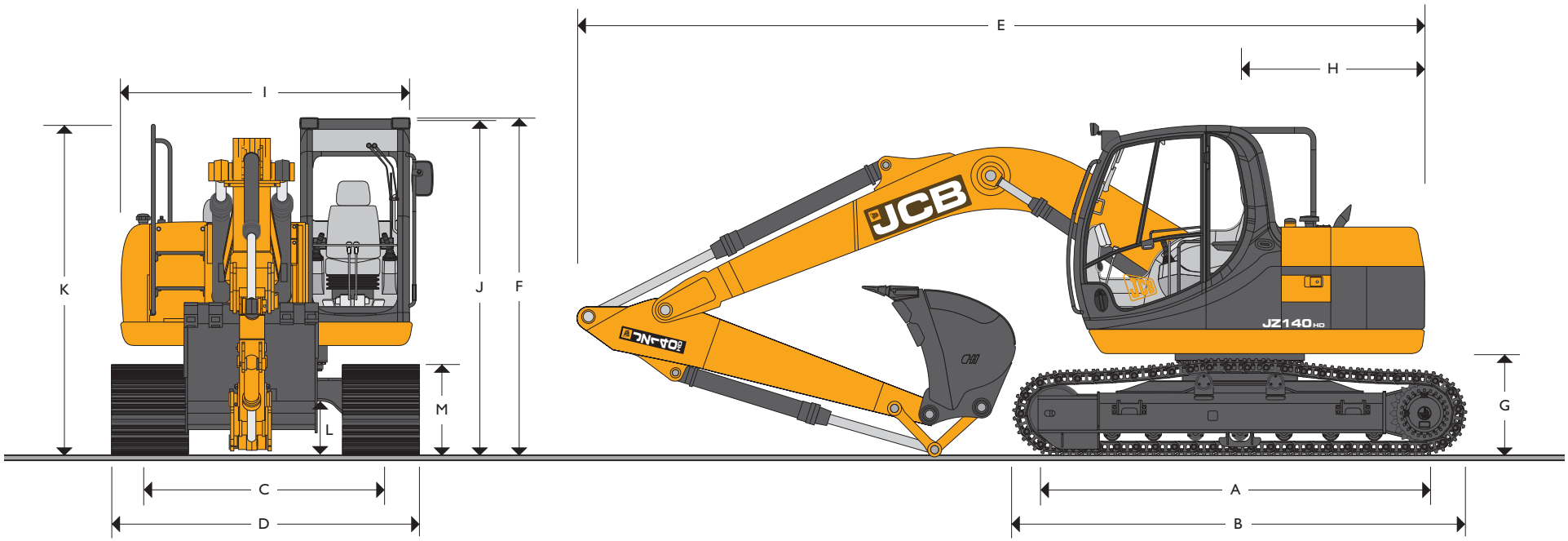
MAX. OPERATING WEIGHT: 17409 kg ENGINE POWER: 73 kW (98 hp)



STATIC DIMENSIONS

Dimensions in millimetres (ft-in)			
A Track length on ground		3090 (10-2)	
B Undercarriage overall length		3940 (12-11)	
C Track gauge		2200 (7-3)	
D Width over tracks (600mm trackshoes)		2800 (9-2)	
D Width over tracks (700mm trackshoes)		2900 (9-6)	
D Width over tracks (800mm trackshoes)		3000 (9-10)	
D Width over tracks (900mm trackshoes)		3100 (10-2)	
Dipper lengths	**2.1m**	**2.5m**	**3.0m***
E Transport length with Monoboom	6950 (22-10)	6970 (22-11)	7000 (23-0)
F Transport height with Monoboom	2960 (9-9)	2690 (9-9)	2690 (9-9)

Dimensions in millimetres (ft-in)	
G Counterweight clearance	1030 (3-5)
H Tail swing radius	1420 (4-7)
I Width of superstructure	2500 (8-2)
J Height over cab	2960 (9-9)
K Height over grab rail	2960 (9-9)
L Ground clearance	465 (1-6)
M Track height	885 (2-11)

*Machine in transport position

ENGINE

Model	Isuzu 4JJ1X EU Stage IIIA, EPA Tier 3 compliant.
Type	Water cooled, 4-stroke, 4-cylinder in-line, common rail direct injection, turbocharged intercooled diesel.
Rated power (ISO 14899 (SAE J1995))	73kW (98hp) at 2000rpm.
Piston Displacement	2.999 litres (0.67 UK gal).
Injection	Electronic injection.
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 40 amp.
Refuelling pump	Electric type.

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	12.8 rpm.
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 type	Sealed and lubricated.
Track idler	Sealed and lubricated, with spring cushioned recoil.
Track shoes	600mm (24in.) triple grouser 700mm (28in.) triple grouser 800mm (31in.) triple grouser 900mm (35in.) triple grouser

Rollers and Shoes (each side)		
	Upper rollers	2 per side
	Lower rollers	7 per side
	Track shoes	44 per side
	Track guides	1 per side

HYDRAULIC SYSTEM

A variable flow load sensing system with flow on demand, variable power output and servo operated, multi-function open centre control. Machine auto warm up standard – maximises performance in cold conditions.

Pumps

Main pumps	2 variable displacement axial piston type.
Maximum flow	2 x 124 L/min (2 x 27.3 UK GPM).
Servo pump	Gear type.
Maximum flow	21 L/min (4.6 UK GPM).
Fan drive	Gear type.
	40 L/min (8.8 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 and dipper services for greater speed and efficiency.

Relief valve settings

Boom/Arm/Bucket	314 bar (4554lbf/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.
Optional hose burst check valves available for boom and dipper 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 as part of a single face cooling pack, in conjunction with the engine water cooler.

TRACK DRIVE

Type	Fully hydrostatic, three speed with autoshift between high and medium speed.
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 – 4.9 km/h (3.0 mph). Mid – 2.8 km/h (1.7 mph). Low – 1.7 km/h (1.1 mph).
Tractive effort	127kN (12937kgf, 28521lbf).

EXCAVATOR END

Monoboom available along 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.
Strong, durable construction, large cross sections and multi plate fabrications to withstand high stress applications.
The 4.7m (15ft 5in) boom is designed to ensure the optimum digging envelope when matched with the three dipper lengths.
Low maintenance bronze alloy bushes with graphite plugs are fitted to boom base and boom to dipper pivots resulting in 1000 hour greasing intervals at these points.

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.

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.

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 servo operated foot pedal.
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	162	35.5
Engine coolant	16.4	3.8
Engine oil	13.2	2.9
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

WEIGHTS AND GROUND BEARING PRESSURES

Machine equipped with 4.7m Monoboom, 2.5m Dipper, Standard Excavating Bucket 1200mm wide, operator and full fuel tank.

Shoe Width	Operating Weight	Bearing Pressure
600mm (24in.)	16464kg (36297lb)	0.58kg/sq. cm. (8.25lb/sq. in.)
700mm (28in.)	16763kg (36956lb)	0.46kg/sq. cm. (6.54lb/sq. in.)
800mm (32in.)	17064kg (37620lb)	0.42kg/sq. cm. (5.97lb/sq. in.)
900mm (36in.)	17409kg (38380lb)	0.38kg/sq. cm. (5.40lb/sq. in.)

STANDARD EXCAVATING BUCKETS

All buckets are JCB – Esco type 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)	295kg (650lb)
750mm (30in.)	0.43cu.m (0.56cu.yd)	334kg (736lb)
900mm (36in.)	0.55cu.m (0.72cu.yd)	367kg (809lb)
1000mm (40in.)	0.63cu.m (0.82cu.yd)	395kg (871lb)
1100mm (44in.)	0.72cu.m (0.94cu.yd)	417kg (919lb)
1200mm (48in.)	0.80cu.m (1.05cu.yd)	446kg (983lb)

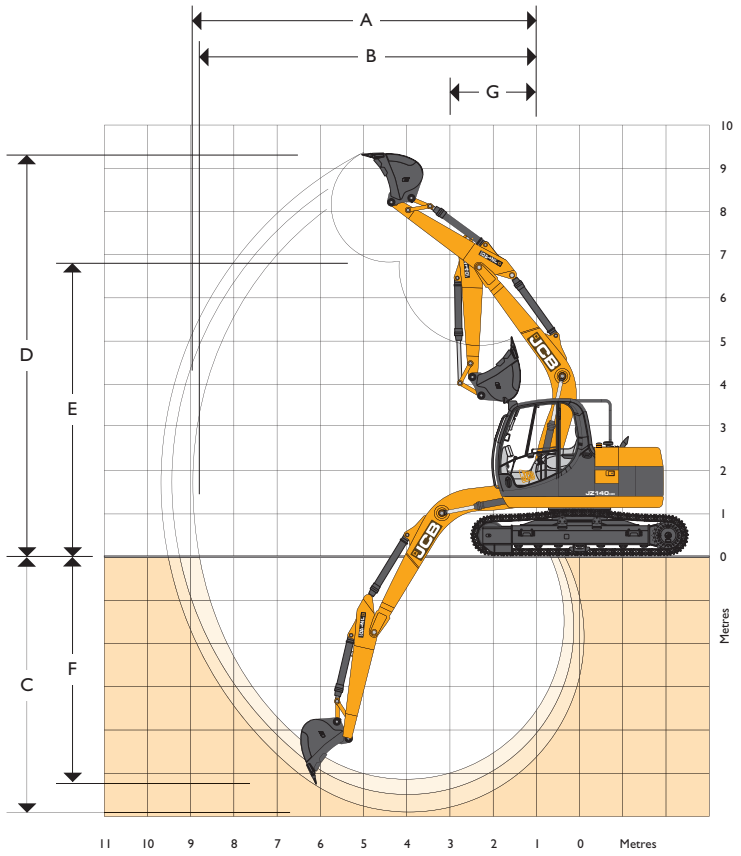
STANDARD / OPTIONAL EQUIPMENT

Standard Equipment: Radiator fan guard; Cold start pre-heat; Auto engine warm up; Double element air cleaner; Heavy-duty alternator; Electrics isolator; Heavy-duty batteries; Cab & engine soundproofing; Cab heater & screen demister; Tinted glass; Radio & cassette player; 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; Plexus hydraulic oil filtration; HSP pressure test points; Auxiliary pipework mounting brackets; Work lights – boom & mainframe mounted; Undercarriage belly guarding; Upper structure under covers; Swing system cover; 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.

Optional Equipment: Hose burst check valves & overload warning system; Tipping link mounted lift points; General purpose buckets; Ditch/grading buckets; Quickhitch buckets; Hydraulic hammers; Auxiliary pipework (full and low flow); Air conditioning or climate control; Cab mounted & rear work lights; Rotating beacon; Rain guard; Biodegradeable oil; Air suspension seat with heated pad and lumbar support adjustment; Electric refuelling pump; Track guides; Lower screen wiper.

WORKING RANGE

Boom length: 4.70m			
Dipper length:			**2.10m**
A	Maximum digging reach	mm (ft-in)	7970 (26-2)
B	Maximum digging reach (on ground)	mm (ft-in)	7790 (25-7)
C	Maximum digging depth	mm (ft-in)	5030 (16-6)
D	Maximum digging height	mm (ft-in)	8940 (29-4)
E	Maximum dumping height	mm (ft-in)	6540 (21-5)
F	Maximum vertical wall cut depth	mm (ft-in)	4460 (14-8)
G	Minimum swing radius	mm (ft-in)	2050 (6-9)
	Bucket rotation		182°
	Maximum dipper tearout (ISO 6015)	kgf (lbf)	7515 (16569)
	Maximum bucket tearout (ISO 6015)	kgf (lbf)	9375 (20667)
Dipper length:			**2.50m**
A	Maximum digging reach	mm (ft-in)	8340 (27-4)
B	Maximum digging reach (on ground)	mm (ft-in)	8170 (26-10)
C	Maximum digging depth	mm (ft-in)	5430 (17-10)
D	Maximum digging height	mm (ft-in)	9210 (30-3)
E	Maximum dumping height	mm (ft-in)	6820 (22-5)
F	Maximum vertical wall cut depth	mm (ft-in)	4860 (15-11)
G	Minimum swing radius	mm (ft-in)	2050 (6-9)
	Bucket rotation		182°
	Maximum dipper tearout (ISO 6015)	kgf (lbf)	6680 (14720)
	Maximum bucket tearout (ISO 6015)	kgf (lbf)	9375 (20667)
Dipper length:			**3.00m**
A	Maximum digging reach	mm (ft-in)	8790 (28-10)
B	Maximum digging reach (on ground)	mm (ft-in)	8630 (28-4)
C	Maximum digging depth	mm (ft-in)	5930 (19-5)
D	Maximum digging height	mm (ft-in)	9530 (31-3)
E	Maximum dumping height	mm (ft-in)	7140 (23-5)
F	Maximum vertical wall cut depth	mm (ft-in)	5320 (17-5)
G	Minimum swing radius	mm (ft-in)	2410 (7-11)
	Bucket rotation		182°
	Maximum dipper tearout (ISO 5016)	kgf (lbf)	5970 (13161)
	Maximum bucket tearout (ISO 5016)	kgf (lbf)	9375 (20667)



LIFT CAPACITIES – Dipper Length: 2.10m, 4.70m Monoboom, Trackshoes: 700mm, No bucket. **JZ140 HD MONO**

Reach	1.5m (4ft 11in)		3m (9ft 10in)		4.5m (14ft 9in)		6m (19ft 8in)		7.5m (24ft 7in)		Capacity at Max Reach		
													
Load Point Ht.	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	mm
7.5m (24.7ft)			3920*	3920*							3950*	3950*	3059
6.0m (19.8ft)					3320*	3320*					2970*	2970*	5046
4.5m (14.9ft)			3930*	3930*	3500*	3500*	3200*	2910			2720*	2720*	6070
3.0m (9.10ft)			6160*	6160*	4240*	4240*	3590*	2860			2690*	2470	6604
1.5m (4.11ft)					5090*	4180	3930*	2780			2830*	2340	6766
0m			6130*	6130*	5610*	4040	4010	2710			3160*	2390	6586
– 1.5m (– 4.11ft)	5490*	5490*	8250*	7520	5580*	4000	3970*	2710			3850*	2690	6032
– 3.0m (– 9.10ft)			6970*	6970*	4730*	4070					4040*	3560	4976
– 4.5m (– 14.9ft)													

LIFT CAPACITIES – Dipper Length: 2.50m, 4.70m Monoboom, Trackshoes: 700mm, No bucket. **JZ140 HD MONO**

Reach	1.5m (4ft 11in)		3m (9ft 10in)		4.5m (14ft 9in)		6m (19ft 8in)		7.5m (24ft 7in)		Capacity at Max Reach		
													
Load Point Ht.	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	mm
7.5m (24.7ft)											2970*	2970*	3820
6.0m (19.8ft)					2910*	2910*					2390*	2390*	5535
4.5m (14.9ft)					3160*	3160*	3120*	2950			2210*	2210*	6481
3.0m (9.10ft)			5410*	5410*	3920*	3920*	3380*	2880			2190*	2190*	6983
1.5m (4.11ft)			7490*	7490*	4850*	4200	3770*	2780			2300*	2160	7136
0m			6850*	6850*	5490*	4030	4000	2700			2550*	2200	6966
– 1.5m (– 4.11ft)	5120*	5120*	8470*	7460	5620*	3970	3970	2670			3060*	2440	6445
– 3.0m (– 9.10ft)	9290*	9290*	7450*	7450*	5060*	4010					3850*	3080	5472
– 4.5m (– 14.9ft)													

 Lift capacity front and rear.

 Lift capacity full circle.

Notes:
1. **For lifting capacity including bucket, subtract total weight of bucket or bucket and quickhitch from above values.**
2. 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.
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.

LIFT CAPACITIES – Dipper Length: 3.00m, 4.70m Monoboom, Trackshoes: 700mm, No bucket. **JZ140 HD MONO**

Reach	1.5m (4ft 11in)		3m (9ft 10in)		4.5m (14ft 9in)		6m (19ft 8in)		7.5m (24ft 7in)		Capacity at Max Reach		
Load Point Ht.	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	mm
7.5m (24.7ft)					2870*	2870*					2580*	2580*	4626
6.0m (19.8ft)					2420*	2420*	2530*	2530*			2180*	2180*	6115
4.5m (14.9ft)					2710*	2710*	2770*	2770*			2050*	2050*	6981
3.0m (9.10ft)			4470*	4470*	3490*	3490*	3090*	2890			2040*	2040*	7449
1.5m (4.11ft)			7000*	7000*	4480*	4230	3540*	2780	2590*	1990	2140*	1950	7593
0m			7520*	7470	5250*	4020	3930*	2670			2350*	1980	7433
– 1.5m (– 4.11ft)	4590*	4590*	8560*	7360	5560*	3920	3920	2620			2770*	2160	6948
– 3.0m (– 9.10ft)	7890*	7890*	7870*	7420	5280*	3920	3660*	2650			3590*	2620	6058
– 4.5m (– 14.9ft)			5990*	5990*	3730*	3730*					3690*	3690*	4524

Lift capacity front and rear.

Lift capacity full circle.

Notes:
1. **For lifting capacity including bucket, subtract total weight of bucket or bucket and quickhitch from above values.**
2. 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.
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.

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, tractors and compaction equipment.

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

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 more than 650 dealers and agents, we aim to deliver the best customer support in the industry.

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

FSC Mixed Sources
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