

JS205 | HYDRAULIC EXCAVATOR



## JS205 SC/LC Hydraulic Excavator

Engine Power: 104 kW (140hp) Bucket Capacity: 0.9 - 1.02m<sup>3</sup> Operating Weight: 20500 - 21750kg



# STRENGTH INSIDE 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 JS205, STRENGTH AND DURABILITY COME AS STANDARD.

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



## Boom and arm

1 We've designed an all-new heavy-duty boom and arm that's made up of bigger sections for high durability and strength.

Robust cast ends and pivot bosses make the new JS205's boom and arm extremely strong.

2 Our advanced manufacturing and assembly processes produce high precision and quality assembled components.

## Componentry

3 JCB JS205s boast the best components in the industry, including Berco running gear, Kawasaki pumps, Cummins engine and Kayaba control valves.



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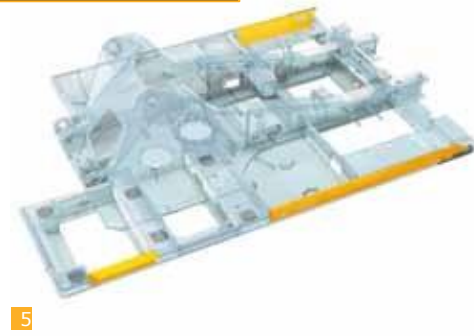
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### Structural strength

- 4 The new JS205 features a heavy-duty X-type frame with sloped side members to stop material build-up.
- 5 A closed box section revolving frame increases strength and reduces stress. It is also highly resistant to impact damage.
- 6 The JS205's high-strength rigid upper frame provides maximum durability and support.
- 7 Our stiff, durable door design gives great strength and rigidity.
- 8 We've fitted under belly guards on the upper frame to give additional protection to key components.
- 9 Optional damage protection plate and wear ribs on the dipper guard against external damage.



**UNEARTHED: KEY FACT**  
 The JCB JS205 turret is welded to both the upper and lower undercarriage frame.



# mAXImUm PRODUcTivITy, mINImUm SPEND

IT'S mORE ImPORTANT THAN EvER TO SAve mONEY AND TImE; THE JcB JS205 RANGE IS DESIGNED TO mAke THE mOST OF BOTH.

## Upping output

- 1 A bucket tearout of 14,550kgf and an arm tearout of up to 11,700kgf mean the JS205 can really get the job done quickly, even in very hard strata.
- 2 Simultaneous tracking and excavating is smooth and fast with an intuitive multifunction operation.

## Efficiency

The new JS205 is highly fuel efficient, courtesy of JCB's advanced regenerative load sensing hydraulic system - this only uses as much power as it requires. Optimised hydraulic pump settings and a revised spool configuration within the main valve block, only delivers the required oil flow, preventing wasted energy.

- 3 Cummins 6BT 5.9 engine with non-electronic inline fuel injection pump provides power with reliability under arduous operating conditions with poor quality fuel.



With two operating modes, you can optimise both power and economy on the JS205. Economy mode saves fuel without sacrificing too much performance, while Power mode provides increased engine power and pump flow for fast, high output operations.

## Stability, hydraulics and attachments

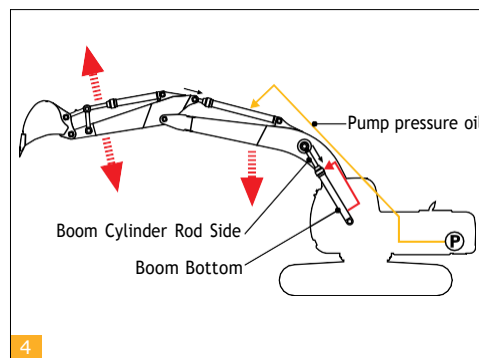
4 A JCB JS205 has cushioned boom and arm ends to prevent shock loadings, protect your machine and increase operator comfort.

5 A JCB JS205 has a solid, stable work platform for fast cycle times.

6 Whether the machine is SC build with 800mm plates and a 3.0m arm for plantations or LC build, 600mm plates and 2.4m arm in a quarry, the stability and hydraulic performance of the JS205 leads in its class.



6



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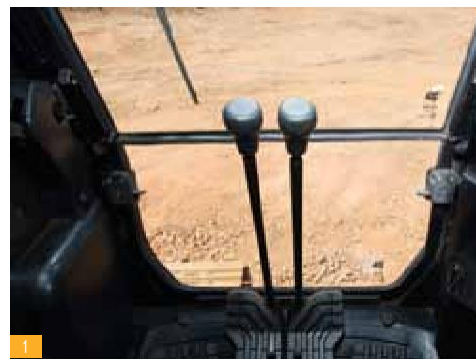
## A cOmFORTABLE FAVOURITE

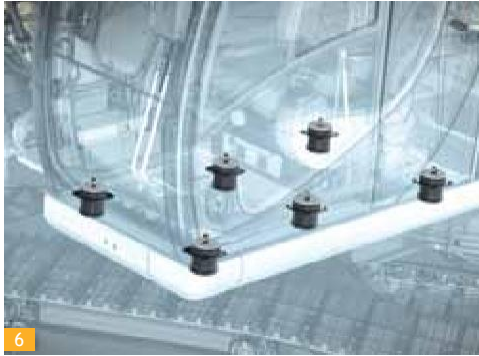
WE'VE DESIGNED THE JcB JS205 TO BE cOmFORTABLE, ERGONOMIc, SIMPLe AND INTUITIVe TO OPERATE. WHICH IS GOOD FOR YOUR OPERATORS BUT EvEN BETTER FOR YOU; AFTER ALL, GREAT EASE OF USE EqUALS GREAT PRODUcTIVITy.



### Visibly better

- 1 JCB JS205s have excellent all round visibility allowing a safe working environment.
- 2 Visibility is enhanced with the additional glass provided at the top corner for high visibility whilst working at heights.
- 3 The JS205 range's distinctive low bonnet line gives excellent rear visibility.





### Comfortably in control

4 Light, intuitive and smooth controls improve comfort and productivity.

### Even more comfort

5 The cab of a JS205 is a comfortable, and therefore productive, place to be, with mobile charging point and rear stowage box.

6 JCB JS205 cabs use 6 viscous rubber mounts to minimise noise and vibration.

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

8 We've fitted the new JS205 with an all-day comfy fully adjustable deluxe seat that boasts hand recline rests.

9 An opening roof hatch and rear sliding window provide excellent ventilation.

10 Air conditioning is available as an option.



# LESS SERVICING, MORE SERVICE

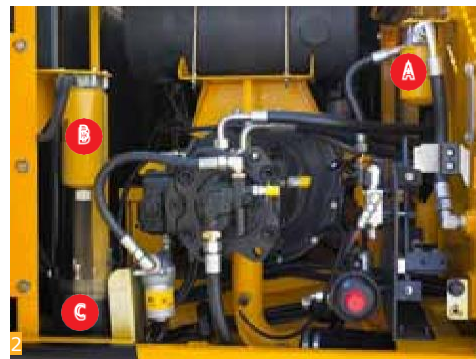
WE'VE DESIGNED JcB JS205 TO BE LOW MAINTENANCE AND EASILY SERVICEABLE. WHICH MAKES THEM AFFORDABLE, EFFICIENT AND HIGHLY PRODUCTIVE. HELPING YOU GET THE BEST SERVICE FROM YOUR MACHINE.

## Easy does it

**1** Replacing the air filter element of a JS205 is easy; a radial seal provides error-free sealing on installation. Meanwhile, wire mesh elements make for easy storage, handling and cleaning.

**2** The filters on a JCB JS205 (engine oil, hydraulic oil and fuel) are centrally located for fast, easy servicing.

**3** JCB's Plexus Oil Filter System extends oil life to 5000hrs by constantly filtering hydraulic fluid down to 2 microns, reducing risk of contamination



(A) Hydraulics oil filters (B) Fuel filters (C) JCB Plexus Oil Filter System



By using graphite impregnated bronze bushes, we've reduced the JS205's boom and arm greasing intervals to 1000 hours for normal applications.





SERVICE INTERVALS\*

Engine oil and oil filter	Every <b>500</b> hours
Hydraulic oil	Every <b>5000</b> hours
Hydraulic oil filter	Every <b>500</b> hours

\*Using genuine JcB oils and filters

Here to help

**4** To keep downtime to a minimum, the new JS205's high capacity fuel pre-filter also acts as a water separator, catching dust and impurities and helping to avoid blockages in the main fuel filters.

**5** Equipment safety - audio and visual alerts provided in instrument panel for: low coolant level; air filter clog; high hydraulic oil temperature.

**6** Because they're mounted side by side on a JCB JS205, the engine radiator, hydraulic cooler and intercooler can be serviced individually yet cleaned easily.

**7** An air pre-cleaner assembly keeps dust particles out of the cab and reduces maintenance costs by increasing the life of the air filter and the engine.



**UNEARTHED: KEY FACT**  
 JCB JS205 grease points are centralised for safe and easy access to high level pivots.

JCB JS205 bonnets open and close easily with gas-assisted cylinders, and the service bays are large and wide for good access.



## JcB SUPPORT

JcB IS NO ORDINARY cOmPANY. FROM THE DREAMS OF ONE mAN, WE HAVe GROWN INTO THE WORLD'S LARGEST PRIVATELY OWNED cOmPANY BY vOLUmE. WE AIm FOR 100% SATISFAcTION – IT'S ALL PART OF OUR PROMISE TO PUT YOU, THE cUSTOMER, FIRST.



**1** JCB is one of the top three manufacturers of construction equipment with 22 manufacturing facilities across the world. Our Headquarters based in the UK is home to the world's best-selling backhoe loader and the world's best-selling telescopic handler.

**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 our machine for optimum performance and productivity.

**3** Customers are at the heart of everything we do. Whatever a customer needs, we make it our mission to provide 100% satisfaction. Our 750 dealers, operating from 2000 locations, in 150 countries around the world are focused on putting customer needs first.

Sir Anthony Bamford, the son of Mr JCB still runs the company today.



## 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.

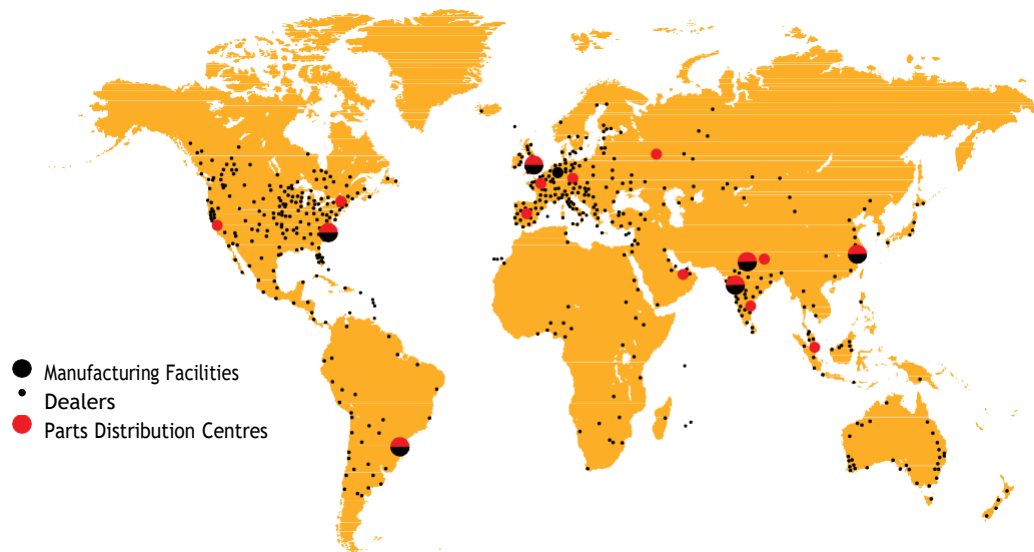
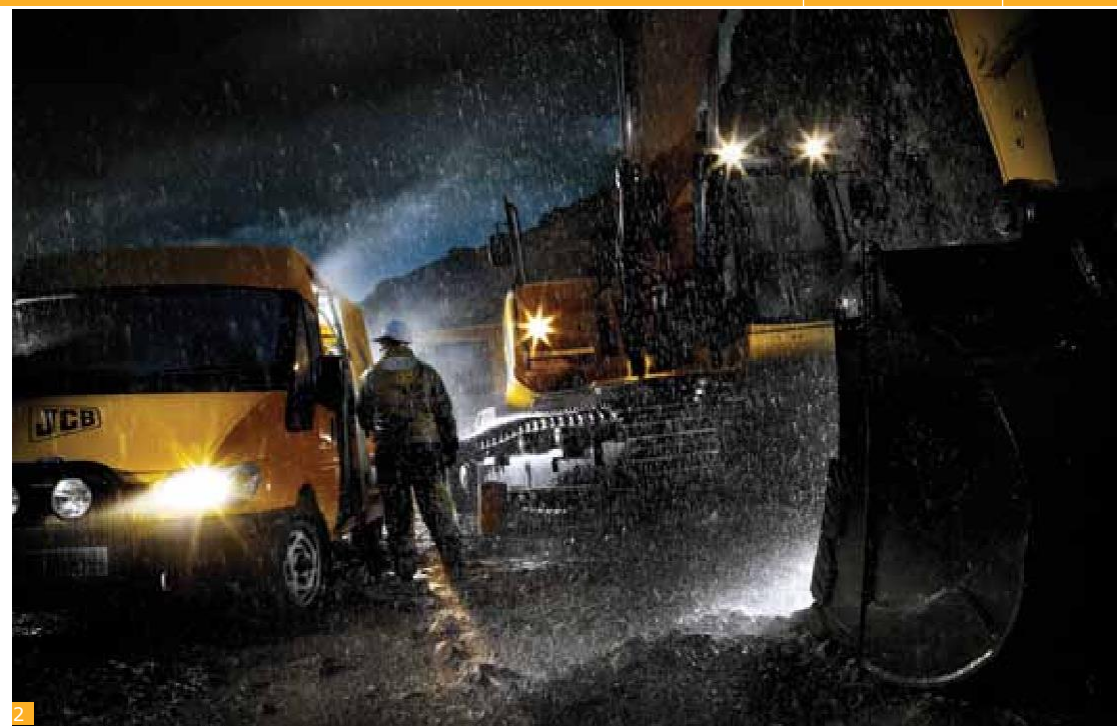


**1** Our Technical Support Service provides instant access to factory expertise, day or night, while our Finance and Insurance teams are always on hand to provide fast, flexible, competitive quotes.

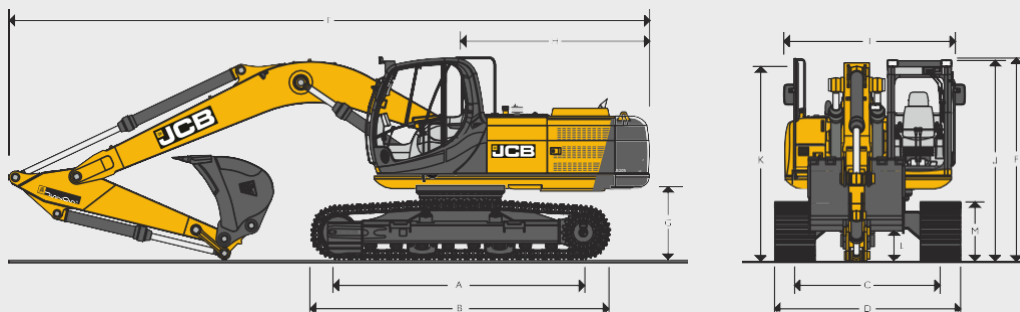
**2** JCB Assetcare offers comprehensive extended warranties and service agreements, as well as service-only or repair and maintenance contracts. Irrespective of what you opt for, our Maintenance teams around the world charge competitive labour rates, and offer non-obligation quotations as well as fast,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



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## STATIC DIMENSIONS



Dimensions in mm		JS205LC (LC track, 600mm track shoe)		JS205SC (Std track, 800mm track shoe)
		2.4m arm	3m arm	3m arm
A	Track length on ground	3660	3660	3370
B	Undercarriage overall length	4460	4460	4170
C	Track gauge	2390	2390	2200
D	Width over tracks	2990	2990	3000
Dipper lengths				
E	Transport length with Monoboom and arm	9634	9562	9562
F	Transport height with Monoboom and arm	3122	3122	3122
Dimensions in mm				
G	Counterweight clearance	1079	1079	1079
H	Tailswing radius	2825	2825	2825
I	Width of superstructure	2549	2549	2549
J	Height over cab	3060	3060	3060
L	Ground clearance	435	435	435
M	Track height	885	885	815

\*Machine in transport position

## ENGINE

Model	CUMMINS 6BT 5.9C
Type	Water Cooled, 4 stroke, 6 -cylinder in-line, direct injection, turbocharged diesel
Nett Power	Gross power: 104 kW (140 hp)
Piston Displacement	5.88 litres
Air Filtration	Dry element with secondary safety element plus air pre-cleaner
Cooling	Water cooled via large capacity radiator
Starting system	24 volt
Alternator	24 V, 75 amp, Heavy duty

## UNDERCARRIAGE

Upper & lower rollers	Heat treated, sealed and lubricated	
Track adjustment	Grease cylinder type	
Track idler	Sealed and lubricated, with spring enhanced recoil	
	JS205SC	JS205LC
Track Shoe	2 per side	2 per side
No. of track guides	2 per side	2 per side
No. of lower rollers	7 Per side	8 Per side
No. of upper rollers	2 per side	2 per side
No. of track shoes	46 per side	49 per side

## SERVICE CAPACITIES

Machine model	Litres
Fuel tank	343
Engine coolant	25.5
Engine oil	19
Hydraulic System	203
Hydraulic tank	120
Swing Device	5
Travel Device	2 x 5

## WEIGHTS AND GROUND BEARING PRESSURES

Standard machine with bucket, operator, full capacity lubes and fuel

	JS205SC	JS205LC
Operating Weight	20500 kg	21500 kg
Ground bearing pressure	0.35 kgf/cm <sup>2</sup> cm	0.47 kgf/cm <sup>2</sup>

TRACK DRIVE	
Type	Fully hydrostatic
Travel motors	Axial piston type, fully guarded within undercarriage frame
Final drive	Planetary reduction, bolt-on sprockets
Service brake	Hydraulic counter balance valve to prevent over speeding on gradients
Park brake	Disc type, spring applied, automatic hydraulic release
Gradeability	70% (35 deg.) continuous
Travel speed	3.8 km-h
Tractive effort	166 kN

HYDRAULIC SYSTEM	
Pumps	
Main pumps	2 variable displacement axial piston type
Maximum flow	2 x 220 L/min
Servo pump	Gear type
Maximum flow	20 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
Swing circuit	289 bar
Travel circuit	343 bar
Pilot control	40 bar

SWING SYSTEM	
Swing motor	Axial piston type
Swing brake	Hydraulic braking, electrically operated spring applied disc type parking brake
Final drive	Planetary reduction
Swing torque	65.2 kNm
Swing gear	Large diameter, internally toothed fully sealed grease bath lubricated.
Swing speed	12 RPM

CAB & CAB GUARD	
Pressed steel construction with high strength rolled sections. Excellent all round visibility during digging, loading & positioning. Removable front lower glass and sliding rear window. Excellent ergonomic positioning of operating levers for reduced operator fatigue. Optional ducted AC unit with heater for operator comfort. Windscreen wiper & lockable stowage available. Rubber covered track pedal, water bottle & document holders provided. Optional top lights for illumination.	

STANDARD / OPTIONAL EQUIPMENT	
Equipment	Standard/Optional
Auto-Idler	Standard
Work lights: 1 on boom and 1 on main frame	Standard
Additional lights; 2 on cab & 1 on Counterweight	Optional
Windscreen wiper	Standard
Engine Fan Guard	Standard
Undercarriage belly guarding	Standard
Upper structure under covers	Standard
Engine pre-cleaner	Standard
Double element radial type air cleaner with wire mesh protection	Standard
Heavy-duty alternator (75 amp)	Standard
Suspension Seat	Standard
Cab floor Mat	Standard
Rubber covered track pedals	Standard
Removable front lower cab glass	Standard
Hammer pipe mounting brackets	Standard
Handrail and nonslip walk ways	Standard
Radiator fly screen	Standard
FM Radio and music player with speakers	Optional
Fully ducted air conditioner unit with heater	Optional
Rock breaker pipe Work	Optional
3m arm, 0.9m <sup>3</sup> bucket	Standard
2.4m arm, 1.02m <sup>3</sup> bucket	Optional

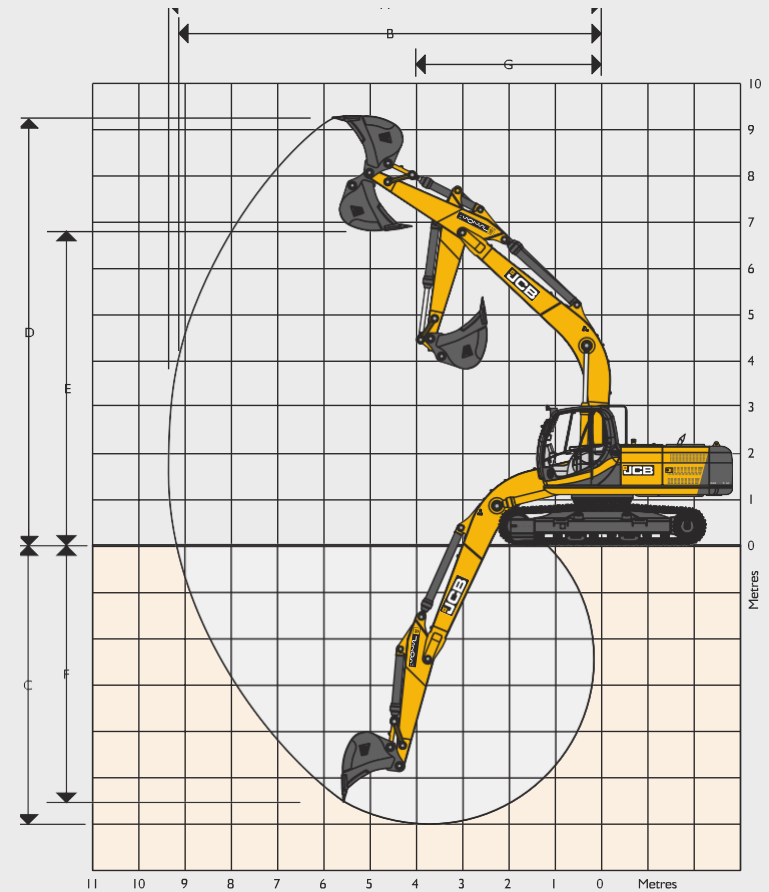
**FILTRATION SYSTEM**

In tank	150 micron, suction strainer.
Main return line	10 micron, fibre form element.
Plexus Bypass line	1.5 micron, paper element.
Pilot line	10 micron, paper element.
Hydraulic hammer return	10 micron, reinforced microform element.
Cooling	Worldwide cooling is provided via a full return line air blast cooler with anti-block wavy cooling fins. Fly mesh provided to avoid clogging of radiator and cooler films.

**EXCAVATOR BUCKET**

Bucket	Toe plate width (mm)
0.9m <sup>3</sup> (GP)	1198
1.02m <sup>3</sup> (GP)	1350











**WORKING RANGE**



JS205LC / JS205

Boom length:		5.7m		
Arm length:		2.4m	3.0m	
A	Maximum digging reach	mm	9300	9700
B	Maximum digging reach (on ground)	mm	9100	9520
C	Maximum digging depth	mm	5980	6750
D	Maximum digging height	mm	9030	9120
E	Maximum dumping height	mm	6460	6570
F	Maximum vertical wall cut depth	mm	5470	6140
G	Minimum swing radius	mm	3850	3740
	Bucket rotation		183°	182°
	Maximum arm tearout (ISO 6015)	kgf	11700	9590
	Maximum bucket tearout (ISO 6015)	kgf	14550	14550











**JS205LC LIFT CAPACITIES: ARM 2.4M, TRACKS: 49 LINKS, TRACK SHOES : 600MM, WITHOUT BUCKET**

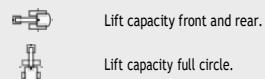
Reach	3m		4.5m		6m		7.5m		Capacity at Max Reach		
											
Load Point Ht.	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	mm
7.5m									5248*	5248*	5577
6.0m					6046*	4933			4840*	4009	6782
4.5m			7624*	7427	6573*	4775	4786*	3346	4760*	3343	7504
3.0m			9624*	6864	7250	4539	5134	3264	4754	3023	7876
1.5m			11036	6414	6999	4317	5023	3163	4609	2909	7950
0m			10789	6210	6837	4174	4949	3096	4742	2974	7735
- 1.5m	10531*	10531*	10753	6175	6789	4134			5238	3265	7202
- 3.0m	14788*	12217	10778*	6279	6882	4214			6466	3989	6273
- 4.5m		12473	7952*	6442					7449*	6179	4711

**JS205LC LIFT CAPACITIES: ARM 3M, TRACKS : 49 LINKS, TRACK SHOES : 600MM, WITHOUT BUCKET**

Reach	3m		4.5m		6m		7m		Capacity at Max Reach		
											
Load Point Ht.	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	mm
7.5m									4591*	4376	6450
6.0m							4307*	3373	4240*	3360	7515
4.5m					6036*	4776	5220	3332	4134*	2866	8171
3.0m			8795*	6931	6992*	4514	4090	3214	4157	2614	8514
1.5m			10714*	6399	6945	4256	4949	3084	4037	2518	8583
0m			10680	6098	6736	4071	4840	2986	4128	2560	8383
- 1.5m	9085*	9085*	10562	6000	6640	3986	4802	2951	4481	2767	7896
- 3.0m	15226*	11815	10618	6047	6669	4012			5299	3259	7059
- 4.5m	13221*	12180	9478*	6252					6975*	4491	5721

**JS205SC LIFT CAPACITIES : ARM 3M, TRACKS : 46 LINKS, TRACK-SHOES : 800MM, WITHOUT BUCKET**

Reach	3m		4.5m		6m		7.5m		Capacity at Max Reach		
											
Load Point Ht.	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	mm
7.5m									4591*	3935	6450
6.0m							4307*	3023	4240*	3011	7515
4.5m					6036*	4285	4671	2982	4038	2557	8171
3.0m			8795*	6147	6430	4029	4545	2866	3712	2324	8514
1.5m			9609*	5633	6148	3776	4407	2739	3600	2232	8583
0m			9265	5342	5945	3595	4301	2642	3675	2264	8383
- 1.5m	9085*	9085*	9153	5247	5853	3513	4264	2608	3984	2447	7896
- 3.0m	15226*	10094	9206	5293	5881	3538			4703	2884	7059
- 4.5m	13221*	10438	9441	5491					6538	3977	5721



- 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.

"All dimensions, weights, timings, features & measures mentioned in the brochure could have variance. JCB reserves the right to change specification without prior notice."



A selection of machines from the JCB construction range.



Your nearest JCB dealer

JCB Sales Asia Pacific PTE Ltd #04-04 OUE Bayfront, 50 Collyer Quay, Singapore 049321 Tel: +65 6863 4201 Download the very latest information on this product range at: [www.jcb.com](http://www.jcb.com)

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