

NEW



HYDRAULIC EXCAVATOR | JS220 LC

Engine power: 129kW (173hp) Bucket capacity: 0.4 – 1.19m³ Operating weight: 19618 – 22490kg



STRENGTH INSIDE AND OUT.

BEFORE YOU BUY AN EXCAVATOR, YOU NEED TO KNOW IT'S GOING TO BE TOUGH ENOUGH TO PERFORM ANY JOB YOU ASK OF IT. FORTUNATELY, WITH A JCB JS220, STRENGTH AND DURABILITY COME AS STANDARD.



Boom and dipper.

- 1 A new reinforced boom and dipper is made of high tensile strength steel, with three piece wrapper plates and cast ends for strength and durability.
- 2 Our advanced manufacturing and assembly processes produce high precision and quality assembled components.

Componentry.

- 3 Our engine technology is tried and proven; we've built 200,000 DIESELMAX units since 2004. To ensure similar longevity, the JS220's EcoMAX T4i/Stage IIIB engine has been tested for 110,000 hours in 70 different machines across the toughest applications and environments.
- 4 JCB JS220s boast the best components in the industry, including Berco running gear, Kawasaki pumps, Kayaba valve blocks and JCB EcoMAX engines.



We use Finite Element Analysis with extensive rig and endurance testing to make key components last longer.

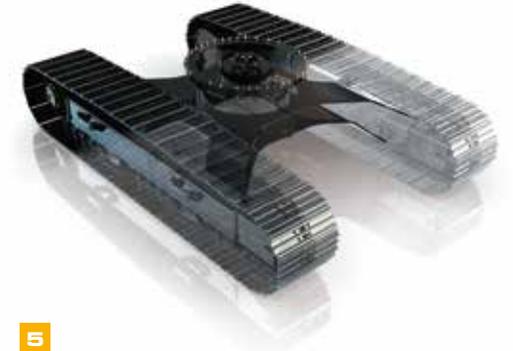




Structural strength.

- 5 The high-strength undercarriage of a JCB JS220 uses a fully-welded X frame construction for long-term durability even in the most demanding applications.
- 6 A closed box section revolving frame increases strength and reduces stress. It's also highly resistant to impact damage.
- 7 The high-strength rigid upper frame provides maximum durability and support.
- 8 Our stiff, durable door design gives great strength and rigidity.

UNEARTHED: KEY FACT
 The JCB JS220 turret is welded to both the upper and lower undercarriage frame.



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MAXIMUM PRODUCTIVITY, MINIMUM SPEND.

SAVING MONEY AND TIME IS MORE IMPORTANT THAN EVER, SO WE'VE MADE SURE THE NEW JCB JS220'S COMPONENTRY – INCLUDING THE ECOMAX T4i ENGINE – WORKS IN PERFECT HARMONY. IN TURN, YOU GET A MACHINE THAT'S AS EFFICIENT AND PRODUCTIVE AS POSSIBLE.

The JS220 is a hugely versatile machine that's made all the more so by a big range of attachments, enabling you to carry out a wide range of tasks.

Versed in versatility.

1 JCB's quickhitch system makes attachment changing fast and easy, and is purpose-designed for the JS range.

For ultra versatility, JCB offers a full list of auxiliary pipework options including hammer, auxiliary, and low flow.

Choose the optional rubber street pads and you can use the JS220 on sensitive grounds like tarmac without causing damage.



Upping output.

- 2 Simultaneous tracking and excavating is smooth and fast with an intuitive multifunction operation.
- 3 A JCB JS220 has a solid, stable work platform for fast cycle times.
- 4 With a massive 15200 Kgf bucket tearout and fast cycle times, the JS220 is extremely productive in all applications.
- 5 JCB's innovative hydraulic regeneration system means oil is recycled across the cylinders for faster cycle times and reduced fuel consumption.

The efficient excavator.

- 6 JCB's new EcoMAX T4i/Stage3B engine uses up to 10% less fuel than our Tier 3 units, saving you money. This is partly due to the fact that EcoMAX produces high torque at just 1500 - 1600 rpm, making for improved fuel-efficient matching of the hydraulics.
- 7 To reduce noise pollution from unnecessary air flow, the engine-driven cooling fan has a proportional control system, maintaining optimum fan speed.
- 8 The JS220 variable power bands allow you to tailor performance – and therefore economy – to specific tasks.



To save fuel, JCB Auto-Idle technology automatically reduces engine speed when hydraulics aren't in use. To optimise fuel efficiency still further, the JS220 benefits from advanced hydraulic technology, including optimised hydraulic pump settings, advanced spool design, and cutting edge electronic management software.

UNEARTHED: KEY FACT
A JCB JS220 has cushioned boom and dipper ends to prevent shock loadings, protect your machine and increase operator comfort.



A COMFORTABLE FAVOURITE.

JCB EXCAVATORS ARE DESIGNED AROUND THE OPERATOR. THAT'S GOOD FOR THEM BUT EVEN BETTER FOR YOU; AFTER ALL, GREAT COMFORT AND EASE OF USE EQUALS GREAT PRODUCTIVITY.

Excellent visibility.

1 A 70/30 front screen split gives JCB JS220 excellent front visibility. A clear view of the front right track provides easy, safe trench digging and manoeuvring.

2 An innovative low-level bonnet provides excellent rearward visibility.

Comfortably in control.

3 The 7" colour monitor multi-function display is easy to read in all light conditions, provides instant operational information, and has a customisable home screen.

The JS220 Tool Select feature can set up auxiliary hydraulic circuits quickly and accurately to match flow and pressure requirements of any attachment.



A large laminated glass roof window gives the JS220 optimum visibility for working at height.

Light, intuitive and smooth controls improve comfort and productivity. The JS220 joystick-mounted power boost button gives extra hydraulic power fast.

A balanced slew and electronic/hydraulic controlled slew braking give speed and precision.



The JS220 cab and controls are independently adjustable so that it's easy to find the perfect operating position.

The working environment.

4 The JS220 creates a quieter working environment inside and out. Because we've reduced noise levels to 72dB(A) inside and 103dB(A) outside, you can use the machine at any location, anytime.

JCB JS220 cabs use 6 viscous rubber mounts to minimise noise and vibration.

The positive pressure cab keeps out dirt and dust.

5 JCB's climate control option offers a precisely controlled cab temperature with fresh or recirculated air. Demisting/defrosting functions keep the front window clear.

6 There's a spacious luggage tray behind the operator's seat.

7 A large floor area with large high grip pedals gives easy and precise tracking.



4 We offer tailored seating options to suit many different applications.



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LESS SERVICING, MORE SERVICE.

WE'VE DESIGNED THE JCB JS220 TO BE LOW MAINTENANCE AND EASILY SERVICEABLE. THIS MAKES IT AFFORDABLE, EFFICIENT AND HIGHLY PRODUCTIVE, HELPING YOU GET THE BEST SERVICE FROM YOUR MACHINE.



By using graphite impregnated bronze bushes, we've reduced the JS220 boom and dipper greasing intervals to 1000 hours for normal applications.

UNEARTHED: KEY FACT
JCB JS220 grease points are centralised for safe and easy access to high level pivots.



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Easy does it.

- 1 The air filter on a JS220 is easily accessible, and a double-element construction simplifies cleaning.
- 2 The filters on a JS220 (engine oil, hydraulic oil and fuel) are centrally located for fast, easy servicing.
- 3 Because they're mounted side by side, the engine radiator, hydraulic cooler and intercooler can be serviced individually yet cleaned easily.



(A) Hydraulics oil filters (B) Fuel filters (C) Engine Oil Filter

	SERVICE INTERVALS
Engine oil and oil filter	Every 500 hours
Hydraulic oil filter	Every 1 000 hours
Hydraulic oil	Every 5000 hours



3

JCB JS220 bonnets open and close easily with gas-assisted cylinders, and the service bays are large and wide for good access.

Here to help.

4 Because the EcoMAX engine doesn't need exhaust after treatment, it doesn't require costly heat-resistant lube oils.

Unlike most Tier 4i engines, JCB EcoMAX doesn't use a Diesel Particulate Filter (DPF) or SCR, saving you additional running costs.

5 We've eliminated the need for a visibowl style pre-cleaner on the JS220 with our new scavenger filtration system. This uses suction from the cooling fan to remove heavier particles from the induction system.

6 Our innovative recalibration option allows EcoMAX to run on lower grade fuels. This means the JS220 can be resold across different territories, which improves residuals.

7 JCB's In-Cab Monitor checks engine oil levels, coolant, and system errors on start-up.



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THE SAFE CHOICE.

ON-SITE SAFETY IS CRUCIAL, SO WE'VE DESIGNED THE JCB JS220 TO INCORPORATE AS MANY CUTTING EDGE SAFEGUARDS AS POSSIBLE. IN SHORT, YOUR OPERATORS ARE IN SAFE HANDS.



1 The JS220 bonnet opens front-to-rear for easy and safe engine service access.

2 For extra peace of mind, JCB JS220 cabs are available with an integral Rollover Protection Structure (ROPS). It's also easy to fit JCB's Falling Objects Protection Structure (FOPS), thanks to standard fitment mounting brackets.

3 JCB's Safety Level Lock fully isolates hydraulic functions to avoid unintended movements. Our 2GO system means a JCB JS220 can only be started in a safe locked position via two separate inputs.

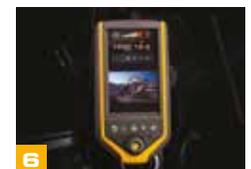
4 JCB JS220s have a large glass area and low bonnet line for superb visibility.

5 A JCB JS220's steps and platforms have anti-slip punched steel plates for optimum grip, even in wet or icy conditions. Bolt-on plates have recessed bolts to reduce trip hazards.

6 Our standard rear and optional side view cameras display uninterrupted rearwards and sideways views on the smart controller display.



We've fitted as standard a bulk head heat shield between the pumps and the engine to guard against heat and noise.



7 Your JS220 is equipped with a full set of side and rear view mirrors for all round visibility and safety compliance.

8 There's no need to climb onto the JS220 to check oil levels; all routine servicing can be done from ground level.

9 Optional safety rails protect operators from falls when they're on the upper structure of the JS220.

The JS220's optional beacons can improve on-site safety still further.

10 Choose LED work lights for an even better field of vision on the JS220.



LIVELINK, WORK SMARTER.

LIVELINK IS AN INNOVATIVE SOFTWARE SYSTEM THAT LETS YOU MANAGE JCB MACHINES REMOTELY – ONLINE, BY EMAIL OR BY MOBILE PHONE. ACCESS EVERYTHING FROM MACHINE ALERTS TO FUEL REPORTS AND HISTORY INFORMATION, WITH ALL DATA STORED AT A SECURE CENTRE.

Productivity and cost benefits.

By providing information like idle time monitoring and machine fuel consumption, JCB Livelink helps reduce your fuel usage, saving money and improving productivity. Machine location information can help improve efficiency and perhaps even reduce insurance costs.



Maintenance benefits.

Manage machine maintenance easily – accurate hours monitoring and service alerts improve maintenance planning, while real-time location data helps you manage your fleet. Critical machine alerts and maintenance history records are also available.



Security benefits.

Livelink's real-time geofencing alerts tell you when machines move out of predetermined zones, and real-time curfew alerts inform you of unauthorised usage. Further benefits include real-time location information, advanced ECU matching (pairs Livelink with the immobiliser or ECU).



VALUE ADDED.

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



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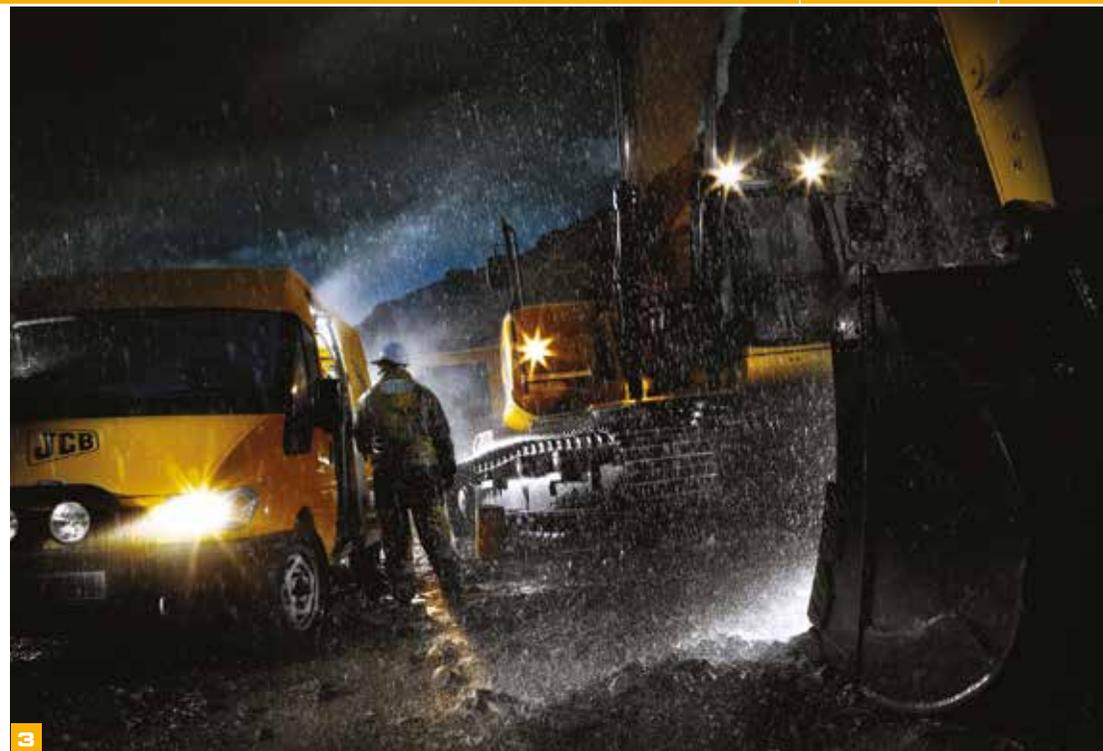
1 Our Technical Support Service provides instant access to factory expertise, day or night, while our Finance and Insurance teams are always on hand to provide fast, flexible, competitive quotes.

2 The global network of JCB Parts Centres is another model of efficiency; with 16 regional bases, we can deliver around 95% of all parts anywhere in the world within 24 hours. Our genuine JCB parts are designed to work in perfect harmony with your machine for optimum performance and productivity.



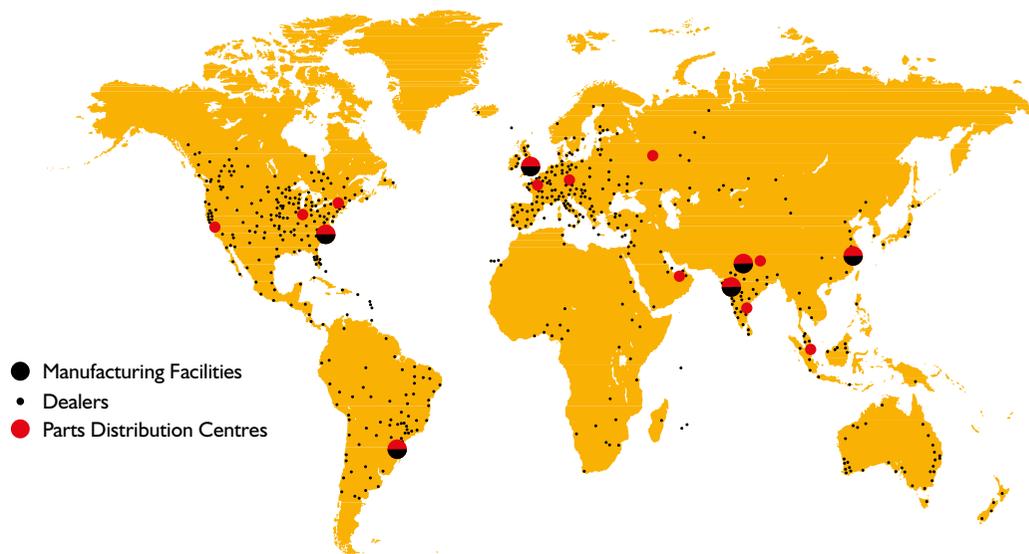
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3 JCB Assetcare offers comprehensive extended warranties and service agreements, as well as service-only or repair and maintenance contracts. Irrespective of what you opt for, our maintenance teams around the world charge competitive labour rates,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

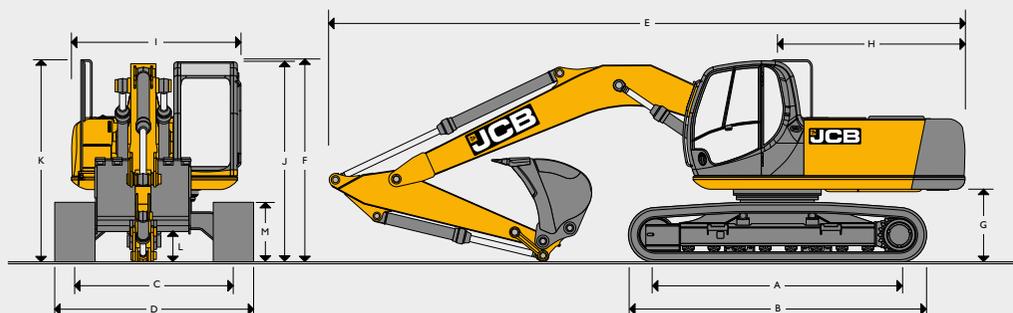


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Note: JCB LIVELINK and JCB ASSETCARE may not be available in your region, so please check with your local dealer.



STATIC DIMENSIONS



Dimensions in mm

A	Track CTR	3660
B	Undercarriage overall length	4460
C	Track gauge	2390
D	Width over tracks (500mm trackshoes)	—
D	Width over tracks (600mm trackshoes)	2990
D	Width over tracks (700mm trackshoes)	3090
D	Width over tracks (800mm trackshoes)	3190
D	Width over tracks (900mm trackshoes)	3290
Dipper lengths		3.0m
E	Transport length with Monoboom	9584
F	Transport height with Monoboom	3070
G	Counterweight clearance	1046
H	Tailswing radius	2825
I	Width of superstructure - upper	2548
J	Height over cab	2996
K	Height over grab rail	3037
L	Ground clearance	503
M	Track height	885

SERVICE CAPACITIES

	Litres
Fuel tank	343
Radiator	25.5
Engine oil	20.4
Swing drive	5.0
Hydraulic tank	120
Final drive (each side)	4.7

WEIGHTS AND GROUND BEARING PRESSURES

Figures include 1.14m³ bucket 760kg, operator, full fuel tank and 2.4m dipper.

JS220 LC MONO		500mm shoes	600mm shoes	700mm shoes	800mm shoes	900mm shoes
Machine weight	kg	—	21904	22172	22440	22490
Ground bearing pressure	kg/cm	—	0.46	0.40	0.36	0.32

ENGINE

Model	JCB EcoMAX Tier4i/IIIB.
Type	4-stroke, 4-cylinder in-line, direct injection, turbocharged diesel.
Nett power (ISO 3046-1NF)	129kW (173hp)
Piston displacement	4.8 litres
Injection	Electronic injection.
Air filtration	Dry element with secondary safety element and in cab warning indicator.
Cooling	Water cooled via large capacity radiator.
Starter motor	24 volt – 4.5kW.
Batteries	2 x 12 volt Heavy-duty.
Alternator	24 volt 40 amp.
Refuelling pump	Electric type.

BUCKET AND ARM COMBINATION

JS220	LC		
	1.9m	2.4m	3.0m
Arm length			
GP Bucket 610mm, 0.34m ³	☐	☐	☐
GP Bucket 762mm, 0.48m ³	☐	☐	☐
GP Bucket 914mm, 0.62m ³	☐	☐	☐
GP Bucket 1219mm, 0.89m ³	☐	☐	■
GP Bucket 1372mm, 1.02m ³	☐	☐	■
GP Bucket 1524mm, 1.20m ³	☐	☐	●

☐ = Suitable for general excavating (materials up to 2000kg/cu.m)

■ = Suitable for light excavating (materials up to 1600kg/cu.m.)

● = Suitable for grading & loading materials up to 1200kg/cu.m)

✘ = Not recommended

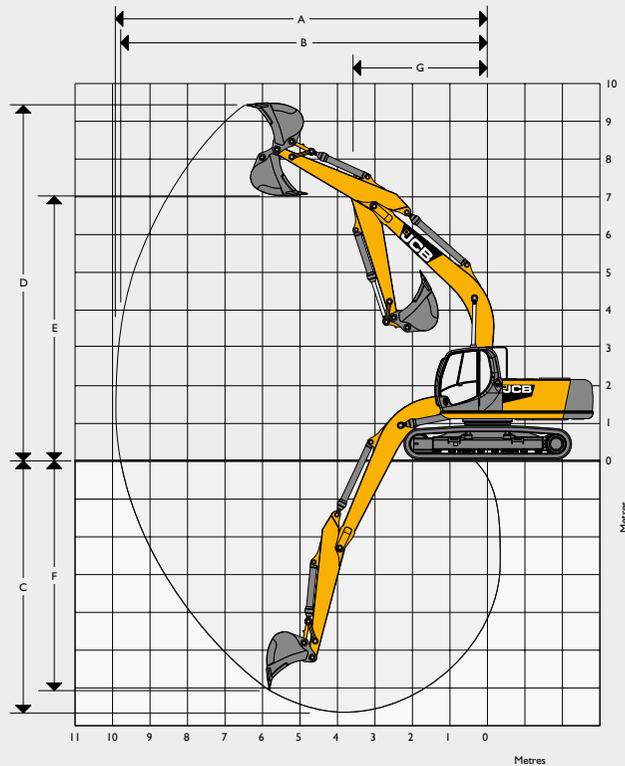
* Bucket capacity recommendations with no quick hitch fitted

TRACK DRIVE

Type	Fully hydrostatic, three speed with autoshift between high and medium speed.
Travel motors	Variable swash axial piston type, fully guarded within undercarriage frame.
Final drive	Planetary reduction, bolt-on sprockets.
Service brake	Hydraulic counter balance valve to prevent overspeeding on gradients.
Park brake	Disc type, spring applied, automatic hydraulic release
Gradeability	70% (35 deg) continuous.
Travel speed	High – 5.6 km/h (3.4 mph). Mid – 3.3 km/h (2.1 mph). Low – 2.3 km/h (1.4 mph).
Tractive effort	191.9kN (19570 kgf, 43144 lbf).

WORKING RANGE MONOBOOM

Boom length 5.70m					
Dipper length		1.91m	2.40m	3.00m	
A	Maximum digging reach	m	8.72	9.32	9.85
B	Maximum digging reach (on ground)	m	8.52	9.15	9.65
C	Maximum digging depth	m	5.52	5.98	6.70
D	Maximum digging height	m	8.67	8.99	9.21
E	Maximum dumping height	m	6.19	6.45	6.66
F	Maximum vertical wall cut depth	m	5.17	5.25	5.82
G	Minimum swing radius	m	3.76	3.78	3.65
	Bucket rotation	deg	183°	183°	183°
	Dipper tearout (ISO 6015)	kgf	13450	11560	9590
	Dipper tearout with boost (ISO 6015)	kgf	14610	12550	10410
	Bucket tearout (ISO 6015)	kgf	14550	14550	14550
	Bucket tearout with boost (ISO 6015)	kgf	15800	15800	15800



UNDERCARRIAGE

Carriage options	LC-Long Carriage.
Recovery point	Front and rear.
Track type	Sealed and greased.
Track shoe options	LC – 600mm (24in), 700mm (28in), 800mm (31.5in), 900mm (36in).
Upper & lower rollers	Heat treated, sealed and lubricated.
Track adjustment	Grease cylinder type.
Track idler	Sealed and lubricated, with spring cushioned recoil.
LC	
No. of track guides	2 per side
No. of lower rollers	8 per side
No. of upper rollers	2 per side
No. of track shoes	49 per side

SWING SYSTEM

Swing motor	Axial piston.
Swing brake	Hydraulic braking plus automatic spring applied disc type parking brake.
Final drive	Planetary reduction.
Swing speed	12.9rpm.
Swing gear	Large diameter, internally toothed fully sealed grease bath lubricated.
Swing lock	Switchable brake in cab.

HYDRAULIC SYSTEM

Pumps	
Main pumps	2 variable displacement axial piston type.
Maximum flow	2 x 224 L/min
Servo pump	Gear type.
Maximum flow	448 L/min
Control valve	
A combined four and five spool control valve with auxiliary service spool as standard.	
Relief valve settings	
Boom/Arm/Bucket	343 bar
With power boost	372 bar
Swing circuit	279 bar
Travel circuit	343 bar
Pilot control	40 bar
Filtration	
In tank	150 micron, suction strainer.
Main return line	10 micron, fibreform element.
Pilot line	10 micron, paper element.
Hydraulic hammer return	10 micron, reinforced microform element.

LIFT CAPACITIES – DIPPER LENGTH: 1.9M, MONOBOOM 5.7M, TRACKSHOES: 600MM, NO BUCKET. JS220 LC MONO

Reach	3m		4.5m		6m		7.5m		Capacity at Max Reach		mm
											
Load Point Ht.	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	mm
6.0m					6230*	5740			6270*	5460	6191
4.5m			7840*	7840*	6580*	5630			6300*	4470	6983
3.0m			9720*	8140	7340*	5430			6050	4030	7390
1.5m					8060*	5250			5860	3890	7477
0m			11430*	7660	7980	5150			6070	4010	7255
- 1.5m			11000*	7680	7970	5140			6820	4470	6693
- 3.0m	12870*	12870*	9660*	7810					7410*	5650	5690

LIFT CAPACITIES – DIPPER LENGTH: 2.4M, MONOBOOM 5.7M, TRACKSHOES: 600MM, NO BUCKET. JS220 LC MONO

Reach	3m		4.5m		6m		7.5m		Capacity at Max Reach		mm
											
Load Point Ht.	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	mm
6.0m					5630*	5630*			5290*	4790	6755
4.5m			7130*	7130*	6110*	5670			5210*	4030	7486
3.0m			9020*	8240	6940*	5450	5910	3940	5350*	3660	7868
1.5m			10630*	7810	7770*	5240	5810	3850	5340	3540	7949
0m			11320*	7620	7940	5110	5740	3780	5500	3630	7741
- 1.5m	10630*	10630*	11170*	7590	7890	5070			6060	3980	7218
- 3.0m	14070*	14070*	10190*	7680	7490*	5140			6950*	4830	6300
- 4.5m	10600*	10600*	7520*	7520*					6390*	6390*	4760

LIFT CAPACITIES – DIPPER LENGTH: 3.0M, MONOBOOM 5.7M, TRACKSHOES: 600MM, NO BUCKET. JS220 LC MONO

Reach	3m		4.5m		6m		7.5m		Capacity at Max Reach		mm
											
Load Point Ht.	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	mm
6.0m									3660*	3660*	7332
4.5m					5530*	5530*	5230*	4050	3630*	3630	8011
3.0m	11850*	11850*	8140*	8140*	6420*	5480	5620*	3940	3750*	3330	8367
1.5m			9960*	7870	7350*	5240	5800	3830	4020*	3220	8444
0m	6310*	6310*	11020*	7580	7910	5070	5700	3730	4500*	3280	8249
- 1.5m	10480*	10480*	11220*	7490	7820	4990	5660	3700	5370*	3540	7760
- 3.0m	15210*	14650	10630*	7530	7840	5010			6400	4160	6916
- 4.5m	12430*	12430*	8850*	7720					6850*	5750	5552

 Lift capacity front and rear.

 Lift capacity full circle.

Notes:

1. For lifting capacity including bucket, subtract total weight of bucket or bucket and quickhitch from above values.
2. Lifting capacities are based on ISO 10567, that is: 75% of minimum tipping load or 87% of hydraulic lift capacity, whichever is the less. Lifting capacities marked* are based on hydraulic capacity.
3. Lift capacities assume that the machine is on firm, level ground.
4. Lift capacities may be limited by local regulations. Please refer to your dealer.









ONE COMPANY, OVER 300 MACHINES.

Your nearest JCB dealer

Hydraulic Excavator JS220 LC

Engine power: 129kW (173hp) Bucket capacity: 0.4 – 1.19m³ Operating weight: 19618– 22490kg

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