

# JCB JS 130

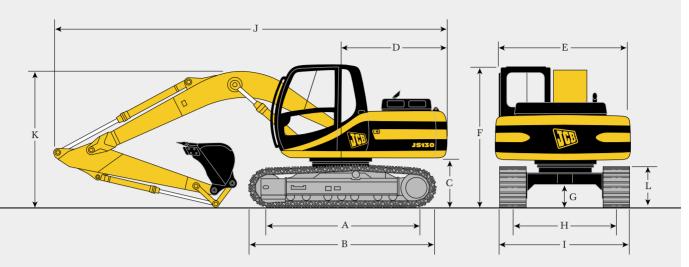
# TRACKED EXCAVATOR



MAX. OPERATING WEIGHT: 13900 kg NETT ENGINE POWER: 63 kW (85 hp)

## **GENERAL SPECIFICATION**

#### **STATIC DIMENSIONS**



Di	mensions in millimetres (ft. in.)	
А	Track length on ground	2780 (9ft. 1in.)
В	Undercarriage overall length	3550 (11ft. 8in.)
С	Counterweight clearance	910 (3ft. 0in.)
D	Tail swing radius	2050 (6ft.9in.)
Е	Overall width of superstructure	2410 (7ft. 11in.)
F	Height over cab	2695 (8ft. 10in.)
G	Ground clearance	460 (1ft. 6in.)
н	Track gauge	1990 (6ft. 6in.)
Ι	Width o/tracks (500mm shoes)	2490 (8ft. 2in.)
Ι	Width o/tracks (600mm shoes)	2590 (8ft. 6in.)

Dimensions in millimetres (ft. in.)					
I	Width o/tracks (700mm shoes)	2690 (8ft. 10in.)			
I	Width o/tracks (850mm shoes)	2840 (9ft. 4in.)			
J	Transport length (2.10 dipper)	7580 (24ft. 10in.)			
J	Transport length (2.50 dipper)	7600 (24ft. 11in.)			
J	Transport length (3.00 dipper)*	7630 (25ft. 0in.)			
K	Transport height (2.10 dipper)	2695 (8ft. 11in.)			
K	Transport height (2.50 dipper)	2695 (8ft. 11in.)			
K	Transport height (3.00 dipper)*	2695 (8ft. 11in.)			
L	Track height	815 (2ft. 8in.)			

\*Machine in transport position

#### **ENGINE**

Model: Isuzu. A4BG1T-S1

Type: Water cooled, 4-stroke, 4-cylinder inline, direct injection, turbocharged diesel. Nett power: (SAE J1349 and 80/1269/EEC) 63kW (85hp) at 2200RPM.

Piston Displacement: 4.329 litres (264 cu.in.).

Air Filtration: Dry element with secondary safety element and in cab warning indicator.

Cooling: Water cooler via large capacity radiator with anti block "wavy" fins and protected by a separate fine mesh grille. Starting system: 24 volt.

Batteries: 2 x 12 volt Heavy Duty.

Alternator: 24 volt 40 amp.

#### CAB

Pressed steel with high strength rolled section frame. All tinted safety glass windows with fully opening two piece windscreen and in screen stowage. Gas strut assisted. Parallelogram wash/wiper. Opening door windows. Fan force fresh air ventilation and heater with windscreen demister. Fully adjustable deluxe suspension seat with armrest and backrest recline. Radio cassette player with digital tuning. Cigarette lighter, ash tray. Digital clock and storage box are standard fitment.

#### **SWING SYSTEM**

Swing motor: Axial piston type. Swing brake: Hydraulic braking plus automatic spring applied disc type parking brake.

Final drive: Planetary reduction.

Swing speed: 13.4RPM.

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

Swing lock: Multi position switchable brake.

#### UNDERCARRIAGE

Construction: Fully welded, "X" frame type with central bellyguarding and sloping sidemembers with dirt relief holes under top rollers.

Recovery point: Front and rear.

Upper & lower rollers: Heat treated, sealed and lubricated.

Track adjustment: Grease cylinder type.

Track idler: Sealed and lubricated, with spring cushioned recoil.

Track shoes:	500mm (20in.) triple grouser
	600mm (24in.) triple grouser
	700mm (28in.) triple grouser
	850mm (33in.) triple grouser

Rollers and Shoes (each side):

Upper rollers	1
Lower rollers	7
Track shoes	44

#### **TRACK DRIVE**

Type: Fully hydrostatic, three speed with autoshift.

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.

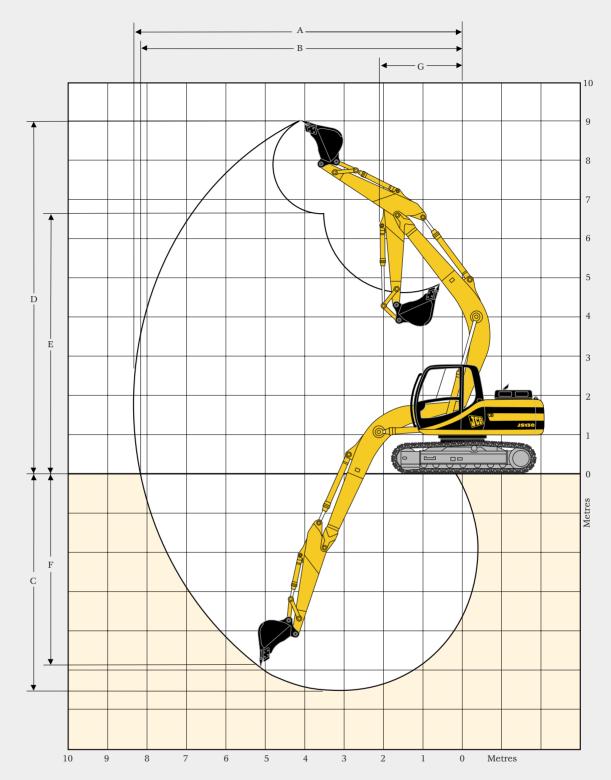
Gradeability: 70% (35 deg) continuous. Travel speed:High – 5.5 km/h (3.4 mph). Mid – 3.3 km/h (2.1 mph). Low – 2.3 km/h (1.4 mph).

Tractive effort: 104kN (10600kgf, 23369lbf).

#### SERVICE CAPACITIES

	Litres	UKgal
Fuel tank	240.0	52.8
Engine coolant	16.4	3.8
Engine oil	12.1	2.7
Swing reduction gear	2.2	0.5
Track reduction gear (each side)	3.0	0.7
Hydraulic system	124.0	27.3
Hydraulic tank	73.0	16.1

## **WORKING RANGE**



Boom length: 4.70m	2.10m Dipper Arm	2.50m Dipper Arm	3.00m Dipper Arm
A Maximum digging reach	7970mm (26ft. 2in.)	8340mm (27ft. 4in.)	8790mm (28ft. 10in.)
<b>B</b> Maximum digging reach (on ground)	7820mm (25ft. 8in.)	8200mm (26ft. 11in.)	8660mm (28ft. 5in.)
C Maximum digging depth	5150mm (16ft. 11in.)	5550mm (18ft. 3in.)	6050mm (19ft. 10in.)
<b>D</b> Maximum digging height	8820mm (28ft. 11in.)	9090mm (29ft. 10in.)	9410mm (30ft. 10in.)
E Maximum dumping height	6430mm (21ft. 1in.)	6700mm (22ft. 0in.)	7020mm (23ft. 0in.)
F Maximum vertical wall cut depth	4580mm (15ft. 0in.)	4980mm (16ft. 4in.)	5440mm (17ft. 10in.)
G Minimum swing radius	2050mm (6ft. 9in.)	2050mm (6ft. 9in.)	2410mm (7ft. 11in.)
Bucket rotation	182°	182°	182°
Dipper tearout kgf	8843	7430	6190
Dipper tearout with boost kgf	9570	8040	6700
Bucket tearout kgf	7720	7720	7720
Bucket tearout with boost kgf	8350	8350	8350

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## **LIFT CAPACITIES**

Reach	3.0	)m	4.5	ōm	6.0	)m	7.5	ōm	Сара	city at Max.	Reach
Load Point Height	<u>e</u>		E D				μ μ μ	<u></u>	Ē	÷	m
DIPF	PER LEN	GTH 2.1	0m MC	ONOBOO	M 7001	nm TRAC	KSHOES	0.55m <sup>3</sup> E	BUCKET	WEIGHT 4	468kg.
6.0m			2090*	2090*							
4.5m			2990*	2990*	2830*	2280					
3.0m	5170*	5170*	3750*	3550*	3100	2210					
1.5m	7390*	6120	4670*	3300	2990	2110			2420	1690	6.8
0m	7240*	5760	4530	3110	2890	2020					
-1.5m	8530*	5800	4440	3030	2850	1970					
-3.0m	7670*	5900	4480	3070							
-4.5m	5430*	5430*									
DIPP	PER LEN	GTH 2.5	0m MC	ONOBOC	M 7001	mm TRAC	KSHOES	0.47m <sup>3</sup> F	BUCKET	WEIGHT 4	438kg.
6.0m			2290*	2290*							
4.5m			2650*	2650*	2690*	2330					
3.0m	4530*	4530*	3430*	3430*	3000*	2250					
1.5m	7150*	6290	4420*	3350	3020	2130			2130*	1540	7.2
0m	7950*	5830	4560	3140	2910	2030					
-1.5m	8630*	5770	4450	3040	2850	1970					
-3.0m	8030*	5840	4460	3040	2860	1990					
-4.5m	6280*	5980	3960*	3180							
DIPP	PER LEN	GTH 3.0	0m MC	ONOBOO	)M 7001	mm TRAC	KSHOES	0.32m <sup>3</sup> E	BUCKET	WEIGHT 3	369kg.
6.0m					1940*	1940*					
4.5m			2230*	2230*	2390*	2380*					
3.0m	3610*	3610*	3020*	3020*	2740*	2320	2190	1550			
1.5m	6160*	6160*	4070*	3450	3080	2190	2130	1500	1900*	1400	7.7
0m	7910*	5920	4620	3190	2950	2070	2070	1440			
-1.5m	8590*	5720*	4460	3050	2860	1990					
-3.0m	8330*	5770	4440	3030	2850	1970					

Lift capacity (kg) front and rear

 $\frac{1}{0}$ Lift capacity (kg) full circle

Notes: 1. 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.
2. Lift capacities assume that the machine is on firm, level ground and equipped with an approved lifting point and bucket.

### WEIGHTS AND GROUND BEARING PRESSURES

Machine equipped with Monoboom, Dipper Arm, Standard Excavating Bucket, operator and full fuel tank.

Shoe Width	Operating Weight	Bearing Pressure		
500mm (20in.)	13210kg (29130lb)	0.41kg/sq. cm. (5.83lb/sq. in.)		
600mm (24in.)	13400kg (29550lb)	0.35kg/sq. cm. (4.98lb/sq. in.)		
700mm (28in.)	13600kg (29990lb)	0.31kg/sq. cm. (4.41lb/sq. in.)		
850mm (33in.)	13890kg (30630lb)	0.25kg/sq. cm. (3.56lb/sq. in.)		

#### **HYDRAULIC SYSTEM**

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

#### Pumps

Main pumps: 2 variable displacement axial piston type. Maximum flow: 2 x 121 L/min (2 x 26.6 UK GPM). Servo pump: Gear type. Maximum flow: 20 L/min (4.4 UK GPM).

#### 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 318 bar (4610lbf/sq.in) With power boost 343 bar (4975lbf/sq.in) Swing circuit 279 bar (4045lbf/sq.in) Travel circuit 343 bar (4975lbf/sq.in) Pilot control 40 bar (569lbf/sq.in) A separate Cushion Control valve in the servo system provides cushioning of the boom and dipper spools selection and quick warm-up of the servo system.

#### Hydraulic cylinders

Double acting type, with bolt-up end caps and hardened steel bearing bushes. End cushioning is fitted as standard on boom, dipper and bucket rams. Dimensions: Boom Bore 100mm (3.9in) Rod 75mm (3.0in) Stroke 1081mm (42.5in) Dipper Bore 115mm (4.5in) Rod 80mm (3.1in) Stroke 1205mm (47.4in) Bucket Bore 95mm (3.7in)

#### 95mm (3.7in) 70mm (2.8in) 924mm (36.4in)

#### Filtration

Rod

Stroke

The hydraulic components are protected by the highest standard of filtration to ensure long hydraulic fluid and component life. In tank: 150 micron, suction strainer. Main return line: 10 micron, fibreform element.

Nephron 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 and separate easy clean fine mesh grill.

## CONTROLS

Excavator: All servo lever operated, to ISO control pattern, independently adjustable to the seat.

Tracks: individually servo operated by foot pedal or hand lever. Speed selection via foot operated switch with autoshift override.

Auxiliary: Via servo operated foot pedal.

Low flow: via switch in RH servo lever.

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

Engine speed: Dial type throttle control plus servo lever mounted one-touch control and seperate selectable auto-idle.

Engine stop: Ignition key operated and separate shut-down button.

Power boost: Via servo lever mounted button.

Horn: Operated via servo lever mounted button with two level control switch in the console.

#### Instrumentation

CAPS II – Computer Aided Power control System (2nd generation), with engine speed sensing for 100% engine power usage, controls the power and flow output of the hydraulic system via four operator selectable work modes – H (Heavy), S (Standard), L (Light) and F (Fine). Auto engine and hydraulics warm-up is provided on initial start-up together with S (Standard) mode and Cushion Control selection. The computer controller monitors all critical machine functions and operator selections which are displayed via a written LCD

which are displayed via a written LCD message monitor.

Bar graph type gauges provide fuel level, water and hydraulic oil temperature readings. A self fault diagnostic system is built-in with a manual override for continuity of operation. Membrane type touch-sensitive switches are sealed against dirt and moisture ingress and are illuminated for night time operation.

#### **EXCAVATOR END**

Monoboom with a choice of dipper lengths to suit the requirements of reach, dig-depth, loadover height, tearouts and site versatility. Reserve strength is built into the fully welded structures for hydraulic hammer and other arduous operations.

Fabricated bucket tipping links are provided with a choice of lift points.

## **GENERAL SPECIFICATION**

#### **STANDARD EXCAVATING BUCKETS**

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

Max Width	Capacity (SAE heaped)	Weight
600mm (24in.)	0.32cu.m (0.42cu.yd)	369kg (814lb)
750mm (30in.)	0.43cu.m (0.56cu.yd)	423kg (933lb)
900mm (36in.)	0.55cu.m (0.72cu.yd)	468kg (1032lb)
1000mm (40in.)	0.63cu.m (0.82cu.yd)	507kg (1118lb)
1100mm (44in.)	0.72cu.m (0.94cu.yd)	537kg (1184lb)
1200mm (48in.)	0.80cu.m (1.05cu.yd)	576kg (1270lb)

## STANDARD/OPTIONAL EQUIPMENT

Engine fan guard	Std
Cold start pre-heat	Std
Auto engine warm up	Std
Double element air cleaner	Std
Radiator fine mesh grille	Std
Heavy duty alternator	Std
Electrics isolator	Std
Heavy duty batteries	Std
Cab & engine soundproofing	Std
Cab heater & screen demister	Std
Tinted glass	Std
Radio & cassette player	Std
Interior light	Std
Coat hook	Std
Ashtray & cigarette lighter	Std
Operator's storage box	Std
Removable floormat	Std
Windscreen wash/wipe	Std
Plug-in power socket	Std
Power boost	Std
Auto-idle	Std
One-touch engine speed control	Std
Hydraulic cushion control	Std
Nephron hydraulic oil filtration	Std
HSP pressure test points	Std
Auxiliary pipework mounting brackets	Std
Work lights - boom & mainframe mounted	Std
Undercarriage belly guarding	Std
Upper structure under covers	Std
Tool kit & storage area	Std
External mirrors	Std
Handrail & nonslip pads	Std
Hose burst check valves &	
Overload warning system	Opt
Tipping link mounted lift points	Opt
General purpose buckets	Opt
Ditch/grading buckets	Opt
Quickhitch buckets	Opt
Hydraulic hammers	Opt
Hammer pipework	Opt
Low flow (grab rotate/weedcutter) pipework	Opt
Rain guard	Opt
Opening roof window	Opt
Air conditioning	Opt
Cab mounted & rear work lights	Opt
Rotating beacon	Opt
Electric refuelling pump	Opt

Availability may vary according to region. Please consult your local distributor.



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## TO QUALITY.

JCB's total commitment to its products and customers has helped it grow from a one-man business into Britain's largest privately owned manufacturer of backhoe loaders, crawler excavators, wheeled excavators, telescopic handlers, wheeled loaders, rough terrain fork lifts, industrial fork lifts, mini excavators, skid steers and tractors.

By making constant and massive investments in the latest production technology, the JCB factories have become some of the most advanced in Europe.

By leading the field in innovative research and design, extensive testing and stringent quality control, JCB machines have become renowned all over the world for performance, value and reliability.

And with a global sales and service network of over 400 distributors and agents, the company exports over 70% of its production to all five continents.

Through setting the standards by which others are judged, JCB has become one of Britain's most impressive success stories.



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