

# off-Highway Vehicles

# **INNOVATIONS 24.3**













# SYSTEM SCAN AND CONNECTION

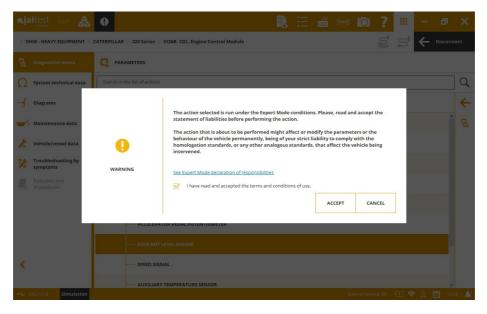
In this version, the location of the system scan functionality has been changed, it is now pre-selected by default in the list of systems when accessing a model. It is possible to use the system type selection filters to perform the system scan of only those systems identified as main systems.

In addition, from this version, the button to connect to a system appears together with the selected system.

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🔶 🚖 🏫 эони	- HEAVY EQUIPMENT > JCB > J	2255	📑 🚅 Scan	←      ★      A → OHW - HEAVY EQUIPMENT > JCB →	JZ255 > JCB LiveLink, Telematic module	🥵 🚅 Connect
🖏 Diagnostics menu	System selection	Types	Select a system from the list and click on Connect button (Options: 7/7)	System selection	Types Select a system from the list and click on	Connect button (Options: 7/7)
Ω System technical data	Special functions (shortcuts)	🗹 ALL	Bearch by system name Q  OActions	Ω System technical Special functions (shortcuts)	Search by system name	Q  Name OActions
Diagrams	Manual diagnostics	Central computer 🛛 🔀	System Scan Scan	Diagrams     Manual diagnostics	Central computer 🗹 System Scan	
Maintenance data		Data registration, telematics and FMS	4HK1, 4JJ1 (K Line). Electronic Diesel Control, Common Rall	Maintenance data	Data registration, telematics and FMS 4HK1, 4JJ1 (K Line), Electronic Diesel Cor	ntrol, Common Rail
Vehicle/vessel data		* Engine 🛛 🗹	6HK1 (K Line), Electronic Diesel Control, Common Rail	/m Vehicle/vessel data	* Engine 🔀 6HK1 (K Line), Electronic Diesel Control,	Common Rail 🤞
Troubleshooting by symptoms		Hydraulic systems 🛛 🗹	DECU, Instrument cluster	Troubleshooting by symptoms	Hydraulic systems 🗹 DECU, Instrument cluster	
Releases and Procedures		Instrument cluster 🛛 🗹	HECU, Hydraulic System	Releases and Procedures	Instrument cluster 🧭 HECU, Hydraulic System	
			JCB Data Logger, Data logger		JCB Data Logger, Data logger	
			JCB LiveLink, Telematic module		JCB LiveLink, Telematic module	Connect
C C		(*) It does not apply to system scan	MECU, Body computer	<	(*) It does not apply to System scan	
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# OTHER FUNCTIONALITIES

- Removal of expert mode management by code. Therefore, from this version, there will be no code to enable the expert mode, it is only necessary to accept the terms and conditions of use. Jaltest Diagnostics will continue to inform the users in all advanced actions under expert mode so that they can take the necessary precautions. On the other hand, for enterprises where expert mode code would be useful, the creation of user roles from GRP is recommended in order to have different levels of access.







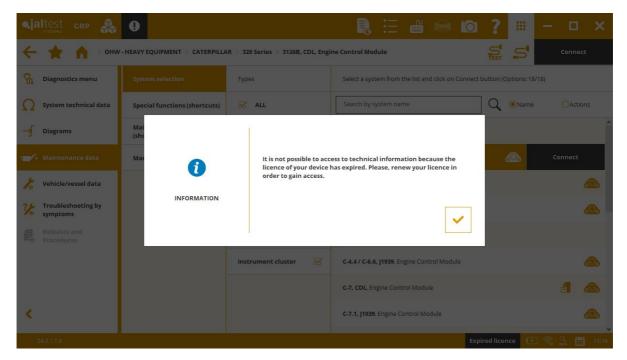








- Improved representation of measurements in diagnostics reports.
- To avoid excessive number of clicks when accessing a system, connection instructions are no longer displayed. If more information is required, it is necessary to go to the connection information button to access connection instructions on which cable to use.
- The technical information buttons are not disabled when the licence expires, however, access is not allowed.



- Improved management of licences and subscribed products. From this moment on, the Jaltest licence menu displays a breakdown of the status and expiry date of each subscribed module.













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

# OHW - HEAVY EQUIPMENT

The number of models in **DEVELON, DITCH WITCH, GROVE, JCB** and **KOMATSU** brands has been expanded.

#### **JOHN DEERE**

21 new models.

## **OHW - COMPACT EQUIPMENT**

The number of models in **CASE CE, DEVELON, JCB, JOHN DEERE, KOMATSU, MENZI MUCK, MST** and **XCMG** brands has been expanded.

#### MANITOU

15 new models.

## STATIONARY ENGINE

New models in **CUMMINS** and **DOOSAN** brands.

### MULTI-PURPOSE VEHICLE

This version includes **VITRA** brand.

# DIAGNOSTICS AND SYSTEMS

It is important to note the development of the **DL06/DL08** engine control system in **DOOSAN STAGE V** engines. This system is available for STATIONARY ENGINE and other brands such as **DEVELON**.













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> STATIONARY ENGINE > DO	OSAN > DL06 > DL06, CAN (St	tage V), Electronic Diesel	l Control				TEST	5 <	- Disco	nnect
🖏 Diagnostics menu	Select the desired action									
$\Omega$ System technical data	Search in the list of actions									Q
🛹 Vehicle service data										
🏂 Vehicle data	🖏 FAUL	T CODE READING	Û	FAULT CODE CLEAN	RANCE	Ê	SYSTEM DA	ТА		
Troubleshooting by symptoms					_					
Releases and Procedures	MEA	SUREMENTS		SYSTEM CHECKS			MAINTENAI	NCE		
	O DATA	A RECORDER								
<										
<del>•</del>								•	s 👷 🗄	13:18

# OHW - HEAVY EQUIPMENT

#### AMMANN

**EMR5 EDC MD1** (*on SAE J1939*) engine control system, advanced diagnostics functions in the maintenance menu.

#### CASE CE

New wiring diagram configurations in **6UZ1** (*on SAE J1939*) engine control systems in **CX400C** and **CX500ME Series** models.

#### CATERPILLAR

**TCM** (*on CDL*) transmission in **100** /20/10 Series models, clutch pressure check and calibrations.

New wiring diagram configurations in **TCM** (on CDL), **EHCU I** (on CDL) and **SCR / DEF** systems.

#### HAMM

EMR5 EDC MD1 engine control

😑 🔯 ? 📖 🐣 0 ← Dis OHW - HEAVY EQUIPMENT > CATERPILLAR > 140 Series > TCM, Transmission S S CALIBRATION Ω System technical data Search in the list of action Q Collapse all actions 4 - Diagrams 8 SSION CALIBRATIO 🄏 Vehicle data — оп ? Troublesho symptoms CLUTCH 1 Releases an CLUTCH 2 CLUTCH 3 INCHING PEDAL CALIBRATION

system, advanced diagnostics functions for the maintenance service of the exhaust gas aftertreatment system.













#### JCB

① IC (on SAE J1939) instrument cluster for wheel loaders.

**DieselMax 448, Stage V** (*on SAE J1939*) engine control system, activations, system checks, parameter configuration and maintenance reset.

#### **JOHN DEERE**

- ⊕ IG2 system for the L Series dozer.
- IGC, JSL, JSR, PDU and VC2 systems for L Series and P Series dozers.

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← ★ ♠ >	OHW - HEAVY EQUIPMENT > JOHN	N DEERE > 950P	Scan
🖏 Diagnostics menu		Types	Select a system from the list and click on Connect button (Options: 9/9)
$\Omega$ System technical data	Special functions (shortcuts)	🗹 ALL	Search by system name OActions
→ Diagrams		Central computer 🛛 🖂	ECU HPCR (Level 33 - Tier 4F/5 - Stage IV/V), Electronic Diesel Control,
Vehicle service da	ta	Electronic module 🛛	ECU John Deere, Electronic Diesel Control
🎽 Vehicle data		Engine 🗹	IG2, Electronic Module
% Troubleshooting b symptoms	ру	Instrument cluster 🛛	IGC, Electronic Module
Releases and Procedures			JSL, Electronic Module
			JSR, Electronic Module
			PDU, Instrument cluster
<			VC2, Body computer
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#### **VOLVO CE**

New wiring diagram configurations in the **EDC** system in the **A Series (XY D)** model.

# OHW - COMPACT EQUIPMENT

Among many new functionalities, it is important to note the development of advanced diagnostics functions in the **EDC YDECO** engine control system from **YANMAR**, such as operation data, activations and system checks.

#### CATERPILLAR

C-4.4 / C-6.6 (on SAE J1939) engine control system, activations, system checks and maintenance reset.

**PTM** powertrain control system in **D Series** models, clutch pressure check and calibrations.













Troubleshooting guides by symptom in the C-2.8 / C-3.6 (on SAE J1939) engine control system.

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> OHW - COMPACT EQUIPME	NT > CATERPILLAR > D3 Series > PTM, J1939, Powertrain module		TEST	S ← Discor	inect
🖏 Diagnostics menu	SYSTEM CHECKS \ CLUTCH PRESSURE				
$\Omega$ System technical data	<b>CLUTCH CONTROL SOLENOID VALVE:</b> SELECT THE COMPONENT	THAT YOU WISH TO CHECK			~
→ Diagrams					×
Yehicle service data	ENGINE SPEED		1200 rpm	۵	?
🎽 Vehicle data	PARKING BRAKE	SEN	SOR SUPPLY - NOT AVAIL	ABLE 🤣	6
?€ Troubleshooting by symptoms	TRANSMISSION OIL TEMPERATURE		80 °C	ø	
Releases and Procedures	CLUTCH, PRESSURE TEST		OFF	ø	
	CLUTCHES (COMPONENT ACTIVATED)		6	ø	
	TORQUE CONVERTER, REVOLUTIONS		2789 rpm	۲	
<		DECREASE (<)	INCREASE (>)	ACTIVATE	
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#### DIECI

**EDC MD1 CE101** engine control system, maintenance reset for the battery replacement.

#### JCB

🕀 IC instrument cluster for wheel loaders.

HCU, IC and PTM systems in the Hydradig Series model.

Maintenance reset in **CLUSTER** instrument cluster for compact excavators.

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> OHW - COMPACT EQUIPME	NT $>$ JCB $>$ HYDRADIG 110W $>$ HCU, Body computer	5 <b>5</b> + •	sconnect
	MEASUREMENTS \ MEASUREMENT SELECTION		
$\Omega_{data}^{System technical}$	V A Select a measurement and use the buttons up/down to change the measurement display order		~
J Diagrams	SWING SOLENOID VALVE TO THE LEFT, ELECTRIC CURRENT	1641 mA	<
Vehicle service data	SWING SOLENOID VALVE TO THE RIGHT, ELECTRIC CURRENT	600 mA	2/8
🏄 Vehicle data	BOOM LOWERING SOLENOID VALVE, CURRENT CONSUMPTION	644 mA	>
% Troubleshooting by symptoms	BOOM LIFTING SOLENOID VALVE, CURRENT CONSUMPTION	975 mA	
Releases and Procedures	ARTICULATED BOOM, LOWERING SOLENOID VALVE	1103 mA	7°
	ARTICULATED BOOM, LIFTING SOLENOID VALVE	253 mA	B
	SOLENOID VALVE OF THE ARM EXTENSION CYLINDER, CURRENT CONSUMPTION	1715 mA	6
<	SOLENOID VALVE OF THE ARM RETRACTION CYLINDER, CURRENT CONSUMPTION	1842 mA	
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#### **JOHN DEERE**

+ IG2 system for the L Series dozer.

⊕ IGC, JSL, JSR, PDU and VC2 systems for L Series and P Series dozers.













**EDC YDECO** engine control system from **YANMAR**, operation data, activations and system checks.

Diagnostics menu	🚔 SYSTEM D		r YDECO, Engine Control				
System technical data			FOLLOWING DATA TABLES		NE LOAD PROFILE		
Diagrams		0 RPM	1000 RPM	1200 RPM	1500 RPM	1800 RPM	î.
· · · · · · · · · · · · · · · · · · ·	0 %	4.70 h	0.00 h	0.00 h	0.00 h	0.00 h	
4 Vehicle service data	20 %	0.00 h	0.00 h	0.00 h	0.00 h	0.00 h	
Vehicle data	40 %	0.00 h	0.00 h	0.00 h	0.00 h	0.00 h	
Troubleshooting by symptoms	50 %	0.00 h	0.00 h	0.00 h	0.00 h	0.00 h	
	60 %	0.00 h	0.00 h	0.00 h	0.00 h	0.00 h	
Releases and Procedures	70 %	0.00 h	0.00 h	0.00 h	0.00 h	185.20 h	
	80 %	0.00 h	0.00 h	0.00 h	0.00 h	89.98 h	
	90 %	0.00 h	0.00 h	0.00 h	0.00 h	0.00 h	
	HOURS	0.00 h	0.00 h	0.00 h	0.00 h	0.00 h	
	PERCENTAGE	0.00 %	0.00.%	0.00 %	0.00%	0.00 %	~

#### **KOMATSU**

New wiring diagram configurations in the **PUMP**, **Monitor D** hydraulic system and the **MON**, **Monitor D** instrument cluster.

## STATIONARYENGINE

#### CATERPILLAR

C-27 and C-32 (on CDL) engine control system, injector parameter configuration.

**ARD** exhaust gas aftertreatment system, system checks.

Fault code troubleshooting guides in C-2.8 / C-3.6, C-9.3 engine control systems and ARD and SCR / DEF exhaust gas aftertreatment systems.

#### DEUTZ

**EMR5 EDC MD1** (on SAE J1939) engine control system, maintenance reset for the ash content correction in the Diesel Particulate Filter.

#### DOOSAN

DL06/DL08 Stage V engine control system.

**DM01, DM02** and **DM03** engine control systems, system checks, injector parameter configuration and oil change counter reset.







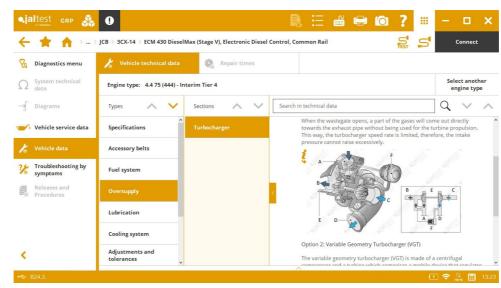






#### JCB

**DieselMax 448, Stage V** engine control system, activations, system checks, parameter configuration and maintenance reset.



In addition, new technical data in **JCB** engine types.

#### PERKINS

**1204E**, **1206E** and **9043** (*on SAE J1939*) engine control systems, fault code clearing in CAN lines.

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> STATIONARY ENGINE > PE	RKINS > 904J > 904J, J1939, Engine Control Module	
🖏 Diagnostics menu	SERVICE \ CAN COMMUNICATION LINES FAILURE	
Ω System technical data	+ Add customised help	1
	Errors in CAN lines	K
Vehicle service data	Communication bus: There is a communication bus through which all ECUs communicate with each other. The diagnosis connector of the vehicle is also located in this bus.	
🎉 Vehicle data	The CAP protocol allows the exchange of frames through a communication bus, and all the ECUs transfer the data to the data bus which is always available for the delivery of information.	
Y Troubleshooting by symptoms	This function is used to read the system fault codes by accessing the ECU memory. Many of the systems detect whether the fault codes are active or not, this means if the fault code is currently on the system or not.	
Releases and Procedures		
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# MULTI-PURPOSE VEHICLE

Extended diagnostics coverage for engine control systems. It is important to note new functionalities in the **DEUTZ Stage V** engine control system in **HANSA** and **SCARAB** brands.

