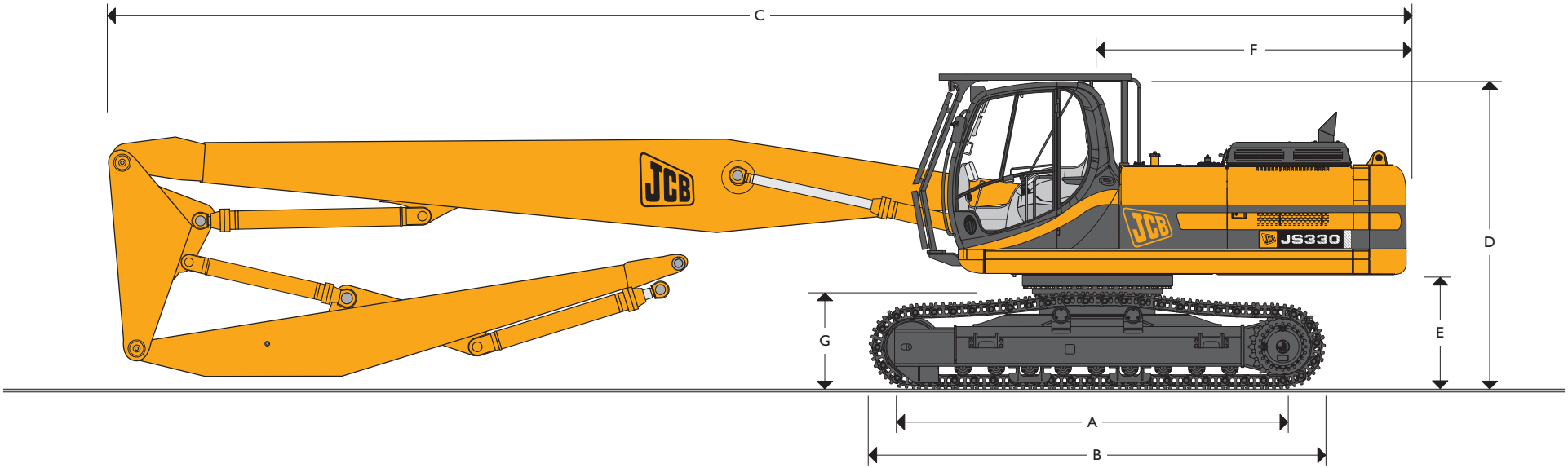
JCB TRACKED EXCAVATOR | JS 330 L/NL HRD

MAX. OPERATING WEIGHT	38974 kg (85923 lb)
NETT ENGINE POWER	202 kW (271 hp)



STATIC DIMENSIONS

Dimensions in millimetres (ft-in)	L	NL
A Track length on ground	3910 (12-10)	3910 (12-10)
B Undercarriage overall length	4810 (15-9)	4810 (15-9)
Track gauge	2600 (8-6)	2390 (7-6)
Width over tracks (600mm trackshoes)	3200 (10-6)	2990 (9-6)
Width over tracks (700mm trackshoes)	3300 (10-10)	3090 (10-10)
Width over tracks (800mm trackshoes)	3400 (11-2)	3190 (12-6)
Width over tracks (900mm trackshoes)	3500 (11-6)	3290 (10-10)

	10.8m boom, 2.15m mid link, 6.25m dipper
Dimensions in millimetres (ft-in)	
C Transport length – L	14534 (47-8)
C Transport length – NL	14459 (47-5)
D Transport height – L	3362 (11-0)
D Transport height – NL	3362 (11-0)

Dimensions in millimetres (ft-in)	L	NL
E Counterweight clearance	1030 (3-5)	1030 (3-5)
F Tail swing radius	3280 (10-9)	3280 (10-9)
G Track height	1026 (3-4)	1026 (3-4)
Overall width of superstructure	3120 (10-8)	2990 (9-10)
Ground clearance	500 (1-7)	500 (1-7)

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ENGINE

Model	Isuzu AH – 6HK1X
Type	Water cooled, 4-stroke, 6-cylinder in-line, common rail direct injection, turbocharged and intercooled diesel.
Net power (SAE J1349 and 80/1269/EEC)	202kW (271hp) at 2000rpm.
Gross power	210kW (281hp) at 2000rpm.
Piston displacement	7.8 litres (475 cu.in.)
Bore/stroke	115mm x 125mm (4.5in. x 4.9in.)
Air filtration	Dry element with secondary safety element and in-cab warning indicator. Additional visibowl precleaner.
Starting system	24 volt.
Batteries	2 x 12 volt.
Alternator	24V, 50 ampere.

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	9.5 rpm
Swing gear	Large diameter, internally toothed fully sealed grease bath lubricated.
Swing lock	Multi position switchable brake.

Alarm fitted to warn if slew angle is approaching a potentially unstable position.

UNDERCARRIAGE

Carriage options	L-Long Carriage and NL-Narrow Long Carriage.
Construction	Fully welded, 'X' frame type with central bellyguarding and sloping sidemembers with dirt relief holes under top rollers.
Recovery point	Front and rear.
Track shoe options	600mm (24in), 700mm (28in), 800mm (31in), 900mm (35in).
Upper & lower rollers	Heat treated, sealed and lubricated.
Track adjustment	Grease cylinder type.
Track idler	Sealed and lubricated, with spring cushioned recoil.
Track type	Sealed and lubricated.
	NL & L
No. of track guides	2 per side
No. of lower rollers	9 per side
No. of upper rollers	2 per side
No. of track shoes	50 per side

HIGH REACH DEMOLITION END

Comprising demolition boom, midlink and demolition arm. Reserve strength is built into the fully welded structure for arduous operations. Fabricated tipping links are provided. Angle alarm fitted to warn if the equipment is approaching a potentially unstable position.

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 290 L/min (2 x 64 UK GPM).
Servo pump	Gear type.
Maximum flow	30 L/min (6.6 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 on the boom service for greater speed and efficiency.

Relief valve settings

Boom/Arm/Bucket	319 bar (4627lbf/sq.in)
With power boost	348 bar (5047lbf/sq.in)
Swing circuit	280 bar (4061lbf/sq.in)
Travel circuit	325 bar (4712lbf/sq.in)
Pilot control	45 bar (652lbf/sq.in)

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.

Filtration

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.
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 single faced full return line air blast cooler with anti-block wavy cooling fins and separate easy clean fine mesh grill.

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 km/h (3 mph). Mid – 3.4 km/h (2.1 mph). Low – 2.4 km/h (1.5 mph).
Tractive effort	244kN (24900kgf, 54904lbf).

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CAB

Excellent digging, loading and positioning visibility results from the careful design of front, side and roof lights. All screens are tinted to improve in cab conditions.
Fully opening front screen is very smooth to operate and as the lower screen is stored within the top screen frame it makes complete front screen opening easy, fast and convenient.
Fresh air ventilation available from opening door window, opening slot in front screen and fully opening front screen.
Parallelogram wash wiper for upper screen ensuring good wiped area for maximum visibility. Wiper motor is fitted in the left hand side of the roof screen so as not to affect bucket visibility when loading. Optional lower screen wiper available.
Fresh air ventilation and heater with windscreen demister. Infinitely variable blower speed, temperature and recirculation control. Air conditioning or climate control incorporating chilled cool box available as option. Fully adjustable deluxe suspension seat with arm rest adjustment and backrest recline. Radio cassette player with digital tuner fitted into the roof lining for maximum protection. Conveniently placed radio mute button incorporated into lower console. 12v power point and mobile phone holder built into the right hand console. Courtesy light can be operated from ground level and is illuminated for five minutes or until switched off improving operator access at night. Cab mounted roller blind protects operator from suns' glare through front or top screens. Cab cage (FOPS Level II) fitted as standard. A hydraulically operated seat tilting mechanism is fitted as standard. This enables the seat to be tilted back between 0 and 30 degrees, which enables the operator to choose the best position for maximum work area visibility.

AMS – ADVANCED MANAGEMENT SYSTEM

Four selectable working modes link the operators control movements with the engine and hydraulic systems to maximise productivity and efficiency.

A (Auto)	Up to 100% engine power and 100% flow. Gives variable power and speed depending on the operator's input, matching the demand for output and efficiency to the job. Power boost is automatically activated in this mode should hard conditions be encountered. Auto idle cuts in after a period of inactivity (between 5 and 30 seconds as set by the operator)
E (Economy)	80% engine power. 95% of hydraulic flow maximises economy while maintaining excellent output.
P (Precision)	55% engine power. 90% of hydraulic flow for fine control of grading operations.
L (Lifting)	55% engine power. 63% of hydraulic flow with permanent power boost for maximum lifting power and control.

The Auto mode allows the AMS processor to select the optimum operational performance to match the demands of the job while the three alternative modes give precise matching of application when specific tasks are undertaken.
The adjustable position monitor mounted on the front right hand pillar of the cab gives the operator a constant read out of mode, tracking range, operating temperature and a host of other information, while retaining excellent visibility of the monitor and the job being carried out.
The required flow for hammer applications can be set and stored in the AMS memory and is automatically activated whenever the hammer pedal is depressed.
A maintenance indicator warns of imminent service needs, and all servicing and basic checks can be carried out using only the in cab display.

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 joystick button.
Auxiliary	Via switch in LH servo lever.
Low flow	Via switch in LH servo lever.
Control isolation	Via gate lock lever at cab entrance or panel switch.
Engine speed	Dial type throttle control plus servo lever mounted one-touch idle control or separate selectable auto-idle with adjustable time delay using AMS.
Engine stop	Ignition key operated and seperate shut-down button.
Horn	Operated via servo lever mounted button.

SERVICE CAPACITIES

	Litres	UK gal
Fuel tank	518.0	114.0
Engine coolant	38.0	8.4
Engine oil	38.0	8.4
Swing reduction gear	14.5	3.19
track reduction gear (each side)	8.5	1.87
Hydraulic system	320.0	70.4
Hydraulic tank	152.0	33.4

STANDARD EQUIPMENT

Engine fan guard; Cold start pre-heat; Auto engine warm up; Visibowl precleaner; Electric refuelling pump; Heavy duty alternator; Electrics isolator; Heavy duty batteries; Cab & engine soundproofing; Cab heater & screen demister; Tinted glass; Interior light; Coat hook; Cigarette lighter; Ashtray; Operator's storage box; Removable floormat; Windscreen wash/wipe; Plug-in power socket; Automatic power boost; Auto-idle; One-touch engine speed control; Hydraulic cushion control; Boom/swing priority switch; Plexus hydraulic oil filtration; HSP pressure test points; Work lights – boom & mainframe mounted; Undercarriage belly guarding; Upper structure under covers; Swing system cover; Twin track guides; External mirrors; Handrail & non slip walk ways; Quick connect engine oil drain pipe; Front screen blind; Quick connect fuel tank drain pipe; Hinged engine under cover; Impact buffer around upper structure; HD 10mm underguards and track motor covers; Reinforced light protection; Auxiliary pipework; Low flow pipework; Slew position alarm; Tilting seat; Angle alarm.

OPTIONAL EQUIPMENT

Cab mounted & rear work lights; Rotating beacon; Bio-degradable oil; Rain visor; Air suspension heated seat; Work area and rear vision cameras plus colour TFT monitor; Dust suppression system; Undercarriage storage box.

WEIGHTS

Shoe width	Operating Weight kg (lb)		Ground Bearing Pressure kg/cm² (lb/in²)	
	L	NL	L	NL
600mm (24in.)	38974 (85923)	38584 (85063)	0.84 (11.99)	0.83 (11.87)

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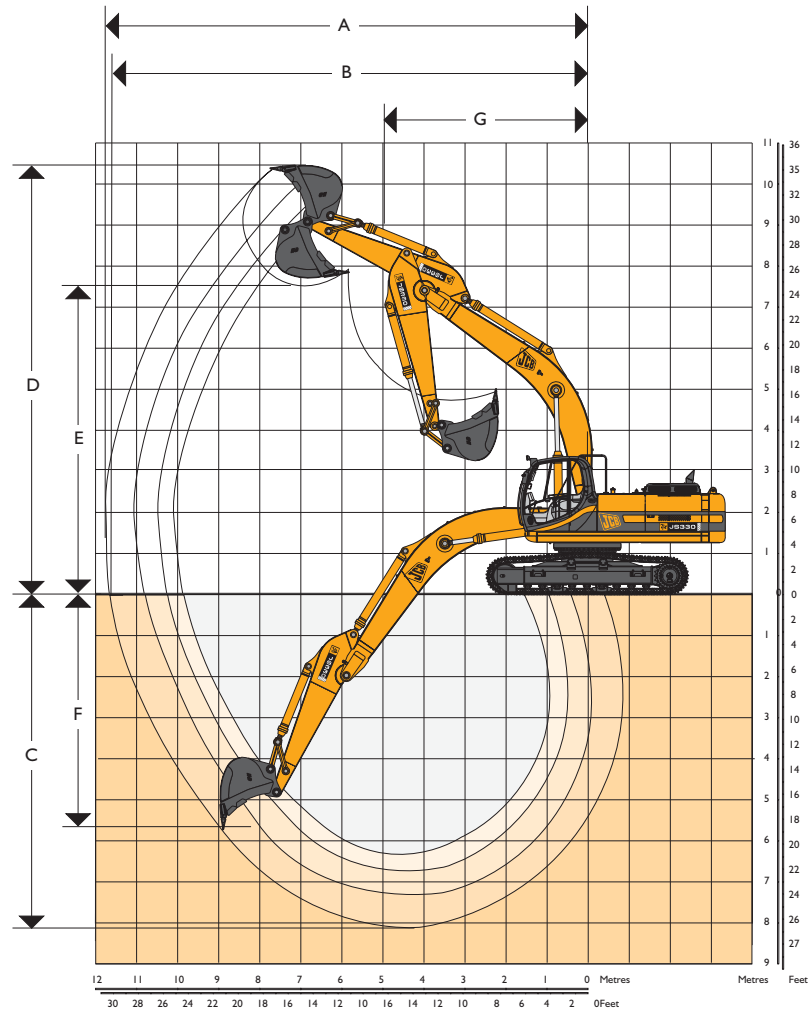
WORKING RANGE

	Boom length: 6.45m			
	Dipper length		**2.21m**	**2.63m**
A	Maximum digging reach		10170mm (33ft 4in)	10570mm (34ft 8in)
B	Maximum reach on ground		9960mm (32ft 8in.	10370mm (34ft 0in)
C	Maximum digging depth		6370mm (20ft 11in)	6800mm (22ft 4in)
D	Maximum digging height		9740mm (31ft 11in)	9980mm (32ft 9in)
E	Maximum dumping height		6710mm (22ft 0in)	6910mm (22ft 8in)
F	Maximum vertical cut depth		5020mm (16ft 6in)	5610mm (18ft 5in)
G	Minimum swing radius		4670mm (15ft 3in)	4640mm (15ft 3in)
	Bucket rotation		184.5°	184.5°
	Dipper tearout	kgf (lbf)	18300 (40350)	16100 (35500)
	Dipper tearout with boost	kgf (lbf)	20000 (44100)	17600 (38810)
	Bucket tearout		17900 (39470)	17900 (39470)
	Bucket tearout with boost	kgf (lbf)	19500 (43000)	19500 (43000)

	Boom length: 6.45m			
	Dipper length		**3.23m**	**4.03m**
A	Maximum digging reach		11130mm (36ft 6in)	11860mm (38ft 11in)
B	Maximum reach on ground		10940mm (35ft 11in)	11680mm (38ft 4in)
C	Maximum digging depth		7390mm (24ft 3in)	8190mm (26ft 11in)
D	Maximum digging height		10280mm (33ft 8in)	10550mm (34ft 7in)
E	Maximum dumping height		7190mm (23ft 7in)	7460mm (24ft 6in)
F	Maximum vertical cut depth		6340mm (20ft 10in)	7120mm (23ft 4in)
G	Minimum swing radius		4510mm (14ft 10in)	4520mm (14ft 10in)
	Bucket rotation		184.5°	184.5°
	Dipper tearout	kgf (lbf)	13400 (29550)	11700 (25800)
	Bucket tearout		17900 (39470)	17900 (39470)



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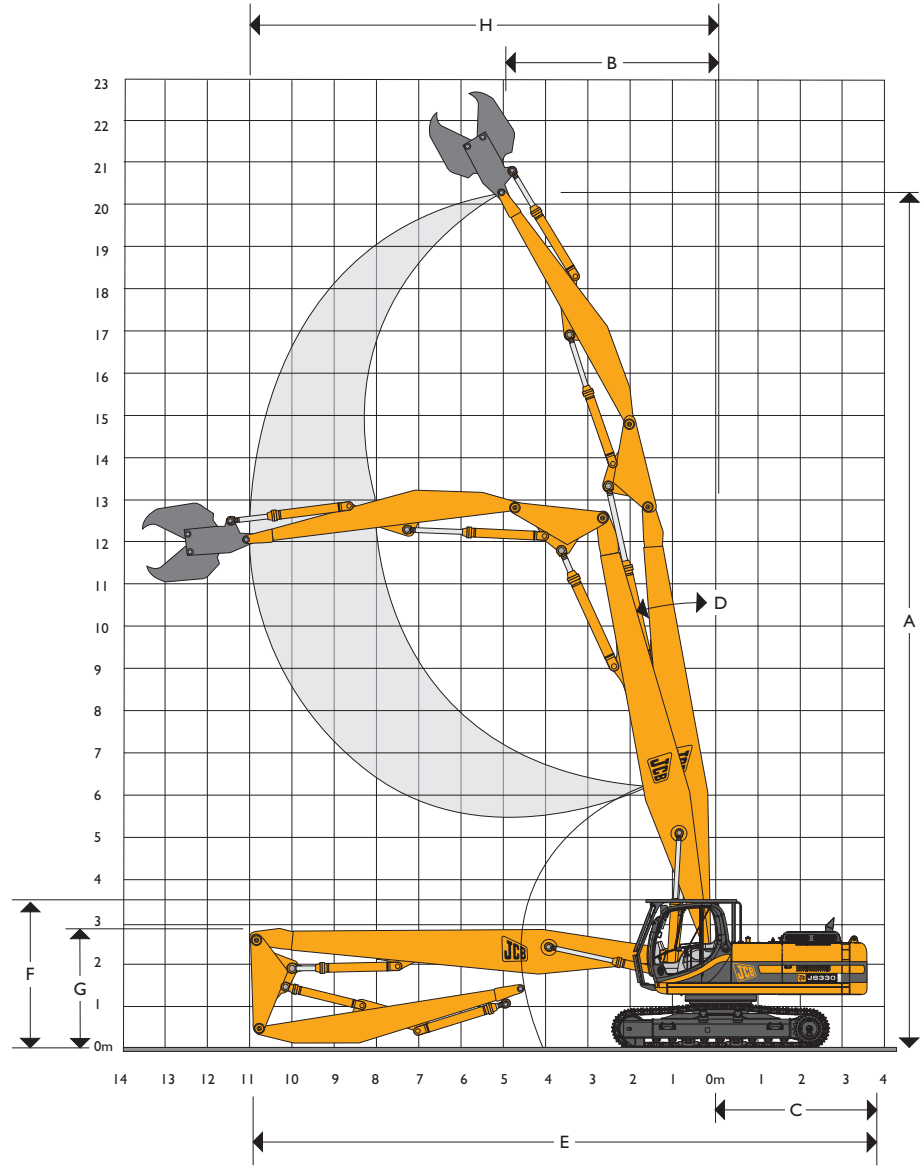
WORKING RANGE

Boom length 10.8m, mid link length 2.15m, dipper length 6.25m

A	Maximum working height (to pin)	mm (ft-in)	20300 (66-7)
B	Minimum swing radius (to pin)	mm (ft-in)	5050 (16-7)
C	Tailswing – NL	mm (ft-in)	3355 (11-0)
	Tailswing – L	mm (ft-in)	3430 (11-3)
D	Minimum boom angle	degrees	75.5°
E	Transport length – NL	mm (ft-in)	14439 (47-4)
	Transport length – L	mm (ft-in)	14514 (47-7)
F	Height over cage	mm (ft-in)	3292 (10-10)
G	Boom height (transport)	mm (ft-in)	2747 (9-0)
H	Maximum working reach (to pin)	mm (ft-in)	11200 (36-9)
	Maximum tool weight	kg (lb)	2500 (5512)



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A GLOBAL COMMITMENT 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, dump trucks, rough terrain fork lifts, industrial fork lifts, mini/midi excavators, skid steer loaders 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.

JCB Sales Limited, Rocester, Staffordshire ST14 5JP. Tel: 01889 590312. Fax: 01889 590588. Web: http://www.jcb.com

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