



INNOVATIONS 21.2

CV
COMMERCIAL
VEHICLE

AGV
AGRICULTURAL
EQUIPMENT

OHV
OFF-HIGHWAY
EQUIPMENT

MHE
MATERIAL
HANDLING

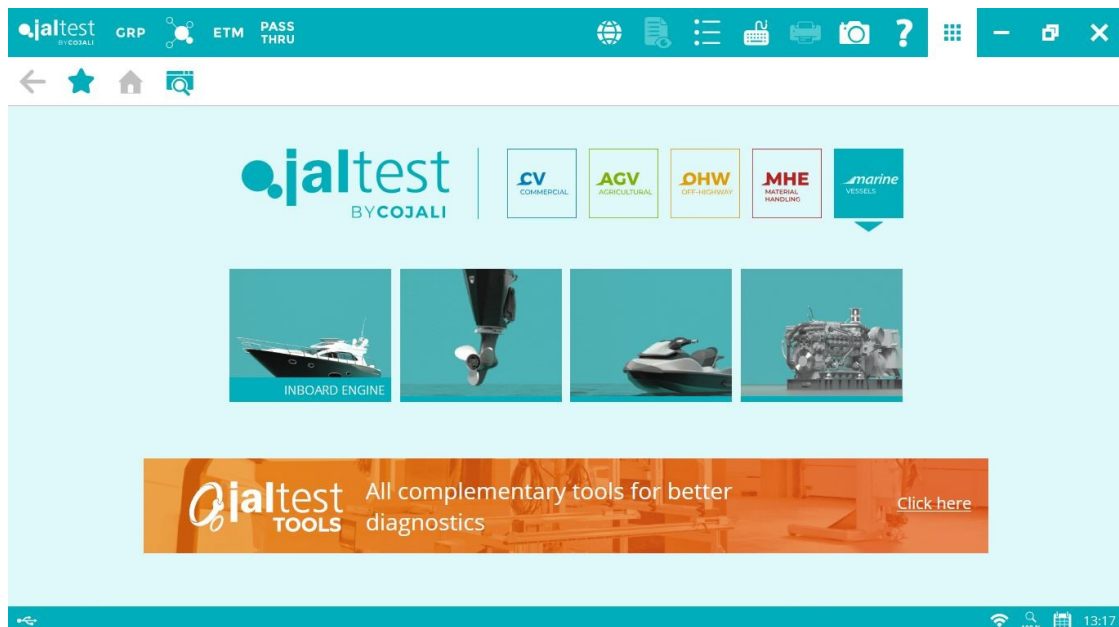
marine
VESSELS

SOFTWARE INNOVATIONS

The new software version **Jaltest 21.2** once again offers more improvements and innovations that consolidate this tool as a benchmark in **multibrand diagnosis** for commercial, agricultural and OHW (Off-Highway) vehicles, and vessels.

In this version, Jaltest changes its start window display by adding accesses to licence modules independently. Vehicles types from different groups cannot be mixed in the main window. Moreover, Jaltest includes a new module called **MHE** with coverage in material handling equipment: forklifts, boom lifts, scissor lifts, telescopic handlers, etc. and it can be purchased independently or as complement to **AGV** and/or **OHW**.

Jaltest keeps in memory the access of the last session for the next application restart.



Jaltest ADS advertising with available banners:

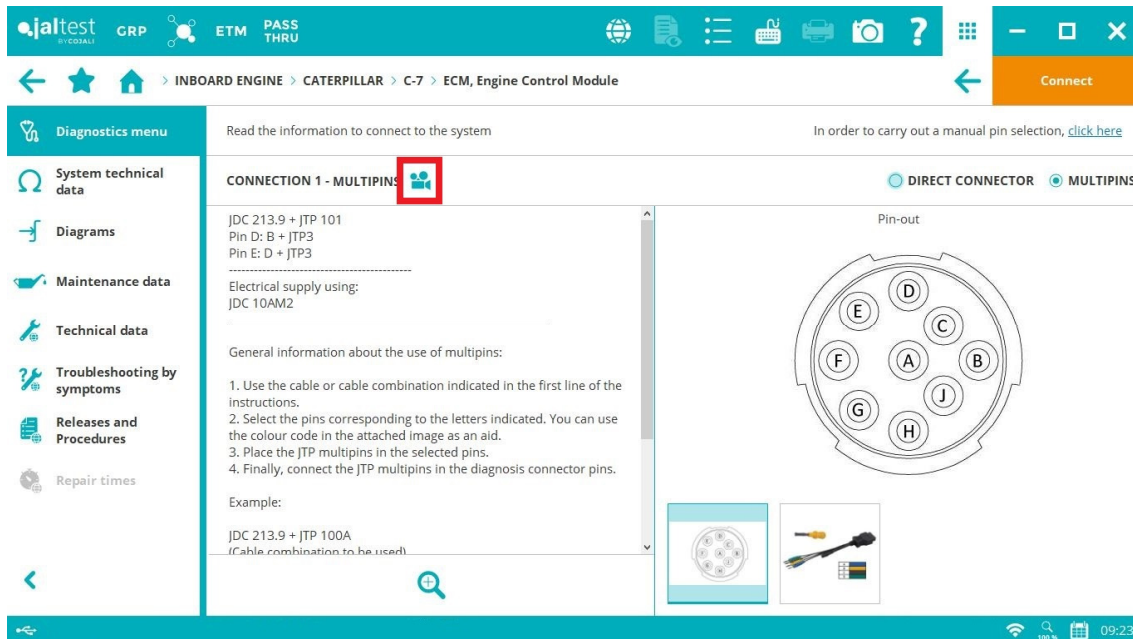
- **Jaltest Tools** with access to the catalogue of COJALI website.
- **Jaltest University** with access to this section of Jaltest website.
- **Jaltest Telematics** with access to the promotional video of predictive maintenance.

Banners change automatically and appear in any selected group **CV**, **AGV**, **OHW**, **MHE** or **MARINE**.

Jaltest videos

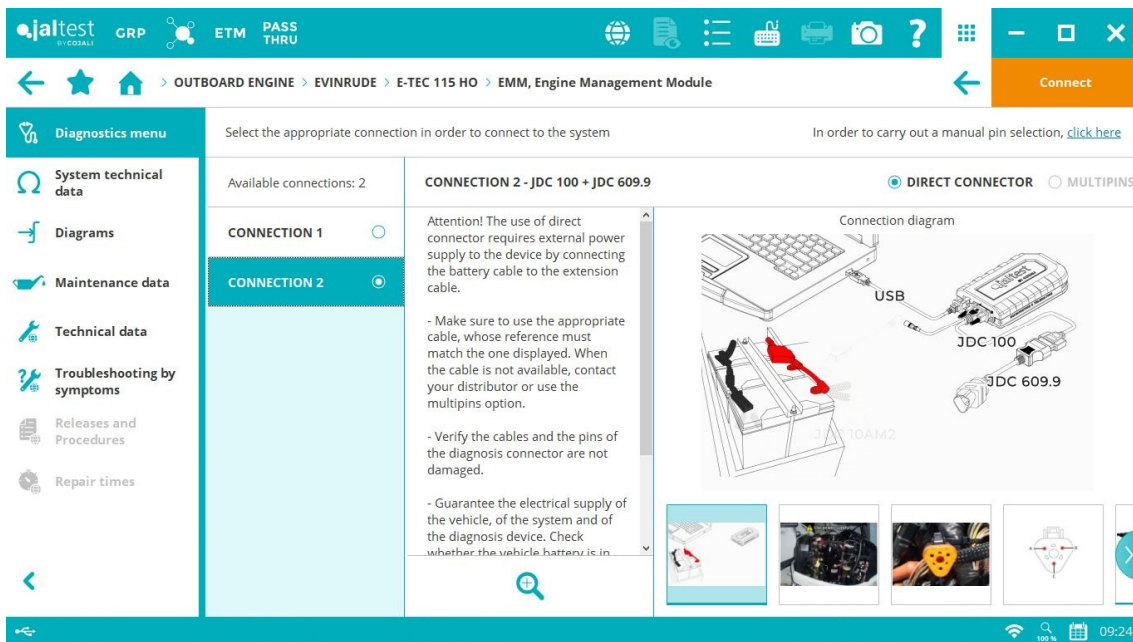
Updated Jaltest video menu with videos organised by categories. In addition, some of them have been related as procedure in the corresponding paths and models.

They can also be related to software functionalities, for example, in this version there is a video showing the use of multipins in all connections.



Moving image, connection instructions

Moving images have been included for complex Jaltest Link V9 connections in which the JDC 100 cable and external power supply must be used. Moving images for all connections of Jaltest coverage will be included the next version.

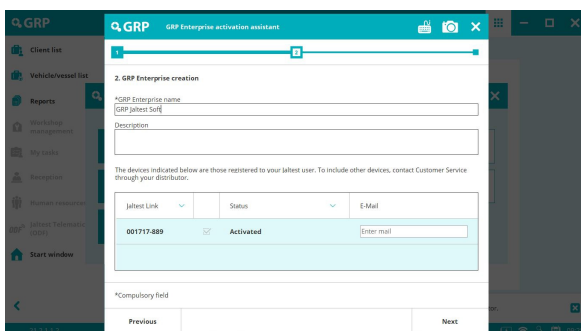


Other innovations

- Text search in troubleshooting guides and procedures.
- Full-screen display of troubleshooting guides and procedures.

GRP

GRP Enterprise management from Jaltest



All devices registered in the same Jaltest user can create and manage GRP Enterprise directly from Jaltest.

Available for Administrator users only.

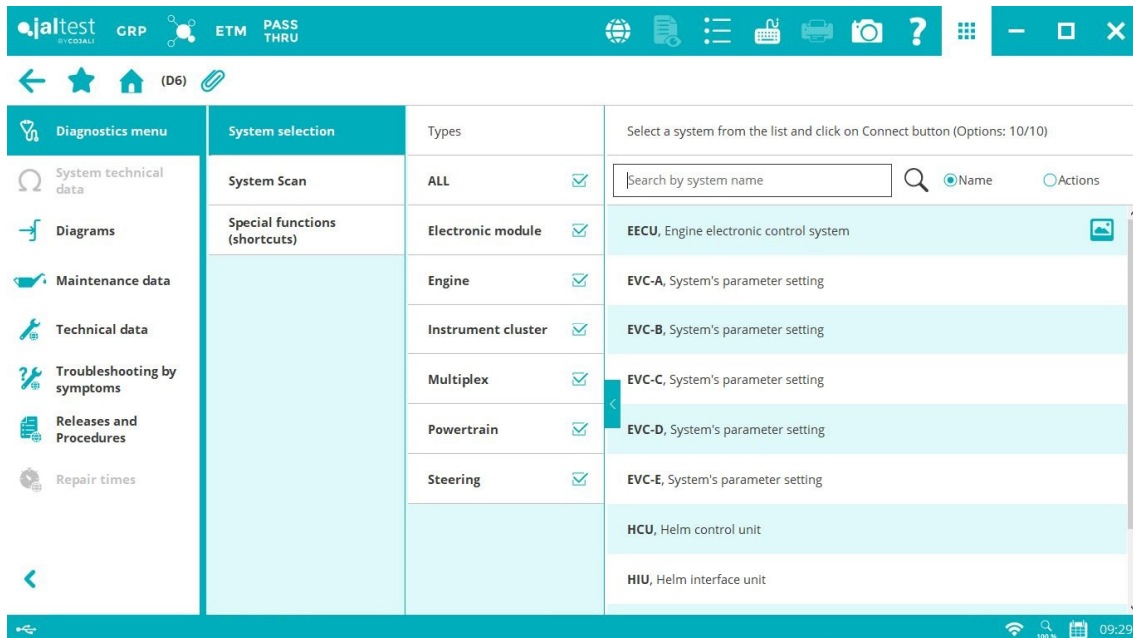
Other innovations

- Files in maintenance reports can be attached (All GRP levels).
- Multiple clients and vehicles can be selected for the next functions:

Deletion
Export

Also, the forms have more columns and new filters.

- The GRP form printing is improved.
- The vehicle documentation is available from the diagnosis menu.



The screenshot shows the 'System selection' screen in the jaltest marine software. The interface includes a top navigation bar with 'jaltest BY COVAL', 'GRP', 'ETM', and 'PASS THRU' options, along with various utility icons. A left sidebar contains a 'Diagnostics menu' with categories like 'System technical data', 'Diagrams', 'Maintenance data', 'Technical data', 'Troubleshooting by symptoms', 'Releases and Procedures', and 'Repair times'. The main area is titled 'System selection' and contains a table of system types with checkboxes for selection. A search bar and radio buttons for 'Name' and 'Actions' are also present.

System selection	Types	Select a system from the list and click on Connect button (Options: 10/10)
System Scan	ALL <input checked="" type="checkbox"/>	<input type="text" value="Search by system name"/> <input checked="" type="radio"/> Name <input type="radio"/> Actions
Special functions (shortcuts)	Electronic module <input checked="" type="checkbox"/>	ECCU, Engine electronic control system
	Engine <input checked="" type="checkbox"/>	EVC-A, System's parameter setting
	Instrument cluster <input checked="" type="checkbox"/>	EVC-B, System's parameter setting
	Multiplex <input checked="" type="checkbox"/>	EVC-C, System's parameter setting
	Powertrain <input checked="" type="checkbox"/>	EVC-D, System's parameter setting
	Steering <input checked="" type="checkbox"/>	EVC-E, System's parameter setting
		HIU, Helm interface unit

DIAGNOSIS 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 ENGINE

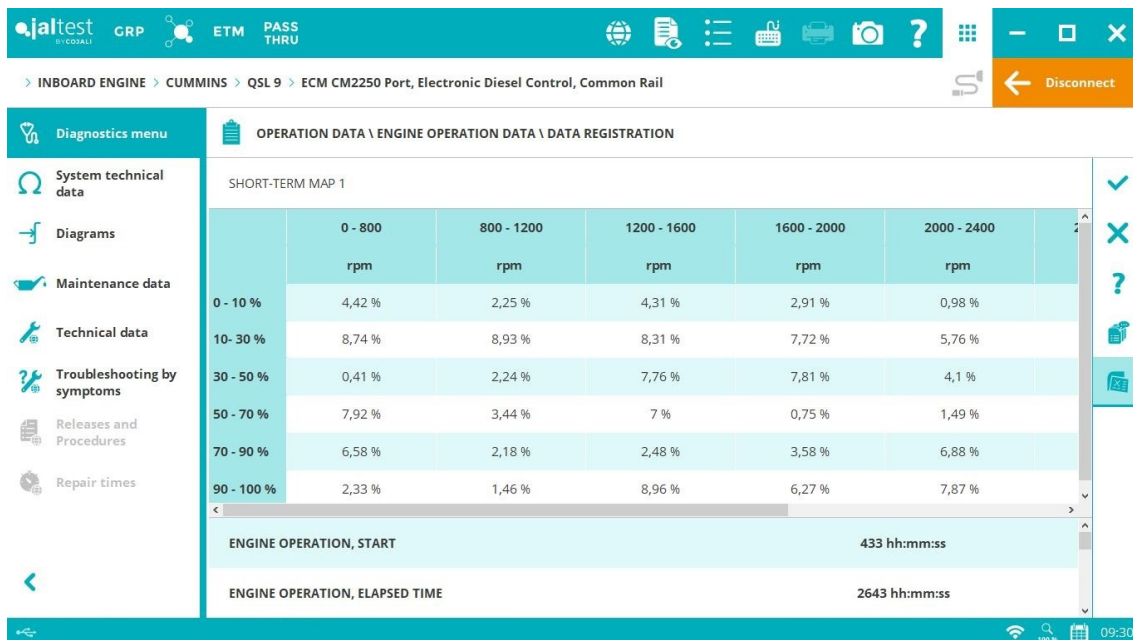
In this version the following new brands have been included: **KODIAK MARINE**, **PANTHER AIRBOATS** and **ROTAX**.

CATERPILLAR

⊕ **ECM** engine control system for Caterpillar C-30 model.

CUMMINS

New functionalities have been included in the following engine control systems: **QSB 6.7**, **QSL 9 CM850** and **QSL 9 CM2250** reset of the engine operation data and the engine abuse data.



INBOARD ENGINE > CUMMINS > QSL 9 > ECM CM2250 Port, Electronic Diesel Control, Common Rail

OPERATION DATA \ ENGINE OPERATION DATA \ DATA REGISTRATION

SHORT-TERM MAP 1

	0 - 800	800 - 1200	1200 - 1600	1600 - 2000	2000 - 2400
	rpm	rpm	rpm	rpm	rpm
0 - 10 %	4,42 %	2,25 %	4,31 %	2,91 %	0,98 %
10 - 30 %	8,74 %	8,93 %	8,31 %	7,72 %	5,76 %
30 - 50 %	0,41 %	2,24 %	7,76 %	7,81 %	4,1 %
50 - 70 %	7,92 %	3,44 %	7 %	0,75 %	1,49 %
70 - 90 %	6,58 %	2,18 %	2,48 %	3,58 %	6,88 %
90 - 100 %	2,33 %	1,46 %	8,96 %	6,27 %	7,87 %

ENGINE OPERATION, START: 433 hh:mm:ss

ENGINE OPERATION, ELAPSED TIME: 2643 hh:mm:ss

INDMAR

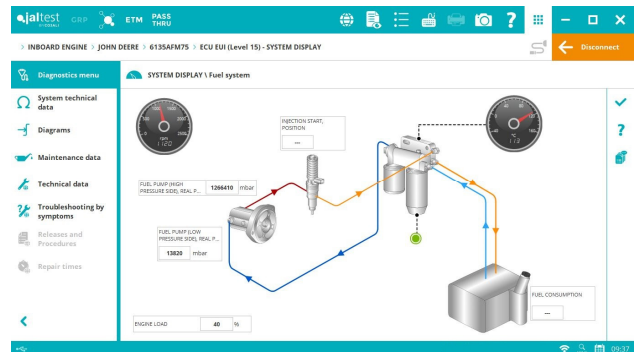
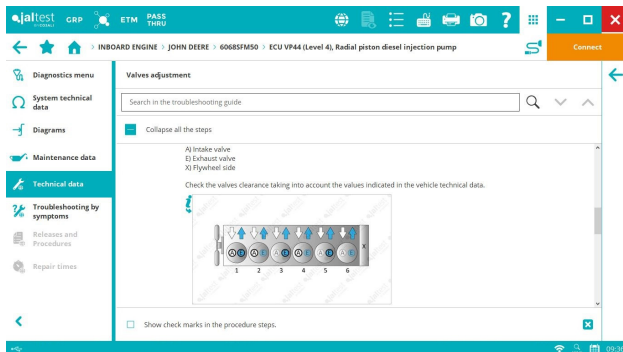
⊕ **5.0 L** model with **MEFI 5-6** and **Econtrols** engine control systems.

JOHN DEERE

Maintenance data for all John Deere models.

Valve adjustment procedure for 8.1 L, 9.0 L and 12.5 L engines.

System Display available in the **ECU Level 15** system that applies to **6135AFM75**, **6135AFM85**, **6135SFM75** and **6135SFM85** models.



MERCURY/MERCUISER

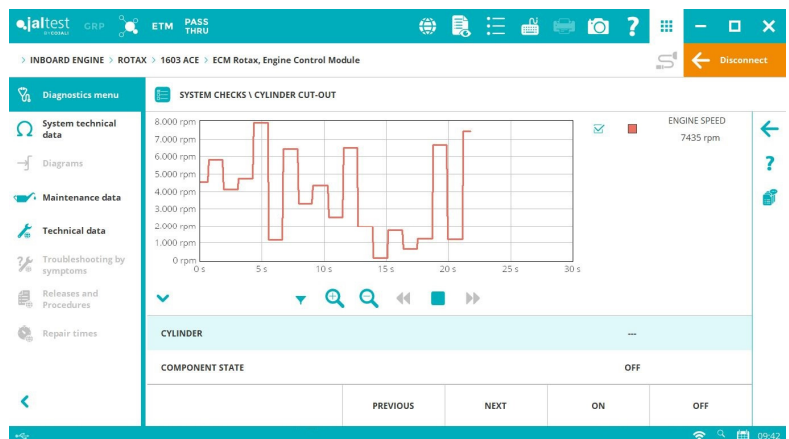
New **ECM DFI** engine control systems have been included in the **Jet Drive 200 OptiMax** and **Jet Drive 250 OptiMax** models.

Information to CAN bus errors of Smart Craft modules: **SIM**, **CCM** and **TVM**.

ROTAX

Engines that can be found in vessels such as Williams, Pirelli, etc.

The following models have been included: **900 HO ACE**, **1503 NA**, **1603 ACE**, **1503**, **1503 NA ACE** and **900 ACE**. All of them have **ECM** engine control systems and **INS** instrument cluster.



SCANIA

⊕ **DI16-52-M** and **DI16-55-M** models with **PDE** engine control systems.

VOLVO PENTA

EVC-C systems, Joystick calibration.

D4 and D6 engine models, compression test and acceleration test.

OUTBOARD ENGINE

MERCURY

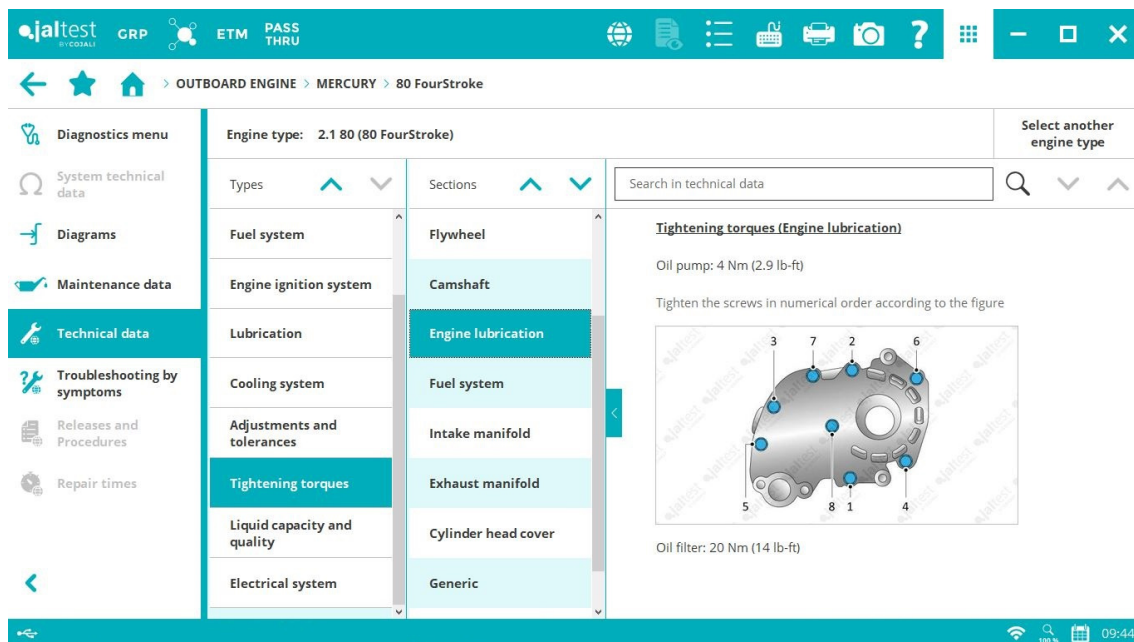
New functionalities in models with **PCM-112** engine control system that apply to V6 and V8 engines.

Troubleshooting by symptom specific for models from **OptiMax** family.

Wiring diagrams of the **ECM-70 G3** engine control

system in numerous models such as **75 FourStroke** and **150 Pro XS** and in V6 and V8 engines for models with and without DTS.

Moreover, vessel technical data and maintenance services have been included, for example, in **90 FourStroke** and **75 SeaPro** models.



The screenshot shows the software interface for a Mercury 80 FourStroke engine. The left sidebar contains a 'Diagnostics menu' with options like 'System technical data', 'Diagrams', 'Maintenance data', 'Technical data', 'Troubleshooting by symptoms', 'Releases and Procedures', and 'Repair times'. The main area is divided into 'Types' and 'Sections'. The 'Sections' list includes Flywheel, Camshaft, Engine lubrication (highlighted), Fuel system, Intake manifold, Exhaust manifold, Cylinder head cover, and Generic. The right pane displays 'Tightening torques (Engine lubrication)' with the following information:

- Oil pump: 4 Nm (2.9 lb-ft)
- Tighten the screws in numerical order according to the figure
- Oil filter: 20 Nm (14 lb-ft)

A diagram of the oil pump is shown with numbered screws (1-8) indicating the tightening sequence.

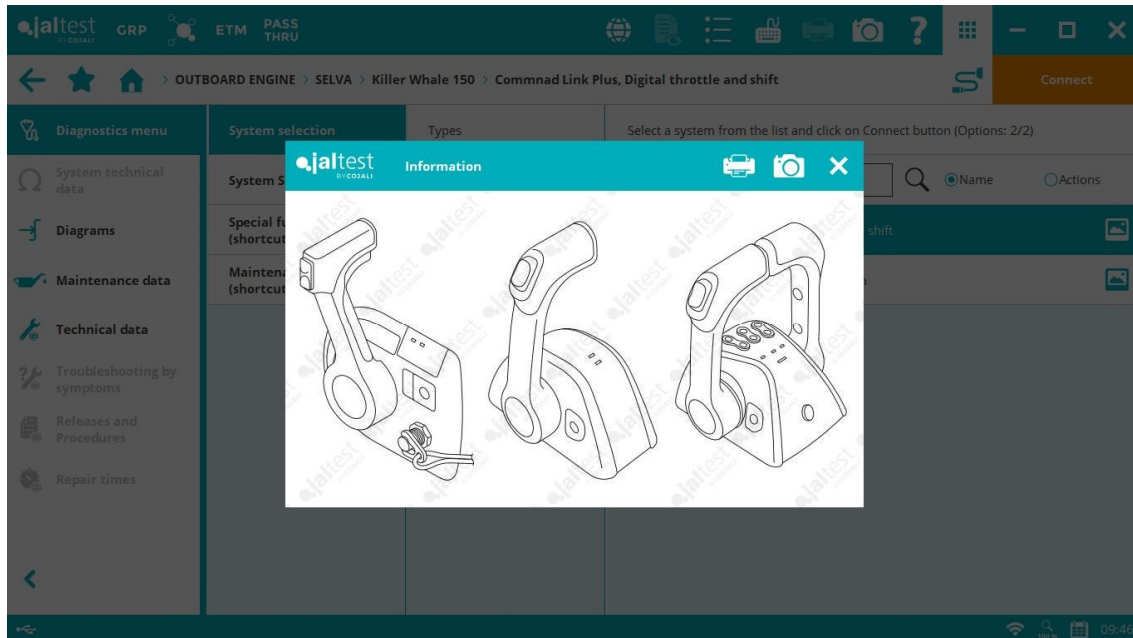
MERCURY RACING

⊕ **400 Verado, 400R Verado and 450R Verado V8** models.

Wiring diagrams of **Optimax** models.

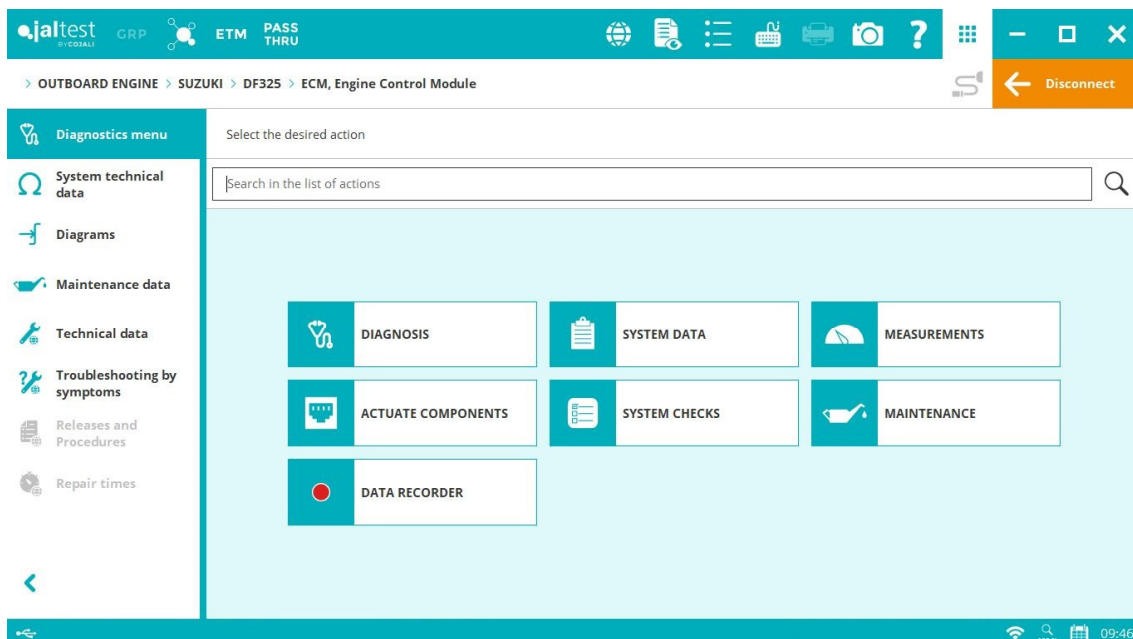
SELVA

⊕ **Command Link Plus** lever control system for **Fin Whale 225, Killer Whale 150XSR, Grey Whale 200** models, etc.



SUZUKI

⊕ **DF325** model with advanced diagnostic functionalities, troubleshooting guides and fuse and relay box diagram.



STATIONARY ENGINE

CUMMINS

QSL9 CM2250 engine control system, regeneration and reset of the Diesel Particulate Filter.

QSX 11.9/15 CM2250 engine control system, operation data, activations, checks, parameter modification and maintenance such as DOC catalytic converter maintenance or particulate filter replacement among others...

ISUZU

4LE2 on CAN engine control system, new system functionalities, activations of the injectors, the EGR valve, the throttle actuator in the intake manifold, as well as cylinder cut-out, injector coding, Diesel Particulate Filter regeneration, etc.

PERKINS

1204E/1206E and **1204F/1206F** engine control system that communicates through SAE J1939 protocol, Diesel Particulate Filter regeneration operation test, injection rail pressure test, cooling system check, etc.

Moreover, there are new wiring diagrams available in **1103C** and **1104C Tier 2** engines, as well as in **403F** and **404F Tier 4** engines.

VOLVO PENTA

EMS V3 system, modification of the injection correction factor.

Moreover, there are new wiring diagrams in **TTAD1640-42GE** and **TAD1641-43VE** models.

YANMAR

Wiring diagrams in the **3TN88F** model.

JET SKI

SEA-DOO (BRP)

ECM engine control system, enable/disable the **iBR** system for Jet Ski with electronic braking control.

iBR brake control system, activation and deactivation of the iBR gate.

Key writing in **Spark** models for Jet Ski compatible with this functionality.

