



## WHEEL LOADER | 403 / 403 PLUS

Max. engine power: 19kW (25hp) | 36kW (50hp) Operating weight: 2682kg-2927kg Standard shovel capacity: 0.4m<sup>3</sup>





# THE POWER TO PERFORM.

THE JCB 403 AND 403 PLUS ARE DESIGNED TO OFFER TOTAL POWER AND VERSATILITY. THEIR POWERFUL 25HP AND 50HP ENGINES, ALONG WITH A BOSCH REXROTH TRANSMISSION AND ZF AXLES COMBINE TO PUT PERFORMANCE AT THE VERY HEART OF EACH MACHINE. IF YOU'RE LOOKING FOR PRODUCTIVE COMPACT WHEEL LOADERS, LOOK NO FURTHER.

## Drivetrain performance.

1 Our two-speed hydrostatic Bosch Rexroth transmission makes it easy for operators to achieve precise machine movements even in cramped spaces. What's more, the driveline works in parallel with a combined braking/inching system on the footbrake. This offers superb multi-functioning and increased controllability during loading and rehandling.

2 Choose the differential lock option for 100% differential lock in both front and rear axles and your JCB 403 will provide ultimate traction and performance in soft, muddy ground.

3 The oscillating centre joint allows all four wheels to adjust to the contours of the ground and maintain maximum tractive effort at all times.

4 It's easy to direct hydraulic flow to the front using the auxiliary control lever. This provides a constant flow of up to 40 l/min on the 403 and up to 60 l/min on the 403 Plus for attachments like sweepers and feeder buckets.

403 ○  
403 Plus ●





### Loading productivity.

5 You can choose your perfect loader arm for ultimate productivity. The standard arm is ideal for general purpose work and high breakout/lift performance. Select the extended high lift arms for stacking and loading at height. Either way you'll get true parallel lift.

6 Two powerful lifting cylinders help the JCB 403 and 403 Plus complete those day-to-day lifting and loading tasks with ease. This set-up is aided by a perfectly balanced counterweight that provides excellent stability.

7 There's a range of quickhitches available, each one equipped with hydraulic pin locking as standard. This means that you can change attachments easily and safely.



403 ○  
403 Plus ●



5



6



7





## STRENGTH YOU CAN RELY ON.

YOU WOULD THINK THAT THE BIGGER THE WHEEL LOADER, THE TOUGHER IT IS. BUT NOT IN THIS CASE. THE JCB 403 AND 403 PLUS BRING THE PREMIUM COMPONENTRY AND STRUCTURAL STRENGTH OF OUR LARGER MODELS TO A MUCH MORE COMPACT, MANOEUVRABLE PLATFORM.

### Quality components.

**1** We've hand-picked the very best core components for the JCB 403 and 403 Plus, including Kubota and Perkins engines, ZF axles and dropbox and Bosch Rexroth hydrostatic transmission. They're all designed to work in perfect harmony, ensuring economical, reliable and productive performance.

**2** The 403 and 403 Plus are designed and built from scratch without compromise to deliver all the strength and power you need from an articulated machine.

### Proven reliability.

**3** These machines have benefited from a stringent testing programme that includes high stress loading of the chassis, loader arms and other key components. We've also subjected the transmission to thousands of typical working cycles.

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403 Plus ●





### Well protected.

- 4** A solid cast rear counterweight helps prevent impact damage. An additional 121kg counterweight is available for increased tipping load performance.
- 5** Protection plates underneath, shield the engine from impact damage.
- 6** Hydraulic hoses are neatly routed and clamped along the loader arms, well away from any potential pinch points, to guard against damage.
- 7** Heavy-duty axle feet absorb the immense stresses generated during continuous heavy material rehandling.
- 8** The folding canopy option features a heavy-duty box section frame design for maximum strength and utilises bronze bushes for added durability. Cushioned stops minimise rattling during machine operation.

### Structural strength.

- 9** Loader arms are one of the hardest working components on any wheel loader, bearing the brunt of daily tasks. The patented parallel lifting arms are designed to distribute forces evenly into the front chassis, boosting strength and durability.
- 10** The heavy-duty centre joint can withstand extremely high stress levels for maximum longevity.

403 ○  
403 Plus ●



## COMFORT AND EASE OF USE.

THE MORE COMFORTABLE THE OPERATOR, THE MORE PRODUCTIVE YOUR OPERATION. THAT'S WHY THE JCB 403 AND 403 PLUS ARE DESIGNED TO OFFER YOU THE COMFORT OF A LARGER MACHINE IN A COMPACT PACKAGE. THEY'RE EASY TO ACCESS, INTUITIVE TO OPERATE, AND THE CENTRALLY POSITIONED OPERATOR'S SEAT OFFERS SUPERB VISIBILITY.

### A comfortable operator.

**1** The JCB 403 and 403 Plus benefit from a comfortable and spacious cab. The operating position is designed for optimum all-round visibility, unhindered by things like exhausts and air filters.

**2** Our tilting steering column is easy to adjust for an ergonomic driving position.

### In complete control.

**3** The 403 and 403 Plus come equipped with an ergonomically designed joystick control system, with optional joystick AUX controls (lever standard) for comfortable and intuitive operation. This means you can control all arm/auxiliary movements with your hand in one place.

**4** You can manoeuvre quickly and easily with directional shuttle changes via the joystick mounted shuttle switch (FNR).

**5** Switching between high and low travel speeds on the move takes just a click of a button, located on the joystick.





## Excellent manoeuvrability.

1 Measuring under 2.2m in height and 1.1m in width (in the narrowest configuration), the compact JCB 403 and 403 Plus can access the very smallest operating environments like poultry sheds and outbuildings.

2 Machine versatility is further increased thanks to the folding canopy option. This gives the operator the ability to quickly fold down the roof in under 40 seconds, allowing access into low height buildings or through doorways.

3 A compact wheelbase and 45° steering articulation angle help to ensure tight turning circles and superb manoeuvrability.

4 Switch between improved stability or a narrower footprint by flipping the wheels around to increase or reduce wheel off-set (narrow tyres only).



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403 Plus ●





## SAFETY AND SECURITY.

BECAUSE SAFETY AND SECURITY ARE PARAMOUNT ON ANY SITE, THE JCB 403 AND 403 PLUS ARE DESIGNED TO PROTECT THEMSELVES, THEIR OPERATORS, AND ANY BYSTANDERS AT ALL TIMES. GREAT VISIBILITY, MACHINE INFORMATION FEATURES AND NON-SLIP SURFACES ARE JUST THE START.

### Safety first.

**1** We've fitted an in-cab electronic two-stage quickhitch isolation system to prevent unintended release of attachments.

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**2** Operator safety is paramount to us, this is why all cab, canopy and folding canopy variants are all ROPS and FOPS certified.

**3** Access steps are inclined and complemented by well positioned handles, so that operators have three points of contact whenever they're entering or exiting the cab.

**4** A battery cut-off switch protects your power supply from damage or theft and also increases safety when carrying out routine servicing.





## SERVICEABILITY.

WHEEL LOADERS NEED TO SPEND THE MAXIMUM AMOUNT OF TIME HARD AT WORK. WE'VE DESIGNED THE 403 AND 403 PLUS TO DO JUST THAT, WITH LONG SERVICE INTERVALS AND QUALITY COMPONENTS.

### Quick and easy servicing.

- 1 All daily checks and routine maintenance points are easily accessed under the large single piece bonnet.
- 2 The dashboard display keeps the operator well informed via a fuel gauge, hours display, high gear display, and all the usual warning lights.
- 3 The 48 litre fuel tank, located in the front chassis can easily be refilled from ground level.

### Dealer support.

- 4 All local JCB dealers have instant access to factory expertise and technical support, to provide you with the maximum machine uptime. JCB's Global Parts Centres, meanwhile, deliver around 95% of all parts anywhere in the world within 24 hours.



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## VALUE ADDED.

JCB'S WORLDWIDE CUSTOMER SUPPORT IS FIRST CLASS. WHATEVER YOU NEED AND WHEREVER YOU ARE, WE'LL BE AVAILABLE QUICKLY AND EFFICIENTLY TO HELP MAKE SURE YOUR MACHINERY IS PERFORMING TO ITS FULL POTENTIAL.



1

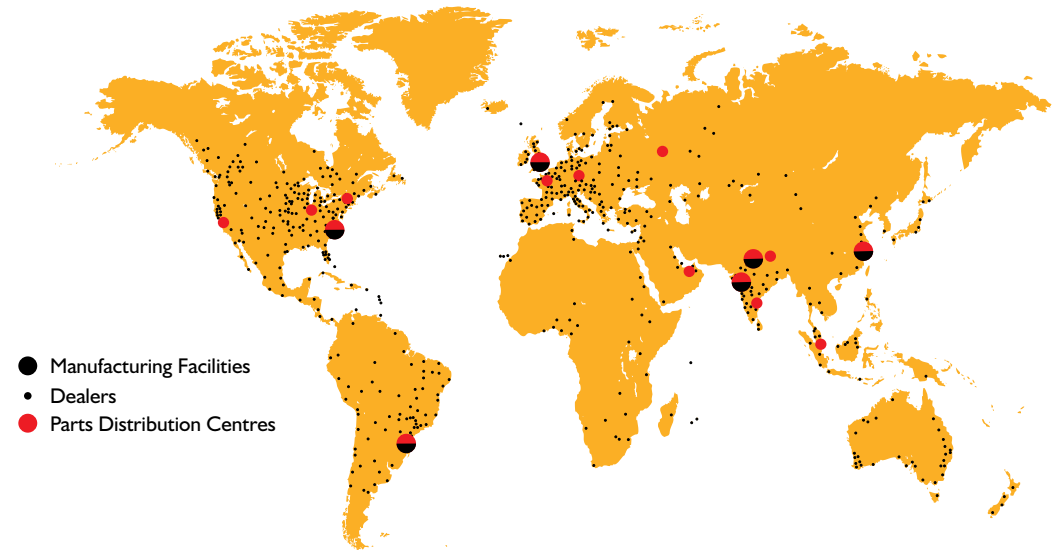
1 Our Technical Support Service provides instant access to factory expertise, day or night, while our Finance and Insurance teams are always on hand to provide fast, flexible, competitive quotes.

2 The global network of JCB Parts Centres is another model of efficiency; with 18 regional bases, we can deliver around 95% of all parts anywhere in the world within 24 hours. Our genuine JCB parts are designed to work in perfect harmony with your machine for optimum performance and productivity.



2

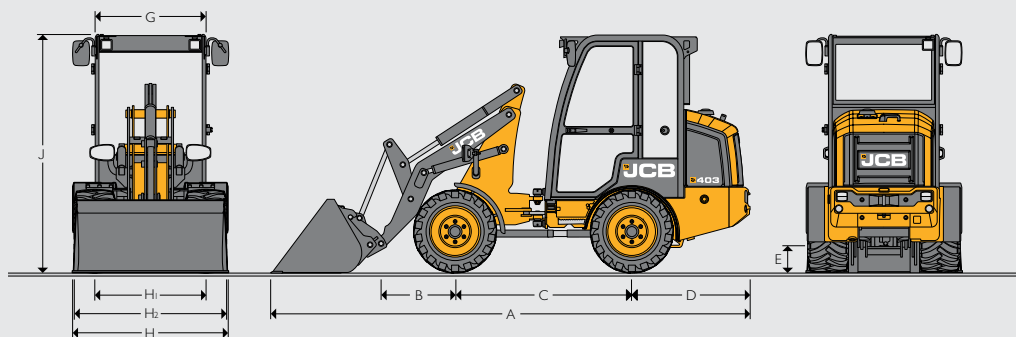
3 JCB offers comprehensive extended warranties as well as service-only or repair and maintenance contracts. Irrespective of what you opt for, our Maintenance teams around the world charge competitive labour rates, and offer non-obligation quotations as well as fast, efficient insurance repair work.



Note: JCB LIVELINK and JCB extended warranty packages may not be available in your region, so please check with your local dealer.



## STATIC DIMENSIONS



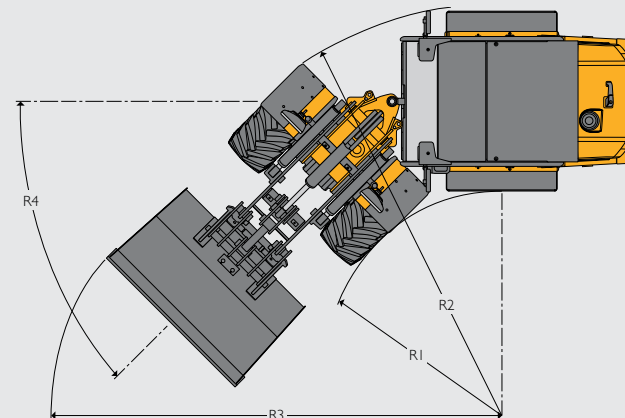
## STATIC DIMENSIONS

		403				403 Plus				
		Standard Lift Arms		High Lift Arms		Standard Lift Arms		High Lift Arms		
		Agri Shovel	Construction Shovel	Agri Shovel	Construction Shovel	Agri Shovel	Construction Shovel	Agri Shovel	Construction Shovel	
A	Overall length	mm	4371	4174	4686	4491	4406	4209	4721	4526
B	Axle to pivot pin	mm	681		996		681		996	
C	Wheelbase	mm	1600				1600			
D	Axle to counterweight face	mm	1083				1118			
E	Minimum ground clearance	mm	241				241			
G	Width over cab roof	mm	1010				1010			
H	Max. width over tyres – narrow / wide	mm	1080 / 1418				1080 / 1418			
H1	Max. wheel track – narrow / wide	mm	822 / 1018				822 / 1018			
H2	Max. width over fenders – narrow / wide	mm	1088 / 1336				1088 / 1336			
J	Height over cab	mm	2200				2210			
	Height over cab with beacon	mm	2340				2350			
	Height over foldable canopy – raised	mm	2235				2245			
	Height over foldable canopy – lowered	mm	1845				1855			
	Max. front axle weight	kg	1220				2550			
	Max. rear axle weight	kg	1630				2200			
	Max. total weight (front and rear axles combined)	kg	2850				3100			

## TRANSMISSION 403

		403		403 Plus	
		ZF / Bosch-Rexroth		ZF / Bosch-Rexroth	
		20kph		30kph	
		Forward	Reverse	Forward	Reverse
Hi range	kph	20	20	30	30
Low range	kph	8	8	12	12

## TURNING CIRCLE



## TURNING CIRCLE

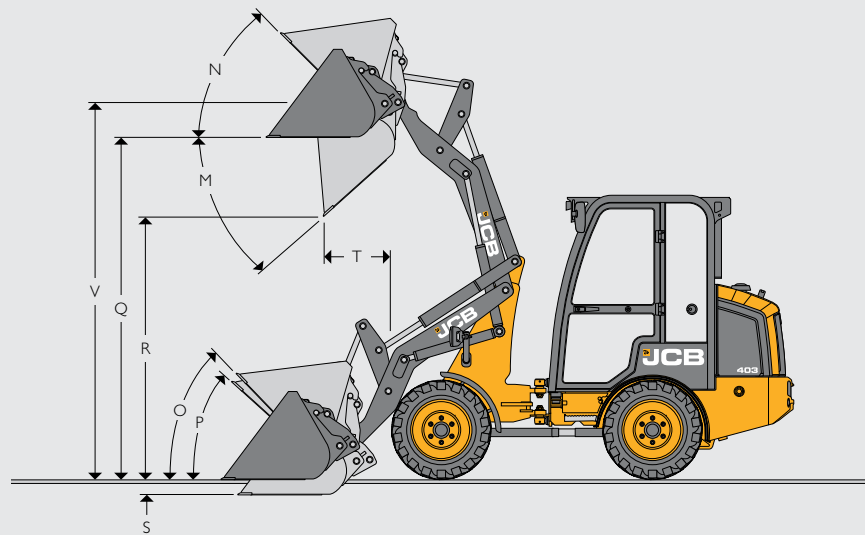
Tyre		R1 (Inner Tyre Radius)	R2 (Outer Tyre Radius)
TR315 and SP HD	mm	1365	2825
MP567 and AS504	mm	1398	2793
MP567 and AS504	mm	1649	2542
Shovel type		R3 (Outer Shovel Radius)	
		Standard Arms	High Lift Arms
0.4m <sup>3</sup> Agricultural shovel	mm	3098	3383
0.5m <sup>3</sup> Agricultural shovel	mm	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

## ENGINE

	403	403 Plus	
Make	Kubota	Perkins	
Model	V1505	403J-E17T	
Capacity	litres	1.498	1.663
Aspiration	Naturally aspirated		Turbo charged
Cylinders	4		3
Max. gross power to ISO 3046	kW (hp) @ 2700 rpm	19 (25)	36 (50)
Max. torque	Nm @ 2200 rpm	92	167
Valves per cylinder	4		4
Air cleaner	Donaldson FPG057502		Donaldson FPG257502
Fan drive type	Direct mount		Direct mount
Emissions level	Stage V		Stage V



LOADER DIMENSIONS

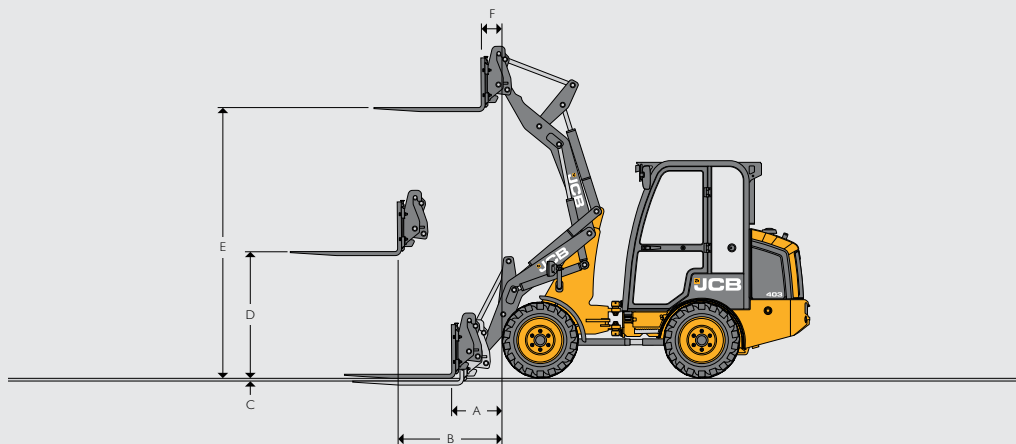


LOADER DIMENSIONS

		403								403 Plus							
		Standard Loader Arm				High Lift Loader Arm				Standard Loader Arm				High Lift Loader Arm			
		Quickhitch		Quickhitch		Quickhitch		Quickhitch		Quickhitch		Quickhitch		Quickhitch			
		Agricultural	Construction	Agricultural	Construction	Agricultural	Construction	Agricultural	Construction	Agricultural	Construction	Agricultural	Construction	Agricultural	Construction		
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	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	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	1200	1480	1200	1480	1200	1480	1200	1480
Shovel weight	kg	132	153	133	154	132	153	133	154	132	153	133	154	132	153	133	154
Maximum material density *	kg/m <sup>3</sup>	1436	1124	1744	1351	1190	929	1440	1112	1436	1124	1744	1351	1190	929	1440	1112
Tipping load straight *	kg	1590	1564	1641	1615	1333	1308	1370	1346	1597	1570	1648	1621	1339	1314	1376	1351
Tipping load full turn *	kg	1149	1124	1186	1162	952	929	979	956	1231	1207	1271	1247	1024	1000	1053	1029
Payload *	kg	575	562	593	581	476	465	490	478	616	603	636	623	512	500	526	515
Maximum breakout force	kN	12.6	12.6	16	16	12.6	12.6	16	16	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	42	42	42	42	45	45	45	45
N Roll back angle full height	degrees	45	45	45	45	47	47	47	47	45	45	45	45	47	47	47	47
O Roll back at carry	degrees	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46
P Roll back at ground level	degrees	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46
Q Load over height	mm	2612	2612	2612	2612	2820	2820	2820	2820	2612	2612	2612	2612	2820	2820	2820	2820
R Dump height (45 deg dump)	mm	2008	2008	2140	2140	2187	2187	2327	2327	2008	2008	2140	2140	2187	2187	2327	2327
S Dig depth	mm	115	115	115	115	194	194	194	194	115	115	115	115	194	194	194	194
T Reach at dump height	mm	506	506	359	359	568	568	434	434	506	506	359	359	568	568	434	434
V Pin height	mm	2882	2882	2882	2882	3090	3090	3090	3090	2882	2882	2882	2882	3090	3090	3090	3090
Reach maximum (45 deg dump) – horizontal arm	mm	1769	1819	1644	1694	2117	2167	1992	2042	1769	1819	1644	1694	2117	2167	1992	2042
Operating weight with canopy enclosure and wide industrial tyres (includes 75kg operator and full fuel tank)*	kg	2682	2703	2684	2704	2696	2717	2698	2718	2711	2732	2712	2733	2725	2746	2762	2747
Weight for transport	kg	2607	2628	2609	2629	2621	2642	2623	2643	2636	2657	2637	2658	2650	2671	2651	2672



## LOADER DIMENSIONS – FORK FRAME WITH FORKS



		403		403 Plus	
		Standard Arms	High Lift Arms	Standard Arms	High Lift Arms
Fork carriage width	mm	1100	1100	1100	1100
Length of tines	mm	1070	1070	1070	1070
A Reach at ground level	mm	489	815	489	815
B Reach at arms horizontal	mm	1029	1266	1029	1266
C Top of tine above ground with arms down	mm	40	40	40	40
D Arms, horizontal height	mm	1265	1265	1265	1265
E Arms, max. height	mm	2702	2910	2702	2910
F Reach at max. height	mm	199	311	199	311
Tipping load straight*	kg	1213	1043	1218	1047
Tipping load full turn (45°)*	kg	869	736	933	794
Payload*	kg	695	589	747	635
Attachment weight	kg	179	179	179	179
Operating weight with canopy enclosure and wide industrial tyres (includes 75kg operator and full fuel tank)*	kg	2720	2734	2749	2763
Weight for transport	kg	2645	2659	2674	2688

\* 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
Cab	+88	+73	+61	+57	+48	+63	+53	+51	+43
Heavy counterweight	+121	+196	+151	+154	+118	+170	+130	+138	+105

## TYRE SIZE

Tyre size	Manufacturer	Type	Op weight kg	Standard Arms				High Lift Arms				Dimensions	
				Shovel		Forks		Shovel		Forks		Vertical mm	Width mm
				STL kg	FTTL kg	STL kg	FTTL kg	STL kg	FTTL kg	STL kg	FTTL kg		
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

	403	403 Plus
Pump type	Gear	Gear
Pump I max. flow	43.2	53.2
Pump I max. pressure	180	180
Max. auxiliary flow rate - single line	43.2	53.2
Max. auxiliary flow rate - second line	43.2	53.2
<b>Hydraulic cycle times at engine revs</b>	<b>seconds</b>	
Arms raise (full bucket)	4.4	3.3
Bucket dump (full bucket)	2.7	2.3
Arms lower (empty bucket)	3	2
Total cycle	10.1	7.6

## AXLES

Type	Standard
Make and model	ZF MT-L 3010 II (front), ZF MT-L 3010 II (rear)
Overall axle ratio	21.55 : 1
Chassis angle	degrees ± 6

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



## SERVICE FILL CAPACITIES

		403	403 Plus
Hydraulic system	litres	40	44
Fuel tank	litres	48	48
Engine oil including filter	litres	6.7	6
Axle oil (front)	litres	3.2	3.2
Axle oil (rear)	litres	3.9	3.9
Engine coolant system	litres	6.5	9

## ELECTRICAL OUTPUT

		403	403 Plus
System voltage	volts	12	12
Alternator output	Ah	60	85
Battery capacity	Ah	72	80

## NOISE AND VIBRATION

			Uncertainty	Measurement conditions.
Noise at the operator station	LpA	86 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	101 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>	0.5	+/- 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

	403	403 Plus		403	403 Plus
<b>SERVICE AND MAINTENANCE</b>			<b>FRONT PRIMARY DISPLAY</b>		
Grease gun	+	+	Warning lights	•	•
Wheel nut wrench	•	•	Direction indicators	•	•
Engine air pre-cleaner	+	+	High coolant temperature	•	•
			Battery charging condition	•	•
<b>ELECTRICAL</b>			Fuel gauge	•	•
Worklights front, reverse light rear	+	+	Engine oil pressure	•	•
LED worklights (loader arm mounted)	+	+	Hazard lamps	•	•
LED worklights (x2 front, x1 rear, x1 rear reverse light)	+	+	Park brake state	•	•
Amber rotating beacon – 12V	+	+	Road lights	•	•
Road lights	+	+	Main beam lights	•	•
Number plate bracket with light	+	+	Engine pre-heat	•	•
			Hi and low speed	•	•
			Machine hours	•	•
			Buzzer alerts	•	•
			Operator presence	•	•
<b>DRIVETRAIN</b>			<b>HYDRAULIC SYSTEM</b>		
20kph transmission	•	•	Hydraulic quickhitch with in-cab isolation	•	•
20kph transmission, manual diff-lock	+	+	Auxiliary hydraulic service	•	•
30kph transmission	X	+	Secondary auxiliary hydraulic service	+	+
30kph transmission, manual diff-lock	X	+	Front loader float	•	•
Varispeed (hand inching)	+	+	Indicator glass for hydraulic oil level	•	•
			Hydraulic oil cooler	•	•
			Free flow return line	+	+
<b>OPERATOR STATION</b>			<b>EXTERNAL EQUIPMENT</b>		
Canopy	•	•	Front fenders	•	•
Fully glazed cab	+	+	Rear fenders (with wide tyres)	•	•
Canopy with front and rear screen (including wipers)	+	+	High lift loader arms	+	+
Foldable canopy	+	+	Belly guard protection plate	•	•
Left hand side gate	+	+	Recovery hitch	•	•
Heater/dimisting box (cab only)	•	•	Lifting / tie down lugs	•	•
Joystick auxiliary controls	+	+	Articulation joint safety strut	•	•
12V in cab power socket	•	•	Heavy counterweight (121kg)	X	+
ROPS/FOPS safety structure	•	•			
Interior light (cab only)	•	•	<b>STANDARD</b> •		
Front primary display dash	•	•	<b>OPTIONAL</b> +		
Two speed intermittent front windscreen wipe/wash and self-park (cab only)	•	•	<b>NOT APPLICABLE</b> X		
Single speed rear windscreen wipe/wash and self-park (cab only)	•	•			
Cup holder	•	•			
Steering wheel spinner knob	•	•			
Loader control isolator pin	•	•			
Horn	•	•			









**ONE COMPANY, OVER 300 MACHINES.**

Your nearest JCB dealer

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 Standard shovel capacity: 0.4m<sup>3</sup>

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