

# e, jaitest MATERIAL HANDLING

# **INNOVATIONS 23.2**













# SOFTWARE INNOVATIONS

The new software version Jaltest 23.2 once again offers more improvements and innovations that consolidate this tool as a benchmark in multi-brand diagnostics for commercial vehicles, agricultural equipment, OHW equipment, material handling equipment and vessels.

This version includes the ability to configure a **follow-up check for performed diagnostics actions**.

			? ⊞ - □ ×	ejaltest ore 🖧		🔋 🗄 🖶 📾 ? 💻	- 0	
Client list	QGRP Configuration (user	r settings) 👜 🔯	? ×	> MHL - MATERIAL HANDLING EQUIPMENT > JUNGHEINRICH > DFG 316 [2009 - 2014] > E-CDIS, Electronic Diesel Control, Common Rail				
Vehicle/vessel list	Language	Fault code reading Maintenance	×	🖏 Diagnostics menu	ACTUATE COMPONENTS \ TH	ROTTLE VALVE ACTUATOR, INLET AIR FLOW CONTROL		
Reports	Graphic customisation	Generate diagnosis report		Ω System technical data	I THE ACTUATION HAS FINISHED			
Workshop management	Messages	→ code list.	<b>^</b>	-f Diagrams		T		
My tasks	Product improvement	Include diagnosis price		m Maintenance data		Select the follow-up mark for the action depending on the		
Reception	Company data	Automatic time Hour rate configured		🄏 Vehicle/vessel data	•	result obtained		
	Reports configuration	☑ Include client validation		3 Troubleshooting by symptoms	WARNING			
Alarms and notifications	User accounts	Include general comments		Releases and Procedures		OK NO OK		
- Go back to Jaltest	Report sending	Include the follow-up mark for performed actions						
	Display options	This mark appears in the diagnostics reports and in the system action mersu. For instance, it can be used to state the actions through which a problem was detected in the vehicle/vessel.						
< Contract of the second s				<				
23.2			रू <u>ो</u> 🖽 1246				~ ^	

This enables the user to include their opinion concerning the vehicle behaviour during the diagnostics session in the report.

MHE - MATERIAL HANDLIN	IG EQUIPMENT > JUNGHEINRICH > DFG 316 [ 2009 - 2014 ] > E-CDIS, Electronic Diesel Control, Common Rail			INITIAL CONDITIONS:	
Diagnostics menu	CTUATE COMPONENTS	Voltage: 12,6 V		THE VEHICLE MUST BE STOPPED THE ENGINE HAS TO BE AT IDLE	
System technical data	Bearch in the list of actions	Q	EADSIA	ENGINE SPEED 2390 rpm	_
Diagrams		₽+ 🖬 ←	Et. Mittat	ACTION FOLLOW-UP MARK	
Maintenance data				ACTUATE COMPONENTS \ EGR VALVE	
Vehicle/vessel data	EGR VALVE	er+ 🖬		GEAR SHIFT IN NUTRAL POSITION ACTIVE THE PARKING BRAKE	
Troubleshooting by symptoms				ALTIVATE THE PARAMING BRANE COUNT TEMPERATION 65 °C IGNITION ON INGRIDE STOPPED	
Releases and Procedures				ENGINE SPEED 1776 rpm	_
				COOLANT TEMPERATURE 105 °C	_
				PRESS THE BUTTONS TO CONTROL THE COMPONENT AND CHECK WHETHER IT IS PROPERLY OPERATED	
				100 %	
23.2		হ ৣ 🖽 1247		80 % 70 % 60 %	

Finally, it is important to note the new access to the **GRP user manual** from Jaltest.













# 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.

In this version, **DONKEY FORKLIFT** and **PETTIBONE** brands have been added.

In addition, the number of models has increased in nearly all the brands, for example, **BOBCAT, BT, CURTIS, CROWN, HANGCHA, JLG, JUNGHEINRICH, LINDE, MANITOU, SKYJACK, STILL** and **TOYOTA.** 

MHE - MATERIAL HANDLING E	R := 🗃 📾 📦 🙆 : = 🗗 ×
Famílies 🔨 🗸	Select a model from the list (Options: 11/82)
§earch in family list   Q	Search by model name Q @Name OSystem Ocategory OPropulsion type
ALL	EJC 110 [ 2007 - 2018 ]
DFG Series	tjc 112 [ 2007 - 2018 ]
ECE Series	EJC 212 [ 2008 - 2018 ]
EFG Series	IJC 220 [ 2008 - 2018 ]
EJC Series	EJC 214 [ 2008 - 2012 ]
EJD Series	tjc 216 [ 2008 - 2012 ]
EJE Series	EJC B12 [ 2012 - 2018 ]
EJR Series	(JC B14 [ 2011 - 2014 ]
	> MRF-MATTRALAMABLING G

ejaltest GRP 🚓	•	🗎 🗃 🖶 🔯 <b>? 📰</b> – ල 🗙
🔶 ★ 🏫 🤯	> MHE - MATERIAL HANDLING E	QUIPMENT > TOYOTA
Diagnostics menu	Families 🔥 🗸	Select a model from the list (Dptions: 15/92)
$\Omega_{data}^{System technical}$	Search in family list Q	Search by model name Q @Name OSystem OCategory OPropulsion type
	7LOP Series	8FGC 10 Series
Whicle service data	7PLL Series	8FGC 20 Series
🎢 Vehicle data	7PM Series	8FGC 30 Series
% Troubleshooting by symptoms	7SL Series	8FGC 40 Series
Releases and Procedures	75M Series	8FGC 50 Series
	8FD Series	8FGC 60 Series
	8FG Series	8FGC 70 Series
<	8PM Series	8FGU 10 Series
<b>⊷%-</b> 23.2.0.0.6	~	Days of licence: 207 📧 😤 🚆 🛗

# DIAGNOSTICS AND SYSTEMS

#### BOBCAT

 Stage V DMO2 engine control system for TL 25 Series that includes advanced functions such as the resets of the PRV valves and the intake throttle, the cylinder cut-out, etc.



#### BT

• ICH central computer for Levio Serie LWE pallet jacks and Staxio Serie SWE stackers.

81	Diagnostics menu	MAINTENANCE \ MAINTENANCE RESET
Ω	System technical data	i INITIAL CONDITIONS:
ſ	Diagrams	PARK THE VEHICLE ON A FLAT SURFACE WHERE THE LIGHT CONDITIONS ARE STABLE AND WITHOUT MAJOR CHANGES SWITCH OFF BATTERY SUFFICIENTLY CHARGED
1	Vehicle service data	
ŀ,	Vehicle data	
k	Troubleshooting by symptoms	
8	Releases and Procedures	

8	Diagnostics menu	PARAMETERS \ DRIVING PROGRAM	I \ MODIFY PARAMETERS			
Ω	System technical data	i NEXT, ENTER AND/OR SELECT VALUE	ES OF THE PARAMETERS THAT YOU WI	ISH TO SET		
-f	Diagrams		HE PARAMETERS HAVE A PRESET MINIT N MARGINS, THE NEAREST VALUE TO			Æ
	Vehicle service data	ACCELERATION	2 %	47		?
ŀ.	Vehicle data	BRAKING POWER	41 %	48	ø	
3%	Troubleshooting by symptoms	MAXIMUM SPEED	44 %	4	Ø	?
Ø,	Releases and Procedures	LOW SPEED MODE, MAXIMUM SPEED	63 %	1	ø	?













New wiring diagram configurations, component location images and technical data.

81	Diagnostics menu	- D+ Wiring diagram	Select anothe configuration
Ω	System technical data	Search in the component lot Q	
ł	Diagrams	Show full list	
1	Vehicle service data	Add personalised component information	
ŀ,	Vehicle data	CB46, Position sensor of the mast raising	A AND A
3%	Troubleshooting by symptoms	CB5, Crash sensor	CEBH
e,	Releases and Procedures	CB8, Traction motor revolution sensor	
		CG1, High-voltage electrical battery	
		CH1, Horn	2
<		CK1, Main power supply relay	Can and a can

## CATERPILLAR

		IG EQUIPMENT > CATERPILLAR > DP40-55N >		
Ъ.	Diagnostics menu	MEASUREMENTS \ MEASUREMENT SEL	ECTION	
Ω	System technical data	THROTTLE POSITION	AIR QUALITY SENSOR	AUTOMATIC SWITCH-ON OF LIGHTS
ſ	Diagrams		OFF .	OFF IN INC.
<i>.</i>	Vehicle service data	0 20 40 60 80 100		<u> </u>
ŀ.	Vehicle data	92 ×		
36	Troubleshooting by symptoms	AUXILIARY INPUT 1 (HEXADECIMAL FORMA)	CODLANT LIQUID LEVEL TOO LOW, CONTROL	POWER SUPPLY VOLTAGE
Ø,	Releases and Procedures	AUXILIARTINPUT T (HEXADECIMAL FORMAL	SWITCH 0FF	POWER SUPPLY VOLTAGE
		234	ON .	O B Ĭeb

VCM4 central computer for DP and GP
Series internal combustion forklifts.

#### **CURTIS**

• CPM system for 1212C power modules.

New wiring diagram configurations and technical data of **1232**, **1234**, **1236** and **1238** models.

- treasu	CRP 🖧		6-	<b>e</b>	◎ ?				
> MHE - MA	TERIAL HANDLING	EQUIPMENT > CURTIS > 1212 > CPM, Power m	odule		J.	S	←	Discon	nec
n Diagno	stics menu	PARAMETERS \ ELECTRIC MOTOR \ MODI	Y PARAMETERS						
C System	n technical	1 NEXT, ENTER AND/OR SELECT VALUES OF T	HE PARAMETERS THAT YOU WISH TO SET						
- Diagra	ms								
Vehicle	e service data	Search in the measurements list						Q	1
& Vehicle	e data	ELECTRIC MOTOR, ELECTRIC CURRENT LIMITATION, MAXIMU	54 A	26				ø (	
Troubl sympt	eshooting by oms	ELECTRIC MOTOR, ELECTRIC CURRENT LIMITATION DURING	17 A	64				۵	
Releas Proced		ELECTRIC MOTOR, BOOST CURRENT	79 A	56				۲	
		BOOST CURRENT, ACTIVATION TIME, MAXIMUM VALUE	8 s	4				۲	
		ELECTRIC MOTOR, RESISTANCE VALUE	766 mΩ	205				۲	
¢		RESISTANCE VALUE, AUTOMATIC CONTROL, ELECTRIC CURRENT L	37 %	49				ø	L

-	T A MH	E - MATERIAL HANDLING EQUIPMENT > CURTIS > 1:	32 > CPM, Power module		\$ S	Connect
2	Diagnostics menu	-[>} Wiring diagram				Select another configuration
2	System technical data	Search in the component list Q	CON A 10 640		2 CA66, Power module	Se Contraction
	Diagrams	Show full list	S .	-	- 200	
<u>1</u>	Vehicle service data	+ Add personalised component information				
ŀ,	Vehicle data	CA3, Display		E .	·	
	Troubleshooting by symptoms	CAG6, Power module	enne Fritti	A		
	Releases and Procedures	CB1, Accelerator position sensor	Nen I			
		CB31, Brake position sensor		- 25 - 1		•× •
		CB33, Electric motor temperature sensor	And a	5	35 - 472V - C	i 🔎 I
<		CB66, Electric motor revolution sensor	No Ket la	a de la		MS/

#### GENIE

**MCM** central computer, display and modification of parameters through dynamic tables.

-				aton aton	
		PARAMETERS \ DISPLAY PARAMETERS			
Ω Syste	m technical	the configuration data are shown in	IEXT. USE THE LOWER BUTTONS TO PERFORM THE	DESIRED CHANGES	
-) Diage	ama	NAME	VALUE	UNIT	rs î
-	1 Ie service data	PLATFORM OVERLOAD	OFF		
- veni	2	DOWN DELAY	OFF		
Vehic	le data 3	MOTION ALARM	ON		
Troub	deshooting by 4	OUTRIGGERS	ON		
Relea	ises and	POWER SAVE MODE	ON		
E Proce	dures 6	FOOT SWITCH	OFF		
	7	LOW VOLTAGE INTERRUPT	OFF		,
	- E			PREVIOUS PAGE	NEXT PAGE













# JLG

New wiring diagram configurations and technical data in families of **400**, **600**, **1000**, **ES**, etc. models.

Diagnostics menu	->+ 4005, 4605j (01/2020) - GM	Engine	Show page index	Select anoth configurati
Ω System technical data	Search in the component list		7.2	Contiguration
- Diagrams	Show full list			10 mg ( 2
Vehicle service data	7.1/4A-2, Engine speed rate sensor in the crankshaft (7.1)			and and
🖌 Vehicle data	7.1/4A-3, Fuel shut-off valve (7.1)			-7
Y Troubleshooting by symptoms	7.1/4D, Diagnosis connector (7.1)			
Releases and Procedures	7.2/04, Alternator (7.2)		1 A Y L	, T
	7.2/08-1, Fuse (7.2)	7.2/0D, Main power si	upply relay	h ster
	7.2/08-2, Fuse (7.2)			5 30
	7.2/00, Main power supply relay		March March March	1

Diagnostics menu	2013 - Power module (PN: 10	01092456)	Show page index	Select anothe configuration
System technical data	Search in the component list	Q	1	67 S
Diagrams	Show full list			
Vehicle service data	4/2C, Charging switch (4)			FRA
🖉 Vehicle data	4/38, Battery (4)			
Troubleshooting by symptoms	5.1/0A, Panel connection (5.1)			1 . SP
Releases and Procedures	5.1/08-1, Proximity switch (5.1)	5.1/0C. Por	wer module	1 3
	5.1/08-2, Anti-roll bar control switch (5.1)			a latter
	5.1/08-3. Anti-roll bar control			5 3

## JUNGHEINRICH

• MCM central computer for pallet jacks and stackers in ERE, ECE, EJD, EMD, EJE, EJR and EJC families.

🖓 Diagnostics menu	🖗 DIAGNOSIS		
Ω System technical data	FAULT CODE(S) STORED IN MEMORY: 1		~
-J Diagrams	1563278 FMI:9 x1 Electronic control unit internal error. Equipment failure.	i	>
Vehicle service data			1
🖗 Vehicle data			?
Troubleshooting by symptoms			¢
Releases and For Procedures			6

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101 00
TOR
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## LINDE

DM03 engine control system for 394 Series
(H40-H50) and 1204 Series (H35-H50) models.

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> N	> MHE - MATERIAL HANDLING EQUIPMENT > LINDE > 1204 Series (H35-H50) > DM03, CAN, Electronic Diesel Control 🗧 🗐 🧲 Disconnec					
	Diagnostics menu	MAINTENANCE \ INTAKE THROTTLE VALVE				
Ω	System technical data	i INITIAL CONDITIONS.				~
-ſ	Diagrams	- VEHICLE PARKED - IGNITION ON - THE ENGINE MUST BE STOPPED				×
	Vehicle service data	- THE ENGINE INUST BE STOPPED				?
ŀ,	Vehicle data	ENGINE SPEED	2171 rpm		6	6
3%	Troubleshooting by symptoms					
Ø,	Releases and Procedures					
<						
÷	23.2.0.0.6			C	- 🗢 🔐	<b>(</b>















#### MANITOU

Procedure to reset the maintenance service in **MT400** and **MT600** telescopic handlers.

#### **MERLO**

- DLOG data logger system.
- MCB hydraulic control system.

Both available in models of Turbofarmer, Roto and Panoramic families.

MHE-MATERIAL HANDLING EQUIPMENT > MERLO > PARXX > DLOG, Data logger 🗧 🚍 🧲 🖬								
	MEASUREMENTS \ 1	AEASUREMENT SELEC	TION					
System technical data	SERVICE	KEY	SERVICE KEY, ACCES	S LEVEL	SERVICE KEY, S	ERIAL NUMBER		
Diagrams	OFF		END OF LINE TEST (EOL)					
	ON		ADVANCED MODE					
G Vehicle service data	N/A		ACTUATION PROCESS COM	IPLETED 🛞		8		
			SYSTEM CHECKING: THE P	ROCESS 🛞		0		
Vehicle data			VEHICLE DEALER	•				
Troubleshooting by symptoms								
	DOWNLOAD THE EC		IMMOBILIZER OF	TION	IMMOBILIZER, F	UNCTIONS STATE		
Releases and Procedures			OFF		OFF			
			ON		ON			
	1		N/A		N/A			
	1							

2	Diagnostics menu	MEASUREMENTS \ MEA	SUREMENT SELECT	ION			
Ω	System technical data	LEFT CONTROL JOYSTICK, CO OF THE AUXILIARY SPOOL	ONTROL SWITCH VALVE 1, STATE	LEFT CONTROL JOYSTICK, CONTROL OF THE AUXILIARY SPOOL VALVE 2,		LEFT CONTROL JOYSTICK, CONTRO OF THE AUXILIARY SPOOL VALVI	
÷	Diagrams	OFF		OFF		OFF	
		ON		ON		ON	
×.	Vehicle service data	SHORT CIRCUIT OR OPEN	CIRCUIT ()	SHORT CIRCUIT OR OPEN CIRCUIT		SHORT CIRCUIT OR OPEN CIRC	UIT 🛞
		INVALID VALUE		INVALID VALUE		INVALID VALUE	
ľ	Vehicle data	N/A		N/A		N/A	-
3%	Troubleshooting by symptoms	IOYSTICK WHEEL SWITCH ILEP				REMOTE CONTROL. IOYSTICK 2.	
٩,	Releases and Procedures	JOYSTICK WHEEL SWITCH (LEP	I SIDE, POSITION	REMOTE CONTROL, JOYSTICK 1, PO	SIION	REMOTE CONTROL, JOYSTICK 2,	POSITION
		100-75-50-25 0 25	50 75 100	103 -75 -50 -25 0 25 50 75	160	100 -75 -50 -25 -0 -25 -50	75 100
		- 3D %		29%		-27%	

#### **MITSUBISHI**

• VCM4 central computer for FD40-55N and FG40-55N internal combustion forklifts.



## SKYJACK



HYDRAULIC control system for models of
SJ Series, SJ Serie TH, SJ Serie THS, SJ Serie T,
SJ Serie III and SJ Serie E families. It includes manual diagnostics.













## STILL

• Stage V DM02 engine control system for RX70 (7394-7399 Series) model.

## ΤΟΥΟΤΑ

• ICH central computer for 8PM Series pallet jacks and 8SM Series stackers.

Modification of the maintenance interval.

Modification of the machine displacement parameters, additional equipment and driving programs.

Wiring diagram configurations of the system, location images and technical data.

Diagnostics menu	PARAMETERS \ MACHINE CONFIGURATION	MODIFY PARAMETERS \ HYDRAUL	IC SYSTEM	
System technical data Diagrams		RETERS HAVE A PRESET MINIMUM MI	ET DDIFICATION VALUE, THEREFORE, IF THE ENTERED VALUE SET MARGIN WILL BE AUTOMATICALLY ENTERED	
🔨 Vehicle service dat	PROPORTIONAL SOLENOID VALVE (LOWERING), DECELERATION RAMP	8	18	9
Vehicle data	FORKS, LOWERING SPEED	78	214	9
Troubleshooting by symptoms	PROPORTIONAL SOLENOID VALVE (LOWERING), INITIAL POSITION	102	104	9
Releases and Procedures	SUPPORT ARMS, LOWERING SPEED	90	60	۶
	SUPPORT ARMS, LOWERING SPEED (LOW SPEED MODE)	120	203	9









