

### WHEEL LOADER | 413S





# LOADS MORE POWER

The JCB 413S, one powerful member of the Agri S range has just got loads more. The new 413S has a Stage V JCB DieselMAX 4.8 litre engine, producing an impressive performance with 112kW (150hp) of power; up 4% on our previous model, and 600Nm of torque; up 7%. It also weighs under 9 tonnes giving it a huge power to weight ratio. With a unique 6-speed transmission and unbeatable cab comfort and visibility, the new 413S is one highly productive machine, capable of tackling most jobs on any size farm.







### LOADS MORE QUALITY.

WE KNOW THAT A WHEEL LOADER IS A KEY PART OF ANY FARM'S PROCESS. THAT'S WHY WE'VE BUILT IN LOADS MORE QUALITY AND RELIABILITY INTO THE NEW JCB 413S. THE METHODS WE'VE USED TO DESIGN, TEST AND MANUFACTURE THEM WILL SAFEGUARD YOUR WORKING PRACTICES, HOUR AFTER HOUR, DAY AFTER DAY.

### Designed to work harder.

- 1 Your new 413S will have benefitted from finite element analysis and rig testing of up to 1 million cycles, to ensure superior structural strength and durability. For further peace of mind, cold cell testing guarantees starting performance down to -20 degrees.
- High tolerances and accurate location of pins and bushes are guaranteed with JCB's precision machining techniques.
- State-of-the-art manufacturing processes like robot machining, precision paint technology and innovative assembly techniques help to achieve the very highest levels of build quality.





#### Built to last.

4 A solid cast counterweight protects the rear of your 413S, including the rear lights and cooling pack, from damage.

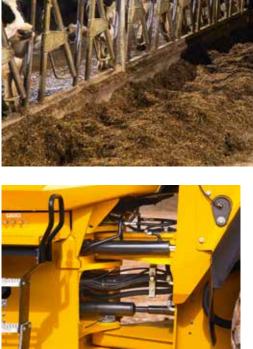
For additional protection, there are impact resistant fender edges and trims fitted.

- 5 Hoses are neatly routed and clamped through the articulation joint, well away from any pinch points.
- The articulation joint has a heavy-duty centre pin and oversized bush, as well as twin taper roller bearings on the bottom box joints. This enables it to tolerate both vertical and horizontal loadings for greater durability and rigidity.

These machines have integral steel fluid tanks for the ultimate in leak protection; a far superior solution to the plastic tanks favoured by some competitors.

New cooling pack sealing and mudguard fitment for greater overall quality.











### **LOADS MORE PRODUCTIVITY.**

THE NEW 413S IS INCREDIBLY PRODUCTIVE. DELIVERING 150HP, AND WEIGHING UNDER 9 TONNES, IT HAS A HUGE POWER-TO-WEIGHT RATIO OF 16.8HP PER TONNE FOR LOADS MORE PUSHING, CLIMBING AND ROADING PERFORMANCE.

### All the power you need.

- 1 The Stage V DieselMAX 4.8 litre engine fitted to the new JCB 413S wheel loader produces impressive performance with a substantial 112kW (150hp) and 600Nm of peak torque at low revs for excellent response.
- Choose the optional JCB Quickhitch and you'll find attachment changing is quick and efficient.
- Powerful single variable displacement piston pump hydraulics can circulate an incredible 156 l/min for fast cycle and excellent multi-function capability.
- The hydraulic tow hitch on the 413S not only increases machine versatility, it hydraulically folds away from the operator's seat, preventing impact damage and grounding when working on uneven ground or gradients.









### Loading productivity.

Specify your perfect loader arm: standard arm for parallel lifting and multi-attachment work. High lift for high-up applications like spreader and feeder loadings.

With maximum breakout forces of 73kN, this wheel loader has the power to carry out extremely arduous jobs.

### **Drivetrain productivity.**

- The unique 6-speed transmission provides closer gear ratios for better acceleration, hill climbing and roading performance. The operator can choose from manual or automatic gear shifting at at the press of a button.
- Tailor a 413S to any application with a range of axle options:
- **>** Open differentials are ideal for hard standing ground conditions.
- > Limited slip differentials increase tractive effort and are perfect for soft muddy ground conditions.

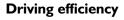






### **LOADS MORE EFFICIENCY.**

THE JCB 413S IS BUILT TO MOVE LOADS MORE MATERIAL FOR LESS. WE'VE ACHIEVED THIS BY DESIGNING THE ENGINE, AXLES, DRIVELINE AND HYDRAULICS TO WORK IN HARMONY WITH EACH OTHER, FOR MORE EFFICIENT WORKING AND LOWER COST OF OWNERSHIP.



- 1 The new 413S is fitted with a Stage V JCB DieselMAX engine, producing high levels of power and torque at engine speeds as low as 1500-1600rpm for efficient matching of the transmission and hydraulics.
- Wheel speed braking means the brakes rotate at the same speed as the wheels, for heat and drag reduction plus improved fuel economy and access for maintenance and repairs.
- A viscous coupled engine fan automatically adjusts its speed depending on ambient temperature, optimising cooling, saving fuel and lowering noise.











- 4 A new auto engine shutdown feature saves fuel by switching off the engine when the machine is left idling. Idle time can be set by the operator from the cab seat.
- Operating specialist attachments is easy with an in-cab adjustable proportional auxiliary flow rate.
- Unloaded spool valves in the valve block allow the arms to lower under gravitation rather than hydraulic force; this reduces fuel consumption still further.
- Selectable loader arm detents let operators control loader arm height limitations, return to dig settings and float functions, improving safety and productivity.
- JCB's innovative variable displacement pumps feed a load-sensing valve block which only consumes power on demand, providing precise, efficient loader control.

Adjustable SRS engagement speed.



Adjustable reversing fan intervals.











### **LOADS MORE COMFORT.**

THE JCB COMMANDPLUS CAB
IS ONE OF THE BEST CABS ON
THE MARKET, WITH THE
LATEST IN ERGONOMIC
DESIGN PROVIDING AN
OPTIMAL CONTROL LAYOUT
AND DRIVER POSITION. THIS
GIVES LOADS MORE
COMFORT AND VISIBILITY,
ENABLING EVEN GREATER
OPERATOR PRODUCTIVITY.

#### See the difference.

- 1 The B-pillars are positioned at the same width to the rear of the cab, providing a large interior with a superb panoramic front windscreen. All switches and auxiliary controls are located on the right-hand side B-pillar for easier access.
- Using the simple, dedicated menu interface on the 413S is easily done with the intuitive rotary controller.
- Controlling the loader is easy as all the controls are seat-mounted and therefore move with the seat suspension. Simply select the control system that's best for your operators; we offer single lever joystick or multi-lever configurations.





To keep the operator environment comfortable to work in at all times, we've positively pressurised the cab to eliminate dust and fumes.

After extensive research into operator ergonomics, we've devised the Command Driving Position, which provides the most optimal control layout for a multitude of different driver shapes and sizes. You can also choose from an air suspension standard seat to a super deluxe half leather seat, featuring fully adjustable heating and cooling functionality, electrically adjustable lumber support and adjustable dampers.

A set and forget feature makes operator access even easier by storing your preferred steering wheel position. It can be instantly returned to, even after you've folded the wheel away.

Specify your new 413S with either air conditioning or automatic climate control to create perfect working temperatures.

With a dedicated media port on board, you can be assured of superb connectivity for all of your electronic devices.

A sliding window on both sides of the cab allows easy communication with people outside the machine.

The electronic park brake offers numerous advantages; it's quick and easy to operate, and frees up space to the left side of the operator for extra storage.



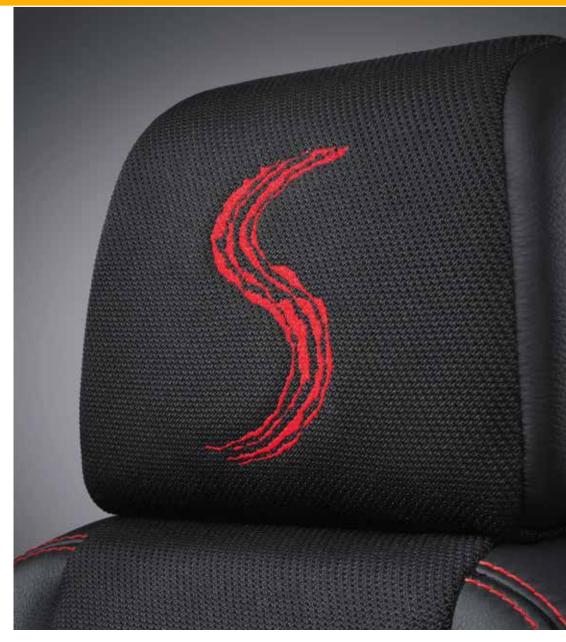


### LOADS MORE S APPEAL.

THE JCB AGRI S RANGE HAS BECOME A MUCH LOVED PREMIUM BRAND IN ITS OWN RIGHT. A BRAND THAT'S SYNONYMOUS WITH SUPERIOR PERFORMANCE AND STYLE. IN RECOGNITION OF THAT, WE'RE MAKING THE MACHINES EVEN MORE PERSONALISED AND SOUGHT AFTER. WE'VE ADDED LOADS MORE BRANDING AND STYLISH TOUCHES THROUGHOUT TO MAKE YOU EVEN PROUDER TO OWN ONE.















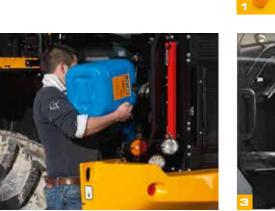
### LOADS MORE UPTIME.

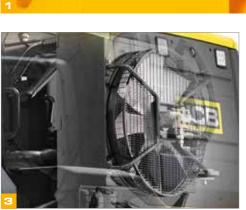
WHEEL LOADERS NEED TO SPEND THE MAXIMUM AMOUNT OF TIME HARD AT WORK. WE'VE DESIGNED THE 413S TO DO JUST THAT, WITH LONG SERVICE INTERVALS AND QUALITY COMPONENTS.

#### Routine maintenance.

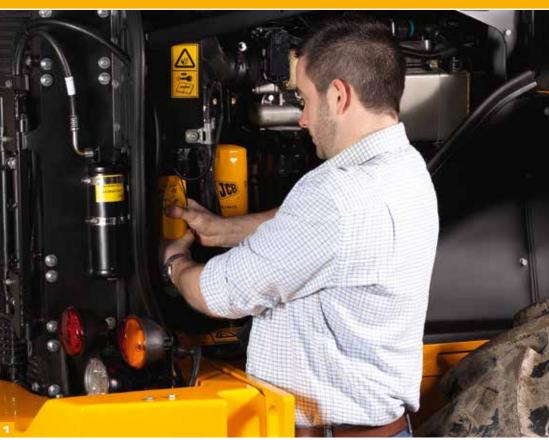
- 1 It's easy to get to the engine on a new JCB 413S with a large opening single-piece bonnet.
- 2 Accessing the diesel and DEF (Diesel Exhaust Fluid) tanks is also straightforward, via the lockable grille at the rear of the machine. You can also check washer fluid level, engine oil and coolant from inside the cab, with all other routine checks and grease points located at ground level. This makes life both easier and safer.
- The standard widecore cooling package is a large, single-faced unit so you can be assured of quick, easy and safe cleaning.
- 4 With the optional auto lubrication kit, your machine will take care of its own greasing requirements.











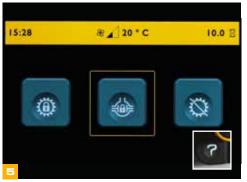
### Less servicing, more service.

The CommandPlus cab relays machine condition with real-time alerts, safeguarding both the machine and the operator.

The intuitive CommandPlus help function provides the operator with meaningful descriptions of in-cab switch functions. Using the "?" button allows new or unfamiliar operators to quickly and easily understand them without having to refer to the operator's manual.

- By using premium components: JCB DieselMAX engine, ZF transmission and JCB axles, Rexroth pump and Husco valve block, we've built in long service life as standard. Full hydraulic dual circuit braking with multiple oil immersed discs gives the braking system a virtually maintenance-free lifespan.
- A cyclonic engine fan scavenge filter provides four times the filtering capacity of a standard air filter. Its longer life system has fewer components and a higher level of efficiency, making for better engine protection.
- Heating and ventilation filters are conveniently located behind an external access panel. The main fuse board and relays have been repositioned next to the door for easy access.















LiveLink telematics helps you monitor and manage your machine fleet remotely anywhere in the world by radically improving the efficiency, productivity, safety and security of all your JCB and non JCB machine fleet.

MACHINE EFFICIENCY: Keep track of your machine's daily activity with regular performance reports which provide information about idle time, location, machine health, error codes for diagnostics, engine utilisation by power band, safety alerts, and fuel consumption. JCB LiveLink ensures machines are kept running for maximum uptime and return on investment.

MACHINE RELIABILITY: Accurate hours and service alerts improve maintenance planning to optimise machine productivity.

MACHINE SECURITY: LiveLink's real time geo-fencing alerts tell you when machines move out of predetermined zones.

Curfew alerts inform you of unauthorised usage.



Track the location of any asset via Bluetooth connection.



An after market telematics solution which can be retrofitted to any machine.



### COMPLETE CONTROL FOR YOUR FLEET.

LiveLink Fleet enables you to track every aspect of your equipment to maximise efficiency and machine uptime.

GUESS LESS, KNOW MORE: Equipment issues and service reminders are logged as soon as they occur, helping you to react quickly.

YOUR EYES ON THE GROUND: Integrate LiveLink Fleet with the JCB Operator mobile app and data from your operators' daily equipment checks feed instantly into your dashboard.

TOTAL PEACE OF MIND: Operator safety alerts help to ensure machines are being used efficiently and safely.

SMARTER TOOLS. SMARTER DECISIONS: From hours worked to fuel wastage, access custom analytics on your fleet to make smarter decisions, quicker.

**EFFORTLESS MEETS PAPERLESS:** Access certificates, warranty information, quick start machine guides and manuals.

## The Operator app

### THEY SPOT IT, YOU KNOW IT.

The JCB Operator app gives you faster, clearer and more accurate information about your fleet, direct from the people using your equipment each day.

STAY IN TOUCH: Get regular checks on your machine with visibility in the LiveLink Fleet portal.

**TAILOR YOUR CHECKS:** Customise your checklists to suit any application, customer or site.

**UPLOAD TO KEEP UPDATED:** Upload useful information with photos and comments.

**FULLY COMPATIBLE:** The JCB Operator app works with non telemetry related machines and assets.

ACCESS ALL INFORMATION: Get access to documentation such as quick start guides.

\*The individual features of LiveLink Telematics, LiveLink Fleet and Operator App vary per region, engine and machine type.

### LOADS MORE VALUE.

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.

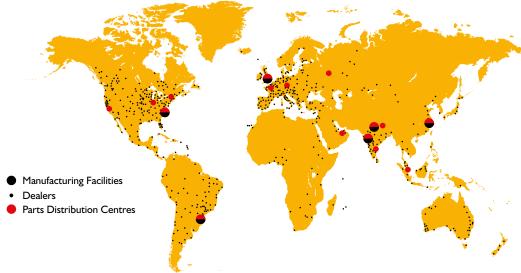


- Our Technical Support Service provides instant access to factory expertise, day or night, while our Finance and Insurance teams are always on hand to provide fast, flexible, competitive quotes.
- The global network of JCB Parts Centres is another model of efficiency; with 18 regional bases, we can 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.



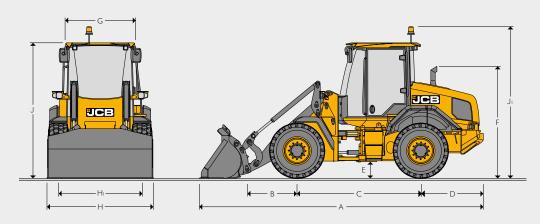
ICB offers comprehensive extended warranties as well as service-only or repair and maintenance contracts. Irrespective of what you opt for, our Maintenance teams around the world charge competitive labour rates, and offer non-obligation quotations as well as fast, efficient insurance repair work.





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

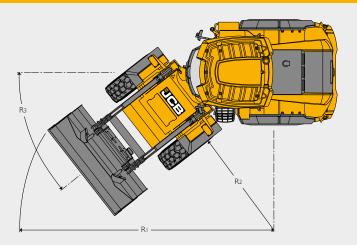
#### STATIC DIMENSIONS



			4135	413S HL
Α	Overall Length	mm	6524	6718
В	Axle to pivot pin	mm	1215	1409
С	Wheel Base	mm	2750	2750
D	Axle to counterweight face	mm	1365	1365
Е	Minimum ground clearance	mm	351	351
F	Height Over Exhaust	mm	2582	2582
G	Width over cab	mm	1431	1431
Н	Max Width over tyres	mm	2347	2347
Hı	Wheel track	mm	1880	1880
J	Height Over Cab	mm	3064	3064
J١	Height Over Raised Beacon	mm	3410	3410
	Front axle weight	kg	3832	3978
	Rear axle weight	kg	5365	5318
	Total weight	kg	9197	9296

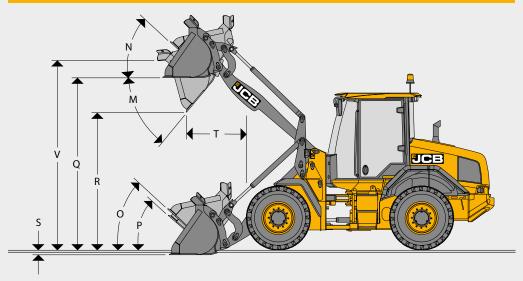
<sup>413</sup>S data based on machine equipped with quickhitch mounted 1m³ bucket with toe plates and Michelin XMCL460/70 R24 tyres.

#### TURNING CIRCLE



			413S	413S HL
RI	Maximum Turn Radius over Shovel	mm	5445	5445
R2	Inside Turn Radius	mm	2600	2600
R3	Articulation Angle	deg	+/-40	+/-40

#### LOADER DIMENSIONS 413S, HL

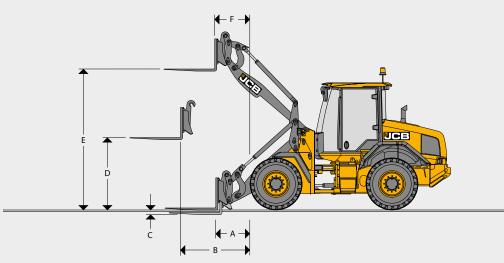


TYRE SIZE 4	TYRE SIZE 413S HT									
						3S	413	S HL	Dimensions	
Tyre size	Manufacturer	Туре	Rating	Operating weight (kg)	STL kg	FTTL kg	STL kg	FTTL kg	Vertical mm	Width mm
500/70 R24	Michelin	XMCL		154	137.7	125.4	113.6	103.4	46	165
540/70 R24	Michelin	XMCL		74	66.2	60.2	54.6	49.7	21	84
17.5 R25	Michelin	SNOPLUS	L2	370	330.9	301.2	273.0	248.5	18	-59
17.5 R25	Michelin	XTLA	L2	318	284.4	258.9	234.6	213.6	14	-48
15.5 R25	Nokian	LOADER GRIP 2	L3	-36	-32.2	-29.3	-26.6	-24.2	-4	-153
17.5 R25	Nokian	LOADER GRIP	L2	228	203.9	185.6	168.2	153.1	32	-62
17.5 R25	Nokian	GRS		306	273.7	249.1	225.8	205.5	43	-62

	Model			413S								413S HL								
	Shovel mounting Direct					Quickhitch				Direct						Quic	khitch			
	Shovel type					G	eneral purpos	se se			General purpose									
	Shovel equipment		Tippe	d teeth	Re	versible toepla	ate		Reversible	e toeplate		Tipped	d teeth	Re	eversible toepl	ate		Reversibl	e toeplate	
	Shovel capacity (SAE heaped 100%)	m³	1.2	1.4	1.2	1.4	1.6	1	1.2	1.4	1.6	1.2	1.4	1.2	1.4	1.6	1	1.2	1.4	1.6
	Shovel capacity (struck)	m³	1.01	1.18	1.01	1.18	1.36	0.84	1.01	1.18	1.36	1.01	1.18	1.01	1.18	1.36	0.84	1.01	1.18	1.36
	Shovel width	mm	2250	2400	2250	2400	2400	2286	2250	2400	2400	2250	2400	2250	2400	2400	2286	2250	2400	2400
	Shovel weight	kg	528	603	528	603	638	386	505	580	614	502	681	528	638	638	386	505	580	638
	Maximum material density *	kg/m³	2340	1956	2340	1956	1691	2397	2215	1864	1610	2145	1793	2145	1793	1530	2202	2029	1704	1451
	Tipping load straight *	kg	6575	6426	6575	6426	6350	5656	6293	6149	6078	6042	5904	6042	5904	5836	5213	5775	5642	5508
	Tipping load full turn *	kg	5616	5478	5616	5478	5410	4793	5315	5218	5153	5148	5020	5148	5020	4956	4404	4896	4773	4643
	Payload *	kg	2808	2739	2808	2739	2705	2397	2658	2609	2577	2574	2510	2574	2510	2448	2202	2435	2386	2322
	Maximum breakout force	kN	73.2	67.7	73.2	67.7	62.7	67.9	67.2	62.3	57.1	73.2	67.7	73.2	67.7	67.7	67.9	67.7	62.3	57.1
Μ	Dump angle maximum	degrees	47	47	47	47	47	47	47	47	47	43	43	43	43	43	43	43	43	43
Ν	Roll back angle full height	degrees	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
0	Roll back at carry	degrees	46	46	46	46	46	43	46	46	46	49	49	49	49	49	46	49	49	49
Р	Roll back at ground level	degrees	42	42	42	42	42	42	42	42	42	46	46	46	46	46	46	46	46	46
Q	Load over height	mm	3354	3354	3354	3354	3354	3379	3371	3371	3371	3599	3599	3599	3599	3599	3624	3616	3616	3616
R	Dump height (45 deg dump)	mm	2775	2709	2775	2709	2658	2610	2739	2673	2622	3051	2992	3051	2992	2945	2900	3016	2955	2907
S	Dig depth	mm	122	122	122	122	122	105	105	105	105	122	122	122	122	122	97	107	107	107
Т	Reach at dump height	mm	937	998	937	998	1046	1064	994	1056	1103	950	1018	950	1018	1071	1079	1013	1079	1130
V	Pin height (maximum)	mm	3579	3579	3579	3579	3579	3579	3579	3579	3579	3824	3824	3824	3824	3824	3824	3824	3824	3824
	Reach maximum (45 deg dump) horizontal arm	mm	1671	1734	1671	1734	1784	1840	1732	1796	1846	1821	1885	1821	1885	1939	1990	1880	1948	1992
	Operating weight (includes 75Kg operator and full fuel and DEF tanks)	kg	8976	9051	8976	9051	9086	9128	9167	9242	9276	9069	9144	9069	9144	9179	9221	9260	9335	9369

<sup>\*</sup> Assumes machine is fitted with 1 m³ shovel with bolt on toe plate and Michelin XMCL460/70 R24 tyres and heavy duty counterweight.

#### LOADER DIMENSIONS – FORK FRAME WITH FORKS

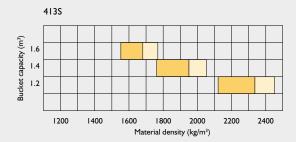


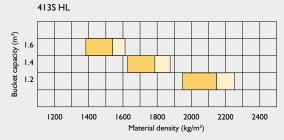
LOA	LOADER DIMENSIONS – FORK FRAME WITH FORKS								
			Paral	lel fork	Non par	allel fork			
			413S	413S HL	413S	413S HL			
	Fork carriage width	mm	1500	1500	1500	1500			
	Length of tines	mm	1220	1220	1220	1220			
Α	Reach at ground level	mm	922	1117	937	1132			
В	Reach at arms horizontal	mm	1535	1685	1542	1692			
С	Below ground level	mm	74	74	84	84			
D	Arms, horizontal height	mm	1671	1671	1660	1660			
Ε	Arms, maximum height	mm	3402	3647	3392	3637			
F	Reach at maximum height	mm	829	789	836	796			
	Tipping load straight	kg	4158	3855	4149	3848			
	Tipping load full turn (40°)	kg	3326	3084	3319	3078			
	Payload*	kg	4900	4557	4889	4549			
	Attachment weight	kg	435	435	430	430			

Assumes manual fork spacing at 50mm increments. Fork section 100mm x 50mm and Michelin XMCL460/70 R24 tyres.

BUCKET SELECTOR		
Material	Loose density (kg/m³)	Fill factor (%)
Snow (fresh)	200	110
Peat (dry)	400	100
Sugar beet	530	100
Coke (loose)	570	85
Barley	600	85
Petroleum coke	680	85
Wheat	730	85
Coal bitumous	765	100
Fertiliser (mixed)	1030	85
Coal anthracite	1046	100
Earth (dry) (loose)	1150	100
Nitrate fertiliser	1250	85
Sodium chloride (dry) (salt)	1300	85
Cement Portland	1440	100
Limestone (crushed)	1530	100
Sand (dry)	1550	100
Asphalt	1600	100
Gravel (dry)	1650	85
Clay (wet)	1680	110
Sand (wet)	1890	110
Fire clay	2080	100
Copper (concentrate)	2300	85
Slate	2800	100
Magnetite	3204	100

Above based upon 1 m<sup>3</sup> shovel.







<sup>\*</sup> At the centre of gravity distance 600mm. Based on 80% of FTTL as defined in ISO 8313.

ENGINE		
Manufacturer		JCB
Model		448
Capacity	litres	4.8
Cylinders		4
Bore	mm	106
Stroke	mm	139
Aspiration		Turbocharged
Max Power	kW (hp) @ 2200 rpm	112 (150)
Rated Power	kW (hp) @ 2200 rpm	112 (150)
Power @ Max Torque	kW (hp) @ 1500 rpm	94.3 (126)
Max Torque	Nm @ 1500rpm	600
Valves per cylinder		4
Air cleaner		Cyclonic Pre Filter
Fan drive type		<b>Standard:</b> Viscous Drive Fan <b>Option:</b> Hydraulic (Auto Reverse)
Emissions		Stage 5

TRANSMISSION			
		6 Speed N	on-Lockup
Model		ZF 6V	/G115
		Forward	Reverse
40kph axles			
l <sup>st</sup> gear	kph	5.9	6.2
2 <sup>nd</sup> gear	kph	9.2	15.0
3 <sup>rd</sup> gear	kph	14.2	34.7
4 <sup>th</sup> gear	kph	21.9	-
5 <sup>th</sup> gear	kph	32.9	-
6 <sup>th</sup> gear	kph	40.0	-
50kph axles			
l <sup>st</sup> gear	kph	6.8	7.1
2 <sup>nd</sup> gear	kph	10.6	17.2
3 <sup>rd</sup> gear	kph	16.3	40
4 <sup>th</sup> gear	kph	25.2	-
5 <sup>th</sup> gear	kph	37.9	-
6 <sup>th</sup> gear	kph	50	-

ELECTRICAL SYSTEM		
System voltage	Volt	24
Alternator output	Amp	100
Battery capacity	Amp hour	2 x 1 1 0

Connectors to IP67 standard

LOADER HYDRAULICS		
Pump type		Variable placement piston pump
Pump I max. flow	I/min	156
Pump I max. pressure	bar	250
Hydraulic cycle times at full engine revs		
Arms raise (full bucket)	Seconds	4.4
Bucket dump (full bucket)	Seconds	1.7
Arms lower (empty bucket)	Seconds	2.8
Total cycle	Seconds	8.9

AXLES	AXLES						
Туре		Limited Slip (LSD)					
Make & model	Standard fit	JCB PD70 (Front & Rear)					
Rear axle oscilla	tion degrees	±II°					
Axle Ratio 40KF	PH	18.16					
Axle Ratio 50KF	PH	15.78					
STEERING	Hydraulic power steering system eme	rgency steering.					
BRAKES	Hydraulic power braking on all wheels. In board mounted, oil immersed, multi-plate disc brakes.  Mechanically or Electro-Hydraulically avtivated disc type parking brake operating on transmission output shaft.						
CAB	In-cab noise level – 68dB(A). External N	In-cab noise level – 68dB(A). External Noise 104dB(A).					

NOISE AND VIBRATION				
			Uncertaincy	Measurement conditions.
Noise at the operator station	LpA	68 dB	+/- I 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	104 dB	+/- I 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>	0.58	+/- 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.

SERVICE FILL CAPACITIES		
Hydraulic system	litres	155
Fuel tank	litres	116
Auxillary Fuel Tank	litres	HI
DEF (Adblue)	litres	20

SERVICE AND MAINTENANCEDRIVE TRAIN5 year LiveLink telematics•6 speed transmission 40 kph+Front primary display screen•Engine oil remote drain and fill•6 speed transmission 50 kph+Secondary B post display screen, rotary control menu interface+Grouped pressure test points•Gear kick down on loader control lever•B post mounted membrane switches•Lockable tool box•Loader lever direction control•50 mm seatbelt•Lubrication points accessible from ground level•Neutral start•75 mm seat belt+Transmission oil level sight gauge•Open differential•Fire extinguisher (UK only)+Hydraulic level sight gauge•Limited slip differentials front and rear+Two speed intermittent front windscreen wipe / wash and self-park•Hydraulic level sight gauge•Single speed rear windscreen wipe /wash and self-park••Oscillating rear axle•Single speed rear windscreen wipe /wash and self-park••ENGINEFoot brake operated transmission disconnect (selectable)•3 speed heater/demisting•Air cleaner – cyclonic pre-filter with engine fan scavenge system•Selectable automatic powershift•LH and RH sliding opening windows•	
Engine oil remote drain and fill  6 speed transmission 50 kph  Foruped pressure test points  Cockable tool box  Loader lever direction control  Lubrication points accessible from ground level  Transmission oil level sight gauge  Open differential  Hydraulic level sight gauge  Limited slip differentials front and rear  Oscillating rear axle  ENGINE  Air cleaner – cyclonic pre-filter with engine fan scavenge system  • Secondary B post display screen, rotary control menu interface  + Secondary B post display screen, rotary control menu interface  • B post mounted membrane switches  • B post mounted membrane switches  • So mm seatbelt  • 75 mm seat belt  • Fire extinguisher (UK only)  + Two speed intermittent front windscreen wipe / wash and self-park  • Single speed rear windscreen wipe/wash and self-park  • Single speed rear windscreen wipe/wash and self-park  • Selectable automatic powershift  • LH and RH sliding opening windows	
Grouped pressure test points  Lockable tool box  Loader lever direction control  Neutral start  Transmission oil level sight gauge  Open differential  Hydraulic level sight gauge  Oscillating rear axle  Oscillating rear axle  Foot brake operated transmission disconnect (selectable)  Air cleaner – cyclonic pre-filter with engine fan scavenge system  B post mounted membrane switches  50 mm seatbelt  75 mm seat belt  Fire extinguisher (UK only)  Fire extinguisher (UK only)  Two speed intermittent front windscreen wipe / wash and self-park  Single speed rear windscreen wipe/wash and self-park  Foot brake operated transmission disconnect (selectable)  Selectable automatic powershift  LH and RH sliding opening windows	
Lockable tool box  Lubrication points accessible from ground level  Transmission oil level sight gauge  Open differential  Hydraulic level sight gauge  Limited slip differentials front and rear  Coscillating rear axle  Foot brake operated transmission disconnect (selectable)  Air cleaner – cyclonic pre-filter with engine fan scavenge system  Loader lever direction control  Neutral start  Open differentials tront  Open differentials front and rear  Limited slip differentials front and rear  Limited slip differentials front and rear  How speed intermittent front windscreen wipe / wash and self-park  Single speed rear windscreen wipe/wash and self-park  Foot brake operated transmission disconnect (selectable)  Limited slip differentials front and rear  How speed intermittent front windscreen wipe/wash and self-park  Single speed rear windscreen wipe/wash and self-park  Air cleaner – cyclonic pre-filter with engine fan scavenge system  Selectable automatic powershift  Limited slip differentials front and rear  Limited slip differentials front and rear  How speed intermittent front windscreen wipe / wash and self-park  Single speed rear windscreen wipe/wash and self-park  Limited slip differentials front and rear  Limited slip differentials front and rear  How speed intermittent front windscreen wipe / wash and self-park  Limited slip differentials front and rear	
Lubrication points accessible from ground level  Transmission oil level sight gauge  Open differential  Hydraulic level sight gauge  Limited slip differentials front and rear  Limited slip differentials front and rear  Coscillating rear axle  Oscillating rear axle  Foot brake operated transmission disconnect (selectable)  Air cleaner – cyclonic pre-filter with engine fan scavenge system  Neutral start  Fire extinguisher (UK only)  Two speed intermittent front windscreen wipe / wash and self-park  Single speed rear windscreen wipe/wash and self-park  Foot brake operated transmission disconnect (selectable)  LH and RH sliding opening windows	
Transmission oil level sight gauge  Open differential  Limited slip differentials front and rear  Limited slip differentials front and rear  Coscillating rear axle  Oscillating rear axle  Foot brake operated transmission disconnect (selectable)  Air cleaner – cyclonic pre-filter with engine fan scavenge system  Open differential  Time extinguisher (UK only)  Tim	
Hydraulic level sight gauge  Limited slip differentials front and rear  Oscillating rear axle  Foot brake operated transmission disconnect (selectable)  Air cleaner – cyclonic pre-filter with engine fan scavenge system  Limited slip differentials front and rear  Single speed intermittent front windscreen wipe / wash and self-park  Single speed rear windscreen wipe/wash and self-park  Two speed intermittent front windscreen wipe / wash and self-park  Single speed rear windscreen wipe/wash and self-park  Limited slip differentials front and rear  Single speed rear windscreen wipe / wash and self-park  Limited slip differentials front and rear  Single speed rear windscreen wipe / wash and self-park  Limited slip differentials front and rear  Single speed rear windscreen wipe / wash and self-park  Limited slip differentials front and rear  Limited slip differentials front and rear  Single speed rear windscreen wipe / wash and self-park  Limited slip differentials front and rear	
Oscillating rear axle  Foot brake operated transmission disconnect (selectable)  Foot brake operated transmission disconnect (selectable)  Air cleaner – cyclonic pre-filter with engine fan scavenge system  Single speed rear windscreen wipe/wash and self-park  Single speed rear windscreen wipe/wash and self-park  LH and RH sliding opening windows  LH and RH sliding opening windows	
ENGINE  Foot brake operated transmission disconnect (selectable)  Air cleaner – cyclonic pre-filter with engine fan scavenge system  • Selectable automatic powershift  • LH and RH sliding opening windows  •	
Air cleaner – cyclonic pre-filter with engine fan scavenge system  • Selectable automatic powershift  • LH and RH sliding opening windows	
Fixed viscous mounted fan  • Steering column single lever shift control (direction and gear)  • Floor mat	
Automatically reversing cooling fan + Transmission cooler bypass + Cup holder	
Crankcase breather oil trap  • Steering wheel spinner knob	
DEF fluid • BRAKE SYSTEM Internal rear view mirror •	
Epoxy coated radiator / coolers + Multi-plate wet disc brakes • Tinted cab glass	
Fuel pre-filter with water trap  • Parking disc brake on transmission output shaft  • Multi-media port (USB and 3.5mm)  +	
Hydraulically driven cooling fan  • Mechanical hand operated park brake  • Operator stowage  •	
-20° cold start • Electrical hydraulic park brake + Laminated windscreen •	
DPF / SCR engine emission control • Independent accumulator backup for electric park brake + Heated rear screen •	
Waste gated turbo   Loader control isolator   •	
Widecore radiator • OPERATOR STATION •	
Auto engine idle shut down timer (in cab adjustable)  • Fully glazed cab  • Adjustable armrest	
Front windscreen guards + Removable storage rubber mats	
<b>ELECTRICAL</b> Air conditioning	
100 amp alternator • Climate control + FRONT PRIMARY DISPLAY	
Amber rotating beacon  • Single lever joystick  • Warning lights	
Electrical adjustable mirrors   • Multi-lever hydraulic controls   + Direction indicators	
Heated mirrors   • Proportional electro hydraulic auxiliary control   + Master warning   •	
External battery isolator  • Electronic adjustment of SRS (Smooth Ride System) cut-in speed  + High coolant temperature	
Fold down beacon arm  • Electronic adjustment of reverse fan interval  + Battery charging condition	
Halogen front and rear working lights  • Air suspension cloth seat  • Low fuel level	
Full road light kit  • Deluxe heated air suspension cloth seat  + Engine oil pressure	
Integrated rear view camera + Super deluxe heated & cooled air suspension half leather seat + Hazard lamps	
LED front and rear working lights + Front roller blind • Park brake state •	
LED 360° work lights + Rear roller blind + Road lights	
Number plate light kit • Main beam lights • Main beam lights	
Radio wiring and speakers • Carbon cab air intake filter + Rear fog lights •	
Reverse alarm  • 12V in cab power socket  • Engine pre-heat	
Smart reverse alarm + 2 × 12V in cab power socket + Brake system pressure •	
White noise reverse alarm and light + 24V in cab power socket + Low steering pressure	
Reversing camera (colour) + Buzzer alerts	
Fold away adjustable steering column  • Engine air filter blocked  •	
ROPS / FOPS safety structure  • Diesel exhaust fluid (DEF)  •	
Interior light  • Amber warning lamp	

EQUIPMENT	
FRONT PRIMARY DISPLAY (CONTINUED)	
Guage display	
Engine speed	
Coolant temperature	
Fuel level	
LCD screen display	
Current gear	
Amber warning lamp	
Diesel exhaust fluid (DEF)	
Secondary steer system pressure	
Steer mode	
Ground speed	
Engine Speed (numeric display)	
Clock	
Hydraulic state	
SRS (Smooth Ride System)	
Beacon	
Front work lamps	
Rear work lamps	
Heated rear screen	
Transmission sump temperature	
Data screens	
DEF level	
Hydraulic oil temperature	
Torque convertor temperature	
Volume of fuel remaining	
Total fuel used (resettable)	
Instantaneous fuel use	
Average fuel use (resettable)	
Current date	
Machine hours	
Trip distance (resettable)	
Hours to service	
Daily checks	
Engine oil level	
DEF level	
RIGHT HAND SECONDARY DISPLAY - OPTIONAL	
Clock	
Climate control	
Fan speed	
In-cab temperature set	
Machine hours	
Rear view camera	
Fuel use	

Time and date	•
Auxiliary flow rate	+
Hydraulic oil temperature	•
Transmission oil temperature	•
Machine settings screen	
Coolant temperature	•
Engine oil pressure	•
Air filter	•
Transmission sump temperature	•
Transmission torque convertor temperature	•
Hydraulic oil temperature	•
Battery voltage	•
Help display	•
On-screen handbook	•
HYDRAULIC SYSTEM	
Smoothride system (SRS)	•
Hydraulic quickhitch with in-cab isolation	+
Auxiliary ARV kit	+
Auxiliary hydraulic service	+
Twin auxiliary hydraulic service	+
Emergency steer back-up	•
JCB biodegradable hydraulic oil	+
Electronic hydraulic isolation	•
Automatic boom kick-out. Detent	•
Automatic bucket positioner	•
Front loader float	•
Hydraulic oil cooler	•
EXTERNAL EQUIPMENT	
Front and rear fenders	•
Front adjustable mud flaps	•
Front wheel spray guards	•
Rear fender chevrons	•
Automatic greasing system	+
Grease gun and cartridge	+
Mesh air intake screens	•
Flexible bottom step	•
Full width rear counterweight	•
Chevron rear counterweight	+
Recovery hitch	•
8,000kg hydraulic tow hitch with trailer brakes (12V electrics)	+
Lifting / tie down lugs	•

PROTECTIVE EQUIPMENT	
Loader arm safety strut	•
Light guards	+
Belly guard kit	+
Articulation joint safety strut	•
OTHER EQUIPMENT	
High lift loader end	+

STANDARD • OPTIONAL +



**ONE COMPANY, OVER 300 MACHINES.** 

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#### Wheel Loader 413S

Operating weight: 9276kg Gross engine power: 112kW (150hp) Full turn tipping load: 5410kg Standard shovel capacity: 1.6m<sup>3</sup>

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