NEW

JS81 | High on performance, High on savings



Gross engine power: 57kW (76hp), Bucket capacity: 0.24 - 0.32 cu.m
Max. operating weight: 8400 kg

JCB

TOP 5 BENEFITS FOR YOU



Reliability & Durability
Durable heavy-duty structure and high-quality aggregates

Best in performance
Highest digging force & productivity

15% IMPROVED output
Tonnes per hour in Portable

Low maintenance cost
& High equipment safety

Best operator comfort

AC available as an option

25% BIGGER CABIN SPACE

High fuel economy
Choice of 2 power modes, saves up to ₹ 1 lac/Year

10% BETTER FUEL economy
E-Mode in (kWh)

LIVELINK
STAY CONNECTED 24 x 7

*T&C Apply

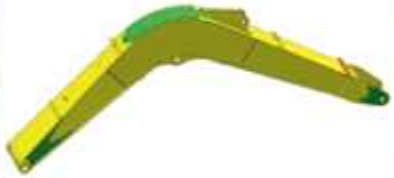
MOST RELIABLE PARTNER



Durable upper frame : Rugged construction of upper frame provides durability in tough working conditions.



X-type construction of lower frame is for higher strength.



Reinforced boom : Sturdy construction with 3 box sections, strengthened boom base and boom top area.



Strengthened arm : Two-plate box section design for higher strength. Reinforced boom end joint, bucket mounting area & top plate for higher durability. Additional wear plate at the bottom for higher strength and protection from damage.

IP69 dust & waterproof connectors for electrical harness, for high reliability of electrical system.



BEST IN FUEL EFFICIENCY

New JS81 offers excellent fuel economy with 15% reduction in fuel consumption.

Saves up to ₹ 1 lac/Year.

Choice of

Productivity (P) & **Economy (E)** modes

P: Productivity mode - Product when higher output is required.

E: Economy mode - For fuel saving with optimum productivity.



Auto idler for fuel saving, when machine is not at work.

auto idler

*T&C Apply.





Xcellent Digging



Tear-out Forces

Bucket
5755 kgf

Dipper
4134 kgf



Travel speed: JS81 is equipped with twin travel speeds for varying jobs.

Excellent bucket and dipper tear out force result in higher output and faster completion of work, especially in hard strata.

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

Higher swing speed of 12.5RPM in P-mode.



LOW

MAINTENANCE COST



Special filtration system extends hydraulic oil life up to 5000 hrs, which reduces the overall maintenance costs.



Engine oil and engine filter replacement has an interval of 400 Hrs.

Hydraulic return filter replacement at 1000 hrs.



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.



JS81 is equipped with robust filtration system having 3 nos. fuel filters and 1 no. water separator.





ULTIMATE EASE OF SERVICEABILITY



Compact and easy-to-handle bonnet is assisted by gas strut that 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.

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



Remote-mounted engine oil filter to allow easy access.

A COMFORTABLE OPERATOR IS A

PRODUCTIVE OPERATOR



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



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



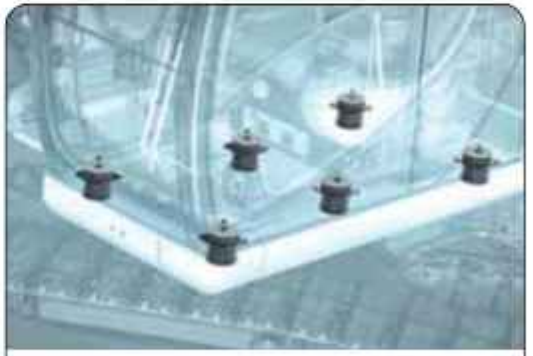
High visibility for working at diiferent heights through glass provided in front of the cab.



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



AC available as an option.



Cabin is mounted on six viscous mounts to absorb vibrations.



Clear display of warning & operating modes.


Spacious cab with high head and leg room.
Increased seat recline for better comfort.
Ergonomically placed operator controls to minimise operator fatigue.
25%
BIGGER
CABIN SPACE
*T&C Apply.

THE SAFEST CHOICE

Equipment safety system:
Audio-visual alerts provided in instrument panel for the following purpose :

Air-filter blockage



Low coolant level



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



High visibility:
Single right hand glass and low bonnet height design for better visibility leading to safe operation.



Electrical safety:
Battery cover provided.



Machine safety:
Servo isolator lever, over-ride system & swing-lock system provide additional safety against unintended machine operations.



Stay Connected 24x7

Now be assured of your JCB Excavator's service, operation and security with the advanced telematics system called Livelink.

SERVICE



Livelink will notify you about the service requirement of your machine. It increases the efficiency of your machine and keeps it in perfect working conditions.

Service reminder

Reminds you when the service of your machine is due; the reminder helps you plan your work better.

Machine data backup

Helps to maintain the records of past services in an organized manner.

Critical machine health alerts

Lets you know the inside of your machine from a faraway location. Helps in taking proactive measures to avoid break-down through alerts like

- Low engine oil pressure
- Low coolant temperature
- Blocked air filter
- Coolant level

OPERATION



Livelink helps you maintain your machine health and manage your fleet better by alerting you of any variation in health indicators. It lets you know in real time, if your machine is facing a problem or needs any quick check-up.

Machine utilisation report

Maintains machine usage record and helps you analyse & optimise utilisation of machine.

Engine status

Informs you if your JCB machine's engine is switched on or off.



SECURITY



Livelink helps you to keep a track of your machine's location, protection and movement.

GPS tracking

Tells you the exact position of your machine on a map.

Operating hours

Alerts you when the machine is used outside the working hours as set by you.

Possible intrusion/Tow away alerts

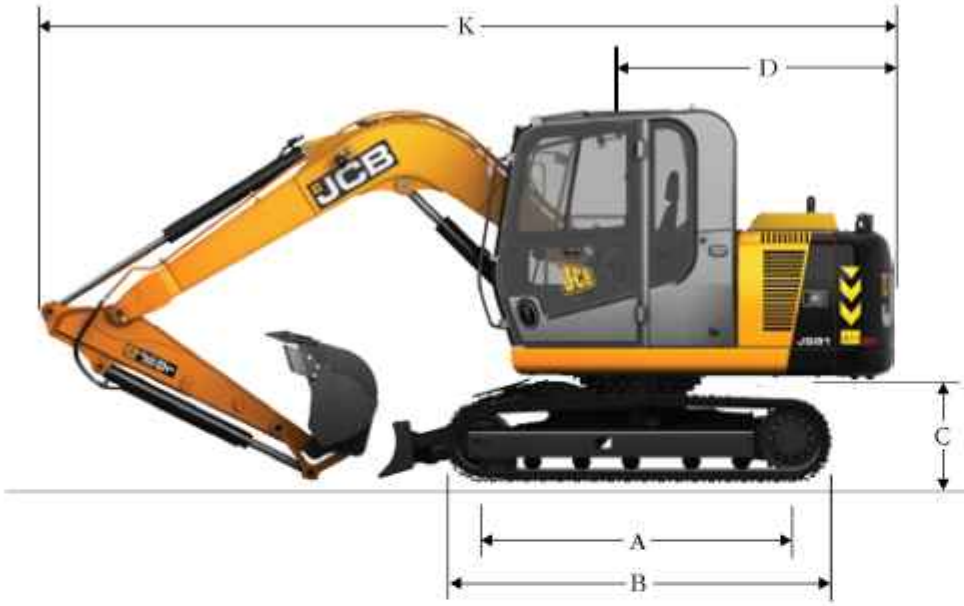
Helps you save your machine from intruders and possible tow aways.

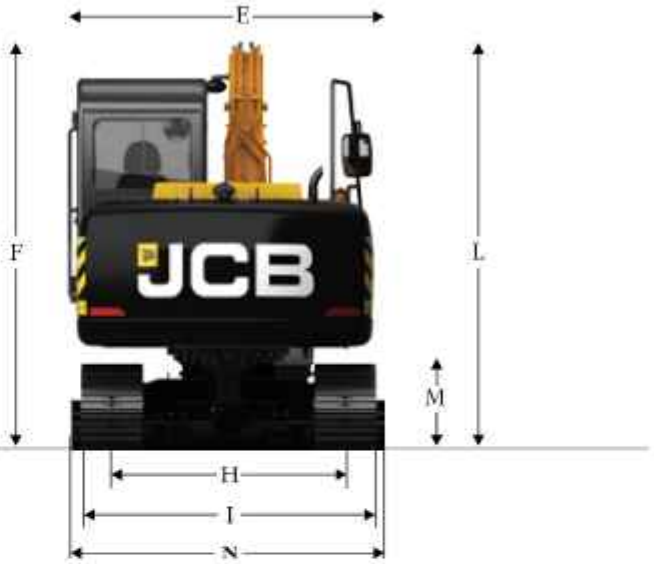
Geofencing

Lets you keep your machine within the allocated area of work.

GROSS ENGINE POWER : **76 hp**

MAX. OPERATING WEIGHT : **8400 kg**





STATIC DIMENSIONS

A	Track length on ground	2244 mm
B	Under carriage overall length	2840 mm
H	Track gauge	1700 mm
I	Width over tracks (450 mm shoes)	2150 mm
K	Transport with monoboom and 2.4 m dipper*	6226 mm
L	Transport height with monoboom and 2.4 m dipper*	2768 mm
C	Counterweight clearance	775 mm
D	Tail swing radius	1841 mm
E	Width of superstructure*	2220 mm

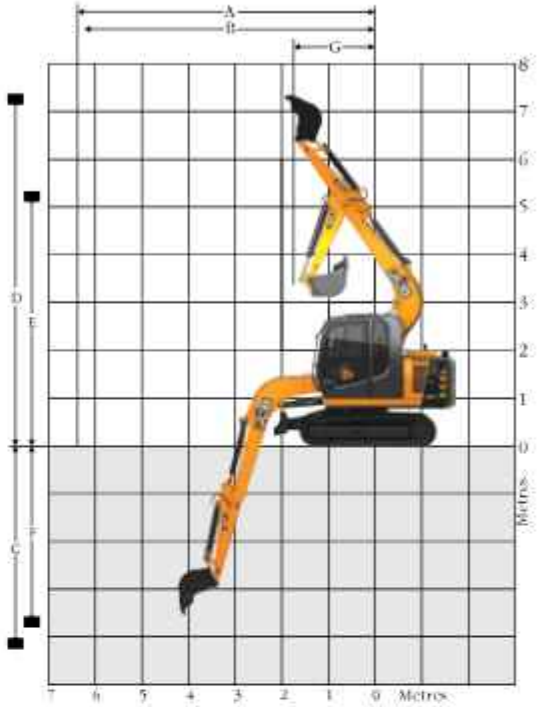
*With cab hand rail removed

F	Height over cab	2722 mm
N	Dozer blade width (back fill)	2300 mm
G	Ground clearance	365 mm
M	Track height	660 mm
	Dozer blade (optional)	
	Max height (above ground)	366 mm
	Dig depth (below ground)	243 mm
	Approach angle	26°
	Width	2300 mm
	Height	397 mm
Reach in front of tracks		480 mm

*With cab hand rail removed

* All dimensions, weights and timings are variable within 1.5% JCB reserves the right to change specifications without prior notice.

WORKING RANGE: JS81	
Boom	**3.7 m**
Dipper	**1.74 m** (Standard)
A Maximum digging reach	6454 mm
B Maximum digging reach (on ground)	6315 mm
C Maximum digging depth	4007 mm
D Maximum digging height	7094 mm
E Maximum dumping height	5401 mm
F Maximum vertical wall-cut depth	3675 mm
G Minimum swing radius	1841 mm
Dipper tear out	4134 kgf
Bucket tear out - all machines	5755 kgf
Bucket rotation (deg.)	184°



LIFT CAPACITIES - Boom: 3.7 m, Arm: 1.74 m, No Bucket **JS81**

Reach	1.5m (4 ft 11 in)		3m (9 ft 10in)		4.5m (14 ft 9 in)		6m (19 ft 8 in)		Capacity at Max. Reach		
Load Point Ht.	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	mm
6.0m (19.8ft)							-	-	1670*	1670*	2606
4.5m (14.9ft)			1380*	1380*			-	-	1460*	1460*	4350
3.0m (9.10ft)			1810*	1810*	1480*	1480*	-	-	1450*	1340	5135
1.5m (4.11ft)			2520*	2520*	1700*	1560	-	-	1500*	1210	5404
0m			2870*	2640*	1850*	1510	-	-	1570	1230	5240
-1.5m (-4.11ft)	4590*	4590*	2710*	2620	1700*	1500	-	-	1640*	1470	4595
-3.0m (-9.10ft)			1770*	1770*			-	-	1590*	1590*	3181

Lift capacity front and rear.

Lift capacity full circle.

Notes:

1. For lifting capacity including bucket, subtract total weight of bucket and quick hitch from above values.
2. Lifting capacities are based on ISO 10567, i.e. : 75% of minimum tipping load or 87% of hydraulic lift capacity, whichever is 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.

ENGINE

Model	: Kirloskar 4R 1040 NA
Type	: Water-cooled, 4-stoke, 4-cylinder
Gross power	: 76 hp at 2200 RPM (SAEJ 1995)
Battery	: 100 AH
Starting system	: 12 Volt
Alternator	: 85A
Aspiration	: Natural

CAB + CAB GUARD

Pressed steel construction with higher strengthened 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 for operator comfort. 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 light for illumination.

CONTROLS

Excavator : All servo lever operated, to ISO control pattern.

Tracks : Individually servo operated by foot pedal or hand lever. Speed selection via hand operated switch.

Auxiliary : Via foot operated servo pedal.

Controls isolation : Gate lock lever at cab entrance, and a console mounted switch.

Engine speed : Hand operated control lever. Mode change is done through toggle switch.

Engine stop : Hand operated stop cable.

Instrumentation : Instrumentation panel contains dial pointer type gauges for fuel level, engine water temperature readings & hour meter. Whilst audible & visual warnings indicate low engine oil pressure, low engine coolant level, engine overheat, no battery charge, hydraulic oil overheat, indication lights are incorporated in panel to indicate swing lock operation, servo control isolation, high travel speed and E & P modes of operation.

EXCAVATOR END

Choice of either dipper lengths, to suit the requirements of reach, dig depth, load-over height tear-outs and site versatility.

EXCAVATOR BUCKET

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

Bucket size	Capacity	Weight
Max. width toe plate	(SAE HEAPED)	
800 mm	0.24 cum	318 kg
950 mm	0.32 cum	343 kg

HYDRAULIC SYSTEM

Power modes
The equipment has two power modes

Economy (E) :
For optimum output and fuel economy.

Productivity (P) :
For higher output.

Pumps
Main pumps : Variable displacement axial piston type
Maximum flow : 2 x 70.3 lpm (main)
Servo pump : Gear type maximum flow
Dozer : Gear type, maximum flow 21.5 lpm

Control valve
A combined four and five spool control valves 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 setting
Boom / Arm / Bucket : 284 bar
Swing Circuit : 225 bar
Travel Circuit : 284 bar

Hydraulic cylinders
Double acting type, with screwed end caps and hardened steel bearing bushes. End cushioning is fitted as standard on boom and dipper rams.
Filtration: The hydraulic components are protected by the highest standard of filtration to ensure long hydraulic fluid life up to 5000hrs (subject to SOS) and component life.
In tank: 105 micron, suction strainer
Main return line : 10 micron, fibre form element
Pilot line: 10 micron, paper element.
Hydraulic hammer (optional) return: 10 micron reinforced micro form element
Cooling: Cooling via a full return line air blast cooler to meet the tough Indian working condition.

SWING SYSTEM

Swing speed : 12.5 RPM.

Swing motor : Axial piston type.

Swing brake : Hydraulic braking assisted by spring applied disc- type parking brake.

Final drive : Planetary reduction.

Swing gear : Large diameter, internally toothed, fully sealed grease bath lubricated.

Swing lock : Multi-position hydraulic.

UNDERCARRIAGE

Construction : Fully-welded "X" frame type with sloping side members with dirt relief holes under top rollers.

Upper & lower rollers	: Heat treated, sealed and lubricated.
Track type	: Sealed and greased
Track adjustment	: Grease cylinder type.
Track idler	: Sealed and lubricated, with spring enhanced recoil.
Track shoe	: 450 mm Tripler Grouser - (Standard)
Rollers and shoes (each side)	
Upper rollers	: 1
Lower rollers	: 5
Track shoes	: 39

WEIGHT AND GROUND BEARING PRESSURE

Machine equipped with 3.7m boom & 1.74m Dipper Arm and excavating bucket, operator, full fuel tank and lubes.

Standard boom track shoes with dozer	Operating weight	Bearing pressure
450mm	8400 kg	0.38 kg/sq.cm

STANDARD EQUIPMENT

Dozer blade.
FM radio.
USB media player with speakers.
Cab interior light.
HSP pressure test points.
Rock-breaker pipe work mounting brackets.
One work light each on boom & tool box.
Upper structure under covers.
Tool kit.
450mm triple grouser track shoes.
Undercarriage belly guarding.
0.32 cu.m general purpose bucket.
Additional work lights on cab and counterweight.
Livelink.

OPTIONAL EQUIPMENT

Ripper tooth
0.24 cu.m bucket
Rock-breaker (HM390)
Rock-breaker circuit
First aid kit
Fire extinguisher
Air-conditioned cabin
Cab grill (front & top)
Short boom & arm

TRACK DRIVE

Japanese Hydraulic Components
Type: Fully hydrostatic 2 speed.
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 hydraulically released.

Gradeability	:	70% (35 deg.) continuous
Travel Speeds	:	High - 5.1 km/hr, Low - 3.1 km/hr
Tractive effort	:	55.1 kN (5600 kgf)

SERVICE CAPACITIES

Fuel tank	164 lt
Engine coolant	23 lt
Engine oil	14 lt
Track reduction gear (each side)	1.7 lt
Hydraulic system	92 lt
Hydraulic tank	55 lt

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GENUINE PARTS

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JCB INDIA LIMITED 23/7 Mathura Road, Ballabgarh - 121 004 Haryana, India. Fax: 91 129 2309050

For more information SMS "**JCB**" to **56767** or call our toll free no. **1800-2000-522** E-mail: delhi.marketing@jcb.com

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