WHEEL LOADER | 403

Max. engine power: 26kW (36hp) Operating weight cab: 2542kg, canopy: 2452kg Standard shovel capacity: 0.4m^3

JCB

THE POWER TO PERFORM.

THE NEW JCB 403 IS DESIGNED TO OFFER TOTAL POWER AND VERSATILITY. ITS POWERFUL 36HP KUBOTA ENGINE, BOSCH REXROTH TRANSMISSION AND ZF AXLES COMBINE TO PUT PERFORMANCE AT THE VERY HEART OF THE MACHINE. IF YOU'RE LOOKING FOR A PRODUCTIVE COMPACT WHEEL LOADER, LOOK NO FURTHER.

1

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% differentail 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.

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Loading productivity.

4 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.

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

6 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.

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STRENGTH YOU CAN RELY ON.

IT STANDS TO REASON THAT THE BIGGER THE WHEEL LOADER, THE TOUGHER IT IS. NOT NECESSARILY. THE NEW JCB 403 BRINGS 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, including a Kubota engine, ZF axles and dropbox and Bosch Rexroth hydraulic transmission. They're all designed to work in perfect harmony, ensuring economical, reliable and productive performance.

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

Proven reliability.

3 This machine has 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.

Well protected.

4 A solid cast rear counterweight helps prevent impact damage.

5 Protection plates underneath your 403 will 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.

Structural strength.

8 Loader arms are one of the hardest working components on any wheel loader, bearing the brunt of daily tasks. So the 403's patented parallel lifting arms are designed to distribute forces evenly into the front chassis, boosting strength and durability.

9 The 403's heavy duty centre joint can withstand extremely high stress levels for maximum longevity.

COMFORT AND EASE OF USE.

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

A comfortable operator.

1 The new JCB 403 benefits 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 comes equipped with a new, 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.

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EXCELLENT MANOEUVRABILITY.

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

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

3 It's easy to detent hydraulic flow to the front using the auxiliary control lever. This provides a constant flow of up to 40 l/min for attachments like sweepers and feeder buckets.

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

5 Choose between 20 or 30kph top speed to make travel times quicker.

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SAFETY AND SECURITY.

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

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Safety first.

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

2 The cab and canopy operator environments are both 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 403's 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 TO DO JUST THAT, WITH LONG SERVICE INTERVALS AND QUALITY COMPONENTS.

1

Quick and easy servicing.

1 All daily checks and routine maintenance points are easily accessed under the large single piece bonnet.

2 The dash keeps JCB 403 operators 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.

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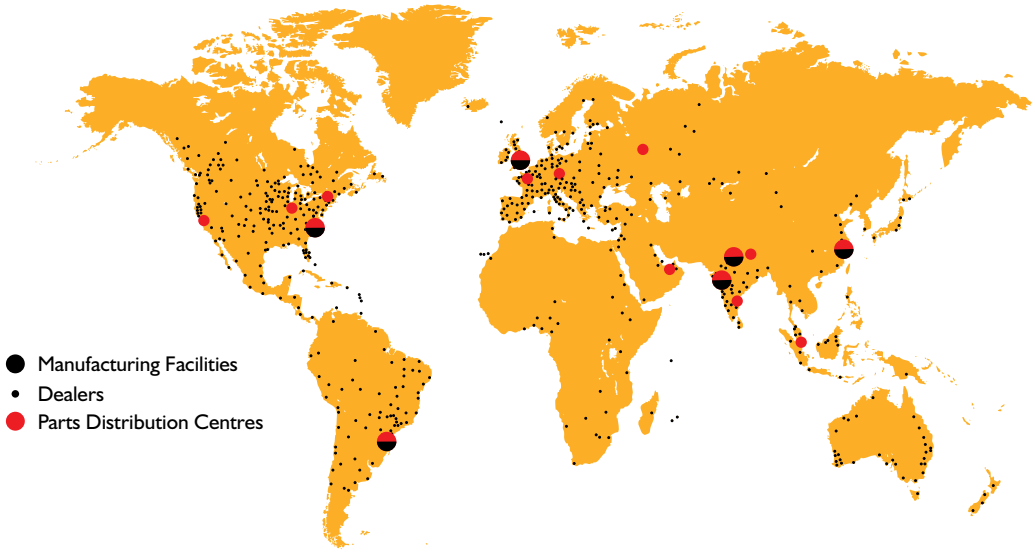
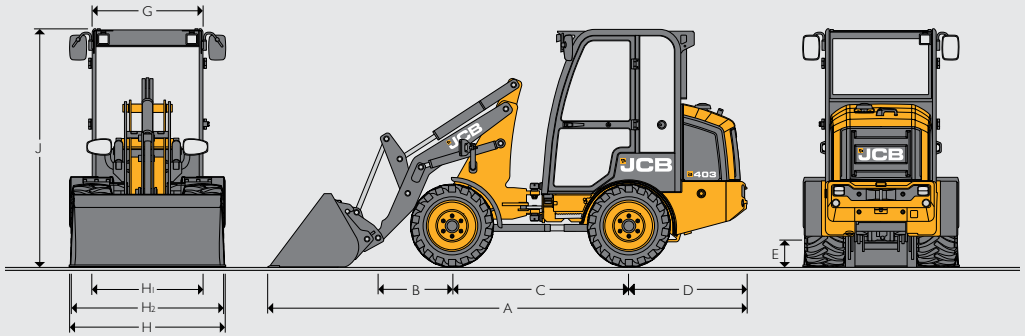
1 Our Technical Support Service provides instant access to factory expertise, day or night, while our Finance and Insurance teams are always on hand to provide fast, flexible, competitive quotes.

2 JCB Assetcare offers comprehensive extended warranties and service agreements, 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.

3 The global network of JCB Parts Centres is another model of efficiency; with 16 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.



STATIC DIMENSIONS



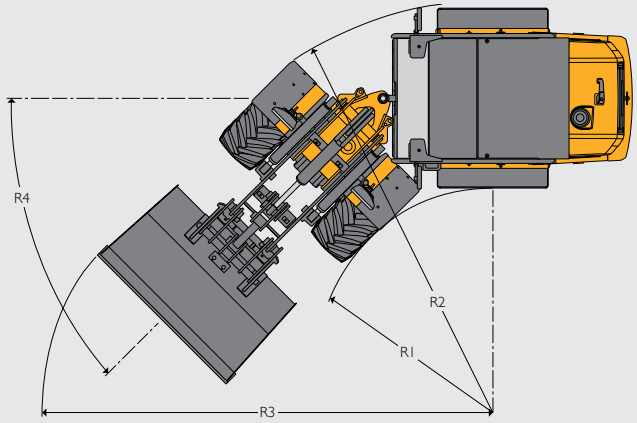
STATIC DIMENSIONS

			Standard Lift Arms		High Lift Arms	
			Agri Shovel	Construction Shovel	Agri Shovel	Construction Shovel
A	Overall length	mm	4371	4174	4686	4491
B	Axle to pivot pin	mm	681		996	
C	Wheelbase	mm	1600			
D	Axle to counterweight face	mm	1083			
E	Minimum ground clearance	mm	241			
G	Width over cab roof	mm	1010			
H	Max. width over tyres – narrow / wide	mm	1094 /1410			
H_1	Max. wheel track – narrow / wide	mm	822 / 1018			
H_2	Max. width over fenders – narrow / wide	mm	1088 / 1378			
J	Height over cab	mm	2200			
	Height over cab with beacon	mm	2340			
	Max. front axle weight	kg	1220			
	Max. rear axle weight	kg	1630			
	Max. total weight (front and rear axles combined)	kg	2850			

TRANSMISSION

Type		ZF / Bosch-Rexroth			
Travel speed		20kph		30kph	
		Forward	Reverse	Forward	Reverse
Hi range	kph	20	20	30	30
Low range	kph	8	8	12	12

TURNING CIRCLE



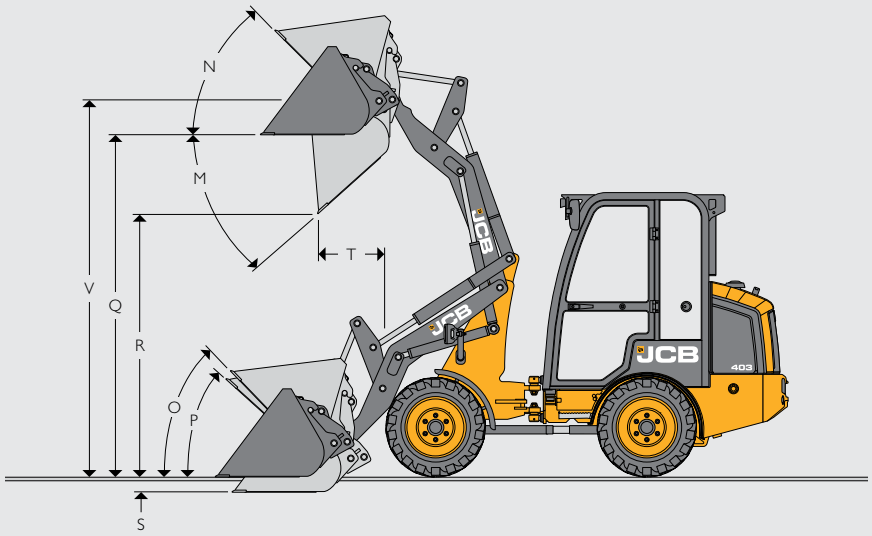
TURNING CIRCLE

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
0.4m³ Agricultural shovel	mm	3098	3383
0.5m³ Agricultural shovel	mm	3219	3383
0.34m³ Construction shovel	mm	3005	3161
0.43m³ Construction shovel	mm	3143	3268
		R4 (Articulation Angle)	
	degrees	45	45

ENGINE

Make		Kubota
Model		V1505
Capacity	litres	1.498
Aspiration		Naturally aspirated
Cylinders		4
Max. gross power to ISO 3046	kW (hp) @ 2700 rpm	26 (36)
Max. torque	Nm @ 2200 rpm	91.6
Valves per cylinder		4
Air cleaner		Donaldson FPG057502
Fan drive type		Direct mount
Emissions		Stage 3A

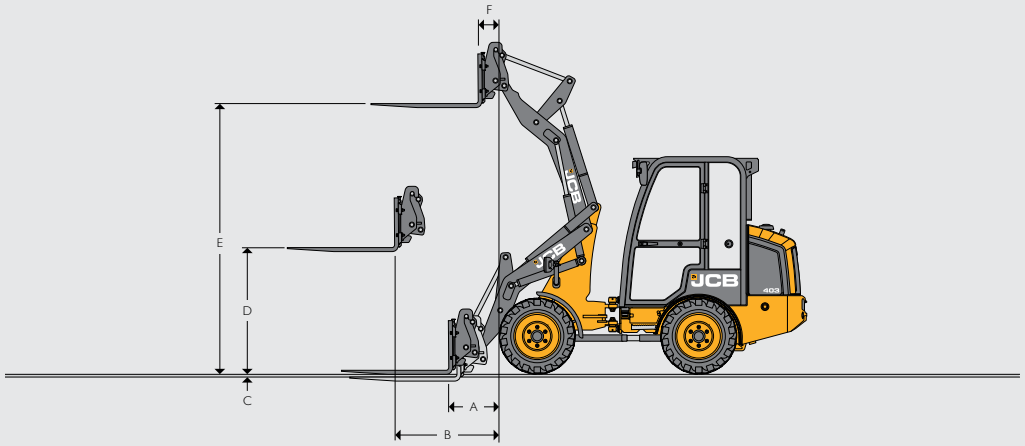
LOADER DIMENSIONS



LOADER DIMENSIONS

			Standard Loader Arm				High Lift Loader Arm			
	Shovel mounting		Quickhitch				Quickhitch			
	Shovel type		Agricultural		Construction		Agricultural		Construction	
	Shovel capacity (SAE heaped)	m^3	0.4	0.5	0.34	0.43	0.4	0.5	0.34	0.43
	Shovel capacity (struck)	m^3	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^3	1519	1195	1793	1387	1296	1017	1531	1180
	Tipping load straight *	kg	1493	1473	1497	1471	1279	1259	1283	1257
	Tipping load full turn *	kg	1215	1195	1219	1193	1037	1017	1041	1015
	Payload *	kg	608	598	610	597	519	509	521	508
	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 (45deg dump) - horizontal arm	mm	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	2512	2511	2507	2512	2526	2525	2521	2526

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	1465	1001
	Tipping load full turn (45°)*	kg	1171	801
	Payload*	kg	937	641
	Attachment weight	kg	179	179
	Operating weight with canopy enclosure and wide industrial tyres (includes 75kg operator and full fuel tank)*	kg	2496	2510

* At the centre of gravity distance 500mm. Based on 80% of FTTL as defined in IS0 14397-1:2007.

TYRE SIZE

				Standard Arms				High Lift Arms				Dimensions	
				Shovel		Forks		Shovel		Forks			
Tyre size	Manufacturer	Type	Op weight kg	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

OPERATOR ENCLOSURE

		Standard Arms				High Lift Arms			
		Shovel		Forks		Shovel		Forks	
Type	Operating weight kg	STL kg	FTTL kg	STL kg	FTTL kg	STL kg	FTTL kg	STL kg	FTTL kg
Canopy	0	0	0	0	0	0	0	0	0
Cab	+90	+91	+76	+73	+61	+79	+66	+65	+55

LOADER HYDRAULICS

Pump type		Gear
Pump 1 max. flow	l/min	40.5
Pump 1 max. pressure	bar	180
Max. auxiliary flow rate - single line	l/min	40.5
Max. auxiliary flow rate - second line	l/min	40.5
Hydraulic cycle times at engine revs		**seconds**
Arms raise (full bucket)		4.4
Bucket dump (full bucket)		2.7
Arms lower (empty bucket)		3
Total cycle		10.1

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

ELECTRICAL OUTPUT		
System voltage	volts	12
Alternator output	Ah	60
Battery capacity	Ah	72

NOISE AND VIBRATION				
			Uncertaincy	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^2	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^2	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	+
Amber rotating beacon - 12V	+
Road lights	+
Number plate bracket with light	+

DRIVETRAIN	
20kph transmission	•
30kph transmission	+
20kph transmission, manual diff-lock	+
30kph transmission, manual diff-lock	+

OPERATOR STATION	
Canopy	•
Fully glazed cab	+
Heater/dimisting box (cab only)	•
Joystick auxiliary controls	+
12V in cab power socket	•
ROPS/FOPS safety structure	•
Interior light (cab only)	•
Front primary display dash	•
Two speed intermittent front windscreen wipe/wash and self-park (cab only)	•
Single speed rear windscreen wipe/wash and self-park (cab only)	•
Cup holder	•
Steering wheel spinner knob	•
Loader control isolator pin	•
Horn	•

FRONT PRIMARY DISPLAY	
Warning lights	•
Direction indicators	•
High coolant temperature	•
Battery charging condition	•
Fuel gauge	•
Engine oil pressure	•
Hazard lamps	•
Park brake state	•
Road lights	•
Main beam lights	•
Engine pre-heat	•
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	•

EXTERNAL EQUIPMENT	
Front fenders	•
Rear fenders (with wide tyres)	•
High lift loader arms	+
Belly guard protection plate	•
Recovery hitch	•
Lifting / tie down lugs	•
Articulation joint safety strut	•

STANDARD •
OPTIONAL +

JCB
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403

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9999/5340 en-GB 11/16 Issue 5

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