



## WHEEL LOADER | 435S

Gross engine power: 188kW (252hp) Operating weight: 15,534kg Full turn tipping load: 9,142kg Standard shovel capacity: 2.4m<sup>3</sup>



# LOADS MORE POWER

The JCB 435S, the most powerful of the Agri S range has just got loads more. The new 435S has a Stage V Cummins 6.7-litre engine, producing impressive performance with a massive 188kW (252hp) of power; up 9.5% on our previous model, and 1186Nm of torque; up 25.5%. What's more, it produces all this at low revs for an incredibly responsive operating experience. And with unbeatable cab comfort and visibility, the new 435S is one highly productive machine, capable of tackling any size job on any size farm.

**STAGE V**





## 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 435S. THE PROCESSES WE'VE USED TO DESIGN, TEST AND MANUFACTURE THEM WILL SAFEGUARD YOUR WORKING PROCESS, HOUR AFTER HOUR, DAY AFTER DAY.

The front chassis is more durable than ever; it's been strengthened with additional ribs and gussets for maximum service life.



### Designed to work harder.

**1** Your new JCB 435S Agri has 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°C.

**2** High tolerances and accurate location of pins and bushes are guaranteed with JCB's precision machining techniques.

**3** State-of-the-art manufacturing processes like robot machining, precision paint technology and innovative assembly techniques help achieve the very highest levels of build quality.



**Built to last.**

4 A solid cast rear counterweight protects the rear of your 435S, including the rear lights and cooling pack, from damage.

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

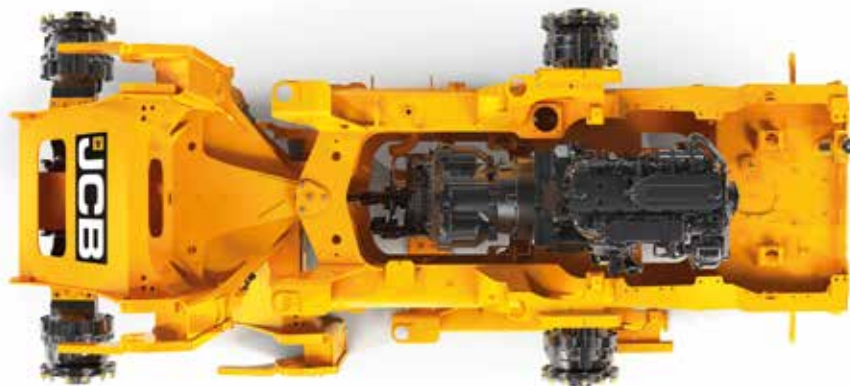
5 The articulation joint has a heavy-duty centre pin and oversized bush, as well as twin taper roller bearings on the bottom box joints. This enables it to tolerate both vertical and horizontal loadings for greater durability and rigidity.

6 Hoses are neatly routed and clamped through the articulation joint, well away from any pinch points.

7 A new rear grille, cooling pack sealing and mudguard fitment have been added for greater overall quality.



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# LOADS MORE PRODUCTIVITY.

THE NEW 435S IS INCREDIBLY PRODUCTIVE. DELIVERING A MASSIVE 252HP, AND WEIGHING UNDER 15 TONNES, IT HAS A HUGE POWER-TO-WEIGHT RATIO OF 17HP PER TONNE FOR LOADS MORE PUSHING, CLIMBING AND ROADING PERFORMANCE.

## All the power you need.

**1** The Cummins B6.7-litre engine fitted to the new 435S produces impressive performance with a substantial 188kW (252hp) of power; up 9.5% on our previous model, and 1186Nm of torque; up 25.5%. And it produces all this at low revs for an incredibly responsive operating experience.

**2** Powerful twin variable displacement piston pump hydraulics can circulate a massive 264 l/min for fast cycle times and excellent multifunctional capability.

**3** The 435S is fitted with a JCB hydraulic Quickhitch for fast attachment changeover.

## COMMANDPLUS controls.

A choice of 3 or 4 spool hydraulics gives you the scope for invaluable extra versatility. Flow can be adjusted from the cab via the CommandPlus controls.



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Optional 15 tonne tow hitch with hydraulic trailer brakes and 12V trailer electrics further improve versatility on the new 435S.



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## Loading productivity

**4** The high torque (HT) arm design on the 435S gives great visibility to the loader end, as well as offering parallel lift, making it ideal for multi-attachment use. Constant torque throughout the full carriage rotation provides excellent power and attachment control. Choose a HT high lift on the 435S and you can use the machine for higher loading height applications such as hopper, trailer and spreader loading.

With maximum breakout forces of 138kN, this wheel loader has the power to carry out extremely demanding jobs.

## Drivetrain productivity

**5** The unique 6-speed transmission with torque convertor lock-up in every gear provides closer gear ratios for better acceleration, hill climbing and roading performance. The lock-up element eliminates losses from the torque convertor for faster cycle times and improved efficiency.

**6** With a choice of two axle options you can tailor a 435S to any application.

› Limited slip differential is perfect for soft, muddy terrain, with reduced traction.

› Open differentials with an automatic locking front axle differential provide excellent traction in varied ground conditions – ideal for straight line pushing.



The innovative electronic management system can perform progressive clutch cut-off for efficient, productive loader control. This feature governs tractive effort via the transmission, diverting maximum power to the loader hydraulics whilst reducing service brake wear and fuel consumption.



**4** HT Standard Lift

HT High Lift



**6**

## LOADS MORE EFFICIENCY.

THE JCB 435S 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.

Automatic idle returns the engine to 700rpm after 30 seconds of inactivity.

### Driving efficiency.

**1** The new JCB 435S is fitted with a Stage V Cummins engine that offers plenty of low end torque and maintains it over a wide engine speed range.

**2** A hydraulic cooling fan automatically reacts to ambient temperature and adjusts the machine's fan speed, to optimise cooling and reduce fuel consumption. This also lowers noise on your farm.

**3** The new 435S features two new power modes that respond at the flick of a switch. Standard Mode reduces engine power by 10% for light duty work, helping to conserve fuel. Dynamic Mode increases power to a maximum 252hp for greater output.





**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.

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.

4 Wheel speed braking means the brakes on the new 435S rotate at the same speed as the wheels, for heat and drag reduction plus improved fuel economy.

5 Unloaded spool valves in the valve block allow the arms to lower under gravitational rather than hydraulic force; this reduces fuel consumption further still.

6 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.



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## 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.
- 2** Using the simple, dedicated menu interface on the 435S is easily done with the intuitive rotary controller.
- 3** 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 435S 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 435S is equipped with end damped steering for smoother steering from lock to lock.



The noise level in the cab is an incredibly low 68dB(a); so quiet you can hardly hear the engine running.



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

5 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 lumbar support and adjustable dampers.

6 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 435S 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 handbrake offers numerous advantages: it's quick and easy to operate, and, because there's no cable, there are fewer holes in the cab. This helps to isolate the operator environment further.



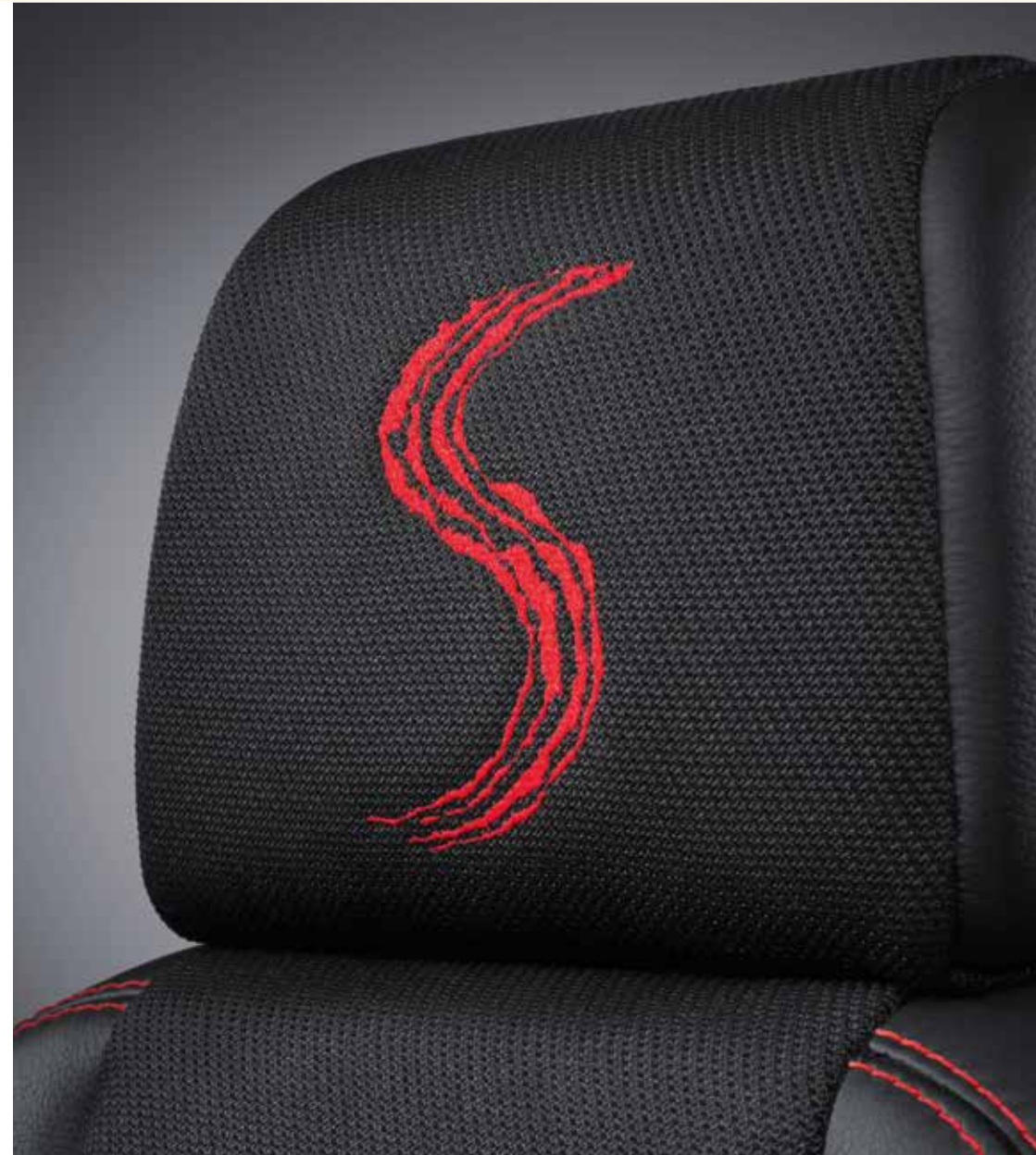
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## LOADS MORE S APPEAL.

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; THE MACHINES TO HAVE. AND IN RECOGNITION OF THAT, WE'RE MAKING THEM EVEN MORE PERSONALISED AND SOUGHT AFTER. WE'VE ADDED LOADS MORE BRANDING AND STYLISH TOUCHES THROUGHOUT THE MACHINES TO MAKE YOU EVEN MORE PROUD TO OWN ONE.





## LOADS MORE UPTIME.

WHEEL LOADERS NEED TO SPEND THE MAXIMUM AMOUNT OF TIME DOING LOADS MORE WORK. WE'VE DESIGNED THE NEW 435S TO DO JUST THAT, WITH LONG SERVICE INTERVALS AND QUALITY COMPONENTS.

### Routine maintenance.

**1** A large single-piece bonnet makes it easy to get to the engine on a new 435S.

**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 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.

**3** The standard widecore cooling package is a large, single-faced unit so you can be assured of quick, easy and safe cleaning.

**4** Fold down rear access steps provide better access to service filters and fluid drain points.



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### Less servicing, more service.

**E** 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 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.

**E** By using premium components: Cummins engine, ZF transmissions and axles, Rexroth pumps and Parker 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.

**E** 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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## LOADS MORE SAFETY.

THE NEW JCB 435S IS DESIGNED WITH LOADS MORE SAFETY FEATURES, TO KEEP THE OPERATOR AND YOUR FARM SAFE AT ALL TIMES. GREATER ALL-ROUND VISIBILITY, EASY ACCESS AND EXIT, PLUS FULL ROPS/ FOPS PROTECTION ARE JUST THE START.

### Greater visibility.

**1** The new 435S has a rear-view camera which displays an unobstructed rearward view that you can see on the in-cab colour monitor.

**2** The rear-view mirrors are mounted in front of the A-pillars for improved all-round visibility.

The interior mirrors, electrical adjustable heated exterior mirrors and rear camera, combine to offer excellent views to every corner of your machine.

**3** Visibility over the rear bonnet is excellent because the air cleaner is underneath the bonnet and the exhaust stack is located centrally.

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.

Superb visibility in dark conditions is guaranteed with JCB's optional 360 degree LED lighting.





### Safely does it.

4 The access steps on the new 435S are inclined and equally spaced. They are complemented by well positioned grab handles, providing three points of contact at all times.

5 Full fender coverage flaps have been carefully designed to keep forward spray to a minimum for all tyre options. This increases safety and decreases debris build-up.

6 The cab is isolator-mounted; compliant with ROPS/FOPS standards and is positively pressurised against dust. You can also choose either fresh air or carbon filters.



JCB's innovative variable displacement pumps feed a load-sensing valve block which only consumes power on demand, providing precise, efficient loader control.



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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.



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 JCB 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.



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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 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.

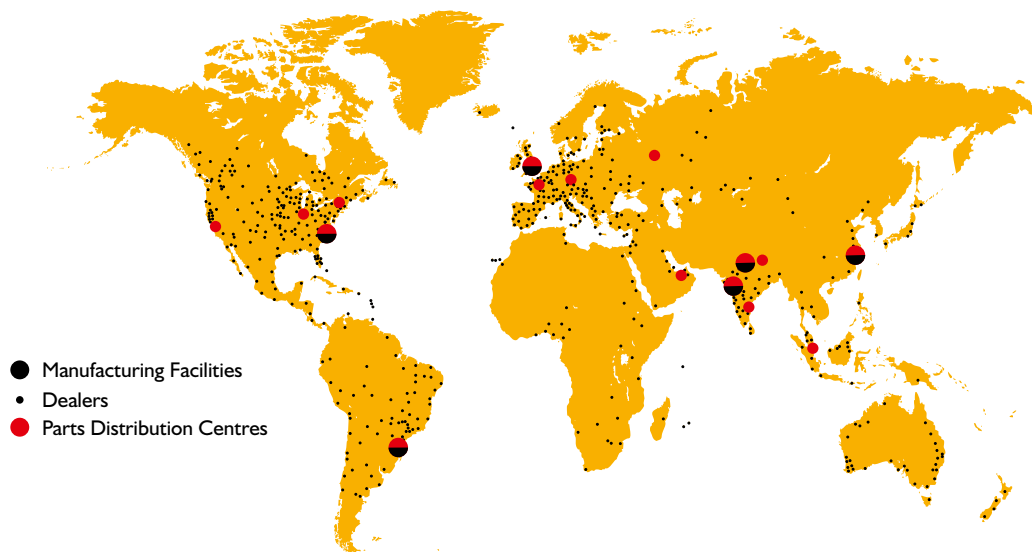


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3 JCB offers comprehensive extended warranties as well as service-only or repair and maintenance contracts. Irrespective of what you opt for, our Maintenance teams around the world charge competitive labour rates, and offer non-obligation quotations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

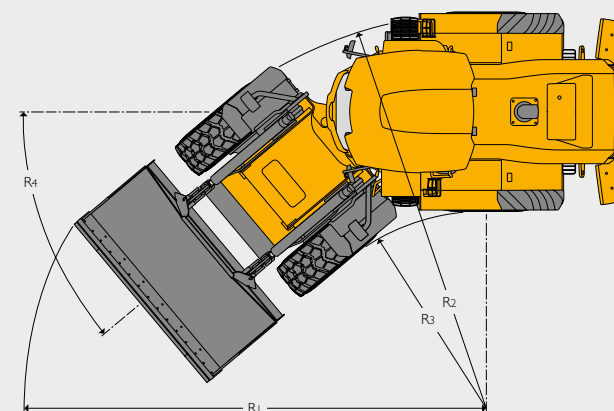
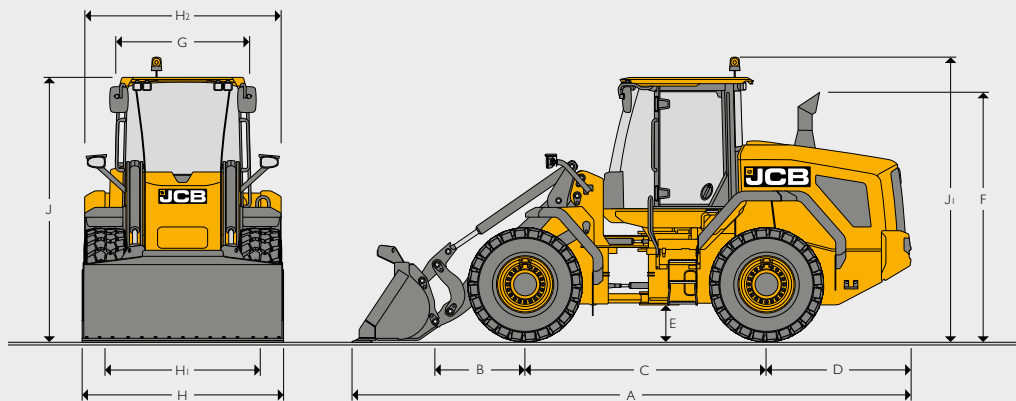


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Note: JCB LIVELINK and JCB extended warranty packages may not be available in your region, so please check with your local dealer.

STATIC DIMENSIONS



		435S	435S HL
A	Overall length	mm 7203	7524
B	Axle to pivot pin	mm 1252	1252
C	Wheel base	mm 3050	3050
D	Axle to counterweight face	mm 1841	1841
E	Minimum ground clearance	mm 491	491
F	Height over exhaust	mm 3154	3154
G	Width over cab	mm 1594	1594
H	Max width over tyres	mm 2961	2961
H1	Wheel track	mm 2229	2229
H2	Max width over fenders	mm 2961	2961
J	Height over cab lowered beacon	mm 3742	3742
J1	Height over cab raised beacon	mm 4102	4102
	Pin height (maximum)	mm 3876	4306
	Front axle weight	kg 6200	6424
	Rear axle weight	kg 8766	8733
	Total weight	kg 14966	15157

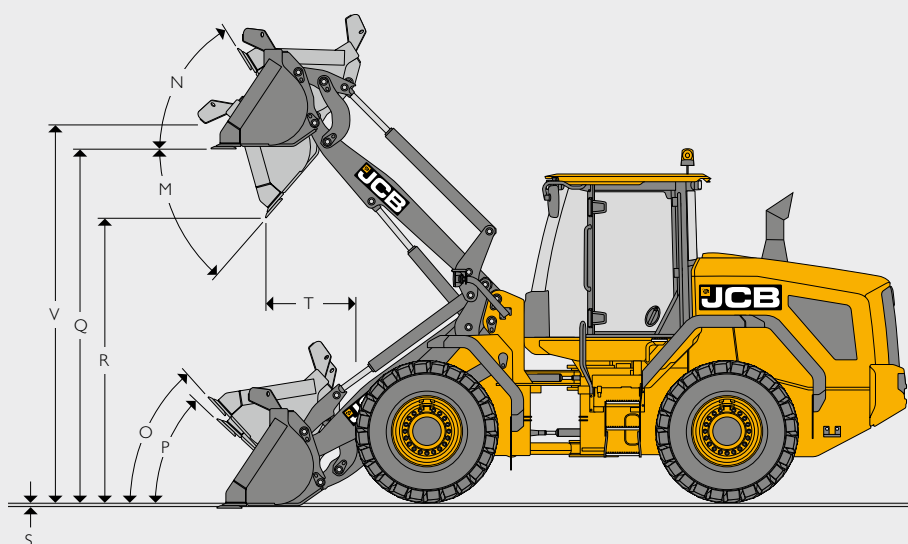
		435S	435S HL
R1	Maximum turn radius over shovel	mm 5902	6035
R2	Maximum turn radius over tyre	mm 5483	5483
R3	Inside turn radius	mm 2707	2707
R4	Articulation angle	degrees 40	40

Data based on machine equipped with Michelin 750/65R26 MegaXBib tyres and direct mount 1.9m<sup>3</sup> shovel and toe plate with auxiliary fuel tank.

## LOADER DIMENSIONS 435S

Model	435S									435S HL									
	Direct mount				Quickhitch				Grain shovel	Direct mount				Quickhitch				Grain shovel	
Shovel mounting	General purpose				General purpose					General purpose				General purpose					
Shovel type	Reversible toeplate				Reversible toeplate					Reversible toeplate				Reversible toeplate					
Shovel Equipment	Reversible toeplate				Reversible toeplate					Reversible toeplate				Reversible toeplate					
Shovel capacity (SAE heaped)	m <sup>3</sup>	1.9	2.1	2.4	2.7	1.9	2.1	2.4	2.7	4.0	1.9	2.1	2.4	2.7	1.9	2.1	2.4	2.7	4.0
Shovel capacity (struck)	m <sup>3</sup>	1.616	1.83	2.057	2.346	1.616	1.83	2.057	2.346	4	1.616	1.83	2.057	2.346	1.616	1.83	2.057	2.346	4
Shovel width	mm	2550	2550	2700	2700	2550	2550	2700	2700	2750	2550	2550	2700	2700	2550	2550	2700	2700	2750
Shovel weight	kg	810	850	1163	1236	810	850	1136	1211	1430	810	850	1163	1236	810	850	1136	1211	1415
Maximum material density	kg/m <sup>3</sup>	3064	2747	2347	2060	2496	2236	1905	1670	1028	2638	2366	2014	1769	2072	1856	1573	1379	849
Tipping load (straight)	kg	11906	11797	11518	11377	11099	10998	10741	10607	9726	9909	9819	9546	9427	9256	9172	8920	8806	8088
Tipping load (full turn)	kg	11643	11537	11264	11126	9484	9392	9142	9019	8227	10026	9936	9668	9550	7875	7797	7552	7447	6796
Payload	kg	5822	5768	5632	5563	4742	4696	4571	4510	4114	5013	4968	4834	4775	3937	3899	3776	3723	3398
Maximum Breakout Force	kN	138	128	123	115	121	113	106	99	53	138	128	123	115	121	113	106	99	53
M Dump angle maximum	degrees	49	49	49	49	49	49	49	49	49	45	45	45	45	45	45	45	45	45
N Roll back angle full height	degrees	58	58	58	58	58	58	58	58	58	58	58	60	60	58	58	60	60	60
O Roll back carry	degrees	48	48	48	48	48	48	48	48	48	50	50	54	54	50	50	54	54	54
P Roll back at ground level	degrees	43	43	43	43	43	43	43	43	43	48	48	45	45	48	48	45	45	45
Q Load over height	mm	3612	3612	3755	3755	3612	3612	3755	3755	3634	4042	4042	4409	4409	4042	4042	4409	4409	4409
R Dump height (45 deg dump)	mm	2944	2896	2962	2871	2848	2775	2850	2786	2086	3374	3326	3616	3525	3278	3205	3504	3440	3440
S Dig depth	mm	47	47	106	106	47	47	106	106	31	110	110	101	101	110	110	101	101	101
T Reach at dump height	mm	897	963	1011	1070	1003	1069	1088	1146	1547	1059	1109	1011	1070	1165	1231	1088	1146	1146
V Pin height	mm	3876	3876	4021	4021	3876	3876	4021	4021	3958	4306	4306	4675	4675	4306	4306	4675	4675	4675
Reach maximum (45 deg dump) horizontal arm	mm	1644	1694	1850	1914	1751	1816	1935	1999	2367	1992	2042	2340	2404	2099	2164	2425	2489	2489
Operating weight		14956	15000	15272	15335	15241	15285	15534	15596	15872	15147	15191	15463	15526	15432	15476	15725	15787	16063

\* Assumes machine is fitted with Michelin MegaXBib 750/65R26 tyres, 6 speed transmission and auxiliary fuel tank.



## TYRE SIZE

Tyre size	Manufacturer	Type	Operating weight (kg)	435S		435S HL		Dimensions	
				STL kg	F TTL kg	STL kg	F TTL kg	Vertical mm	Width mm
620/75R26	MICHELIN	MegaXBib	-200	-137	-117	-118	-101	-13	-278

ENGINE			
Manufacturer	Cummins		
Model	B Series		
Capacity	litres	6.7	
Aspiration	Turbo Charged		
Cylinders	6		
Max gross power to SAE J1995/ISO 14396	kW (hp) @ 1900 rpm	188 (252)	
Rated gross power to SAE J1995/ISO 14396	kW (hp) @ 2200 rpm	168 (225)	
Nett power to ISO 9249	kW (hp) @ 2200 rpm	185 (248)	
Max torque	Nm @ 1300 rpm	1186	
Valves per cylinder	4		
Air cleaner	Cyclonic pre filter with engine fan scavenge system		
Fan drive type	Hydraulically driven cooling fan		
Emissions	EU Stage V, T4F USA		

TRANSMISSION			
6 Speed LUC Converter (ZF)			
Type	ZF 6WG210 with lock-up engaged		
Gear	Forward Dynamic Mode	Reverse Dynamic Mode	
1	kph	5.87	6.13
2	kph	9.18	15.53
3	kph	14.73	36.68
4	kph	22.55	-
5	kph	34.86	-
6	kph	48	-

\* Max road speed limited to 48 kph

AXLES		
Type	Limited slip differential	Open differential with auto-locking front
Make and model	ZF MT-L 3085 II (front and rear)	
Overall axle ratio	20.182 : 1	
Rear axle oscillation	+/- 10.5 Degrees	
Bias ratio	30%	100% (when locked)

2 axle options available: Limited slip differentials or open differentials with automatic locking.  
All axle options feature wheel speed braking and lower heat build up and longer service life.

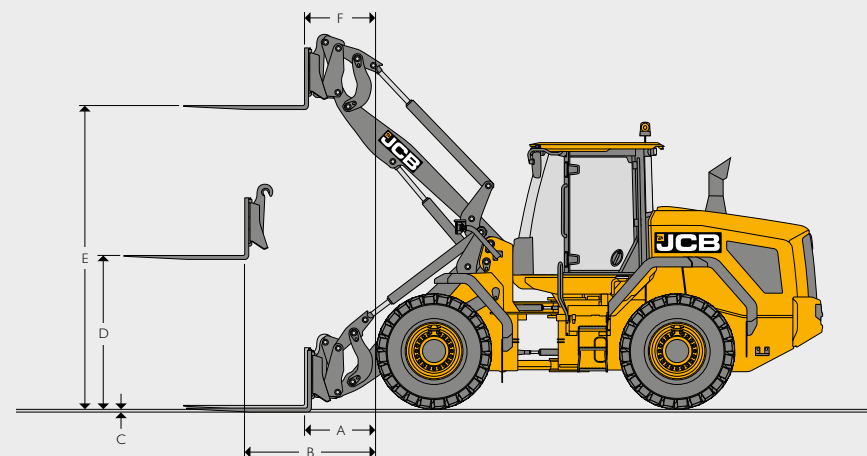
ELECTRICAL SYSTEM		
System voltage	Volt	24
Alternator output	Amp hour	120
Battery capacity	Amp hour	2 x 110

SERVICE FILL CAPACITIES		
Hydraulic system	litres	210
Fuel tank + Auxiliary	litres	400
DEF Tank	litres	75

HYDRAULICS		
Pump type	Twin variable displacement piston pumps	
Pump 1 max. flow	l/min	132
Pump 1 max. pressure	bar	250
Pump 2 max. flow	l/min	132
Pump 2 max. pressure	bar	160
Hydraulic cycle times at full engine revs		
Arms raise (full bucket)	Seconds	4.7
Bucket dump (full bucket)	Seconds	1.8
Arms lower (empty bucket)	Seconds	2.8
Total cycle	Seconds	9.3

LOADER DIMENSIONS WITH FORKS			
		435S	435S HL
Fork carriage width	mm	1500	1500
Length of tines	mm	1220	1220
A Reach at ground level	mm	722	1140
B Reach at arms horizontal	mm	1480	1829
C Top of tine above ground with arms down	mm	60	-2
D Arms, horizontal height	mm	1895	1894
E Arms, maximum height	mm	3726	4090
F Reach at maximum height	mm	741	803
Tipping load straight	kg	7676	7496
Tipping load full turn (40°)	kg	6586	6410
Payload*	kg	5269	5128
Attachment weight	kg	429	430
Operating weight (includes 75Kg operator and full fuel and Urea tanks)	kg	14886	15078

\* At the centre of gravity distance 600mm. Based on 80% of FTTL as defined in ISO 8313. Machine equipped with Michelin 750/65R26 MegaXBib tyres & direct mount 1.9m<sup>3</sup> shovel and toe plate with standard fuel tank



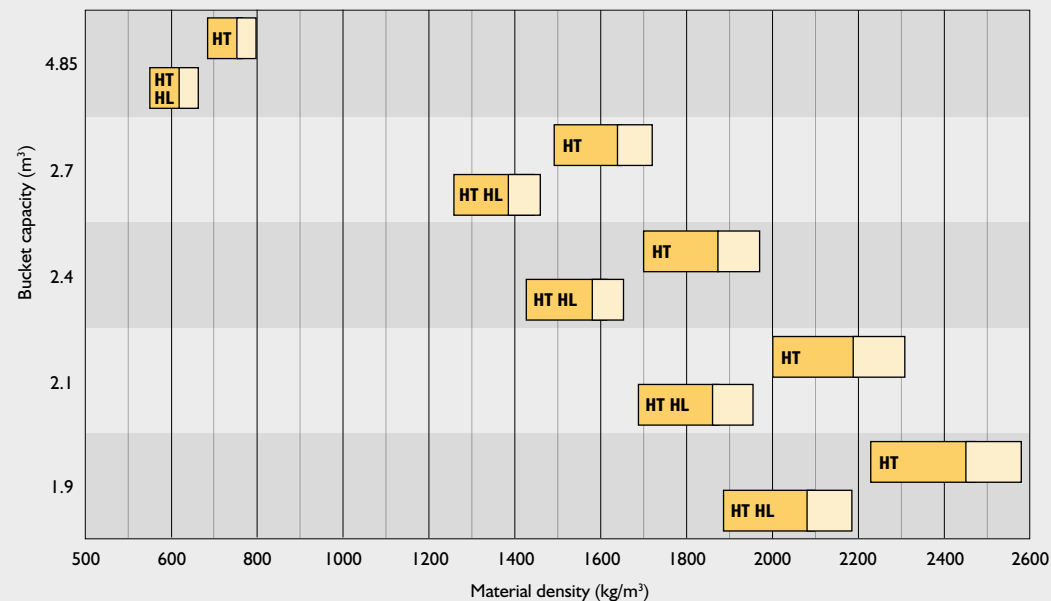
## MATERIAL DENSITY

Material	Loose density	Fill factor
	kg/m <sup>3</sup>	%
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 bituminous	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

## NOISE AND VIBRATION

			Uncertainty	Measurement conditions.
Noise at the operator station	LpA	68 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	104 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>	0.42	+/- 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.

## BUCKET CAPACITIES



HT = Standard height arm HL = High Lift arm

100%  
115% 95%  
Bucket fill factors

## EQUIPMENT

## SERVICE AND MAINTENANCE

LiveLink telematics	•
Engine oil remote drain and fill	•
Grouped pressure test points	•
Lockable tool box	•
Lubrication points accessible from ground level	•

## ENGINE

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

## ELECTRICAL

120 amp alternator	•
Amber rotating beacon	•
Electrical adjustable mirrors	•
Heated mirrors	•
External battery isolator	•
Fold down beacon arm	•
Green seatbelt beacon	+
Halogen front and rear work lights	•
LED front and rear work lights	+
360 degree work lights	+
Hazard warning lights	•
Integrated rear view camera	•
Number plate light kit	•
Parking lights	•
Radio wiring and speakers	•
Rear fog light	•
Reverse alarm and light	•
Reversing object detection system	+
Road lights front and rear	•
Smart reverse alarm and light	+
Turn signals	•
White noise reverse alarm and light	+

## ELECTRICAL (CONTINUED)

Work lights in rear grille	•
Bonnet operation alarm	•
Blue LED reverse lights	+
Amber LED reverse lights	+
24v Trailer electrics	+
12v Trailer electrics	+

## DRIVE TRAIN

Operator controlled driving modes - Standard & Dynamic	•
6 speed transmission with lock-up torque converter	•
Epicyclical wheel hub reduction	•
Fixed front axle	•
Gear kick down on loader control lever	•
Indicator glass for transmission oil level	•
Loader lever direction control	•
Neutral start	•
Limited slip differentials front and rear	+
Open differential with automatic locking - 100% (front axle only)	+
Oscillating rear axle	•
Power-inch intelligent clutch cut off on footbrake (selectable)	•
Selectable automatic power shift	•
Speed limiter 48 km/h	+
Steering column single lever shift control (direction and gear)	•
Transmission cooler bypass	•

## BRAKE SYSTEM

Multi-plate wet disc brakes	•
Sintered brake pads	•
Dual circuit hydraulic power	•
Wheel speed braking	•
Parking disc brake on transmission output shaft	•
Electrical hydraulic park brake actuation	•
Trailer brake hydraulic supply	+

## OPERATOR STATION

Fully glazed cab	•
Air conditioning	•
Climate control	+
Single lever joystick	•
Multi-lever hydraulic controls	+
Proportional electro hydraulic auxiliary control	+
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	•

## OPERATOR STATION (CONTINUED)

Carbon cab air intake filter	+
12V 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	•
Front primary display screen	•
Secondary A post display screen, rotary control menu interface	•
A post mounted membrane switches	•
Variable fan speed control on climatic control system	+
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	•
Adjustable seat mounted controls	•

## FRONT PRIMARY DISPLAY

<b>Warning lights</b>	
Direction indicators	•
Master warning	•
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	•



## EQUIPMENT (CONTINUED)

## FRONT PRIMARY DISPLAY (CONTINUED)

Brake system pressure	•
Differential lock	•
Low steering pressure	•
<b>Buzzer alerts</b>	
Engine air filter blocked	•
Diesel exhaust fluid (DEF)	•
Torque reduction in case of malfunction	•
Amber warning lamp	•
Stop engine	•
<b>Gauge display</b>	
Engine speed	•
Coolant temperature	•
Fuel level	•
<b>LCD screen display</b>	
Current gear	•
Stop engine	•
Torque reduction in case of malfunction	•
Amber warning lamp	•
Diesel Exhaust Fluid (DEF)	•
Engine air filter blocked	•
Secondary steer system pressure	•
Torque lockup	•
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	•
<b>Data screens</b>	
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	•
<b>Daily checks</b>	
Engine oil level pre start check	•
DEF level	•

## RIGHT HAND SECONDARY DISPLAY

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	•
Auto engine shutdown	•
Automatic front and rear worklights	•
<b>Machine settings screen</b>	
Coolant temperature	•
Engine oil pressure	•
Air filter	•
Transmission sump temperature	•
Transmission torque convertor temperature	•
Transmission sump temperature	•
Hydraulic oil temperature	•
Park brake pressure	•
Battery voltage	•
Help display	•
On-screen Handbook	•
<b>HYDRAULIC SYSTEM</b>	
Smoothride system (SRS)	•
Hydraulic quick hitch with in cab isolation	•
Auxiliary ARV kit	+
Auxiliary hydraulic service	•
Twin auxiliary hydraulic service	+
Twin piston pumps with priority steer	•
Emergency steer back-up	•
JCB biodegradable hydraulic oil	+
Electronic hydraulic isolation	•
Automatic boom kick-out.	•
Automatic bucket positioner	•
Front loader float	•
Indicator glass for hydraulic oil level	•
Hydraulic oil cooler	•

## EXTERNAL EQUIPMENT

Front and rear fenders	•
Front adjustable mud flaps	•
Front wheel spray guards	•
Rear fender chevrons	•
Full tyre coverage fenders	•
Automatic greasing system	+
Grease gun and cartridge	+
One piece electrical opening bonnet	•
Mesh air intake screens	•
Flexible bottom step	•
Full width rear counterweight	•
Recovery hitch	•
Lifting / tie down lugs	•
Rear counterweight chevrons	+
Folding stainless steel rear step	•

## PROTECTIVE EQUIPMENT

Rear grille guard	+
Fire suppression system	+
Safety strut loader arm	•
Light guards	+
Rear belly guard	•
Articulation joint safety strut	•

## OTHER EQUIPMENT

High lift loader end (HT loader only)	+
Rockinger tow hitch - 38mm Ø pin	+

STANDARD •  
OPTIONAL +







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### Wheel Loader 435S

Gross engine power: 188kW (252hp) Operating weight: 15,534kg  
 Full turn tipping load: 9,142kg Standard shovel capacity: 2.4m<sup>3</sup>

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