

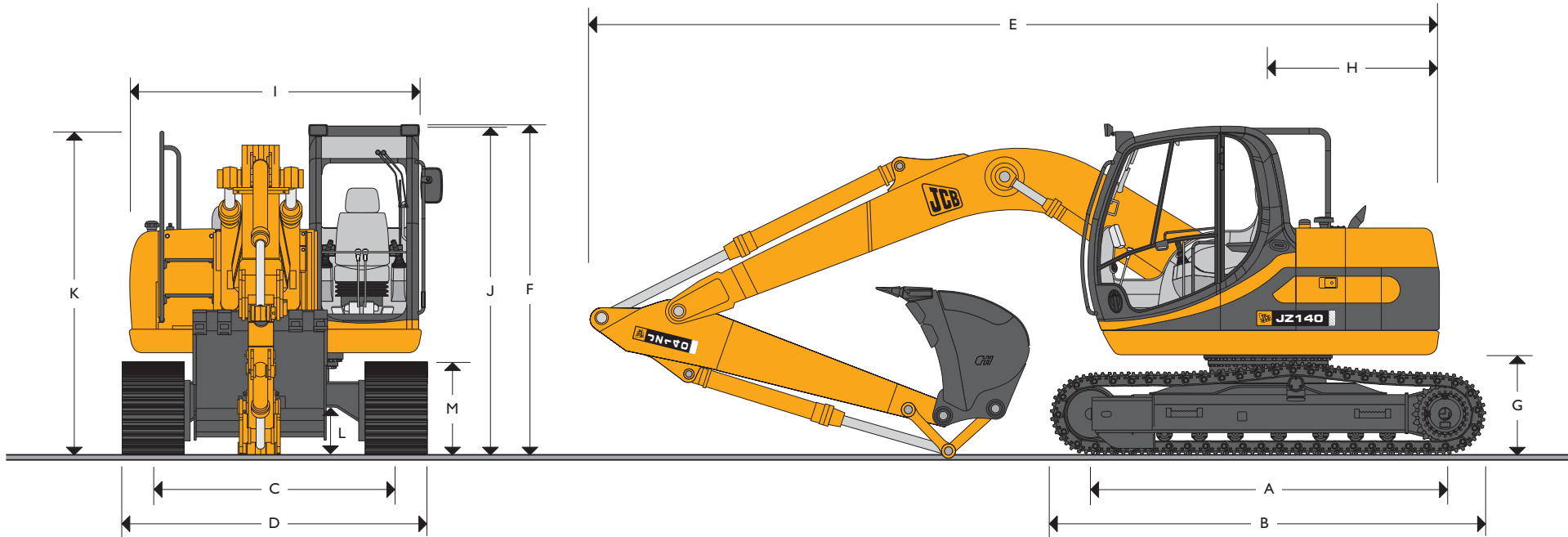


JCB TRACKED EXCAVATOR | JZ140



MAX. OPERATING WEIGHT
NETT ENGINE POWER

15961 kg (16751 kg WITH STABILISING BLADE)
72.8 kW (97.6 hp)



STATIC DIMENSIONS

Dimensions in millimetres (ft-in)			
A	Track length on ground	2780 (9-1)	
B	Undercarriage overall length	3550 (11-8)	
C	Track gauge	1990 (6-6)	
D	Width over tracks (500mm trackshoes)	2490 (8-2)	
D	Width over tracks (600mm trackshoes)	2590 (8-6)	
D	Width over tracks (700mm trackshoes)	2690 (8-10)	
D	Width over tracks (850mm trackshoes)	2840 (9-4)	
Dipper lengths		2.1m	2.5m
E	Transport length with Monoboom	6950 (22-10)	6970 (22-11)
F	Transport height with Monoboom	2840 (9-4)	2840 (9-4)
			3.0m*

Dimensions in millimetres (ft-in)	
G	Counterweight clearance
H	Tail swing radius
I	Width of superstructure
J	Height over cab
K	Height over grab rail
L	Ground clearance
M	Track height

*Machine in transport position



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ENGINE

Model	Isuzu A4BG1T European Tier II emissions compliant.
Type	Water cooled, 4-stroke, 4-cylinder in-line, direct injection, turbocharged diesel.
Nett power (ISO 15550-2002)	72.8kW (97.6hp) at 2100rpm.
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 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	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

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 (4554lb/sq.in)
With power boost	343 bar (4975lb/sq.in)
Swing circuit	279 bar (4045lb/sq.in)
Travel circuit	343 bar (4975lb/sq.in)
Pilot control	40 bar (569lb/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 – 5.4 km/h (3.3 mph). Mid – 3.3 km/h (2.1 mph). Low – 2.3 km/h (1.4 mph).
Tractive effort	130kN (13256kgf, 29225lb).



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EXCAVATOR END

Monoboom available along with a choice of dipper lengths to suit the requirements of reach, dig-depth, loadover height, tearout 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.

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 sun's glare through front or top screens.

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 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 separate shut-down button.

Horn

Operated via servo lever mounted button.



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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
500mm (20in.)	14432kg (31817lb)	0.47kg/sq. cm. (6.68lb/sq. in.)
600mm (24in.)	14647kg (32291lb)	0.40kg/sq. cm. (5.69lb/sq. in.)
700mm (28in.)	14862kg (32785lb)	0.35kg/sq. cm. (4.98lb/sq. in.)
850mm (33in.)	15185kg (33477lb)	0.29kg/sq. cm. (4.12lb/sq. in.)

STANDARD EXCAVATING BUCKETS

All buckets are JCB – Escó 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; Interior light; Coat hook; Cigarette lighter; Ashtray; Operator's storage box; Removable floor mat; 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; Biodegradable oil; Air suspension seat with heated pad and lumbar support adjustment; Electric refuelling pump; Track guides; Lower screen wiper; Radio & cassette player.

Wastemaster Standard Equipment: In addition to standard JZ140 equipment – Wastemaster branding; Widecore radiator; Turbo II pre-cleaner; Front and roof screen guards; Lower wiper; Additional worklights; Beacon; Fire extinguisher; Refuelling pump; Air conditioning.

Wastemaster Optional Equipment: 1m fixed raised cab; Compactor wheel brake harness; Arm stroke limiter; P3 or carbon cab air intake filter; Bolt on rubber track blocks, Quickhitch pipework; Travel alarm.



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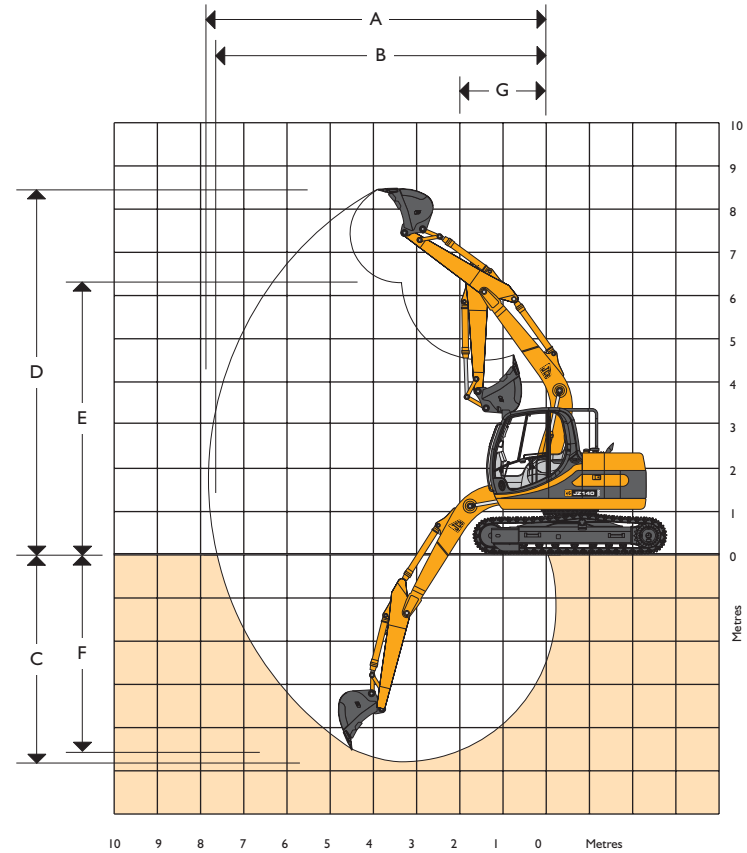
WORKING RANGE

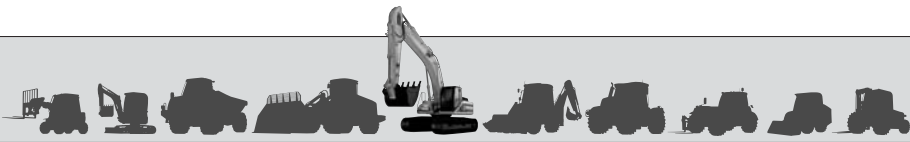
Boom length: 4.70m

Dipper length:		2.10m
A	Maximum digging reach	mm (ft-in) 7970 (26-2)
B	Maximum digging reach (on ground)	mm (ft-in) 7820 (25-8)
C	Maximum digging depth	mm (ft-in) 5150 (16-11)
D	Maximum digging height	mm (ft-in) 8820 (28-11)
E	Maximum dumping height	mm (ft-in) 6430 (21-1)
F	Maximum vertical wall cut depth	mm (ft-in) 4580 (15-0)
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) 8200 (26-11)
C	Maximum digging depth	mm (ft-in) 5550 (18-3)
D	Maximum digging height	mm (ft-in) 9090 (29-10)
E	Maximum dumping height	mm (ft-in) 6700 (22-0)
F	Maximum vertical wall cut depth	mm (ft-in) 4980 (16-4)
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) 8660 (28-5)
C	Maximum digging depth	mm (ft-in) 6050 (19-10)
D	Maximum digging height	mm (ft-in) 9410 (30-10)
E	Maximum dumping height	mm (ft-in) 7020 (23-0)
F	Maximum vertical wall cut depth	mm (ft-in) 5440 (17-10)
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)





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

JZ140 MONO

Reach	1.5m (4ft 11in)		3m (9ft 10in)		4.5m (14ft 9in)		6m (19ft 8in)		7.5m (24ft 7in)		Capacity at Max Reach			
													mm	
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*	2280				2720*	2230	6070
3.0m (9.10ft)			6160*	6160*	4240*	3430	3200	2230				2690*	1910	6604
1.5m (4.11ft)					4760	3210	3110	2140				2610	1800	6766
0m			6130*	5560	4610	3080	3040	2080				2680	1830	6586
- 1.5m (- 4.11ft)	5490*	5490*	8250*	5580	4570	3040	3040	2080				3020	2060	6032
- 3.0m (- 9.10ft)			6970*	5710	4650	3110						4030	2740	4976
- 4.5m (- 14.9ft)														

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

JZ140 MONO

Reach	1.5m (4ft 11in)		3m (9ft 10in)		4.5m (14ft 9in)		6m (19ft 8in)		7.5m (24ft 7in)		Capacity at Max Reach			
													mm	
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*	2310				2210*	2020	6481
3.0m (9.10ft)			5410*	5410*	3920*	3470	3220	2240				2190*	1760	6983
1.5m (4.11ft)			7490*	5820	4790	3240	3120	2150				2300*	1660	7136
0m			6850*	5550	4610	3070	3030	2070				2460	1680	6966
- 1.5m (- 4.11ft)	5120*	5120*	8470*	5520	4540	3010	3000	2040				2730	1860	6445
- 3.0m (- 9.10ft)	9290*	9290*	7450*	5620	4590	3050						3470	2360	5472
- 4.5m (- 14.9ft)														

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

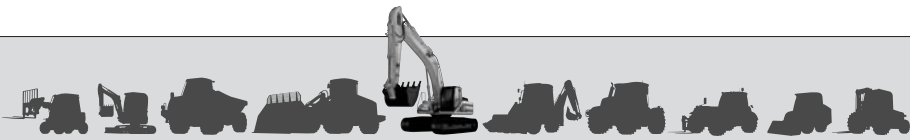
JZ140 MONO

Reach	1.5m (4ft 11in)		3m (9ft 10in)		4.5m (14ft 9in)		6m (19ft 8in)		7.5m (24ft 7in)		Capacity at Max Reach			
													mm	
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*	2340				2180*	2180*	6115
4.5m (14.9ft)					2710*	2710*	2770*	2340				2050*	1790	6981
3.0m (9.10ft)			4470*	4470*	3490*	3490*	3090*	2260				2040*	1570	7449
1.5m (4.11ft)			7000*	5940	4480*	3260	3120	2140	2220	1520		2140*	1490	7593
0m			7520*	5520	4600	3060	3010	2040				2210	1500	7433
- 1.5m (- 4.11ft)	4590*	4590*	8560	5420	4490	2960	2950	1990				2420	1640	6948
- 3.0m (- 9.10ft)	7890*	7890*	7870*	5480	4500	2970	2980	2020				2950	2000	6058
- 4.5m (- 14.9ft)			5990*	5690	3730*	3120						3690*	3100	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.



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

JZ140 MONO + DOZER

Reach	1.5m (4ft 11in)		3m (9ft 10in)		4.5m (14ft 9in)		6m (19ft 8in)		7.5m (24ft 7in)		Capacity at Max Reach			
													mm	
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*	2410				2720*	2360	6070
3.0m (9.10ft)			6160*	6160*	4240*	3610	3440	2360				2690*	2030	6604
1.5m (4.11ft)					5090*	3400	3350	2270				2810	1910	6766
0m			6130*	5890	4960	3260	3280	2210				2890	1950	6586
- 1.5m (- 4.11ft)	5490*	5490*	8250*	5910	4920	3230	3280	2210				3260	2190	6032
- 3.0m (- 9.10ft)			6970*	6040	4730*	3300						4040*	2900	4976
- 4.5m (- 14.9ft)														

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

JZ140 MONO + DOZER

Reach	1.5m (4ft 11in)		3m (9ft 10in)		4.5m (14ft 9in)		6m (19ft 8in)		7.5m (24ft 7in)		Capacity at Max Reach			
													mm	
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*	2440				2210*	2140	6481
3.0m (9.10ft)			5410*	5410*	3920*	3660	3380*	2370				2190*	1860	6983
1.5m (4.11ft)			7490*	6150	4850*	3420	3360	2280				2300*	1760	7136
0m			6850*	5880	4960	3260	3270	2200				2550*	1790	6966
- 1.5m (- 4.11ft)	5120*	5120*	8470*	5850	4890	3200	3240	2170				2950	1980	6445
- 3.0m (- 9.10ft)	9290*	9290*	7450*	5950	4940	3240						3740	2500	5472
- 4.5m (- 14.9ft)														

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

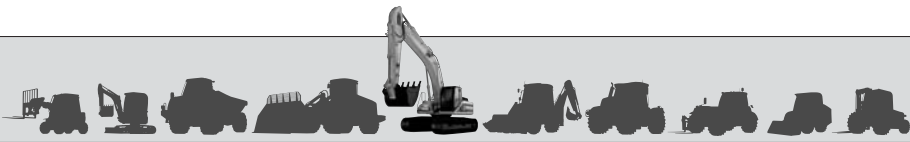
JZ140 MONO + DOZER

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													mm	
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*	2470				2180*	2180*	6115
4.5m (14.9ft)					2710*	2710*	2770*	2470				2050*	1900	6981
3.0m (9.10ft)			4470*	4470*	3490*	3490*	3090*	2380				2040*	1670	7449
1.5m (4.11ft)			7000*	6270	4480*	3440	3350	2270	2400	1620		2140*	1580	7593
0m			7520*	5850	4950	3240	3250	2170				2350*	1600	7433
- 1.5m (- 4.11ft)	4590*	4590*	8560*	5750	4840	3140	3190	2120				2610	1740	6948
- 3.0m (- 9.10ft)	7890*	7890*	7870*	5800	4850	3150	3220	2150				3180	2120	6058
- 4.5m (- 14.9ft)			5990*	5990*	3730*	3310						3690*	3280	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.
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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.

