

JS205 | HEAVY DUTY TRACKED EXCAVATOR

LEADING WITH PERFORMANCE



Gross Engine Power : 106 KW (140 hp), Bucket Capacity : 0.8 cu.m. - 1.02 cu.m.,
Operating Weight : 20,500 kg (Standard Carriage) - 21,250 kg (Long Carriage)



TOP
5
BENEFITS
FOR YOU



Reliability & Durability
Durable heavy duty structure and
high quality components



Most Fuel Efficient
Savings of Rs 1.3* lakh per year



High Output
Excellent digging forces &
productivity

10% IMPROVED
efficiency
Tonnes per litre



Best Operator Comfort
All new cab with fully ducted
AC/Heater (Option)



Low On
Maintenance

*T&C Apply

MOST RELIABLE PARTNER



Reinforced rails at the bottom of "A" frame & box section side member design provide **durability** in tough working conditions



Heavy duty X frame design of track frame. LC version available with strengthened idler area & doubler plates on X frame for enhanced **strength**



Heavy Duty boom has been designed with **22% bigger** sections for high **durability** and strength



Use of **robust** cast ends and pivot bosses provide **strength** and **durability** to boom and arm



Arm sections are **12% deeper & 7% wider** to provide higher strength. Damage protection plate and wear ribs are installed for protection from external damage

IP67-69 Dust & water proof connectors for electrical harness for high reliability of electrics



BEST IN FUEL EFFICIENCY



JCB's **advanced** hydraulic system has been designed for lower energy needs. This helps in reducing the fuel consumption by 10% to save money for you



Choice of **Power (P) & Economy (E)** modes :
E : Economy mode - For fuel saving with optimum productivity
P : Power mode- Increased engine power and pump flow for more productive operations when higher output is required



Auto idler for fuel saving during engine idling at high speeds

*T&C Apply.



10% IMPROVED efficiency
Tonnes per litre

BEST IN CLASS PERFORMANCE

XCELLENT Digging

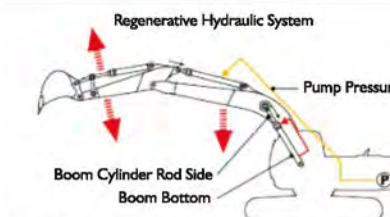


Tear out forces

**Bucket
13205 kgf**

**Dipper
11700 kgf**

Excellent bucket and dipper tear out forces result in **high output** and faster completion of work specially in hard strata



JCB's **innovative** hydraulic regeneration system recycles hydraulic oil across the cylinders for faster cycle times and **reduced fuel consumption**

The **advanced** hydraulic system also ensures excellent multifunction performance resulting in **higher output levels**

**Maximum swing torque
65.2 kNm**



LOW MAINTENANCE COST

Hydraulic oil
change interval
Every **5000**
hours

Special filtration system extends hydraulic life up to 5000hrs with the hydraulic main return filter change intervals of 1000hrs, which reduces maintenance costs.



Air pre-cleaner assembly filters dust particles and helps in increasing life of air filter elements and life of engine



Radial seal type air filter elements provide secure and error-free sealing. Filter elements are covered with wire mesh to avoid damage to filter paper during storage, handling and cleaning



High capacity fuel pre-filter cum water separator filters dust and impurities and helps in avoiding blockage of main fuel filters thus helping in stoppage free operations



ULTIMATE EASE OF SERVICEABILITY

Compact and easy to handle bonnet is assisted by two gas cylinders and helps in easy opening and closing. It makes periodic maintenance easy and effortless

Easy to access periodic check points

Side by side radiator & cooler for ease of maintenance

Wire mesh provided to avoid clogging of radiator & oil cooler

Cooler unit air-conditioner is hinged for easy access to radiator & cooler unit for cleaning

Fuses & relays are located inside cabin and are easy to access



Boom end pivot bushes need to be greased at 1000 hours reducing maintenance costs and increasing machine uptime

A COMFORTABLE OPERATOR IS A PRODUCTIVE OPERATOR



All new cab with pressed steel construction with increased internal space and overall visibility

Cab is mounted on viscous mounts to absorb vibrations



Roof hatch provided to keep the cab well ventilated which is aided by rear sliding window



High visibility for working at height through glass provided on front of cab



Rubber coated track pedal and foot rests for operator comfort. Front lower glass can be removed for ventilation



Provision of mounting cab guard available



AC option available



Clear display of warning & operating modes

THE SAFEST CHOICE



Equipment protection system: Audio-Visual alerts provided in instrument panel for following:

Air filter blockage



Low coolant level



High hydraulic oil temperature



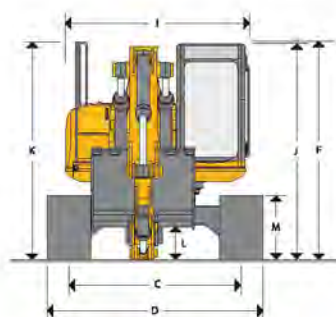
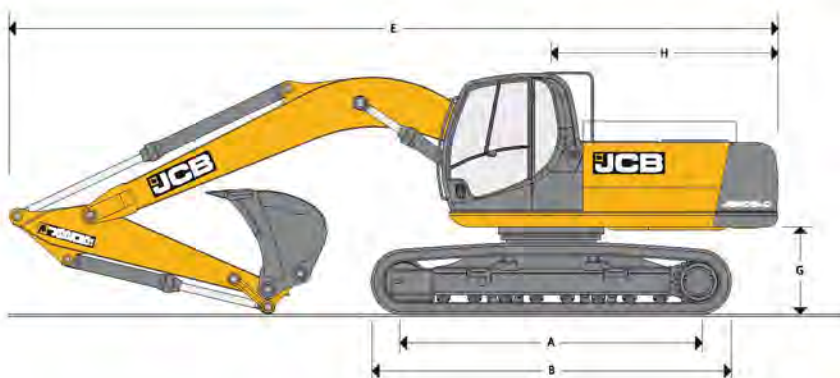
Damage protection:
Belly guard at lower frame
& undercovers for
upper frame



Single right hand glass
and low bonnet height
for high visibility for safe
operation



Servo isolator lever over-ride system
& swing lock system provide additional safety
against unintended machine operation



WEIGHT AND GROUND BEARING PRESSURE

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

	JS205	JS205LC
Operating Weight	20,500 kg	21,250 kg
Ground bearing pressure	0.61 kg/sq cm	0.58 kg/sq cm

STATIC DIMENSIONS		JS205LC (LC track, 500 mm track shoe)		JS205 (Std track, 500 mm track shoe)	
		2.4m arm	3 m arm	2.4m arm	3 m arm
A	Track length on ground	3660	3660	3370	3370
B	Undercarriage overall length	4460	4460	4170	4170
C	Track gauge	2390	2390	2200	2200
D	Width over tracks	2890	2890	2700	2700
E	Transport length with Monoboom and arm	9634	9562	9634	9562
F	Transport height with Monoboom and dipper	3122	3122	3122	3122
G	Counterweight clearance	1079	1079	1079	1079
H	Tailswing radius	2825	2825	2825	2825
I	Width of superstructure	2549	2549	2549	2549
J	Height over cab	3060	3060	3060	3060
L	Ground Clearance	435	435	435	435
M	Track Height	885	885	885	885

ENGINE

Model	: CUMMINS 6BT 5.9C
Type	: Water Cooled, 4 stroke, 6 -cylinder in-line, direct injection, turbo-charged diesel.
Nett Power	: Gross power: 140 hp
Piston Displacement	: 5.88 litres.
Air filtration	: Dry element with secondary safety element plus air pre-cleaner
Cooling	: Water cooler via large capacity radiator with anti block 'wavy' fins.
Starting system	: 24 volt.
Alternator	: 24V, 75 amp, Heavy duty

SERVICE CAPACITIES

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

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, FM radio with USB media player with speakers, mobile phone charging point & lockable stowage available. Rubber covered track pedal, water bottle & document holders provided. Optional cab guards for cab front & top available for protection against flying objects. Additional cab top lights for illumination.

EXCAVATOR BUCKET

All buckets are JCB type fully welded steel, with sealed, hardened steel pivot pins and replaceable wear parts.

Bucket	Toe plate width (mm)
0.9 cum (GP)	1198
0.9cum (HD)	1198
1.02cum (GP)	1350
0.8cum (Rock)	1120

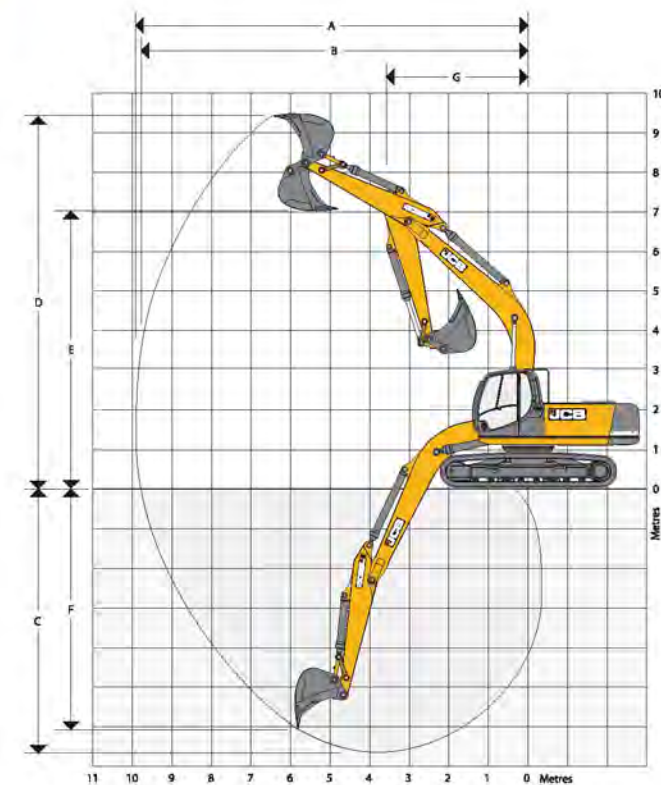
TRAVEL SPEED & TRACTIVE EFFORT

Travel speed	3.8 kmph
Tractive Force	166 KN

WORKING RANGE: JS205LC/JS205



Boom Length 5.7m		Arm length	
Dipper	unit	2.40m	3.00m
A Maximum digging reach	m	9.30	9.79 m
B Maximum digging reach (on ground)	m	9.10	9.61
C Maximum digging depth	m	5.98	6.59
D Maximum digging height	m	9.03	9.12
E Maximum dumping height	m	6.46	6.57
F Maximum vertical wall cut depth	m	5.47	6.14
G Minimum swing radius	m	3.85	3.74
Bucket rotation	deg.	183	182
Dipper tearout (ISO6015)	kgf	11700	9842
Bucket tearout (ISO6015)	kgf	13205	13205



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	: 13 RPM.

HYDRAULIC SYSTEM

A variable flow load sensing system with flow on demand, variable power output and servo operated, multi-function open centre control.

2 Work modes: Productivity & Economy

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. When required twin pump flow is combined to boom, dipper and bucket services for greater speed and efficiency.

Relief valve settings	
Boom / Arm / Bucket	343 bar
Swing circuit	289 bar
Travel circuit	343 bar
Pilot control	40 bar

CONTROLS

Excavator : All servo lever operated to ISO control pattern.

Engine Auto-Idler : Reduces engine speed to low idle depending upon machine utilisation thus saving fuel.

Tracks : Individually servo operated by foot pedal or hand lever.

Auxiliary : Via servo operated foot pedal.

Horn : Operated via servo lever mounted button.

UNDERCARRIAGE

Construction: Standard/Long undercarriage fully welded. "X" frame type with central belly guarding and sloping sidemembers with dirt relief holes under top rollers.

Track Shoe	: 500mm (Standard)
Upper & lower rollers	: Heat treated, sealed and lubricated.
Track adjustment	: Grease cylinder type.
Track idler	: Sealed and lubricated, with spring enhanced recoil.
No. of track guides	: 2 per side
No. of lower rollers	: 8 Per side (JS205LC), 7 per side (JS205)
No. of upper rollers	: 2 per side (JS205LC)
No. of track shoes	: 49 per side (JS205LC), 46 per side (JS205)

STANDARD EQUIPMENT

FM Radio and USB music player with speakers

Auto-Idler

Work lights: 2 nos. on booms and 1 no. on main frame

Additional lights: 2 nos. on cab & 1 no. on counterweight

Windscreen wiper

Engine Fan Guard

Undercarriage belly guarding

Upper structure under covers

Engine pre-cleaner

Double element radial type air cleaner with wire mesh protection

Heavy-duty alternator (75 amp)

Cabin Fan

Suspension Seat

Cab floor Mat

Rubber covered track pedals

Removable front lower cab glass

Hammer pipe mounting brackets

Tool Kit

Handrail and nonslip walk ways

Radiator fly screen

OPTIONAL EQUIPMENT

Fully ducted air conditioner unit with heater

Cabin Guard (Front and Top)

Rock breaker

Rock breaker pipe Work

General purpose buckets (0.9 cum, 1.02 cum)

Heavy-Duty Buckets (0.8 cum, 0.9 cum)

First aid kit

Fire Extinguisher

High raise cabin

Long reach attachment (15m)

Cab sun screen

3 m arm

Additional hour meter for rock-breaker

Refuel pump

LiveLink



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 kmph
Tractive effort	: 166 kN

EXCAVATOR END

Deep section design of boom & arm with cast ends & pivot bosses with braker pipe mounting provision

FILTRATION SYSTEM

The hydraulic components are protected by the highest standard of filtration to ensure long hydraulic fluid life upto 5000 hrs (subject to SOS & recommended maintenance practices) and component life.

In tank: 150 micron, suction strainer.

Main return line : 10 micron, fibre form 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.

LIFT CAPACITIES

Reach	3 m		4.5 m		6.0 m		7.5 m		Capacity at Max. Reach	
Load Point Height										

JS205LC LIFT CAPACITIES : Arm 2.4m, Tracks : 49 Links, Track Shoes : 500mm, without bucket

Reach	3m		4.5m		6m		7.5m		Max. Reach	
Load Point Ht.	Kg	Kg	Kg	Kg	Kg	Kg	Kg	Kg	Kg	mm
7.5m									5248*	5577
6m					6046*	4866			4840*	6782
4.5m			7624*	7329	6573*	4708	4786*	3295	4760*	7504
3-0m			9624*	6765	7143	4472	5055	3213	4680	7876
1.5m			10868	6316	6892	4250	4944	3112	4536	7950
0m			10621	6111	6730	4107	4870	3045	4666	7735
-1.5m	10531*	10531*	10585	6081	6681	4064			5155	7202
-3.0m	14788*	12032	10705	6181	6774	4146			6365	6273
-4.5m			7952*	6485					7449*	4711

JS205LC LIFT CAPACITIES : Arm 3m, Tracks : 49 Links, Track Shoes : 500mm, without bucket

Reach	3m		4.5m		6m		7.5m		Max. Reach	
Load Point Ht.	Kg	Kg	Kg	Kg	Kg	Kg	Kg	Kg	Kg	mm
7.5m									4591*	6450
6m							4307*	3238	4240*	7515
4.5m					6036*	4597	5020	3196	4134*	8171
3-0m			8795*	6669	6966	4335	4890	3078	3987	8514
1.5m			10618	6137	6674	4077	4749	2949	3870	8583
0m			10255	5836	6464	3892	4641	2850	3955	8383
-1.5m	9085*	9085*	10137	5738	6368	3807	4602	2815	4294	7896
-3.0m	15226*	11324	10194	5785	6397	3833			5082	7059
-4.5m	13221*	11689	9478*	5990					6975*	5721

JS205 LIFT CAPACITIES : Arm 2.4m, Tracks : 46 Links, Track-Shoes : 500mm, without bucket

Reach	3m (9ft 10in)		4.5m		6m		7.5m		Max. Reach	
Load Point Ht.	Kg	Kg	Kg	Kg	Kg	Kg	Kg	Kg	Kg	mm
7.5m									5248*	5577
6m					6046*	4313			4840*	6782
4.5m			7624*	6445	6484	4158	4514	2900	4511	7504
3-0m			9624*	5900	6226	3928	4427	2820	4099	7876
1.5m			9271	5466	5984	3711	4319	2721	3965	7950
0m			9037	5268	5827	3571	4247	2655	4072	7735
-1.5m	10531*	9950	9003	5239	5780	3530			4490	7202
-3.0m	14788*	10142	9117	5335	5870	3610			5527	6273
-4.5m			7952*	5629					7449*	4711

 Life capacity front and rear

 Lift capacity full circle

Notes: * For lifting capacity including bucket, subtract total weight of bucket or bucket and quickhitch from above value * The above loads are in compliance with SAE and ISO standards i.e. 75% of minimum tipping load or 87% of hydraulic lift capacity, whichever is less. Lifting capacities marked * are based on hydraulic capacity

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

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