

off-Highway vehicles

INNOVATIONS 20.1











SOFTWARE INNOVATIONS

The new software version **Jaltest 20.1** 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.

This version shows the **new graphic interface of Jaltest**, characterised by new improved and modern design lines, more legible content and more direct accessibility. This improvement in the visualisation of the content means a great advantage for Jaltest users who can now find and manage the information in an easier and more intuitive way. Apart from these graphic changes, both the runtimes and installation times have been improved, improving in this way its speed.



Next, some examples of displays and aspects of the application, with a considerable improvement regarding the graphic interface, are shown.











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Language	Select the application theme:	 Image: Image: Ima
Graphic customisation	DHW Yellow	
Activate Expert Mode		
Units of measurement		
Messages		
Product improvement	Select the size of the text and other elements of the application:	
Demo/Simulation Mode	○ 80 % ○ 90 % ● 100 % ○ 110 % ○ 120 %	
	Select the following option to adjust the application size to the screen resolution selected in the computer:	
	Adjust to screen resolution	
r a caracteria de la cara teria de la caracteria de la ca	i For more information on display options, <u>click here</u>	IW.
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Graphic customisation.

Configuration of the screen resolution, text size and other elements of the application. Option to adjust the application size to the resolution of the selected screen in the PC.

Connection selection.

The connections associated to a system are listed at the left, the connection instructions remain always visible, navigating through the images is easier, etc.

		Select the appropriat	e connecti	on in order to connect to the system	In order to carry out a manual pin selection, <u>click here</u>
ີລູ	ystem technical lata	Available connection	s: 3	CONNECTION 1 - JDC 213.9 + JDC 522A	DIRECT CONNECTOR O MULTIPIN
1	Diagrams	CONNECTION 1	۲	Attention! The use of direct connector requires external power	Detail
S V	ehicle service data	CONNECTION 2	0	supply to the device by connecting the lighter or the battery cable to the extension cable.	
	/ehicle technical lata	CONNECTION 3		Make sure to use the appropriate cable, whose reference must match the one displayed. When	1622
	roubleshooting by ymptoms			the cable is not available, contact your distributor or use the multiplins option.	000
	teleases and Procedures			Verify the cables and the pins of the diagnosis connector are not	
Ø , 1	tepair times			damaged.	
				- Guarantee the electrical supply of the vehicle, of the system and of the diagnosis device. Check whether the vehicle battery is in	
				whether the vehicle battencik in	

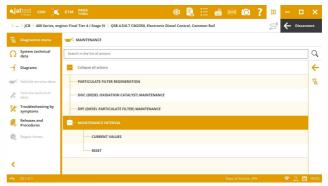
∙, ja	Itest GRP 📜	ETM PASS THRU		۲	R := •	¥ 🖶 🕻	2 ? 🎟 -	o x
>	> JCB > 400 Series, en	gine: Final Tier 4 / Sta	ge IV > QSB 4.5/6.7 CM2350, E	ectronic Diesel Con	trol, Common Rail		,s' (Disconnect
		Select the desired	action					
Ω	System technical data	Search in the list o	factions					Q
-f	Diagrams							
<u>م</u>	Vehicle service data	8	DIAGNOSIS	TT ERR	OR CLEARANCE	Ê	SYSTEM DATA	
10	Vehicle technical data							
%	Troubleshooting by symptoms	Ê	OPERATION DATA	ME/	ASUREMENTS		ACTUATE COMPONENTS	F.
6,	Releases and Procedures	E	SYSTEM CHECKS		AMETERS	-	MAINTENANCE	
Ø,	Repair times			712				
		K	CALIBRATION	🔅 cor	NFIGURATION	۰	DATA RECORDER	
۲								
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Main menu of a system.

Classification of the main types of actions when connecting to a system, which allow you to know quickly the coverage of a system. Improvement of the action searcher.

System actions in tree diagram.

System actions organised in tree diagram and actions grouped together in folders. The "DIAGNOSIS" function is always available on the right bar through the button with the corresponding icon.













Other innovations

Other functionalities of the version are listed below:

- **Countdown timer** in procedure steps and troubleshooting guides.
- Search filter in the measurement list of a step of an action.
- Component filter in system technical data by configuration of wiring diagram.

GRP

Sending of reports to an email address

Jaltest allows you to configure the sending of predefined information and reports to an email address through the **"Send to an email address"** function available in the **"Configuration"** menu of GRP. Once the sending has been activated, the program will suggest this possibility when generating a report. The report will be sent by an email with the configured format (subject, fields of the body of the email, etc.).

Q GRP		🛞 🗄 🖴 🕲 🕄	? Ⅲ - □ ×	ejaltest GRP	ETM PASS THRU		🐵 🛢 🗄 🖷 📾 🕲	? ≡ - □ ×
Client list	GRP Configuration (user	settings) 🛍 🙆	×	← ★ ♠ →>	JCB > 400 Series, engine: Final	Tier 4 / Stage IV > QSB 4.5/6.7 C	M2350, Electronic Diesel Control, Common Rail	Connect
🔐 Vehicle list	Language	jaitest allows you to configurate the sending of predefined information and reports to an email address.	× .	Sh Diagnostics menu				
Reports	Graphic customisation	✓ Activate sending		Ω System technical data	System Scan	ALL 🗹	Search by system name	Q Name OActions
	Messages	Select the report types you want to send (at least one)		- Diagrams	Spe (shi			
	Product improvement	Diagnosis report Maintenance report		🖅 Vehicle service data		Do you want to sen	d the report by email?	
	Company data	*E-Mail		7 Vehicle technical data		bo you want to stin	a the report by email.	
	Reports configuration	innovations/Bjaltest.com		% Troubleshooting by symptoms	WARNING		YES NO	
f Start window	User accounts	Press here to configure the email format to be sent (subject, fields to fill-in, etc.)		Releases and Procedures				
	Send to an email address			Repair times			HYDRAULICS, Hydraulic System	
							MCM, Electronic Diesel Control, Common Rail	
<		*Compulsory field	×	<			MECU, Body computer	
		Days of licence: 299	🗢 🚊 🛄 09.56	-≪ 20.1.0.1				

A new column for the sending management has also been included in the GRP report list. The user will be able to send reports marked as "*Pending to be sent*" or to resend a report.











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di _k	Client list	Q GRP	Customised fields			<u> </u>	0	?	×		
dit.	Vehicle list	Subject Sent reports t	io an email address - Innovation	si	2	Compulsory fie	Id		*		
6	Reports	-							^		
M		Order	Field name	Туре	Compulsory f	ield			~		
61		1.0	Date	Date	Yes	o	ø	Û			
<u>.</u>		2	Subject	Text	No	0	۵				
ήż.		3	Select the importance	Drop-down field	No	0	٥				
A	Start window										
<							Add field				

The user can customise as many fields as desired and the email subject, as well as define if they are compulsory input data or not. The field types can be as following:

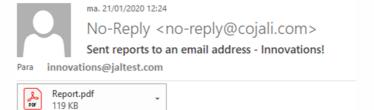
- Text
- Date
- Drop-down field

The image shows an example with three fields.

S GRP				-		
Client list	Diagnosis reports Maintenance Reports					
Vehicle list	See GRP Information to be sent by email	≝ [™]	X nt	\$		۲
Reports	Sec		~			
Workshop management	*Subject Sent reports to an email address - Innovations!					(1/1
My tasks	*Date 17/01/2020				• •	
Reception	Subject Image Innovations					
Human resources	Select the importance VES	\sim				
f Start window	Remember information					
	*Compulsory field					
<			Open repo	rt		
20.1.0.1						

Example, sending of a report with Jaltest:

Received email



Date: 17/01/2020 Subject: Innovations image Select the importance: SI











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.

This version, the **SCHAEFF** brand of OHW & CONSTRUCTION EQUIPMENT has been included.

CASE CE

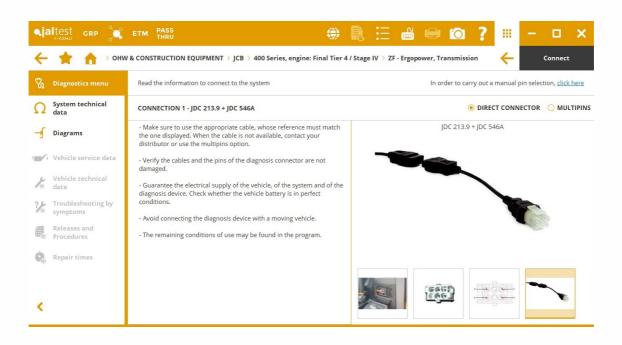
Reorganization of the brand that has 22 new families and 135 models.

DIAGNOSIS AND SYSTEMS

Take into account that this document is only a summary of the most important information of this new version. For further information, please visit Jaltest Report.

OHW & CONSTRUCTION EQUIPMENT

• New JDC 546A cable to connect and calibrate the **ZF ErgoPower** transmission.













BOBCAT

⊕ New JDC 547A cable for control systems of DOOSAN DL02 and DL03 engines. New system checks, calibrations and injector coding have been developed in these systems.

New MCONT central computer developed for telescopic handlers.

		PARAMETERS \ INJECTOR CODE \ MODIFY PARAMETERS	
Ω	System technical data	IMPORTANTI DATA FORMAT:	
ſ	Diagrams	VALID CODES HAVE 20 CHARACTERS AND MUST COMPRISE ONLY DIGITS FROM 0-9 AND LETTERS FROM A-Z.	;
<i>.</i>	Vehicle service data	ENTER THE NEW VALUE OF THE CONFIGURATION PARAMETER	
ĸ	Vehicle technical data	12345685045DFGJKLŘZX	1
k	Troubleshooting by symptoms		
٥,	Releases and Procedures		
ö,	Repair times		

🕀 🖪 🗄 í⊙ ? ⊞ ← Disconnect ENT > CATERPILLAR > 120 Series Q Ω Syste J Diagrams Expand all actions 4 8 Vehicle ser - CONTROL S Vehicle technical data % Troublest - STEERING Releases and - POSITION SENSOR Repair time <

CATERPILLAR CE

• New EHCU I hydraulic system developed for motor graders.

• New MCM central computer developed for wheel loaders.

CNH CE GROUP

EDC 17 C49 control system of **FPT engines**, new checks of the exhaust gas treatment system (AdBlue/DEF leak control, AdBlue/DEF dosing pump, etc.) and maintenances such as the start-ups counter reset.

EDC 17 CV41 + Denox 2.2 engine control system, new maintenances such as the reset of the Pressure Relief Valve (PRV).

ejaltest GRP 😹	etm Phase 🜐 🌐 🕮 😑 📫 🗕 🗆	×	ejaltest GRP 🔪	etm PASS 🌐 🗒 🗄 🖶 🙆	? = >	×
> OHW & CONSTRUCTION EQ	UIPMENT > CASE CE > 121 F > EDC 17 C49, Electronic Diesel Control, Common Rail 🔂 Control, Common Rail	ect	> OHW & CONSTRUCTION EQ	QUIPMENT > CASE CE > 1121 F > EDC 17 CV41 + Denox 2.2, Electronic Diesel Control, Common Rail		
Sa Diagnostics menu	SYSTEM CHECKS		Sa Diagnostics menu	MAINTENANCE \ REPLACEMENT OF COMPONENTS \ PRESSURE RELIEF VALVE RESET (PRV)		_
Ω System technical data	Search in the list of actions	Q	Ω System technical data	2 RESET OF THE ADAPTATION VALUES		~
	Collapse all actions	÷		THIS OPERATION MUST BE PERFORMED WHEN THE COMPONENT HAS BEEN REPLACED DO YOU WISH TO CONTINUE?	>	×
Vehicle service data	INJECTOR SWITCHOFF	8	Vehicle service data		1	?
Vehicle technical data	ENGINE ROTATION		Vehicle technical data	RESET AI		6
% Troubleshooting by symptoms	- ADBLUE/DEF		Troubleshooting by symptoms			
Releases and Procedures	LEAK CONTROL		Releases and Procedures			
Repair times	DOSING PUMP		Repair times			
	ADBLUE/DEF DOSING VALVE					
<	ADBLUE/DEF DOSING SYSTEM		<			











DOOSAN

- New JDC 545A cable.
- New E-EPOS system developed for DX 3 Series excavators.

EDC DL03 engine control system, system checks and calibrations. It is worth noting the dynamic test of the fuel dosing valve.

EDC DL06 engine control system, actuations, system checks and maintenances such as the regeneration, the ash load reset and the DPF replacement.

sjaltest crp ≥ ← ★ ↑ ↑ 0HW) DOOSAN > DL200-5 Series > DL06, CAN, Engine Contro	al Module ← Connect	• jaltest crp	ETM PASS 🛞 🗒 🗄 🖆	<mark>⊜ © ?</mark> ≡ – □ ≲ ← ™	
Diagnostics menu	Select the appropriate connecti	on in order to connect to the system	In order to carry out a manual pin selection, <u>click here</u>	🕅 Diagnostics menu	SYSTEM CHECKS \ REQUESTED ENGINE RPM		
Ω System technical data	Available connections: 4	CONNECTION 1 - JDC 213.9 + JDC 545A	DIRECT CONNECTOR O MULTIPINS	Ω System technical data	PRESS THE BUTTONS TO CONTROL THE COMPONENT AND CHECK WHETHER IT IS PROPERLY	OPERATED	~
→∫ Diagrams	CONNECTION 1	- Make sure to use the appropriate cable, whose reference must match	JDC 213.9 + JDC 545A				×
Wehicle service data	CONNECTION 2	the one displayed. When the cable is not available, contact your distributor or use the multipins		Vehicle service data	ENGINE SPEED	650 rpm	? °
& Vehicle technical data	CONNECTION 3	option Verify the cables and the pins of the diagnosis connector are not		Nehicle technical data	DESIRED REVOLUTIONS	683 rpm	Ľ
% Troubleshooting by symptoms	CONNECTION 4	damaged.		75 Troubleshooting by symptoms			6
Releases and Procedures		 Guarantee the electrical supply of the vehicle, of the system and of the diagnosis device. Check whether the 		Releases and Procedures			
🕼 Repair times		vehicle battery is in perfect conditions.		Repair times			
		Avoid connecting the diagnosis device with a moving vehicle. The remaining conditions of use					
<		may be found in the program.		<	750 RPM	800 RPM 850 RPM	

HITACHI

MC central computer, parameter setting of the implement for excavators.

JOHN DEERE CE

• New systems of the **PDU** instrument cluster display and **VC2** central computer developed for backhoe loaders.

Timer setting of automatic stop of the engine at idle speed rates in the VCU central computer of backhoe loaders.

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> 0	OHW & CONSTRUCTION EQ	UIPMENT > JOHN DEERE > 1050K > VCU, Body computer	nect
		PARAMETERS \ MODIFY PARAMETERS \ IDLE SHUTDOWN TIMER	
Ω	System technical data	2 THE CURRENT VALUE IS DISPLAYED NEXT, DO YOU WISH TO MODIFY THE PARAMETER?	~
÷	Diagrams		×
-	Vehicle service data	IDLE SHUTDOWN TIMER 0 s	?
K	Vehicle technical data		6
3%	Troubleshooting by symptoms		
٩,	Releases and Procedures		
¢,	Repair times		
<			











VOLVO CE

Vehicle Electronic Control Unit (VECU), new system checks and calibration of the transmission in wheel loaders.

	nw & construction P	QUIPMEN	T > VOLVO CE > L Series (XY E) > VECU, Vehi	cie Electronic Con	trol Uni	it				1	 Discon
		K	CALIBRATION \ TRANSMISSION CALIBRATION								
Ω	System technical data		THE PROCESS HAS FINISHED								
ſ	Diagrams		SUCCESSFULLY COMPLETED								
<i>.</i>	Vehicle service data	ßear	rch in the measurements list								Q
K	Vehicle technical data	FOR	WARD CLUTCH, FILLING PRESSURE					40	mbar		î
2%	Troubleshooting by symptoms	REVE	ERSE CLUTCH, FILLING PRESSURE					70	mbar		
٩,	Releases and Procedures	CLUT	TCH 1, FILLING PRESSURE					20	mbar		
Ċ,	Repair times	CLUT	TCH 2, FILLING PRESSURE					50	mbar		
		CLUT	TCH 3, FILLING PRESSURE					100	mbar		
<		CLUT	TCH 4. FILLING PRESSURE					80	mbar		

STATIONARY ENGINE

DEUTZ

Control system of the **Deutz EMR4 - EDC 17 CV52 engine**, new parameters such as the configuration of the idle speed rate.

DOOSAN

New JDC 545A and JDC 547A cables, the latter for DL02 and DL03 engines.

EDC DL03 engine control system, system checks and calibrations. It is worth noting the dynamic test of the fuel dosing valve.

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	Diagnostics menu	-	SYSTEM CHECKS \ REQ							5		nect
Ω	System technical data	i	PRESS THE BUTTONS T	O CONTROL THE COM	PONENT AND CHE	CK WHETHI	R IT IS PROPER	ILY OPERATED				~
ſ	Diagrams											×
^	Vehicle service data	ENG	INE SPEED						601 rpm			7
k	Vehicle technical data	DES	RED REVOLUTIONS						850 rpm			Ľ
8	Troubleshooting by symptoms											6
٩,	Releases and Procedures											
Ø,	Repair times											
<							750 RPM	800 R	PM	850	RPM	

EDC DL06 engine control system, actuations, system checks and maintenances such as the regeneration, the ash load reset and the DPF replacement.

IVECO-FPT

EDC 17 C49 control system of **FPT engines**, new checks of the exhaust gas treatment system (AdBlue/DEF leak control, AdBlue/DEF dosing pump, etc.) and maintenances such as the start-ups counter reset.











EDC 17 CV41 + Denox 2.2 engine control system, new maintenances such as the reset of the Pressure Relief Valve (PRV).

PERKINS

854F engine control system, cylinder cutout, high-pressure fuel test, inducement mode reset, component reset such as the NOx sensor or the SCR catalytic converter, and replacements of the DOC catalytic converter and the cooler of the Exhaust Gas Recirculation system (EGR).

ሕ	Diagnostics menu	MAINTENANCE \ REPLACEMENT OF THE DIESEL OXIDATION CATALYST (DOC)		
Ω	System technical data	i INITIAL CONDITIONS:		
ł	Diagrams	ENGINE STOPPED FULLY CHARGED BATTERY CONTINUE WITH THE PROCESS		
<i>.</i>	Vehicle service data	CONTINUE WITH THE PROCESS		
k	Vehicle technical data	ENGINE SPEED	771 rpm	۲
1	Troubleshooting by symptoms	BATTERY VOLTAGE	14 V	~
٥	Releases and Procedures			
Ċ,	Repair times			
<				

STREET SWEEPERS

TENAX

EDC 17 C49 control system of **FPT engines**, new checks of the exhaust gas treatment system (AdBlue/DEF leak control, AdBlue/DEF dosing pump, etc.) and maintenances such as the start-ups counter reset.

TECHNICAL INFORMATION

Take into account that this document is only a summary of the most important information of this new version. For further information, please visit Jaltest Report.

Maintenance and technical data of the vehicle

Engine types in **CATERPILLAR CE** and stationary engines, diesel engines 3,3 (C3B), 6,6 (C6) and 9,3 (C9).











Wiring diagrams and technical information

CASE CE

EDC 17 CV41 + Denox 2.2 engine control systems and **ZF ErgoPower** transmission for wheel loaders.

CATERPILLAR CE

Extension of wiring diagrams in all vehicle categories of the brand: excavators, compact loaders, wheel loaders, motor graders, dozers and backhoe loaders.

VOLVO CE

Extension of wiring diagrams in the following vehicle categories: articulated haulers, excavators, wheel loaders and pipelayers.

System Display

System Display in the transmission system of the CATERPILLAR CE wheel loaders.

