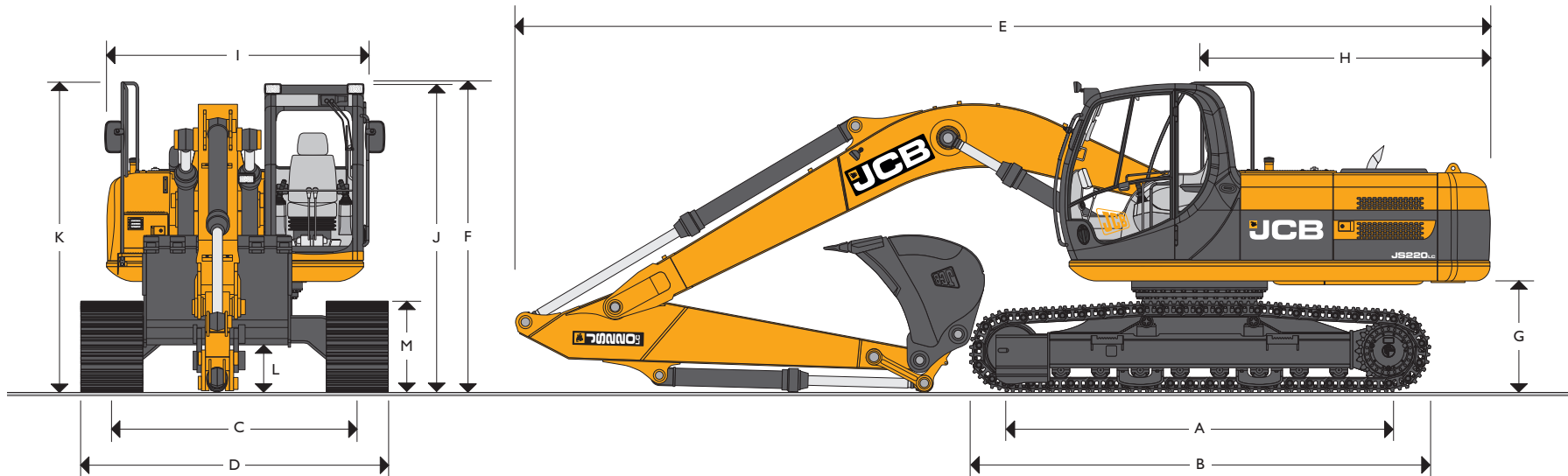




MAX OPERATING WEIGHT: 49,714 lb (22,550 kg) NET ENGINE POWER: 172 hp (128 kW)



STATIC DIMENSIONS

Dimensions in ft-in (mm)	
A Track Length on Ground	12-0 (3660)
B Undercarriage Overall Length	14-8 (4460)
C Track Gauge	7-10 (2390)
D Width Over Tracks (20 in (500 mm) trackshoes)	-
D Width Over Tracks (24 in (600 mm) trackshoes)	9-10 (2990)
D Width Over Tracks (28 in (700 mm) trackshoes)	10-2 (3090)
D Width Over Tracks (32 in (800 mm) trackshoes)	10-6 (3190)
D Width Over Tracks (36 in (900 mm) trackshoes)	10-10 (3290)

Dipper Lengths	6 ft 4 in (1.91 m)	7 ft 11 in (2.40 m)	9 ft 10 in (3.0 m)
E Transport Length with Monoboom	31-5 (9570)	31-4 (9560)	31-0 (9440)
F Transport Height with Monoboom	10-0 (3055)	10-0 (3060)	9-11 (3025)

Dimensions in ft-in (mm)	
G Counterweight Clearance	3-6 (1066)
H Tailswing Radius	9-3 (2825)
I Width of Superstructure	8-4 (2549)
J Height Over Cab	9-8 (2946)
K Height Over Grab Rail	9-11 (3025)
L Ground Clearance	1-7 (486)
M Track Height	2-11 (885)



ENGINE

Model:	Isuzu 4HKIX. EPA Tier III emissions compliant.
Type:	Water cooled, 4-stroke, 4-cylinder in-line, direct injection, turbocharged diesel.
Net Power (ISO 3046-1NF):	172 hp (128 kW) at 2,000 rpm.
Piston Displacement:	317 cu in (5.193 l).
Injection:	Electronic governor.
Air Filtration:	Dry element with secondary safety element and in cab warning indicator.
Cooling:	Water cooler via large capacity radiator.
Starting System:	24 V – 6 hp (4.5 kW).
Batteries:	2 x 12 V Heavy-duty.
Alternator:	24 V 40 amp.
Refuelling Pump:	Electric type.

SWING SYSTEM

Swing Motor:	Axial piston.
Swing Brake:	Hydraulic braking plus automatic spring applied disc type parking brake.
Final Drive:	Planetary reduction.
Swing Speed:	12.9 rpm.
Swing Gear:	Large diameter, internally toothed fully sealed grease bath lubricated.
Swing Lock:	Switchable brake in cab.
Swing Torque:	47,941 lbf/ft (65 kNm)

UNDERCARRIAGE

Construction:	Fully welded, "X" frame type with central bellyguarding and track motor guards. Sloping sidemembers with dirt relief holes under top rollers.
Recovery Point:	Front and rear.
Track Type:	Sealed and greased.
Track Shoe Options:	LC – 24 in (600 mm), 28 in (700 mm), 32 in (800 mm), 36 in (900 mm).
Upper and Lower Rollers:	Heat treated, sealed and lubricated.
Track Adjustment:	Grease cylinder type.
Track Idler:	Sealed and lubricated, with spring cushioned recoil. LC
No of Track Guides:	2 per side
No of Lower Rollers:	8 per side
No of Upper Rollers:	2 per side
No of Track Shoes:	49 per side

HYDRAULICS

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

Pumps:

Main Pumps	2 variable displacement axial piston type.
Maximum Flow	2 x 57 gpm (2 x 214 l/min).
Servo Pump	Gear type.
Maximum Flow	5.3 gpm (20 l/min).

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:	4,975 lbf/sq in (343 bar)
Automatic Power Boost:	5,410 lbf/sq in (373 bar)
Swing Circuit:	4,190 lbf/sq in (289 bar)
Travel Circuit:	4,975 lbf/sq in (343 bar)
Pilot Control:	580 lbf/sq in (40 bar)

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 cylinders.

Optional hose burst check valves available for boom and dipper cylinders.

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:

Cooling is provided via a full return line air blast cooler 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 displacement 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 – 3.4 mph (5.6 km/h). Mid – 2.1 mph (3.3 km/h). Low – 1.4 mph (2.3 km/h).
Tractive Effort:	43,144 lbf (191.9 kN).



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 18 ft 8 in (5.7 m) 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 1,000 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 windows are tinted to improve in cab conditions.

Fully opening front windshield is very smooth to operate and as the lower windshield is stored within the top windshield frame it makes complete front windshield opening easy, fast and convenient.

Fresh air ventilation available from opening door window, opening slot in front windshield and fully opening front windshield. Parallelogram wiper for upper windshield ensuring good wiped area for maximum visibility. Wiper motor is fitted in the left hand side of the sun roof so as not to affect bucket visibility when loading. Optional lower windshield wiper available.

Fresh air ventilation and heater with windshield defroster. Infinitely variable blower speed, temperature and recirculation control. Climate control allowing operator to set desired temperature. Fully adjustable deluxe high seat suspension seat with arm rest adjustment and backrest recline. Optional radio 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 windshields.

AMS – ADVANCED MANAGEMENT SYSTEM

Four selectable working modes link the operators control movements with the engine and hydraulic systems to maximize 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 maximizes 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. Dual pattern control switch, in the fuse box, makes it convenient to switch from ISO to SAE control pattern.
- 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.



SERVICE CAPACITIES

Fuel Tank	gal (l)	91 (343)
Engine Coolant	gal (l)	6.7 (25.5)
Engine Oil	gal (l)	5.7 (21.5)
Swing Reduction Gear	gal (l)	1.3 (5.0)
Track Reduction Gear (each side)	gal (l)	1.2 (4.7)
Hydraulic System	gal (l)	53 (200)
Hydraulic Tank	gal (l)	32 (120)

GENERAL PURPOSE EXCAVATOR BUCKETS

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

Max Width	Capacity (SAE Heaped)	Weight
24 in (600 mm)	0.52 cu yd (0.40 cu m)	1067 lb (484 kg)
36 in (900 mm)	0.93 cu yd (0.71 cu m)	1312 lb (595 kg)
39 in (1000 mm)	1.06 cu yd (0.81 cu m)	1382 lb (627 kg)
47 in (1200 mm)	1.35 cu yd (1.03 cu m)	1555 lb (705 kg)
53 in (1350 mm)	1.37 cu yd (1.05 cu m)	1497 lb (679 kg)
57 in (1450 mm)	1.49 cu yd (1.14 cu m)	1588 lb (720 kg)
59 in (1500 mm)	1.56 cu yd (1.19 cu m)	1618 lb (734 kg)

WEIGHTS AND GROUND BEARING PRESSURES

Figures include 1.5 cu yd (1.14 cu m) bucket 1675 lb (760 kg), operator, full fuel tank, 24 in (600 mm) track shoes and 7 ft 1 1 in (2.4 m) dipper.

JS220 LC

	Machine Weight		Ground Bearing Pressure	
	lb	kg	lb/sq ft	kg/cm
24 in (600 mm) shoes	48,290	21,904	5.83	0.41
28 in (700 mm) shoes	48,880	22,172	5.12	0.36
31 in (800 mm) shoes	49,470	22,440	4.41	0.31
35 in (900 mm) shoes	49,580	22,490	3.98	0.28

For 28 in shoes add 295 lb (135 kg)

For 32 in shoes add 595 lb (270 kg)

For 36 in shoes add 645 lb (295 kg)

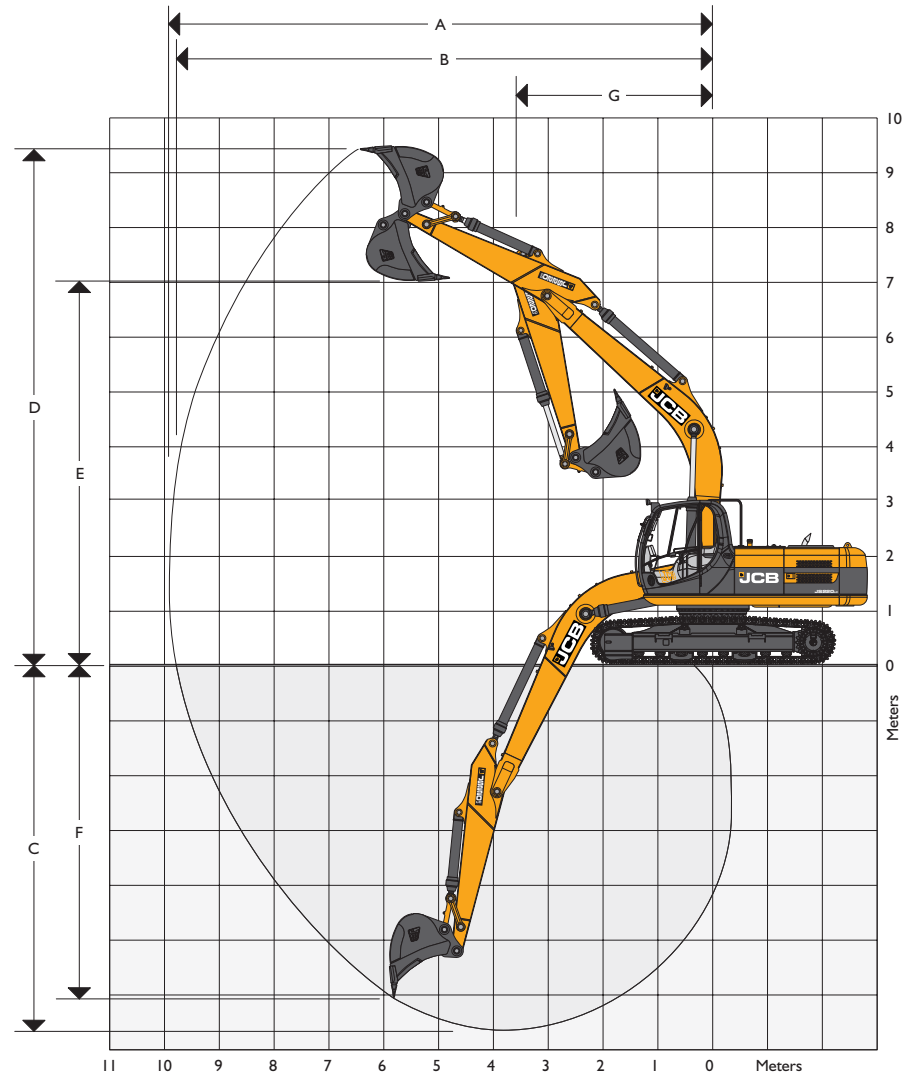
STANDARD / OPTIONAL EQUIPMENT

Standard Equipment: Engine fan guard; Cold start pre-heat; Auto engine warm up; Double element air cleaner; Electric refuelling pump; Heavy duty alternator; Electrics isolator; Heavy duty batteries; Cab & engine soundproofing; Cab heater & window defroster; Tinted glass; Interior light; Coat hook; Cigarette lighter; Ashtray; Operator's storage box; Removable floormat; Windshield washer/wiper; 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; Auxiliary pipework mounting brackets; 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 windshield blind; Quick connect fuel tank drain pipe; Hinged engine under cover; Lap seat belt; ISO/SAE control pattern change over; Air conditioning.

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); Cab mounted & rear work lights; Rotating beacon; Rain guard; Biodegradeable oil; Air suspension seat with heated pad and lumbar support adjustment; Lower windshield wiper; Radio; High and low temperature hydraulic oil option.

WORKING RANGE

Boom Length 18 ft 8 in (5.70 m)		6 ft 2 in (1.91 m)	7 ft 10 in (2.40 m)	9 ft 10 in (3.00 m)	
Dipper Length					
A	Maximum Digging Reach	ft-in (m)	29-2 (8.89)	30-8 (9.34)	32-5 (9.87)
B	Maximum Digging Reach (on ground)	ft-in (m)	28-7 (8.70)	30-1 (9.16)	31-10 (9.70)
C	Maximum Digging Depth	ft-in (m)	18-2 (5.53)	19-9 (6.02)	21-8 (6.60)
D	Maximum Digging Height	ft-in (m)	29-4 (8.95)	30-2 (9.20)	30-10 (9.40)
E	Maximum Dumping Height	ft-in (m)	20-8 (6.31)	21-5 (6.53)	22-2 (6.75)
F	Maximum Vertical Wall Cut Depth	ft-in (m)	16-1 (4.90)	17-11 (5.47)	19-11 (6.07)
G	Minimum Swing Radius	ft-in (m)	12-4 (3.76)	12-2 (3.71)	11-10 (3.60)
	Bucket Rotation	degrees	183°	183°	183°
	Dipper Tearout (ISO 6015)	lbf (kgf)	29,650 (13,450)	25,485 (11,560)	21,142 (9,590)
	Dipper Tearout with Boost (ISO 6015)	lbf (kgf)	32,210 (14,610)	27,670 (12,550)	22,950 (10,410)
	Bucket Tearout (ISO 6015)	lbf (kgf)	32,080 (14,550)	32,080 (14,550)	32,080 (14,550)
	Bucket Tearout with Boost (ISO 6015)	lbf (kgf)	34,835 (15,800)	34,835 (15,800)	34,835 (15,800)





LIFT CAPACITIES – Dipper length: 6 ft 2 in (1.9 m), Monoboam 18 ft 8 in (5.7 m), Trackshoes: 32 in (800 mm), No Bucket.

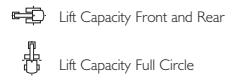
JS220 LC

Reach	9 ft 10 in (3 m)		14 ft 9 in (4.5 m)		19 ft 8 in (6 m)		24 ft 7 in (7.5 m)		Max Reach		Max Reach
Load Point Height	lb (kg)	lb (kg)	lb (kg)	lb (kg)	lb (kg)	lb (kg)	lb (kg)	lb (kg)	lb (kg)	lb (kg)	ft-in (mm)
19.8 ft (6.0 m)					14,065 (6380)*	12,787 (5800)			12,610 (5720)*	12,434 (5640)	20-0 (6105)
14.9 ft (4.5 m)			17,681 (8020)*	17,681 (8020)*	14,815 (6720)*	12,566 (5700)			12,566 (5700)*	10,163 (4610)	22-7 (6907)
9.10 ft (3.0 m)			21,760 (9870)*	18,078 (8200)	16,469 (7470)*	12,125 (5500)			13,184 (5980)*	9171 (4160)	24-0 (7318)
4.11 ft (1.5 m)			24,714 (11,210)*	17,284 (7840)	17,990 (8160)	11,729 (5320)			13,250 (6010)	8841 (4010)	24-2 (7406)
0 m			25,375 (11,510)*	17,042 (7730)	17,747 (8050)	11,508 (5220)			13,735 (6230)	9127 (4140)	23-6 (7182)
-4.11 ft (-1.5 m)	28,682 (13,010)*	28,682 (13,010)*	24,339 (11,040)*	17,086 (7750)	17,725 (8040)	11,508 (5220)			15,454 (7010)	10,163 (4610)	21-7 (6614)
-9.10 ft (-3.0 m)	28,131 (12,760)*	28,131 (12,760)*	21,275 (9650)*	17,416 (7900)					16,755 (7600)*	12,897 (5850)	18-4 (5596)

LIFT CAPACITIES – Dipper length: 7 ft 10 in (2.4 m), Monoboam 18 ft 8 in (5.7 m), Trackshoes: 32 in (800 mm), No Bucket.

JS220 LC

Reach	9 ft 10 in (3 m)		14 ft 9 in (4.5 m)		19 ft 8 in (6 m)		24 ft 7 in (7.5 m)		Max Reach		Max Reach
Load Point Height	lb (kg)	lb (kg)	lb (kg)	lb (kg)	lb (kg)	lb (kg)	lb (kg)	lb (kg)	lb (kg)	lb (kg)	ft-in (mm)
24.7 ft (7.5 m)									11,530 (5230)*	11,530 (5230)*	18-1 (5547)
19.8 ft (6.0 m)					12,809 (5810)*	12,809 (5810)*			10,560 (4790)*	10,560 (4790)*	22-2 (6767)
14.9 ft (4.5 m)			16,160 (7330)*	16,160 (7330)*	13,867 (6290)*	12,677 (5750)			10,340 (4690)*	9061 (4110)	24-6 (7497)
9.10 ft (3.0 m)			20,349 (9230)*	18,364 (8330)	15,675 (7110)*	12,214 (5540)	13,250 (6010)	8907 (4040)	10,582 (4800)*	8267 (3750)	25-10 (7878)
4.11 ft (1.5 m)			23,854 (10,820)*	17,483 (7930)	17,483 (7930)*	11,773 (5340)	13,029 (5910)	8708 (3950)	11,288 (5120)*	8025 (3640)	26-1 (7959)
0 m			25,309 (11,480)*	17,064 (7740)	17,725 (8040)	11,508 (5220)	12,875 (5840)	8576 (3890)	12,302 (5580)	8223 (3730)	25-5 (7751)
-4.11 ft (-1.5 m)	23,920 (10,850)*	23,920 (10,850)*	24,912 (11,300)*	17,020 (7720)	17,637 (8000)	11,420 (5180)			13,558 (6150)	8995 (4080)	23-8 (7229)
-9.10 ft (-3.0 m)	31,063 (14,090)*	31,063 (14,090)*	22,641 (10,270)*	17,218 (7810)	16,667 (7560)*	11,574 (5250)			15,388 (6980)*	10,869 (4930)	20-8 (6313)
-14.9 ft (-4.5 m)			16,535 (7500)*	16,535 (7500)*					15,102 (6850)*	15,102 (6850)*	15-7 (4777)













Notes:

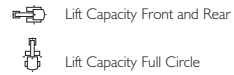
- For lifting capacity including bucket, subtract total weight of bucket or bucket and quickhitch from above values.
- Lifting capacities are based on ISO 10567, that is: 75% of minimum tipping load or 87% of hydraulic lift capacity, whichever is the less. Lifting capacities marked* are based on hydraulic capacity.
- Lift capacities assume that the machine is on firm, level ground.
- Lift capacities may be limited by local regulations. Please refer to your dealer.



LIFT CAPACITIES – Dipper length: 9 ft 10 in (3.0 m), Monoboom 18 ft 8 in (5.7 m), Trackshoes: 32 in (800 mm), No Bucket.

JS220 LC

Reach	9 ft 10 in (3 m)		14 ft 9 in (4.5 m)		19 ft 8 in (6 m)		24 ft 7 in (7.5 m)		Max Reach		Max Reach
											
Load Point Height	lb (kg)	lb (kg)	lb (kg)	lb (kg)	lb (kg)	lb (kg)	lb (kg)	lb (kg)	lb (kg)	lb (kg)	ft -in (mm)
24.7 ft (7.5 m)					9590 (4350)*	9590 (4350)*			7584 (3440)*	7584 (3440)*	20-7 (6285)
19.8 ft (6.0 m)					11,398 (5170)*	11,398 (5170)*			7077 (3210)*	7077 (3210)*	24-2 (7382)
14.9 ft (4.5 m)					12,655 (5740)*	12,655 (5740)*	11,442 (5190)*	9171 (4160)	6967 (3160)*	6967 (3160)*	26-5 (8056)
9.10 ft (3.0 m)	25,530 (11,580)*	25,530 (11,580)*	18,475 (8380)*	18,475 (8380)*	14,617 (6630)*	12,346 (5600)	12,809 (5810)*	8951 (4060)	7121 (3230)*	7121 (3230)*	27-6 (8411)
4.11 ft (1.5 m)			22,487 (10,200)*	17,659 (8010)	16,667 (7560)*	11,839 (5370)	13,051 (5920)	8708 (3950)	7562 (3430)*	7819 (3320)	27-10 (8488)
0 m	14,110 (6400)*	14,110 (6400)*	24,780 (11,240)*	17,064 (7740)	17,725 (8040)	11,486 (5210)	12,831 (5820)	8510 (3860)	8378 (3800)*	7452 (3380)	27-2 (8293)
- 4.11 ft (- 1.5 m)	23,171 (10,510)*	23,171 (10,510)*	25,155 (11,410)*	16,887 (7660)	17,549 (7960)	11,310 (5130)	12,765 (5790)	8444 (3830)	9855 (4470)*	8047 (3650)	25-7 (7807)
- 9.10 ft (- 3.0 m)	33,775 (15,320)*	32,805 (14,880)	23,744 (10,770)*	16,976 (7700)	17,593 (7980)	11,376 (5160)			12,765 (5790)*	9392 (4260)	22-10 (6969)
- 14.9 ft (- 4.5 m)	27,470 (12,460)*	27,470 (12,460)*	19,665 (8920)*	17,394 (7890)					14,903 (6760)*	12,809 (5810)	18-5 (5619)



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 one of the world's largest manufacturers 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 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 an extensive dealer sales and service network in over 150 countries, 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.



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