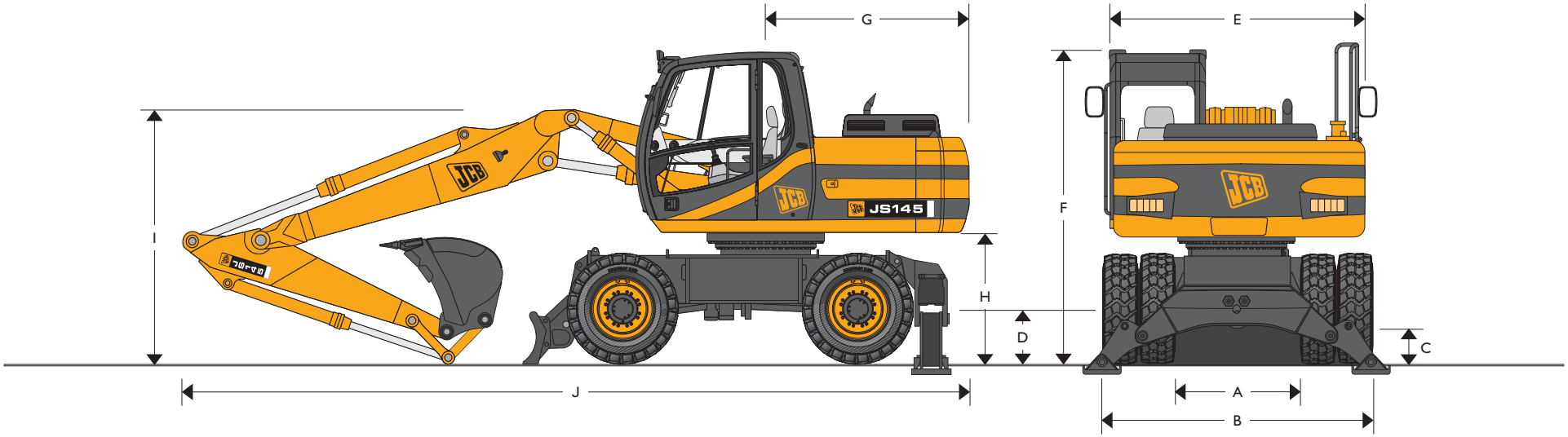
JCB WHEELED EXCAVATOR | JS145W

MAX. OPERATING WEIGHT	15145kg
NETT ENGINE POWER	81kW (109hp)



STATIC DIMENSIONS

Dimensions in millimetres (ft-in)	
A Internal width between dual wheels	1330 (4-4)
B External width over dual wheels	2490 (8-2)
C Ground clearance	350 (1-2)
D Height to axle centre line dual wheels	498 (1-7)
Height to axle centre line single wheels	519 (1-8)
E Overall width (handrail removed)	2410 (7-11)
F Height over cab	3040 (10-10)
G Tail length	2050 (6-9)
H Clearance under counterweight	1240 (4-1)

Monoboom (4.7m)				
Dipper length		2.10m	2.50m	3.0m
I Transport boom height	mm (ft-in)	3040 (10-0)	3040 (10-0)	3040 (10-0)
J Transport length	mm (ft-in)	7580 (24-10)	7600 (24-11)	7630 (25-0)

Triple articulated boom (5.0m)				
Dipper length		2.10m	2.50m	3.0m
I Transport boom height	mm (ft-in)	3040 (10-0)	3040 (10-0)	3040 (10-0)
J Transport length	mm (ft-in)	7310 (24-0)	7650 (25-1)	7890 (25-9)

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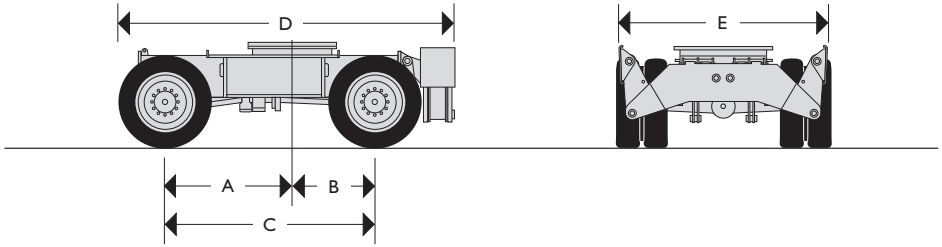
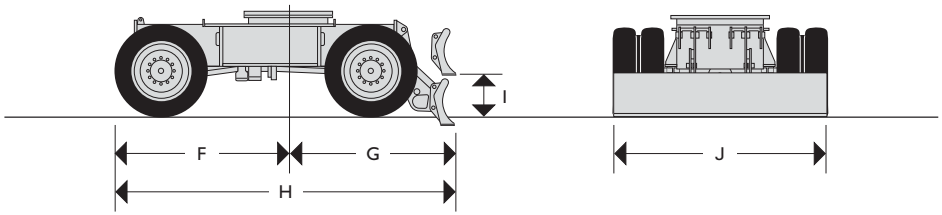
CHASSIS OPTIONS

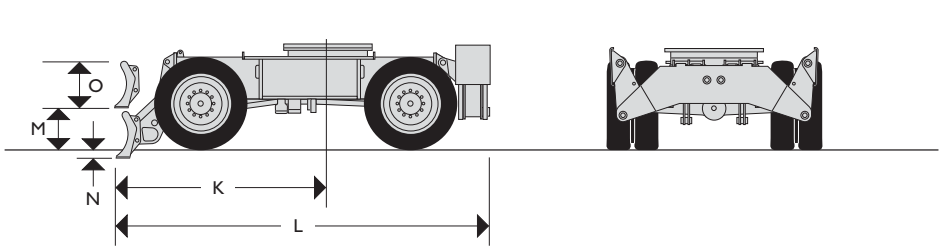


Dimensions in millimetres (ft-in)	
A Centre of slew ring to front axle	1500 (4-11)
B Centre of slew ring to rear axle	1000 (3-3)
C Wheelbase	2500 (8-2)
D Length including rear stabilizers	3950 (12-11)
E Width over stabilizers (raised)	2480 (8-1)

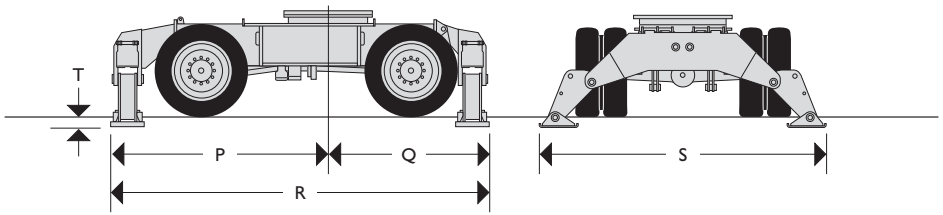


Dimensions in millimetres (ft-in)	
F Centre of slew ring to face of front tyre	1990 (6-6)
G Centre of slew ring to rear dozer blade (lowered)	2090 (6-10)
H Length including rear dozer blade (raised)	4050 (13-3)
I Ground level to bottom of rear dozer blade (raised)	450 (1-6)
J Dozer blade width	2480 (8-1)

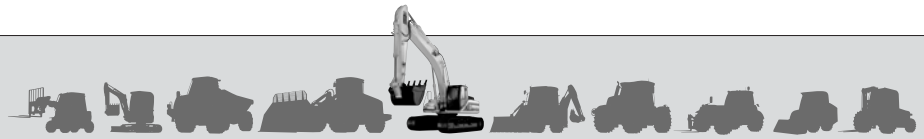
CHASSIS OPTIONS



Dimensions in millimetres (ft-in)	
K Centre of slew ring to front dozer blade (lowered)	2530 (8-3)
L Length including stabilizers and dozer blade (raised)	4460 (14-7)
M Ground level to bottom of front dozer blade (raised)	450 (1-6)
N Dozer blade dig depth	130 (0-5)
O Dozer blade height	500 (1-8)



Dimensions in millimetres (ft-in)	
P Centre of slew ring to front stabilizers	2520 (8-3)
Q Centre of slew ring to rear stabilizers	1960 (6-5)
R Length including front and rear stabilizers	4480 (14-8)
S Width over stabilizers (lowered)	3550 (11-8)
T Stabilizer lift height	130 (0-5)



JCB WHEELED EXCAVATOR | JS145W

ENGINE

Model	Isuzu 4BGITRA-05 European Tier II emissions compliant.
Type	Water cooled, 4-stroke, 4-cylinder in-line, direct injection, turbocharged diesel.
Nett power (ISO 3046-1NF)	81kW (109hp) at 2200rpm.
Piston Displacement	4.329 litres (264 cu.in.).
Injection	Mechanical governor.
Air Filtration	Dry element with secondary safety element and in cab warning indicator.
Cooling	Large capacity radiator.
Starting system	24 volt – 4.5kW.
Batteries	2 x 12 volt Heavy Duty.
Alternator	24 volt 50 amp.
Refuelling pump	Electric type.

SWING SYSTEM

Drive train	Axial piston motor and planetary reduction final drive.
Swing brake	Hydraulic braking plus automatic spring applied disc type parking brake.
Swing speed	13.4RPM
Swing gear	Large diameter, internally toothed fully sealed grease bath lubricated.
Swing lock	Multi position switchable brake and mechanical lock.

CHASSIS

Structure	High strength flanged 'u' section.
Chassis Options:	
Dozer Blade	Front or rear pin mount.
Stabilisers	Front or rear pin mount, independently operable – plus combinations.
Grab Stowage	Heavy duty, pin mounted stowage bar.
Transmission	Hydrostatic drive via piston motor and powershift transmission.
Travel speed	Low ratio 14kph High ratio 30kph (19mph) Creep speed 3.3kph
Axles	Four wheel drive. Front steering axle oscillates for rough ground mobility.
Axle load capacity	26 tonnes
Axle oscillation	+/- 8.5 degrees
Ground clearance	350mm
Steering	Fully hydraulic system.
Turning radius	
To outside of tyres	5.45m (17ft 10in)
To outer edge of front mounted dozer blade	6.06m (19ft 10in)
Brakes	All hydraulic, dual circuit brake system.
Parking Brake	Built into the transmission.
Gradability	35° 70% max. continuous.

EXCAVATOR END

Booms	Monoboom or triple articulation boom with choice of dipper lengths to match the requirements of reach, lift capacity and tearout.
Bucket tipping links	Fabricated type with choice of 1 tonne lift, max capacity lift and no-lift point – with link stowage lock (grab work).

MAIN HYDRAULIC SYSTEM

System	Load-sensed hydraulic system with twin variable flow piston pumps providing flow-on-demand for maximum efficiency.
Main pumps	2 variable displacement axial piston type
Maximum flow	2 x 138 l/min (31 UK gpm)
Main circuit pressure	314 bar (4555 lb/in²)
With power boost	343 bar (4975 lb/in²)
Servo pump	Gear type
Maximum flow	22 l/min (5 UK gpm)
Servo pressure	40 bar (580 lb/in²)
Optional Circuits:	
Hammer	Includes automatic engine speed setting and return filter.
Maximum flow	138 l/min (30 UK gpm)
Maximum pressure	314 (343) bar (4555/4975 lb/in²) (pre-set to 180 bar (2610 lb/in²))
Grab operation	
Maximum flow	138 l/min (30 UK gpm)
Maximum pressure for grab ram operation	314 (343) bar (4555/4975 lb/in²)
Low Flow Pipework	Two options available, one with 20L/min (4 UK gpm) flow and a second with an adjustable flow of 27-45L/min (6-10 UK gpm).
Hydraulic Cylinders	Hardened, chromed piston rods and end cushioning on boom, dipper and bucket crowd cylinder.
Filtration	
In tank	150 micron, suction strainer.
Main return line	10 micron, fibreform element.
Pilot line	10 micron, paper element.
Nephron by pass line	1.5 micron paper element.
Hydraulic hammer return	10 micron, reinforced microform element.

Cooling

Worldwide cooling is provided as part of a single faced cooling pack, in conjunction with the engine water cooler.

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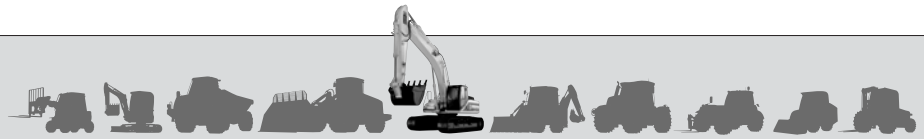


TYRES

Twins	10.00 x 20 tyres (16PR) with spacer ring.
Single	18R x 19.5 tyres (Radials).

CAB

Press 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. Digital clock and storage box are standard fitment.

INSTRUMENTATION

AMS – Advanced Management System

The JCB Advanced Management System matches engine power and pump output to optimise machine performance in each of the four selectable work modes –

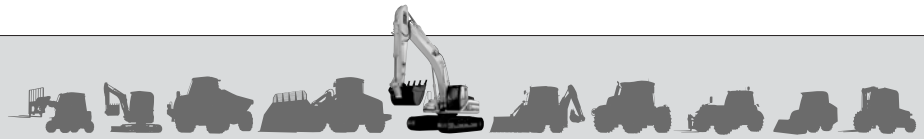
H (Heavy)	100% engine and hydraulic power for maximum output.
S (Standard)	90% engine and hydraulic power for good economical output.
L (Light)	70% engine and hydraulic power for precision finishing and low fuel consumption.
F (Fine)	70% power with permanent power boost for maximum lifting ability.

The system monitors all critical machine functions and operator selections which are shown on the display panel, conveniently mounted in the operators line of site. The diagnostic function built into the system constantly monitors machine usage and performance, as well as providing the service engineer with valuable information on any machine fault.

STANDARD EXCAVATING BUCKETS

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

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



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SERVICE CAPACITIES

	litres	UK gal
Fuel tank	240	53
Engine coolant	16.4	3.6
Engine oil	14.7	3.2
Swing reduction gear	2.2	0.5
Hydraulic system	124	27.3
Hydraulic tank	73	16.0
Transmission	3.4	0.7
Axle differentials (each)	Rear 12, Front 14	Rear 2.6, Front 3
Axle hubs (each)	2.0	0.5

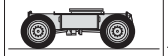
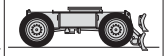
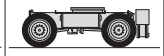
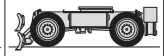
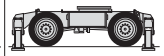
STANDARD EQUIPMENT

Auto engine warm up; Double element air cleaner; Heavy duty alternator; Electrics isolator; Heavy duty batteries; Tinted safety glass; Radio & cassette player; Operators storage box; Removable floormat; Windscreen wash/wipe; Plug-in power socket; Power boost; Auto-idle; One-touch engine speed control; Hydraulic cushion control; Plexus hydraulic oil filtration; Grouped HSP pressure test points; Auxiliary pipework mounting brackets; Work lights – boom & mainframe mounted; Upper structure under covers; External mirrors; Handrail & nonslip pads; Creep speed; Tipping link with stowage lock; Load holding valves (lift); On the move gear change; Oscillating axle lock; Adjustable steer column; Spring assisted opening screen; Auto engine/hydraulics warm up; Front screen blind.

OPTIONAL EQUIPMENT

Hose burst check valves & Overload warning system; Tipping link mounted lift points; General purpose buckets; Ditch/grading buckets; Quickhitch buckets; Hydraulic hammers; Hammer pipework; Low flow (grab rotate/weedcutter) pipework; Bucket to grab changeover pipework; Air conditioning; Cab mounted & rear work lights; Rotating beacon; Additional toolbox; Grab stowage bar; Refueling pump; Bio-degradeable oil; Cab FOPS guard; Air suspension seat.

OPERATING WEIGHTS

Chassis					
	12885kg (28405lb)	13325kg (29375lb)	13765kg (30345lb)	14305kg (31540lb)	14645kg (32290lb)
	13385kg (29510lb)	13825kg (30480lb)	14265kg (31450lb)	14805kg (32640lb)	15145kg (33390lb)

Machine equipped with excavating bucket and dual wheels. For single wheels subtract 400kg (880lb).

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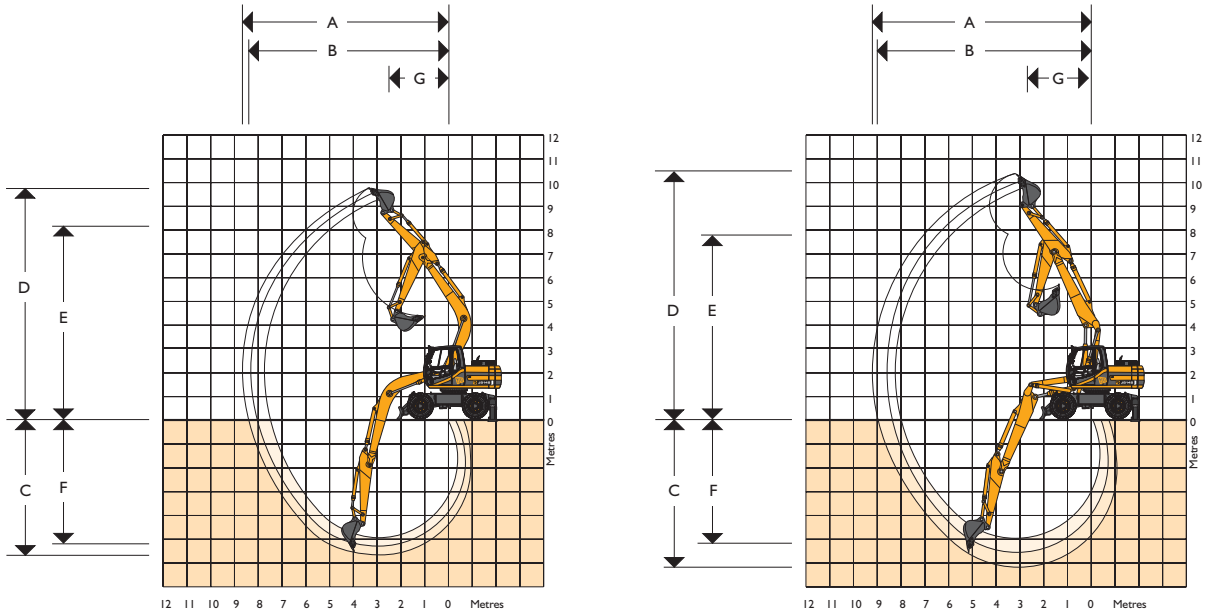
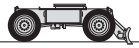
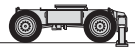
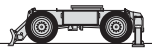
WORKING RANGES



WORKING RANGES

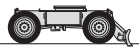
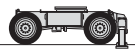
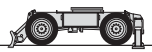
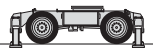
Boom								
Dipper length		2.10m	2.50m	3.00m	2.10m	2.50m	3.00m
A	Max digging reach	mm (ft-in)	7980 (26-2)	8350 (27-5)	8800 (28-10)	8360 (27-6)	8750 (28-8)	9235 (30-3)
B	Max digging reach (on ground)	mm (ft-in)	7745 (25-5)	8125 (26-8)	8585 (28-2)	8140 (26-9)	8525 (27-11)	9000 (29-6)
C	Max digging depth	mm (ft-in)	4775 (15-8)	5175 (16-11)	5675 (18-7)	5020 (16-6)	5425 (17-9)	5930 (19-6)
D	Max digging height	mm (ft-in)	9185 (30-1)	9455 (31-0)	9775 (32-0)	9675 (31-9)	10000 (32-9)	10400 (34-2)
E	Max loadover height	mm (ft-in)	6780 (22-3)	7050 (23-1)	7400 (24-3)	7275 (23-10)	7575 (24-9)	7950 (26-1)
F	Max vertical wall cut depth	mm (ft-in)	4200 (13-9)	4600 (15-0)	5050 (16-6)	4240 (13-11)	4625 (15-2)	5105 (16-9)
G	Min swing radius	mm (ft-in)	2050 (6-9)	2050 (6-8)	2410 (7-9)	2490 (8-2)	2575 (8-6)	2680 (8-9)
	Bucket rotation		182°	182°	182°	182°	182°	182°
	Dipper tearout	kgf (lbf)	8843 (19495)	7430 (16380)	6190 (13650)	8843 (19500)	7430 (16380)	6190 (13650)
	Dipper tearout with boost	kgf (lbf)	9570 (21100)	8040 (17725)	6700 (14770)	9570 (21100)	8040 (17725)	6700 (14770)
	Bucket tearout	kgf (lbf)	7720 (17020)	7720 (17020)	7720 (17020)	7720 (17020)	7720 (17020)	7720 (17020)
	Bucket tearout with boost	kgf (lbf)	8350 (18400)	8350 (18400)	8350 (18400)	8350 (18400)	8350 (18400)	8350 (18400)

MONOBOOM LIFT CAPACITIES

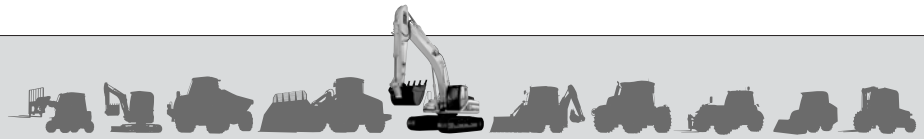
Chassis													
Dipper arm		2.10m	2.50m	3.00m	2.10m	2.50m	3.00m	2.10m	2.50m	3.00m	2.10m	2.50m	3.00m
7.5m forwards 1m above ground	O/E	2410	2400	2390	2500	2490	2480	3280*	3180*	3020*	3280*	3180*	3020*
(max. reach @ 1m above ground)	360°	1520	1530	1500	1830	1830	1810	2370	2360	2350	2730	2720	2710
6.0m forwards	O/E	3220	3070*	2770*	3300*	3070*	2770*	3300*	3070*	2770*	3300*	3070*	2770*
3m above ground	360°	2100	2130	2130	2490	2510	2520	3170	3070*	2770*	3300*	3070*	2770*
6.0m forwards	O/E	3030	3020	3010	3140	3130	3120	3950*	3860*	3690*	3950*	3860*	3690*
Ground level	360°	1910	1920	1880	2300	2290	2270	2970	2960	2940	3420	3420	3400
5.0m forwards	O/E	2260*	2460*	2020*	2260*	2460*	2020*	2260*	2460*	2020*	2260*	2460*	2020*
6m above ground	360°	2260*	2460*	2020*	2260*	2460*	2020*	2260*	2460*	2020*	2260*	2460*	2020*
5.0m forwards	O/E	3990	3960	3910	4140	4140	4050	4760*	4820*	4800*	4760*	4820*	4800*
–3m *below* ground	360°	2480	2480	2400	2990	2460*	2910	3890	3860	3800	4510	4470	4420
3.0m forwards	O/E	4400*	3980*	3420*	4400*	3980*	3420*	4400*	3980*	3420*	4400*	3980*	3420*
3m above ground	360°	4050	3980*	3420*	4400*	3980*	3420*	4400*	3980*	3420*	4400*	3980*	3420*
3.0m forwards	O/E	5820	5840	5830	6010	6030	5900*	6290*	6170*	5900*	6290*	6170*	5900*
Ground level	360°	3520	3570	3530	4260	4270	4270	5600	5620	5620	6290*	6170*	5900*

Bucket weight 564kg. All weights in kg. Lifting capacities marked * are based on hydraulic capacity.

TRIPLE ARTICULATION LIFT CAPACITIES

Chassis													
Dipper arm		2.10m	2.50m	3.00m	2.10m	2.50m	3.00m	2.10m	2.50m	3.00m	2.10m	2.50m	3.00m
7.5m forwards 1m above ground	O/E	2470	2460	2450	2560	2550	2540	3120*	3110*	2940*	3210*	3110*	2940*
(max. reach @ 1m above ground)	360°	1550	1540	1530	1870	1860	1850	2420	2410	2400	2790	2780	2770
6.0m forwards	O/E	3230*	3030*	2770*	3230*	3030*	2770*	3230*	3030*	2770*	3230*	3030*	2770*
3m above ground	360°	2140	2160	2180	2540	2560	2590	3200	3030*	2770*	3230*	3030*	2770*
6.0m forwards	O/E	3080	3080	3060	3190	3190	3170	3850*	3760*	3610*	3850*	3760*	3610*
Ground level	360°	1920	1920	1890	2320	2310	2290	3010	3010	2990	3480	3470	3460
5.0m forwards	O/E	2690*	2460*	2080*	2690*	2460*	2080*	2690*	2460*	2080*	2690*	2460*	2080*
6m above ground	360°	2690*	2460*	2080*	2690*	2460*	2080*	2690*	2460*	2080*	2690*	2460*	2080*
5.0m forwards	O/E	4060	4020	3970	4200	4170	4110	4650*	4700*	4680*	4650*	4700*	4680*
–3m *below* ground	360°	2490	2460	2400	3020	2980	2920	3940	3910	3850	4570	4540	4480
3.0m forwards	O/E	4500*	4160*	3640*	4500*	4160*	3640*	4500*	4160*	3640*	4500*	4160*	3640*
3m above ground	360°	4070	4160*	3640*	4500*	4160*	3640*	4500*	4160*	3640*	4500*	4160*	3640*
3.0m forwards	O/E	5870	5890	5850	6070	6060	5860*	6150*	6080*	5860*	6150*	6080*	5860*
Ground level	360°	3510	3520	3510	4260	4270	4270	5630	5650	5650	6150*	6080*	5860*

Bucket weight 525kg. All weights in kg. Lifting capacities marked * are based on hydraulic capacity.



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.

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A Product of Hard Work