

## SPECIFICATION



### ELECTRIC WHEEL LOADER | 403E

Operating weight: 2729kg Battery capacity: 20kwh Shovel capacity: 0.5m<sup>3</sup>





# A LOT **LESS** FOR YOUR MONEY

Our new zero emission 403E electric wheel loader, is the latest addition to the JCB E-Tech range. With less noise and a compact design, it is perfect for use in multiple applications including in noise sensitive areas, indoors, underground and other enclosed spaces. Plus, with a payload of 898kg\*, the 403E provides excellent lift performance, despite its small size.

## **LESS NOISE**

With no mechanical diesel engine, the 403E has minimal operating noise, allowing operators to communicate safely with people around them and in sensitive environments.



\*Standard arm configuration, extra counterweight and pallet forks.



## **LESS VIBRATION**

The 403E is a comfortable place to work, and no mechanical engine means that vibrations are reduced to a minimum.

## **LESS POLLUTION**

With zero emissions at point of use, the 403E gives you the ability to work in enclosed environments, as well as helping to reduce your carbon footprint.



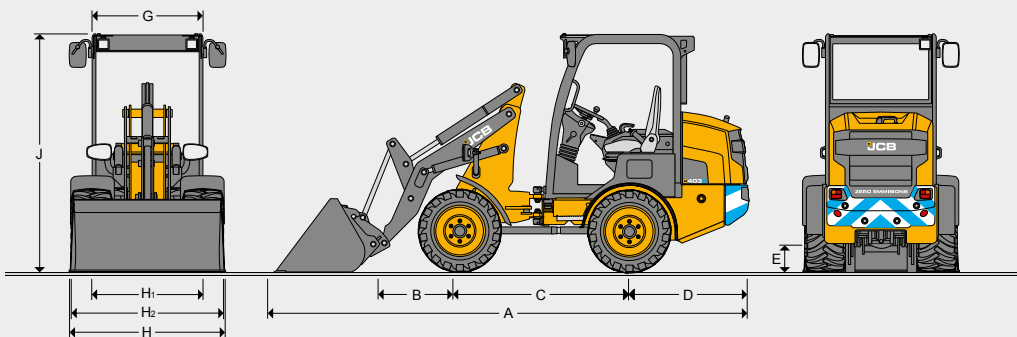
## **LESS MAINTENANCE**

The 403E's electrical components are maintenance free, so less time and money is spent on daily checks and servicing, increasing uptime & maximising productivity.

## **LESS HASSLE**

With flexible charging options, you can simply plug your 403E into the normal household grid or CEE socket when you need to charge the battery.

**STATIC DIMENSIONS**



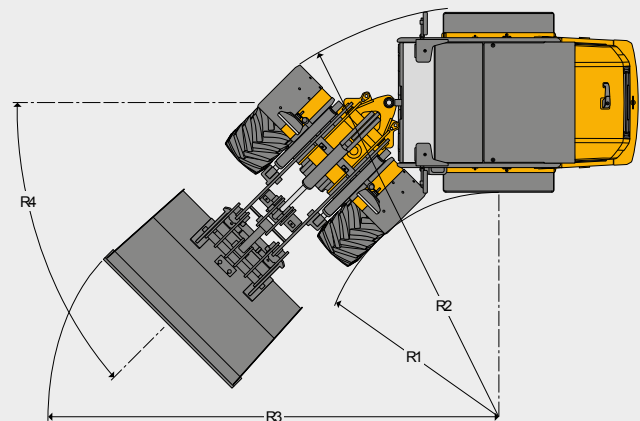
**STATIC DIMENSIONS**

		Standard Lift Arms		High Lift Arms		
		Agri Shovel	Construction Shovel	Agri Shovel	Construction Shovel	
A	Overall length	mm	4406	4209	4721	4526
B	Axle to pivot pin	mm	681		996	
C	Wheelbase	mm	1600			
D	Axle to counterweight face	mm	1118			
E	Minimum ground clearance	mm	241			
G	Width over cab roof	mm	1010			
H	Max. width over tyres – narrow / wide	mm	1080 / 1418			
H1	Max. wheel track – narrow / wide	mm	822 / 1018			
H2	Max. width over fenders – narrow / wide	mm	1088 / 1336			
J	Height over cab	mm	2210			
	Height over cab with beacon	mm	2350			
	Height over foldable canopy – raised	mm	2245			
	Height over foldable canopy – lowered	mm	1855			
	Max. front axle weight	kg	1100			
	Max. rear axle weight	kg	1820			
	Max. total weight (front and rear axles combined)	kg	2920			

**TRANSMISSION 403**

Type		ZF	
Travel speed		20kph	
		Forward	Reverse
Hi range	kph	20	15
Low range	kph	8	8
Creep	kph	0.5 to 5	0.5 to 5

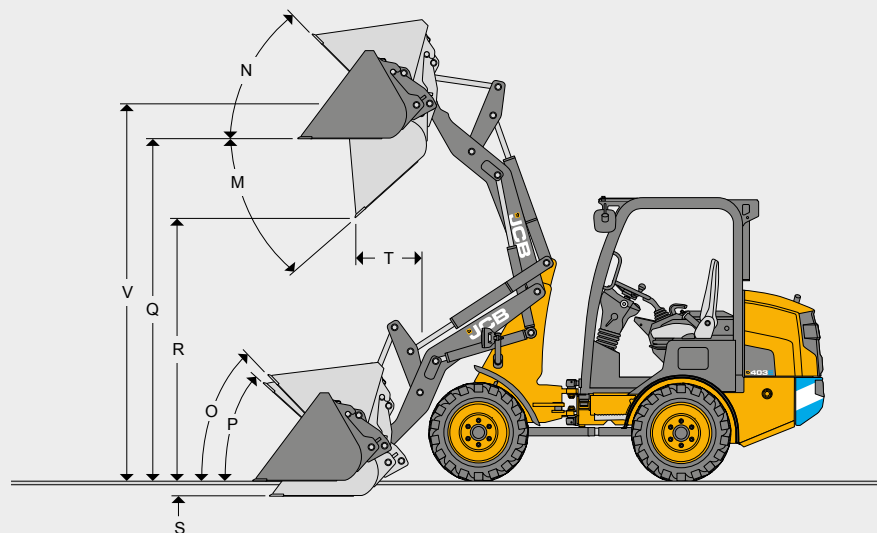
**TURNING CIRCLE**



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Tyre		R1 (Inner Tyre Radius)	R2 (Outer Tyre Radius)
TR315 and SP HD	mm	1365	2825
MP567 and AS504	mm	1398	2793
MP567 and AS504	mm	1649	2542
Shovel type		R3 (Outer Shovel Radius)	
		Standard Arms	High Lift Arms
0.4m <sup>3</sup> Agricultural shovel	mm	3098	3383
0.5m <sup>3</sup> Agricultural shovel	mm	3219	3383
0.34m <sup>3</sup> Construction shovel	mm	3005	3161
0.43m <sup>3</sup> Construction shovel	mm	3143	3268
		R4 (Articulation Angle)	
	degrees	45	45

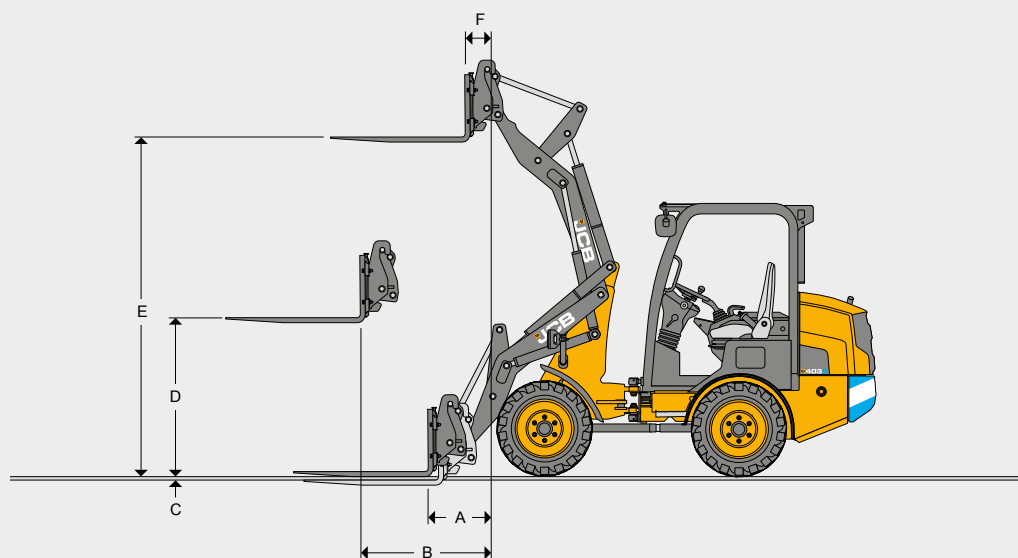
## LOADER DIMENSIONS



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		Standard Loader Arm				High Lift Loader Arm			
		Quickhitch		Construction		Quickhitch		Construction	
		Agricultural				Agricultural			
Shovel mounting									
Shovel type									
Shovel capacity (SAE heaped)	m <sup>3</sup>	0.4	0.5	0.34	0.43	0.4	0.5	0.34	0.43
Shovel capacity (struck)	m <sup>3</sup>	0.32	0.4	0.27	0.34	0.32	0.4	0.27	0.34
Shovel width	mm	1200	1480	1200	1480	1200	1480	1200	1480
Shovel weight	kg	132	153	133	154	132	153	133	154
Maximum material density *	kg/m <sup>3</sup>	1436	1124	1744	1351	1190	929	1440	1112
Tipping load straight *	kg	1622	1615	1671	1664	1378	1373	1414	1409
Tipping load full turn *	kg	1242	1237	1280	1274	1076	1072	1104	1100
Payload *	kg	621	618	640	637	538	536	552	550
Maximum breakout force	kN	12.6	12.6	16	16	12.6	12.6	16	16
M Dump angle maximum	degrees	42	42	42	42	45	45	45	45
N Roll back angle full height	degrees	45	45	45	45	47	47	47	47
O Roll back at carry	degrees	46	46	46	46	46	46	46	46
P Roll back at ground level	degrees	46	46	46	46	46	46	46	46
Q Load over height	mm	2612	2612	2612	2612	2820	2820	2820	2820
R Dump height (45 deg dump)	mm	2008	2008	2140	2140	2187	2187	2327	2327
S Dig depth	mm	115	115	115	115	194	194	194	194
T Reach at dump height	mm	506	506	359	359	568	568	434	434
V Pin height	mm	2882	2882	2882	2882	3090	3090	3090	3090
Reach maximum (45 deg dump) – horizontal arm	mm	1769	1819	1644	1694	2117	2167	1992	2042
Operating weight with canopy enclosure and wide industrial tyres (includes 75kg operator)	kg	2708	2729	2709	2730	2722	2743	2723	2744
Weight for transport	kg	2633	2654	2634	2655	2647	2668	2648	2669

**LOADER DIMENSIONS – FORK FRAME WITH FORKS**



**LOADER DIMENSIONS – FORK FRAME WITH FORKS**

		Standard Arms	High Lift Arms
Fork carriage width	mm	1100	1100
Length of tines	mm	1070	1070
A Reach at ground level	mm	489	815
B Reach at arms horizontal	mm	1029	1266
C Top of tine above ground with arms down	mm	40	40
D Arms, horizontal height	mm	1265	1265
E Arms, max. height	mm	2702	2910
F Reach at max. height	mm	199	311
Tipping load straight*	kg	1270	1111
Tipping load full turn (45°)*	kg	972	867
Payload*	kg	778	694
Attachment weight	kg	179	179
Operating weight with canopy enclosure and wide industrial tyres (includes 75kg operator and full fuel tank)*	kg	2746	2760
Weight for transport	kg	2671	2685

\* At the centre of gravity distance 500mm. Based on 80% of FTTL as defined in ISO 14397-1:2007.

**OPERATOR ENCLOSURE**

Type	Operating weight kg	Standard Arms				High Lift Arms			
		Shovel		Forks		Shovel		Forks	
		STL kg	FTTL kg	STL kg	FTTL kg	STL kg	FTTL kg	STL kg	FTTL kg
Canopy/folding canopy	0	0	0	0	0	0	0	0	0
Heavy counterweight	+121	+189	+150	+148	+118	+164	+131	+133	+106

**TYRE SIZE**

Tyre size	Manufacturer	Type	Op weight kg	Standard Arms				High Lift Arms				Dimensions	
				STL kg	FTTL kg	STL kg	FTTL kg	STL kg	FTTL kg	STL kg	FTTL kg	Vertical mm	Width mm
31x15.50-15	BKT	Skidpower HD Wide Industrial Tyre	0	0	0	0	0	0	0	0	0	0	0
31x15.50-15	BKT	TR315 Wide Agricultural Tyre	-28	-30	-44	-22	-36	-25	-38	-21	-31	-2	+74
10/75-15.3	BKT	AS504 Agricultural Tyre (Narrow off-Set)	-68	-69	-79	-55	-64	-60	-68	-50	-56	-11	-250
10/75-15.3	BKT	AS504 Agricultural Tyre (Wide off-Set)	-68	-69	-79	-55	-64	-60	-68	-50	-56	-11	+2
10/75-15.3	BKT	MP567 Industrial Tyre (Narrow off-Set)	-60	-61	-72	-48	-58	-53	-62	-44	-51	0	-236
10/75-15.3	BKT	MP567 Industrial Tyre (Wide off-Set)	-60	-61	-72	-48	-58	-53	-62	-44	-51	0	+16

**LOADER HYDRAULICS**

Pump type		Gear
Pump I max. flow	l/min	40.9
Pump I max. pressure	bar	180
Max. auxiliary flow rate - single line	l/min	40.9
Max. auxiliary flow rate - second line	l/min	40.9
<b>Hydraulic cycle times at engine revs</b>		
Arms raise (full bucket)	seconds	4.68
Bucket dump (full bucket)	seconds	3.3
Arms lower (empty bucket)	seconds	3.1
Total cycle	seconds	11.08

**AXLES**

Type	Standard
Make and model	ZF MT-L 3010 II (front), ZF MT-L 3010 II (rear)
Overall axle ratio	35.515 : 1
Chassis angle	degrees ± 6

All available with open differential or open differential with manual locking.



**SERVICE FILL CAPACITIES**

Hydraulic system	litres	4 l
Axle oil (front)	litres	3.2
Axle oil (rear)	litres	3.9

**ELECTRICAL OUTPUT**

System voltage	volts	12
Battery capacity	Ah	80

**BRAKING**

Working brake	Multi-plate in-board oil immersed discs on front axle
Parking brake	Cable to drum on front axle

**CHARGING**

On-board charger allowing direct connection to AC mains power supply	
Indicative Charge Time - 20-80%, subject to environmental conditions.	8hrs @230V
Off-board fast charge - 0-100% @ 415V	Under 2 hours
Charging cable plug type	16A 110V (yellow) 16A 230V (blue) 16A 415V (red)

**MOTOR**

Drive Motor Type	3 Phase AC Asynchronous
Drive Motor Power	10.6 kW continuous, 33.4 kW peak
Hydraulic Motor Type	3 Phase AC Permanent Magnet
Hydraulic Motor Power	9 kW continuous, 20 kW peak

**POWER SOURCE**

Battery Type	Manganese laminated Lithium-ion
Gross Capacity	20 kWh
System Voltage	96V
Zero Emissions at point of use	

**NOISE AND VIBRATION**

			Uncertainty	Measurement conditions.
Noise at the operator station	LpA	69 dB	+/- 1 dB	Determined in accordance with the test method defined in ISO 6396 and the dynamic test condition defined on 2000/14/EC.
Noise emission from the machine	LWA	85 dB	+/- 1 dB	Guaranteed equivalent sound power (external noise) determined in accordance with the dynamic test conditions defined in 2000/14/EC.
Whole body vibration	m/s <sup>2</sup>	1.10	+/- 0.11 dB	ISO 2632-1:1997 normalised to an 8h reference period and based upon a test cycle comprising of loader work (soil).
Hand-arm vibration	m/s <sup>2</sup>	<2.5	N/A	ISO 5349-2:2001 dynamic test conditions.

**EQUIPMENT****SERVICE AND MAINTENANCE**

Grease gun	+
Wheel nut wrench	•

**ELECTRICAL**

Worklights front, reverse light rear	+
LED worklights (loader arm mounted)	+
LED worklights (x2 front, x1 rear, x1 rear reverse light)	+
Amber rotating beacon	+
Road lights	+
Number plate bracket with light	+

**DRIVETRAIN**

20kph transmission	•
20kph transmission, manual diff-lock	+
Varispeed (creep speed)	•
3-speed transmission modes: Snail/Tortoise/Hare	•

**OPERATOR STATION**

Canopy	•
Canopy with front and rear screen (including wipers)	+
Foldable canopy	+
Left hand side gate	+
Joystick auxiliary controls	•
12V in cab power socket	•
ROPS/FOPS safety structure	•
Front primary display dash	•
Cup holder	•
Steering wheel spinner knob	•
Joystick isolation switch	•
Horn	•
LCD display with rotary input controller	•

**FRONT PRIMARY DISPLAY**

Warning lights	•
Direction indicators	•
Battery charging condition	•
Hazard lamps	•
Park brake state	•
Road lights	•
Main beam lights	•
Hi and low speed	•
Machine hours	•
Buzzer alerts	•
Operator presence	•

**HYDRAULIC SYSTEM**

Hydraulic quickhitch with in-cab isolation	•
Auxiliary hydraulic service	•
Secondary auxiliary hydraulic service	+
Front loader float	•
Indicator glass for hydraulic oil level	•
Hydraulic oil cooler	•
Free flow return line	+
Adjustable constant auxiliary flow	•
Shovel and fork loader end modes	•
Switchable Loader modes: Shovel mode / Pallet fork mode	•

**EXTERNAL EQUIPMENT**

Front fenders	•
Rear fenders (with wide tyres)	•
High lift loader arms	+
Belly guard protection plate	•
Recovery hitch	•
Lifting / tie down lugs	•
Articulation strut	•
Heavy counterweight (121 kg)	+

**STANDARD** •**OPTIONAL** +







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**ELECTRIC WHEEL LOADER 403E**

Operating weight: 2729kg Battery capacity: 20kwh Shovel capacity: 0.5m<sup>3</sup>

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