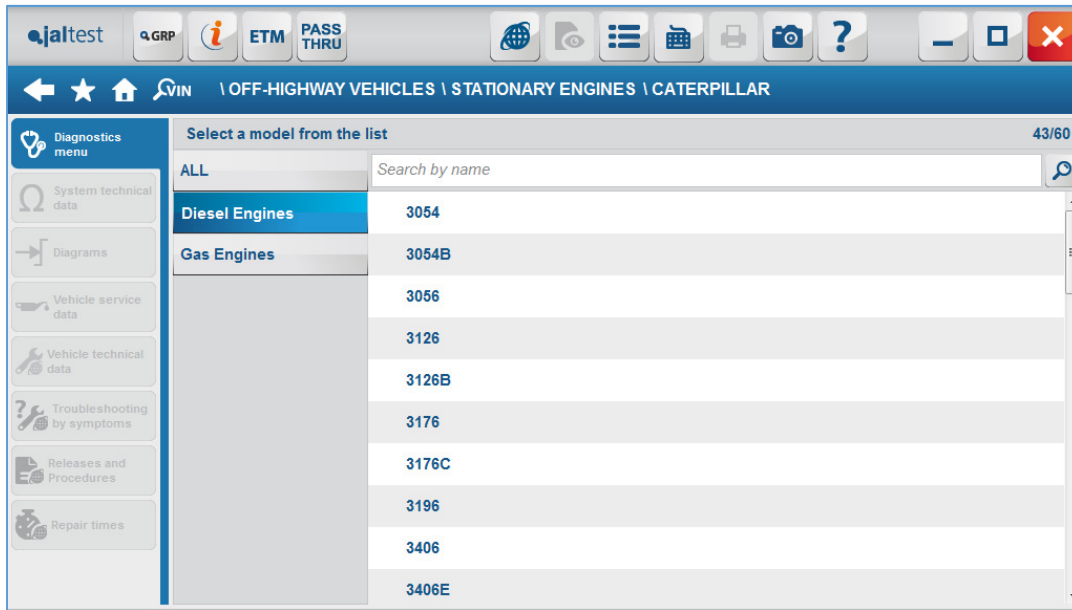


Image 30 Models of Caterpillar Diesel Engines in Stationary Engines

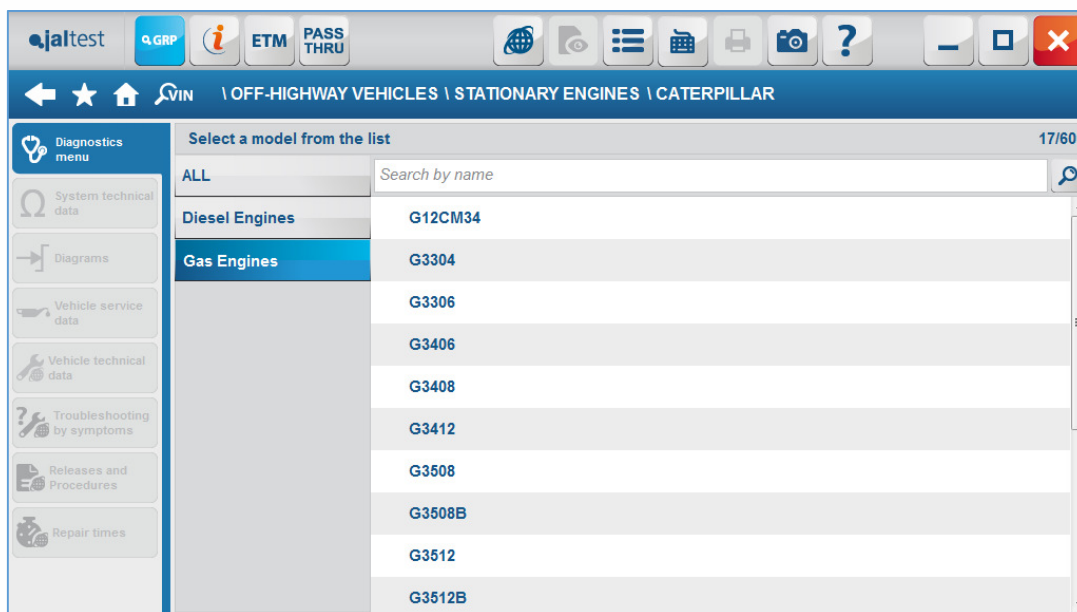


Image 31 Models of Caterpillar Gas Engines in Stationary Engines

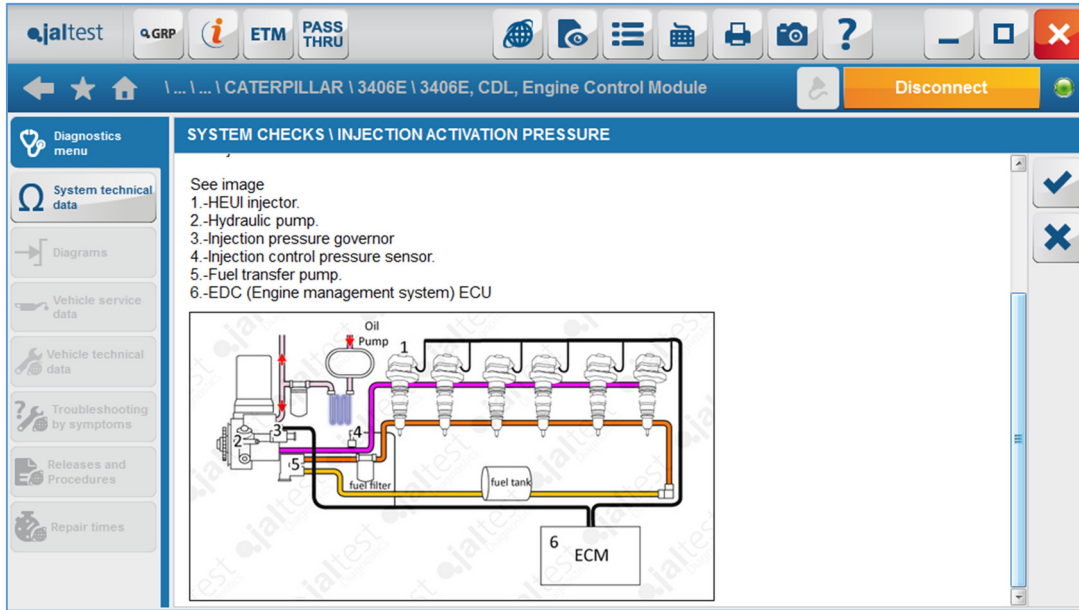


Image 32 Caterpillar 3406E, injection activation pressure help

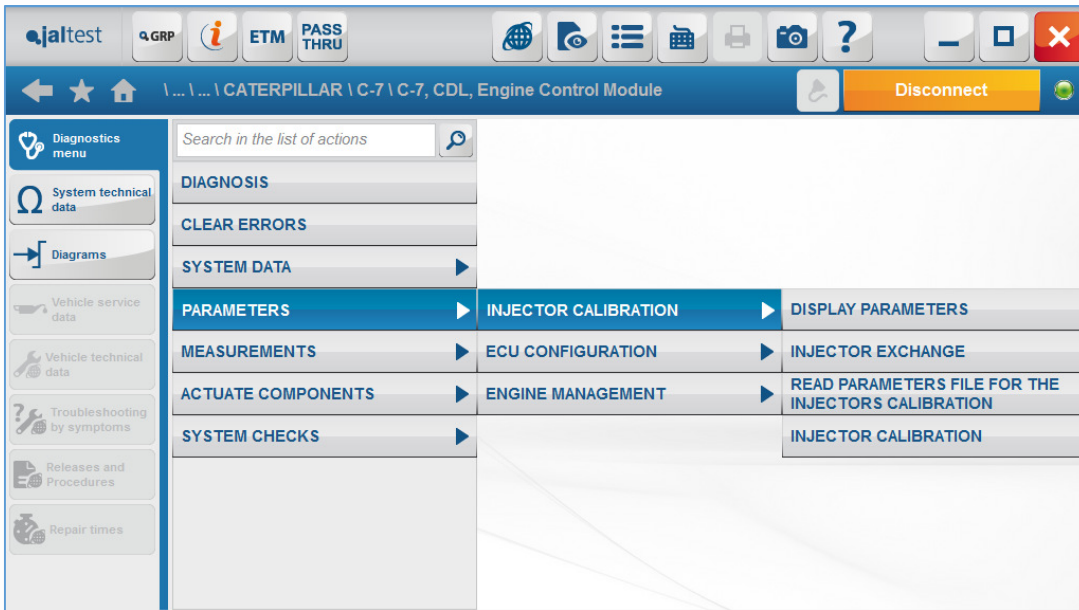


Image 33 Caterpillar C-7, injector calibration menu



Image 34 Caterpillar C-7, injector calibration help

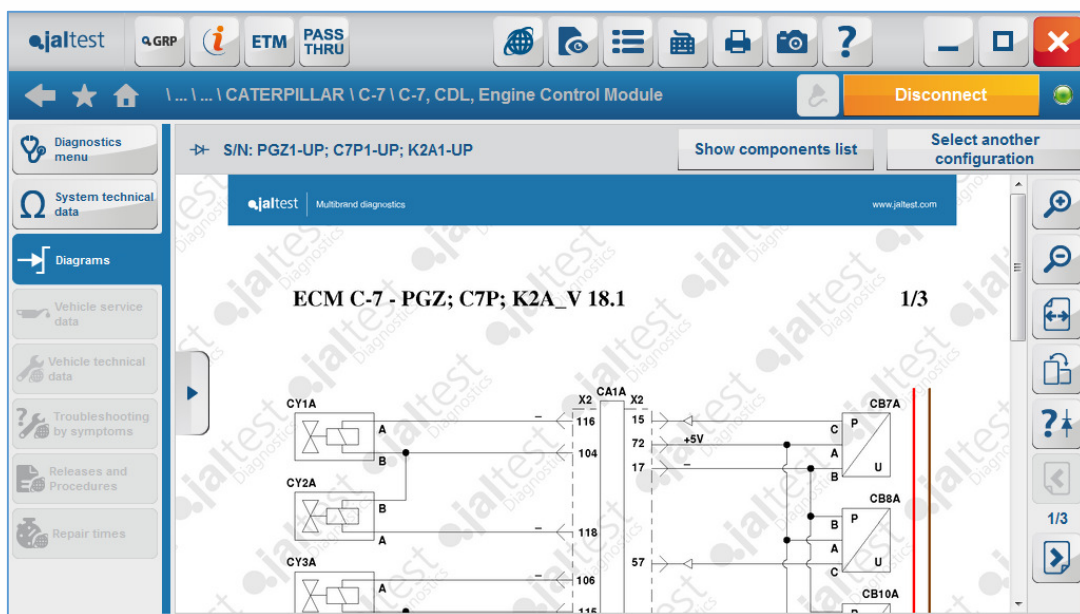


Image 35 Caterpillar C-7, wiring diagram

3.2.2 JCB

In version 18.1, the majority of the engine management systems in JCB models have been extended, including injector calibration in the following models:

- ECM - 6 Cylinder (Tier 2)
- ECM - 6 Cylinder (Tier 3)
- ECM - 4 Cylinder (China GB3)
- ECM - 4 Cylinder (-55kW, Interim Tier 4)
- ECM - 4 Cylinder (+56kW, Interim Tier 4)
- ECM - 4 Cylinder (-55kW, Final Tier 4)

- ECM - 4 Cylinder (+56kW, Final Tier 4)

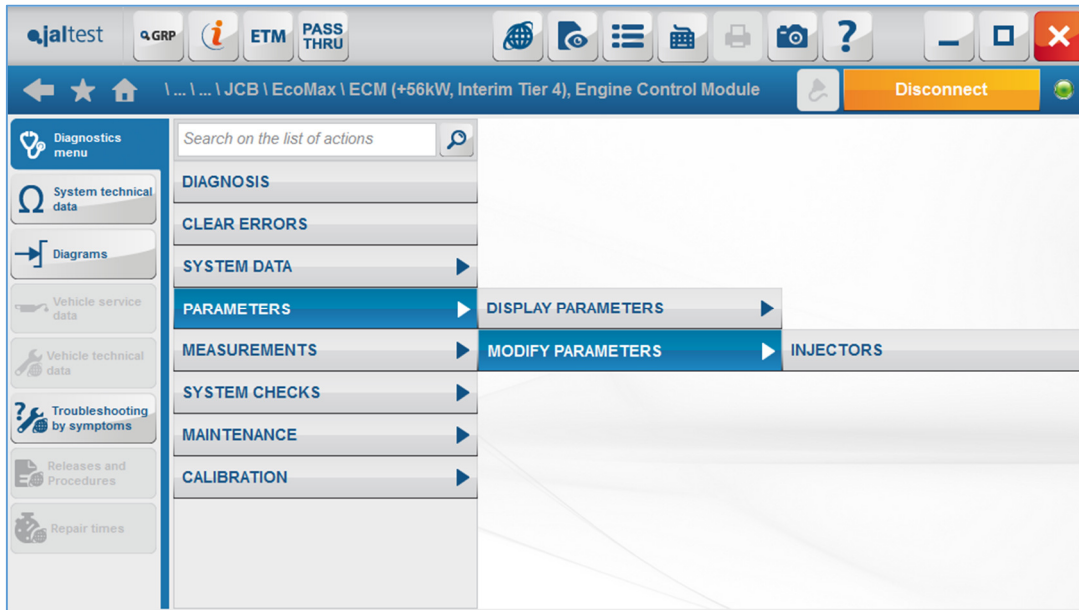


Image 36 JCB EcoMax +56kW Interim Tier 4, injector calibration menu

3.2.3 PERKINS

In version 18.1, the majority of the engine management systems in Perkins models have been extended, including functions such as:

- Cylinder cut-out.
- Injector test.
- Intake air heater.
- Injection activation pressure.
- Injector calibration.
- ...

Below is the list of engine models where new functions have been added:

- | | | |
|--------------------|---------------------|----------------------|
| - 402D | - 1104D | - 2306 (New model) |
| - 403D | - 1106D | - 2306C (New model) |
| - 403F | - 1204E (New model) | - 2506 (New model) |
| - 404D | - 1204F (New model) | - 2806 (New model) |
| - 404F | - 1206E (New model) | - 2806C (New model) |
| - 854E (New model) | - 1206F (New model) | - 3008 (New model) |
| - 854F (New model) | - 1506 (New model) | - 3012 (New model) |
| - 1104A | - 1506D (New model) | - 3.152G (New model) |
| - 1104C | - 2006 (New model) | - 4.236 (New model) |
| | - 2206 (New model) | |

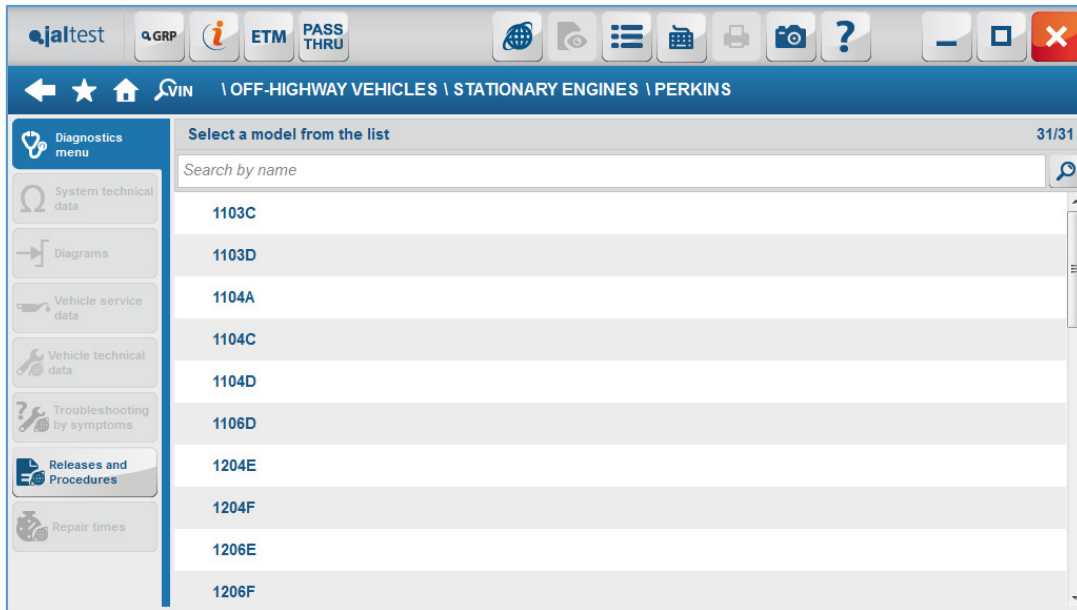


Image 37 Perkins models in Stationary Engines

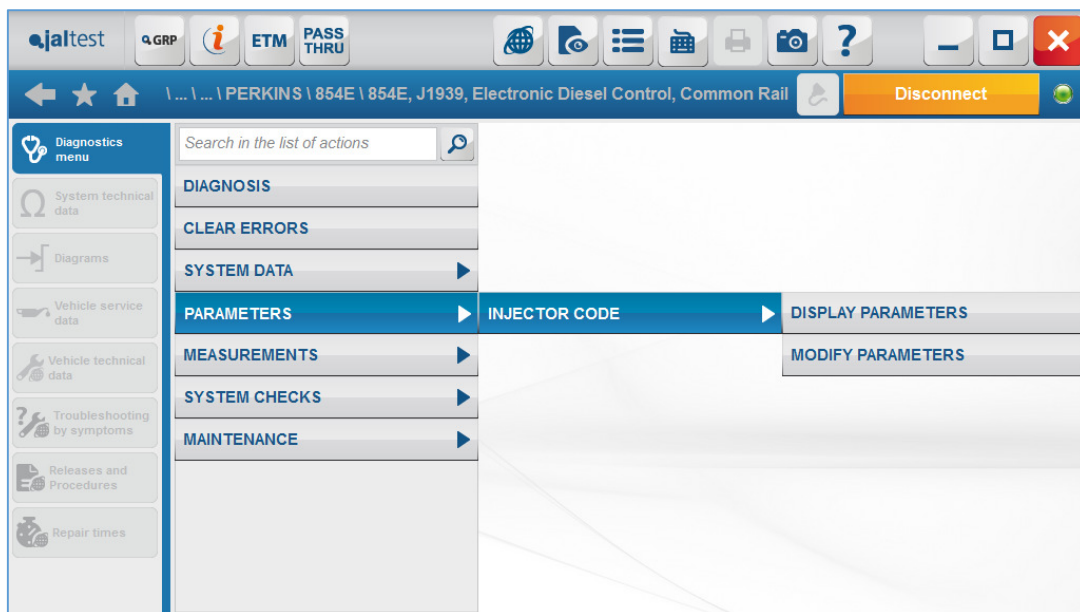


Image 38 Perkins 854E, J1939, injector code menu

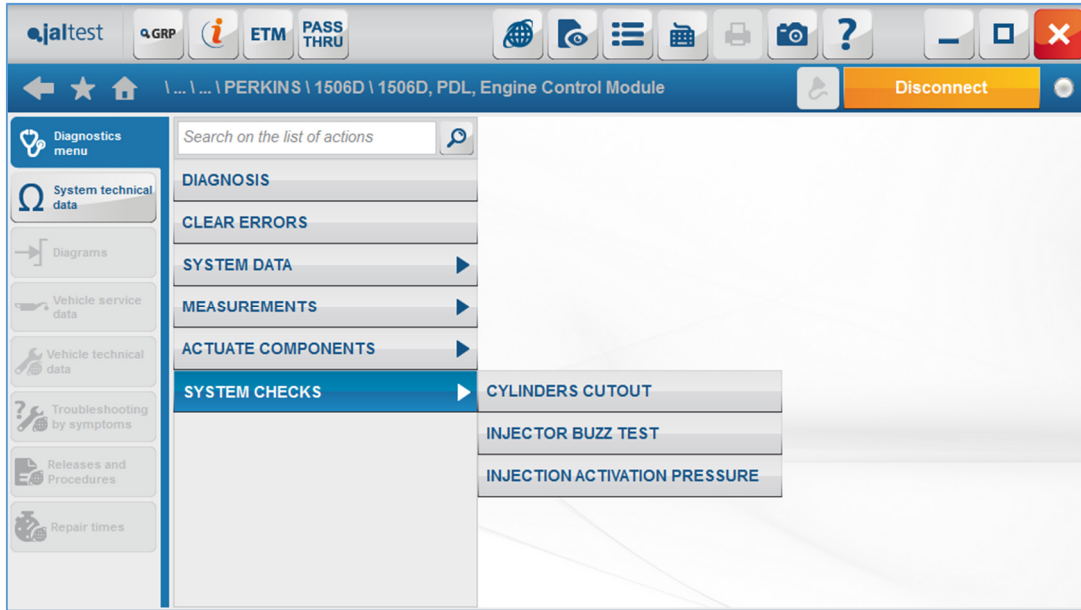


Image 39 Perkins 1506D, PDL, system checks menu

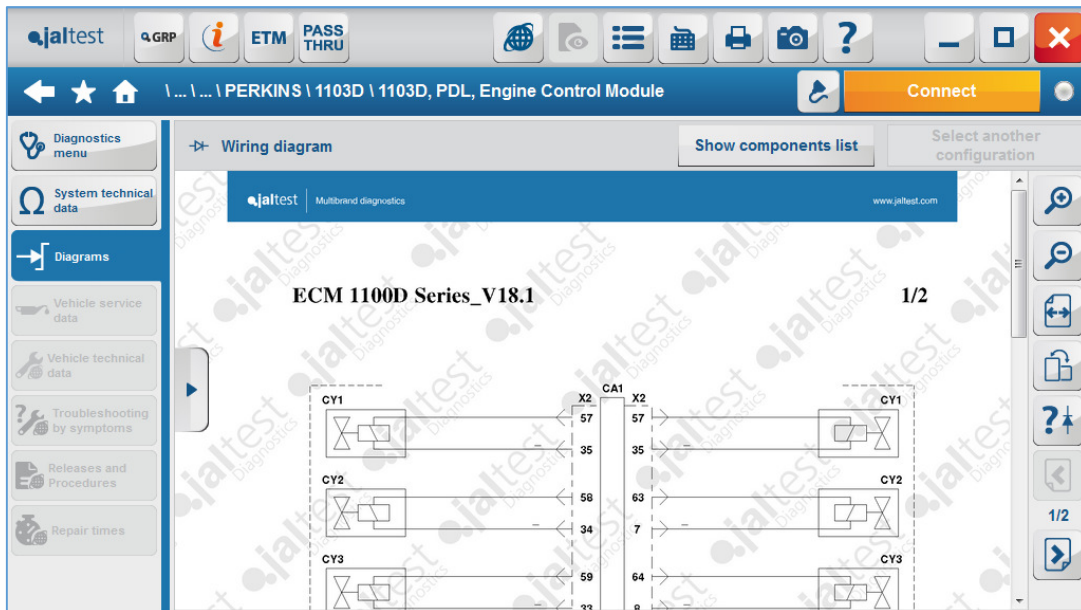


Image 40 Perkins 1103D, PDL, wiring diagram

3.2.4 MERCEDES-BENZ

In version 18.1, the SCR-Related Memory Reset has been developed in the SCR-Bluetec system.

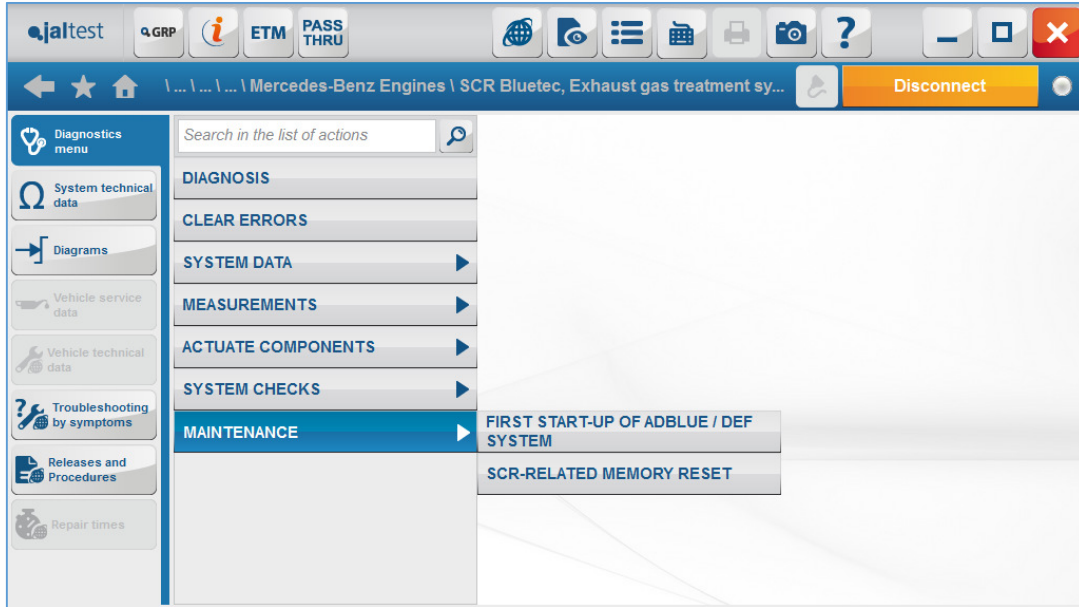


Image 41 SCR Bluetec in Mercedes-Benz Engines, maintenance menu

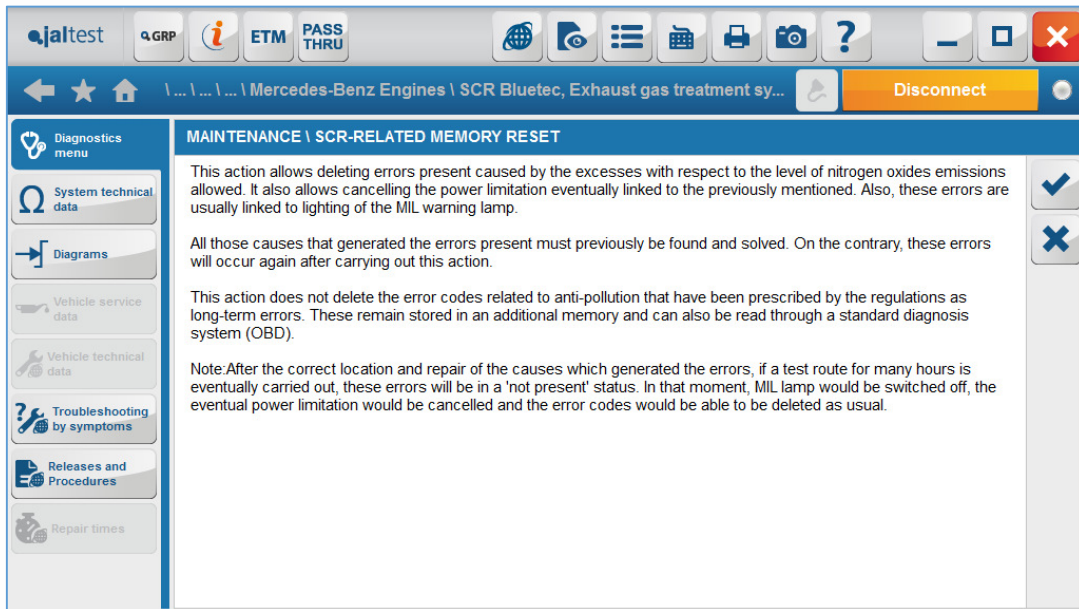


Image 42 SCR Bluetec in Mercedes-Benz Engines, SCR-Related Memory Reset help

3.3 STREET SWEEPERS

Under this category you can find all Sweepers with diesel and gas engines.



Listed below are the brands with innovations in the 18.1 version:

3.3.1 DULEVO

The following models for both diesel and gas engines have been developed:

- 100 Series **NEW!**
- 850 Mini Series **NEW!**
- 2000 Sky Series **NEW!**
- 3000 Revolution Series **NEW!**
- 5000 Combi Series **NEW!**
- 5000 Evolution Series **NEW!**
- 5000 Hydro Series **NEW!**
- 5000 Veloce Series **NEW!**
- 6000 Revolution Series **NEW!**

The systems have advanced diagnosis functions like actuations, checks, parameters...

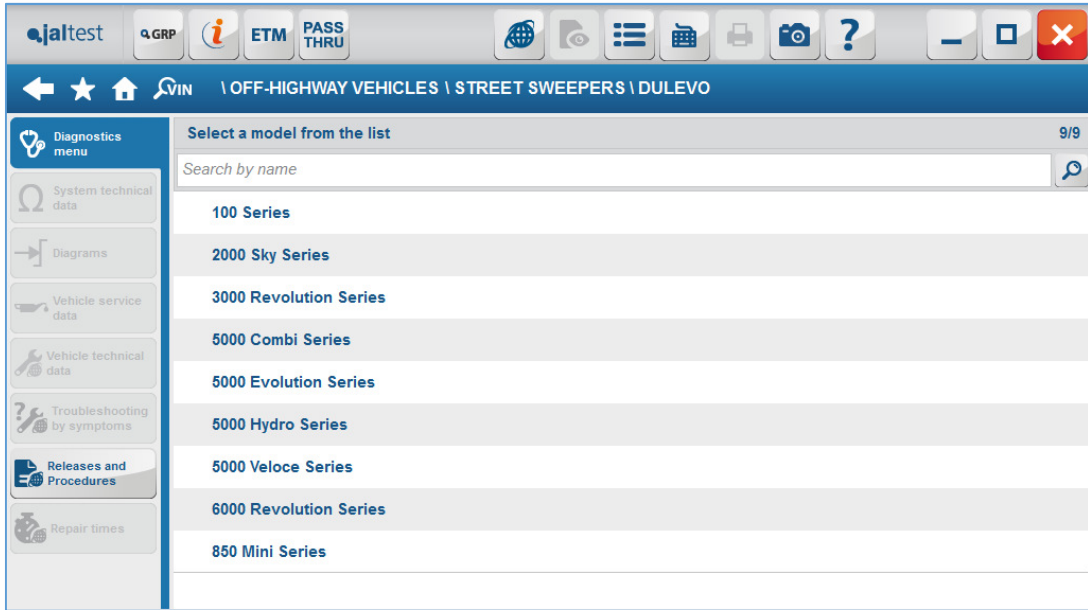


Image 43 Dulevo models

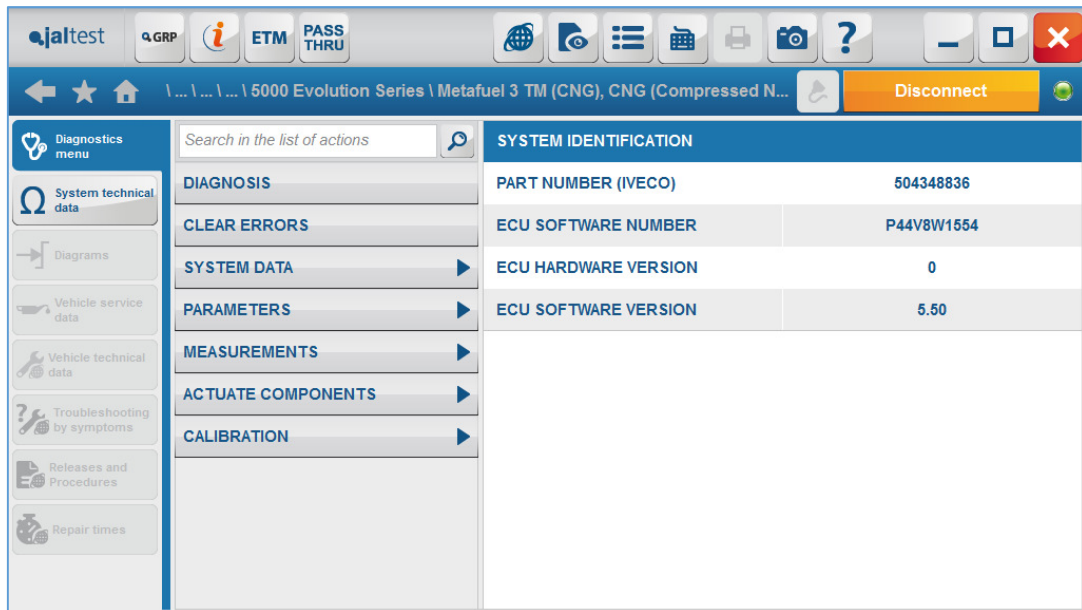


Image 44 Metafuel 3TM (CNG) in Dulevo 5000 Evolution Series model

3.3.2 EUROVOIRE

The following new models have been developed:

- CityCat 2020 **NEW!**
- CityCat 5006 **NEW!**

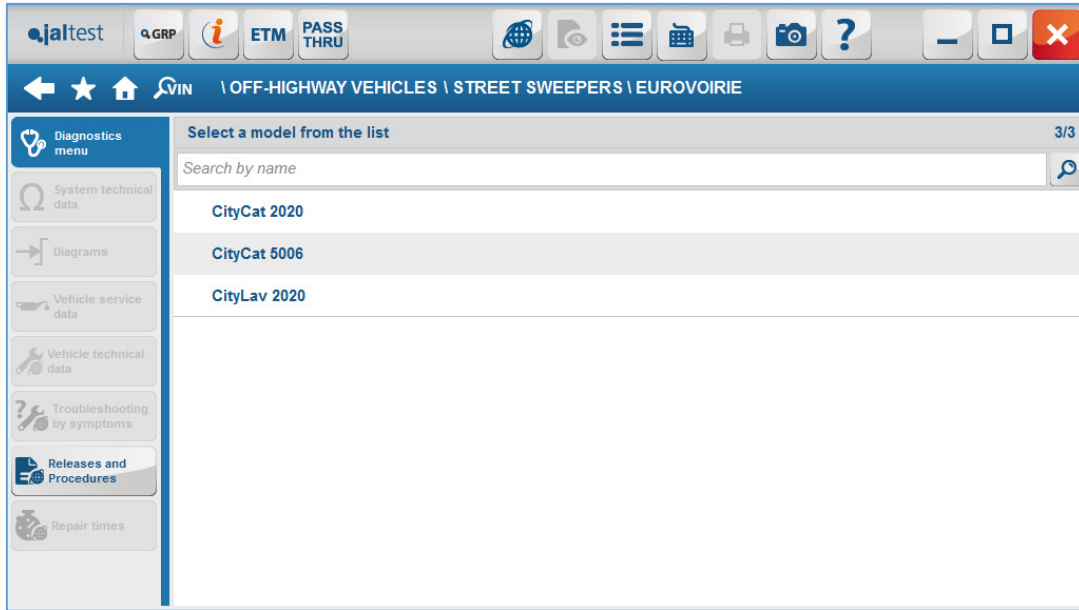


Image 45 Eurovoirie models

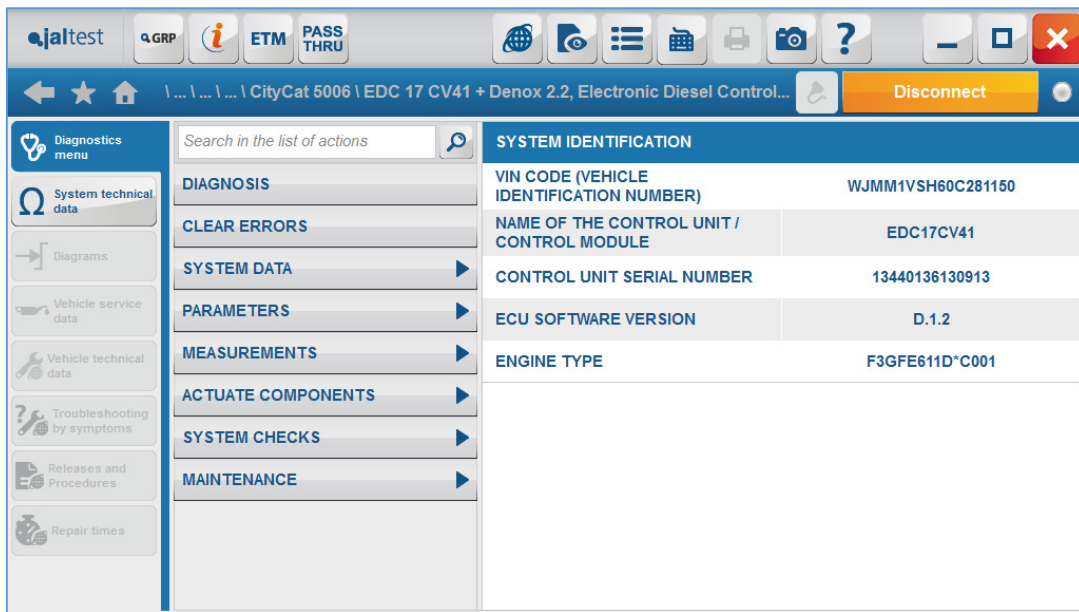


Image 46 EDC 17 CV41 + Denox 2.2 in Eurovoirie CityCat 5006 model

The systems have advanced diagnosis functions like actuations, checks, parameters, maintenance...

3.3.3 MATHIEU-YNO

The following new model has been developed:

- Aquadyne Series **NEW!**

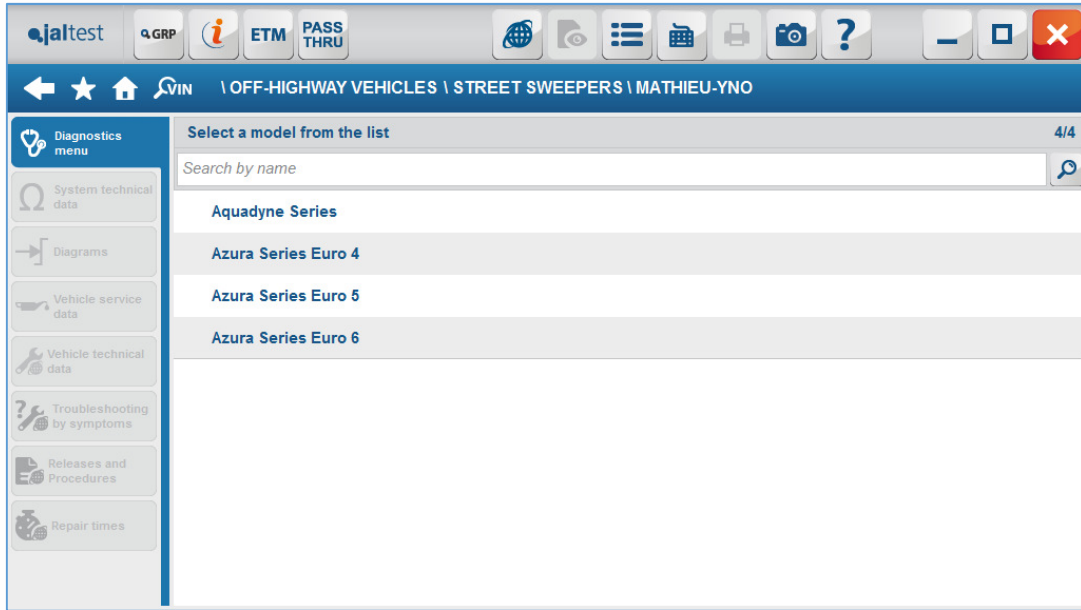


Image 47 Mathieu-Yno models

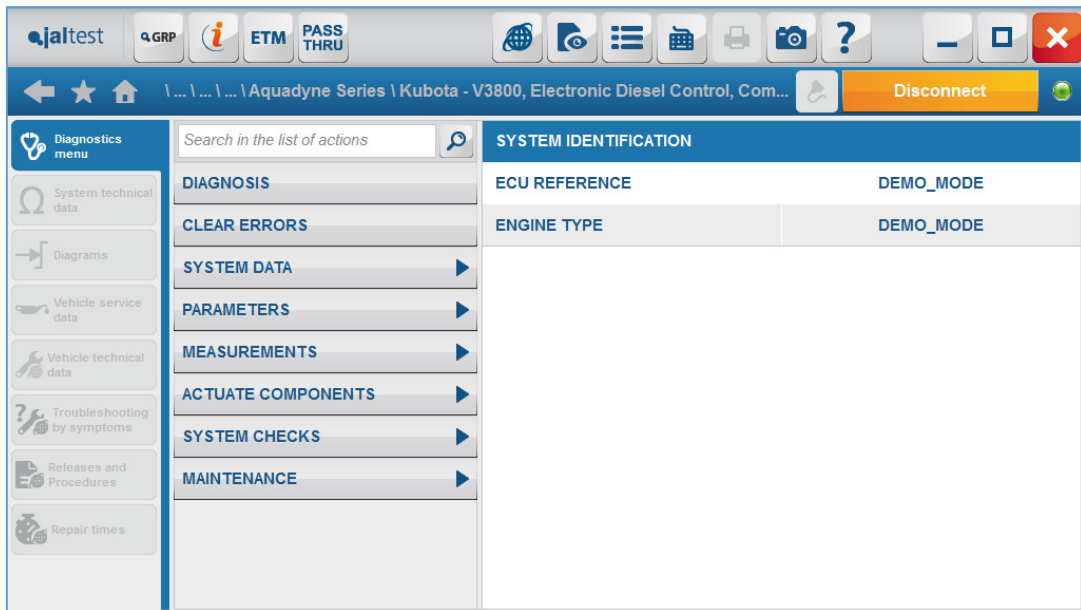


Image 48 Kubota - V3800 in Mathieu-Yno Aquadyne Series model



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