

WHEEL LOADER | 413S

Operating weight: 9276kg Gross engine power: 112kW (150hp) Full turn tipping load: 5410kg Standard shovel capacity: 1.6m³



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.

• 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.





LOADS MORE QUALITY



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.

• 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.

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





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LOADS MORE PRODUCTIVITY.

THE NEW 413S IS INCREDIBLY PRODUCTIVE. DELIVERING I50HP, AND WEIGHING UNDER 9 TONNES, IT HAS A HUGE POWER-TO-WEIGHT RATIO OF I6.8HP PER TONNE FOR LOADS MORE PUSHING, CLIMBING AND ROADING PERFORMANCE.

All the power you need.

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.









LOADS MORE **PRODUCTIVITY**

JCB

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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.

Z Tailor a 413S to any application with a range of axle options:

> Open differentials are ideal for hard standing ground conditions.

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> Limited slip differentials increase tractive effort and are perfect for soft muddy ground conditions.

The transmission disconnect feature performs clutch cut-off for efficient, productive loader control. This feature controls tractive effort via the transmission, diverting maximum power to the loader hydraulics and reducing

brake wear and fuel consumption.







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.

Driving efficiency

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.







JCB

COMMANDPLUS controls. JCB's Smoothride load suspension limits shock loadings and therefore reduces material spillage and structural stress, as well as increasing operator comfort. The speed of engagement is adjustable from within the cab using the latest state-of-the-art CommandPlus controls. T

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.

5 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 SRSAdjustableengagementAuxiliaryspeed.control.

justable Adjustable xiliary reversing fan ntrol. 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. The 413S has two full colour LCD screens to navigate your operating menus, with one doubling as a monitor for the rear view camera. For even greater operator comfort, the 413S is equipped with end damped steering for smoother steering from lock to lock.

> New fully customisable automatic worklights engage when reverse is selected. The new headlight assist feature allows operators to automatically turn on the roof worklights for added visibility when working at night.



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.





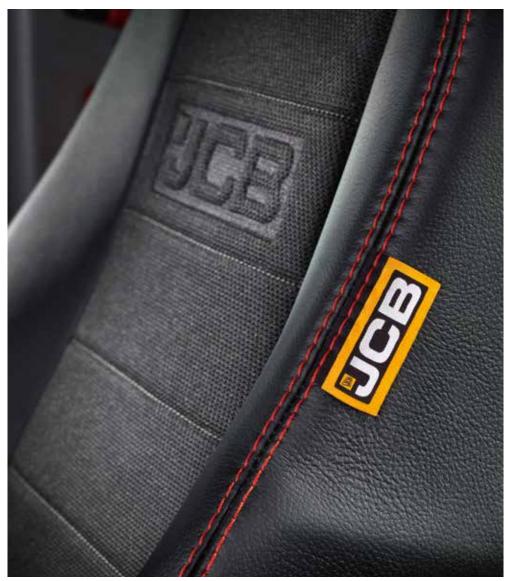
LOADS MORE S APPEAL.

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.

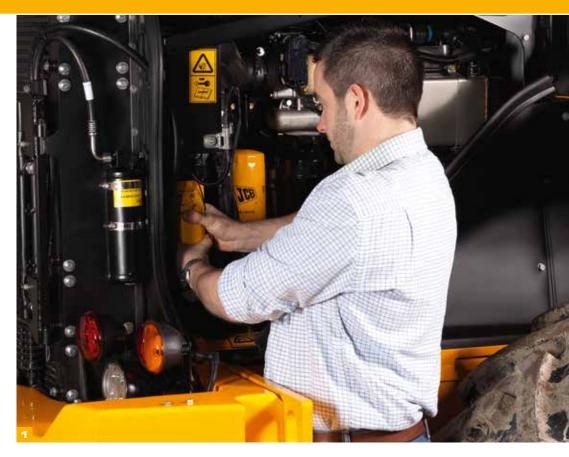
1 It's easy to get to the engine on a new JCB 413S with a large opening single-piece bonnet.

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.

With the optional auto lubrication kit, your machine will take care of its own greasing requirements.

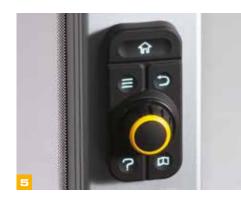








LOADS MORE UPTIME



Less servicing, more service.

5 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.

Z 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.

B 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.



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Differential Lock

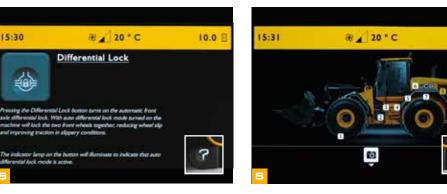
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differential lock mode is active

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LIVELINK TELEMATICS.

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.

LIVE An after market telematics solution which can be retrofitted to any machine. COMPLETE CONTROL FOR YOUR FLEET.

LIVEJCBLINK

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 JCB Operator app

CONTRACTOR SPOT IT, YOU KNOW IT.

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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.



G 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.

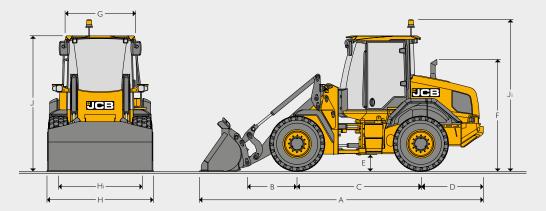
Manufacturing Facilities

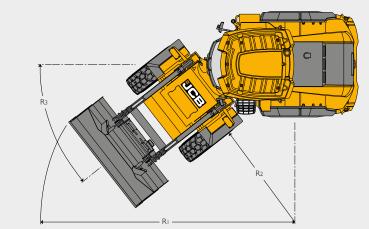
- Dealers
- Parts Distribution Centres

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



STATIC DIMENSIONS





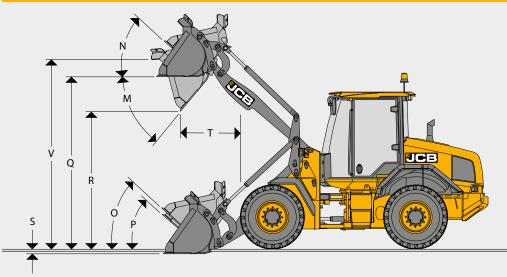
			413S	413S HL
А	Overall Length	mm	6524	6718
В	Axle to pivot pin	mm	1215	1409
С	Wheel Base	mm	2750	2750
D	Axle to counterweight face	mm	1365	1365
Е	Minimum ground clearance	mm	351	351
F	Height Over Exhaust	mm	2582	2582
G	Width over cab	mm	43	1431
Н	Max Width over tyres	mm 2347		2347
Ηı	Wheel track	mm	1880	1880
J	Height Over Cab	mm	3064	3064
Jı	Height Over Raised Beacon	mm	3410	3410
	Front axle weight	kg	3832	3978
	Rear axle weight	kg	5365	5318
	Total weight	kg	9197	9296

413S data based on machine equipped with guickhitch mountee	d 1 m ³ bucket with toe plates and Michelin XMCL460/70 R24 tyres.

			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

TURNING CIRCLE

LOADER DIMENSIONS 413S, HL

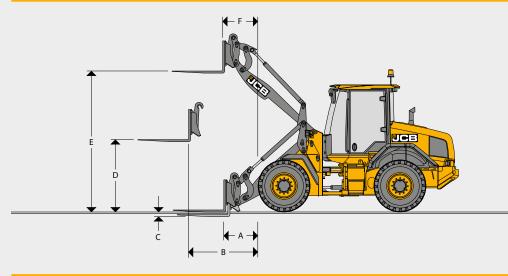


TYRE SIZE 4	3S HT									
					413S		413	S HL	Dimensions	
Tyre size	Manufacturer	Туре	Rating	Operating weight (kg)	STL kg	FTTL kg	STL kg	FTTL kg	Vertical mm	Width mm
500/70 R24	Michelin	XMCL		154	137.7	125.4	113.6	103.4	46	165
540/70 R24	Michelin	XMCL		74	66.2	60.2	54.6	49.7	21	84
17.5 R25	Michelin	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				Quick	hitch				Direct				Quid	khitch	
	Shovel type					G	eneral purpos	e							G	General purpo	se			
	Shovel equipment		Tippe	d teeth	Rev	ersible toepl	ate		Reversible	e toeplate		Tipped	l teeth	Re	versible toepl	ate		Reversible	e toeplate	
	Shovel capacity (SAE heaped 100%)	m ³	1.2	1.4	1.2	1.4	1.6	I	1.2	1.4	1.6	1.2	1.4	1.2	1.4	1.6	I.	1.2	1.4	1.6
	Shovel capacity (struck)	m ³	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/m ³	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

* 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



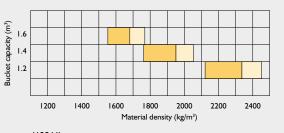
LOA	OADER DIMENSIONS – FORK FRAME WITH FORKS							
			Parall	el fork	Non parallel fork			
			413S	413S HL	413S	413S HL		
	Fork carriage width	mm	1500	1500	1500	1500		
	Length of tines	mm	1220	1220	1220	1220		
А	Reach at ground level	mm	922	1117	937	1132		
В	Reach at arms horizontal	mm	1535	1685	1542	1692		
С	Below ground level	mm	74	74	84	84		
D	Arms, horizontal height	mm	1671	1671	1660	1660		
Е	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		

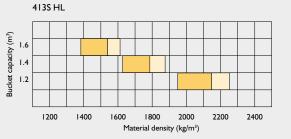
Assumes manual fork spacing at 50mm increments. Fork section 100mm x 50mm and Michelin XMCL460/70 R24 tyres. * At the centre of gravity distance 600mm. Based on 80% of FTTL as defined in ISO 8313.

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 m³ shovel.

413S







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	2 (50)
Rated Power	kW (hp) @ 2200 rpm	2 (50)
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		Standard: Viscous Drive Fan Option: Hydraulic (Auto Reverse)
Emissions		Stage 5

TRANSMISSION

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

ELECTRICAL SYSTEM		
System voltage	Volt	24
Alternator output	Amp	100
Battery capacity	Amp hour	2 × 110

Connectors to IP67 standard

LOADER HYDRAULICS						
Pump type		Variable placement piston pump				
Pump max. flow	l/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 oscillation degrees		±ll°					
Axle Ratio 40KP	Ή	18.16					
Axle Ratio 50KP	Ή	15.78					
STEERING	Hydraulic power steering system emer	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.						
САВ	In-cab noise level – 68dB(A). External Noise I 04dB(A).						

NOISE AND VIBRATION

			Uncertaincy	Measurement conditions.
Noise at the operator station	LpA	68 dB	+/- 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	+/- dB	Guaranteed equivalent sound power (external noise) determined in accordance with the dynamic test conditions defined in 2000/14/EC.
Whole body vibration	m/s²	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/s²	<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	111	
DEF (Adblue)	litres	20	

EQUIPMENT

SERVICE AND MAINTENANCE	
5 year LiveLink telematics	•
Engine oil remote drain and fill	•
Grouped pressure test points	•
Lockable tool box	•
Lubrication points accessible from ground level	•
Transmission oil level sight gauge	•
Hydraulic level sight gauge	•

ENGINE

Air cleaner – cyclonic pre-filter with engine fan scavenge system	•	
Fixed viscous mounted fan	•	
Automatically reversing cooling fan	+	
Crankcase breather oil trap	•	
DEF fluid	•	
Epoxy coated radiator / coolers	+	
Fuel pre-filter with water trap	•	
Hydraulically driven cooling fan	•	
-20° cold start	•	
DPF / SCR engine emission control	•	
Waste gated turbo	•	
Widecore radiator	•	
Auto engine idle shut down timer (in cab adjustable)	•	

ELECTRICAL

100 amp alternator	•
Amber rotating beacon	•
Electrical adjustable mirrors	•
Heated mirrors	•
External battery isolator	•
Fold down beacon arm	•
Halogen front and rear working lights	•
Full road light kit	•
Integrated rear view camera	+
LED front and rear working lights	+
LED 360° work lights	+
Number plate light kit	+
Radio wiring and speakers	•
Reverse alarm	•
Smart reverse alarm	+
White noise reverse alarm and light	+

DRIVE TRAIN

DRIVE TRAIN	
6 speed transmission 40 kph	+
6 speed transmission 50 kph	+
Gear kick down on loader control lever	•
Loader lever direction control	•
Neutral start	•
Open differential	•
Limited slip differentials front and rear	+
Oscillating rear axle	•
Foot brake operated transmission disconnect (selectable)	•
Selectable automatic powershift	•
Steering column single lever shift control (direction and gear)	•
Transmission cooler bypass	+

BRAKE SYSTEM

Multi-plate wet disc brakes	•
Parking disc brake on transmission output shaft	•
Mechanical hand operated park brake	•
Electrical hydraulic park brake	+
Independent accumulator backup for electric park brake	+

OPERATOR STATION

OPERATOR STATION	
Fully glazed cab	•
Front windscreen guards	+
Air conditioning	•
Climate control	+
Single lever joystick	•
Multi-lever hydraulic controls	+
Proportional electro hydraulic auxiliary control	+
Electronic adjustment of SRS (Smooth Ride System) cut-in speed	+
Electronic adjustment of reverse fan interval	+
Air suspension cloth seat	•
Deluxe heated air suspension cloth seat	+
Super deluxe heated & cooled air suspension half leather seat	+
Front roller blind	•
Rear roller blind	+
Cab air intake filter	•
Carbon cab air intake filter	+
I 2V in cab power socket	•
2 x 12V in cab power socket	+
24V in cab power socket	+
Reversing camera (colour)	+
Fold away adjustable steering column	•
ROPS / FOPS safety structure	•
Interior light	•

OPERATOR STATION (CONTINUED)

Front primary display screen	•
Secondary B post display screen, rotary control menu interface	+
B post mounted membrane switches	•
50 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	•
3 speed heater/demisting	•
LH and RH sliding opening windows	•
Floor mat	•
Cup holder	•
Steering wheel spinner knob	•
Internal rear view mirror	•
Tinted cab glass	•
Multi-media port (USB and 3.5mm)	+
Operator stowage	•
Laminated windscreen	•
Heated rear screen	•
Loader control isolator	•
Horn	•
Adjustable armrest	•
Removable storage rubber mats	•
FRONT PRIMARY DISPLAY	
Warning lights	
Direction indicators	•
Master warning	•
High coolant temperature	•
Battery charging condition	•

High coolant temperature	
Battery charging condition	
Low fuel level	
Engine oil pressure	
Hazard lamps	
Park brake state	
Road lights	
Main beam lights	
Rear fog lights	
Engine pre-heat	
Brake system pressure	
Low steering pressure	
Buzzer alerts	
Engine air filter blocked	
Diesel exhaust fluid (DEF)	
Amber warning lamp	

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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	•

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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)	+

PROTECTIVE EQUIPMENT

Loader arm safety strut	•
Light guards	+
Belly guard kit	+
Articulation joint safety strut	•

OTHER EQUIPMENT

High lift loader end

STANDARD •

OPTIONAL +



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Wheel Loader 413S

Operating weight: 9276kg Gross engine power: 112kW (150hp) Full turn tipping load: 5410kg Standard shovel capacity: 1.6m³

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