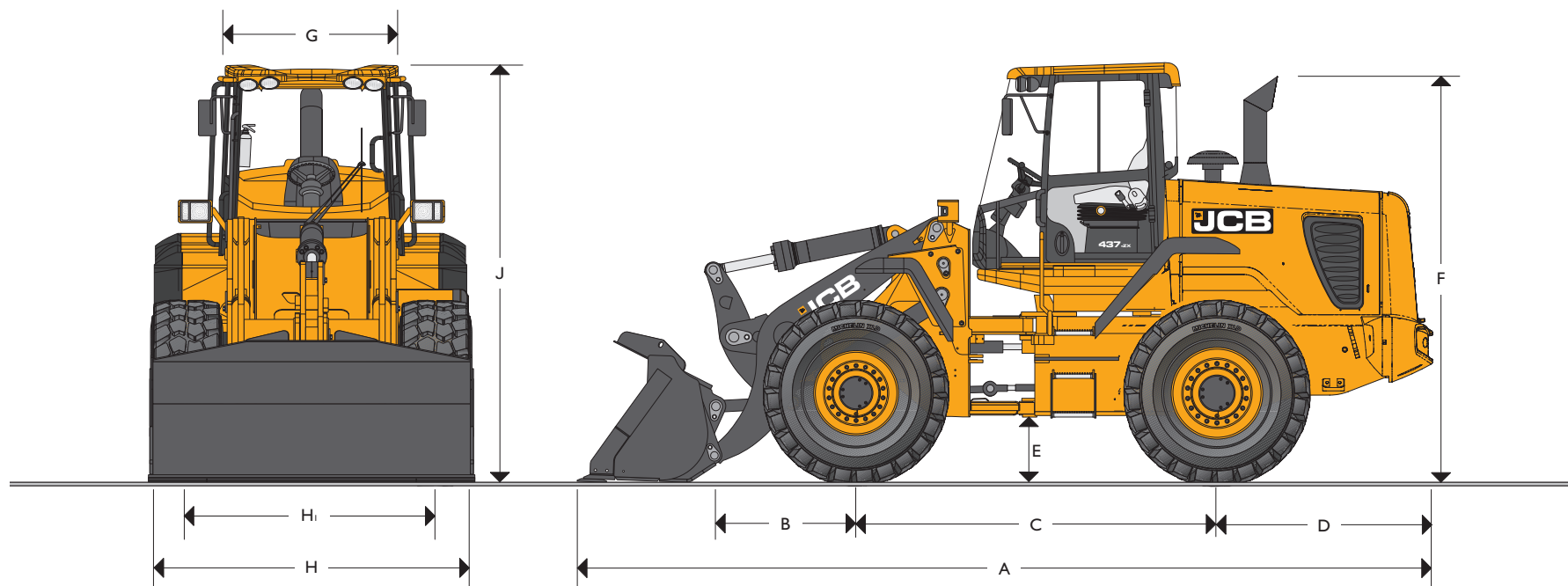




MAX ENGINE POWER: 173 hp (129 kW) MAX OPERATING WEIGHT: 39,663 lb (17,922 kg) MAX LOADER CAPACITY: 3.5 yd³ (2.7 m³)



STATIC DIMENSIONS

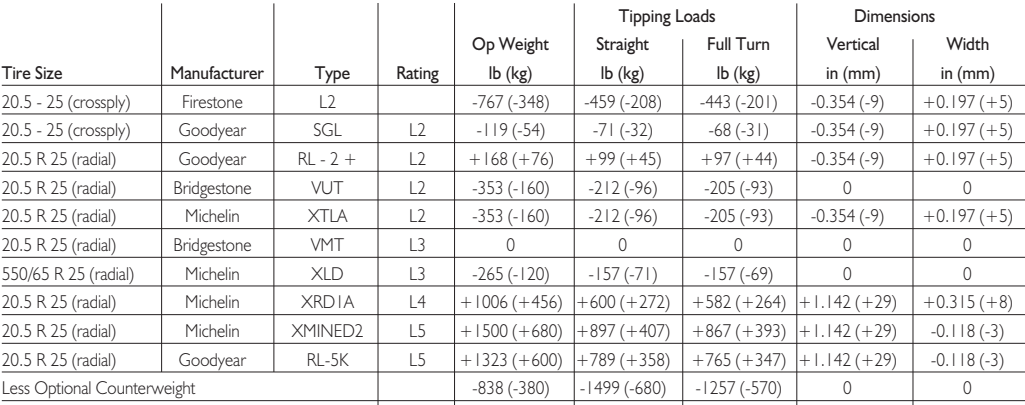
| | ft-in (mm) |
|---------------------------------------|--------------|
| A Overall Length with Standard Bucket | 23-6 (7169) |
| B Axle to Pivot Pin | 3-9 (1143) |
| C Wheel Base | 9-10 (3000) |
| D Axle to Counterweight Face | 6-11 (1816) |
| E Minimum Ground Clearance | 1-6 (459) |
| F Height Over Exhaust | 10-7 (3236) |
| G Width Over Cab | 4-7 (1400) |
| H Width Over Tires | 8-6 (2597) |
| Hi Wheel Track | 6-9 (2070) |
| J Height Over Cab | 10-11 (3335) |

| | | ft-in (mm) |
|--------------------------|---------|-----------------|
| Pin Height (maximum) | | 13-1 (3996) |
| Overall Operating Height | | 17-4 (5305) |
| Front Axle Weight | lb (kg) | 16,372 (7426) |
| Rear Axle Weight | lb (kg) | 17,260 (7829) |
| Total Weight | lb (kg) | 33,632 (15,255) |
| Inside Radius | | 9-3 (2825) |
| Maximum Radius | | 19-4 (5900) |
| Articulation Angle | degrees | ±40° |

Data based on machine equipped with a 3.14 yd³ bucket with bolt-on toeplates and Michelin 20.5R25 XHA2 (L3) radial tires.



CHANGES TO OPERATING PERFORMANCE AND DIMENSIONS



| Bucket Mounting | | Direct | Direct | Direct | Direct | Direct | Quickhitch | Quickhitch | Quickhitch | Quickhitch |
|---|----------------|-----------------|-----------------|-----------------|---------------------|---------------------|-----------------|-----------------|---------------------|---------------------|
| Bucket Type | | General Purpose | General Purpose | Penetration | General Purpose | General Purpose | General Purpose | General Purpose | General Purpose | General Purpose |
| Bucket Equipment | | Tipped Teeth | Tipped Teeth | Tipped Teeth | Reversible Toeplate | Reversible Toeplate | Tipped Teeth | Tipped Teeth | Reversible Toeplate | Reversible Toeplate |
| Bucket Capacity (SAE heaped) | yd3 (m3) | 3.0 (2.3) | 3.4 (2.6) | 3.4 (2.6) | 3.1 (2.4) | 3.5 (2.7) | 3.0 (2.3) | 3.4 (2.6) | 3.1 (2.4) | 3.5 (2.7) |
| Bucket Capacity (struck) | yd3 (m3) | 2.593 (1.984) | 2.967 (2.274) | 2.967 (2.274) | 2.691 (2.057) | 3.068 (2.346) | 2.593 (1.984) | 2.967 (2.274) | 2.691 (2.057) | 3.068 (2.346) |
| Bucket Width | ft-in (mm) | 9-0 (2740) | 9-0 (2740) | 9-0 (2740) | 8-10 (2700) | 8-10 (2700) | 9-0 (2740) | 9-0 (2740) | 8-10 (2700) | 8-10 (2700) |
| Bucket Weight | lb (kg) | 2750 (1250) | 2897 (1317) | 2994 (1361) | 2776 (1262) | 2924 (1329) | 2473 (1124) | 2638 (1199) | 2499 (1136) | 2664 (1211) |
| Maximum Material Density | lb/yd3 (kg/m3) | 3369 (1999) | 2940 (1744) | 2953 (1752) | 3224 (1913) | 2825 (1676) | 3216 (1908) | 2805 (1664) | 3053 (1811) | 2697 (1600) |
| Tipping Load Straight | lb (kg) | 24,377 (11,057) | 24,055 (10,911) | 24,147 (10,953) | 24,348 (11,044) | 24,026 (10,898) | 23,261 (10,551) | 22,937 (10,404) | 23,041 (10,451) | 22,902 (10,388) |
| Tipping Load Full Turn | lb (kg) | 20,280 (9,199) | 19,994 (9,069) | 20,084 (9,110) | 20,249 (9,185) | 19,963 (9,055) | 19,352 (8,778) | 19,083 (8,656) | 19,167 (8,694) | 19,055 (8,643) |
| Payload | lb (kg) | 10,139 (4,599) | 9,998 (4,535) | 10,042 (4,555) | 10,124 (4,592) | 9,980 (4,527) | 9,676 (4,389) | 9,542 (4,328) | 9,583 (4,347) | 9,526 (4,321) |
| Maximum Break Out Force | lbf (kN) | 39,565 (176) | 36,418 (162) | 36,418 (162) | 39,565 (176) | 36,418 (162) | 35,294 (157) | 32,371 (144) | 35,294 (157) | 32,371 (144) |
| M Dump Angle Maximum | degrees | 47° | 47° | 47° | 47° | 47° | 47° | 47° | 47° | 47° |
| N Roll Back angle at Full Height | degrees | 58° | 58° | 58° | 58° | 58° | 58° | 58° | 58° | 58° |
| O Roll Back at Carry | degrees | 45° | 45° | 45° | 45° | 45° | 45° | 45° | 45° | 45° |
| P Roll Back at Ground Level | degrees | 37° | 37° | 37° | 37° | 37° | 37° | 37° | 37° | 37° |
| Q Load Over Height | ft-in (mm) | 12-3 (3755) | 12-3 (3755) | 12-3 (3755) | 12-3 (3755) | 12-3 (3755) | 12-3 (3755) | 12-3 (3755) | 12-3 (3755) | 12-3 (3755) |
| R Dump Height (45° dump) | ft-in (mm) | 9-3 (2,824) | 9-1 (2,759) | 9-1 (2,759) | 9-9 (2965) | 9-6 (2833) | 9-0 (2,739) | 8-10 (2,674) | 9-5 (2880) | 9-0 (2748) |
| S Dig Depth | ft-in (mm) | 0-5 (131) | 0-5 (131) | 0-5 (131) | 0-4 (105) | 0-4 (105) | 0-5 (131) | 0-5 (131) | 0-4 (105) | 0-4 (105) |
| T Reach at Dump Height | ft-in (mm) | 4-1 (1,248) | 4-4 (1,312) | 4-4 (1,312) | 3-9 (1144) | 3-7 (1103) | 4-4 (1,333) | 4-7 (1,397) | 4-0 (1229) | 3-11 (1188) |
| Reach maximum (45° dump) | ft-in (mm) | 6-9 (2,000) | 6-9 (2,064) | 6-9 (2,064) | 6-3 (1896) | 6-5 (1947) | 6-10 (2,077) | 7-0 (2,141) | 6-6 (1973) | 6-8 (2024) |
| Operating Weight (includes 176 lb operator and full fuel tank) | lb (kg) | 33,632 (15,255) | 33,759 (15,313) | 33,907 (15,380) | 33,632 (15,255) | 33,759 (15,313) | 33,892 (15,373) | 33,795 (15,329) | 33,892 (15,373) | 34,414 (15,610) |



LOADER

Heavy duty three ram geometry provides high breakout forces with excellent loading characteristics. The pin, bush and sealing design on all pivot points provide extended maintenance intervals.

ENGINE

6-cylinder, charge air cooled, variable geometry turbo-charger, electronically controlled high pressure common rail injection, cooled exhaust gas recirculation and diesel oxidation catalyst.

| | | |
|--|---------------------------|-----------|
| Type | 4 Stroke Direct Injection | |
| Make & Model | QSB 6.7 | |
| Capacity | l | 6.7 |
| Aspiration | Turbo Charged | |
| Cylinders | 6 | |
| Max Gross Power to SAE J1995/ISO 14396 | hp (kW) @ 1600 rpm | 173 (129) |
| Rated Gross Power to SAE J1995/ISO 14396 | hp (kW) @ 2100 rpm | 173 (129) |
| Net Power to SAE J1349/EEC 80/1269 | hp (kW) @ 2100 rpm | 160 (119) |
| Max Torque | lb.ft (Nm) @ 1500 rpm | 591 (801) |

Emissions:

US EPA Tier 4i / EU Stage IIIB.

TRANSMISSION

4 wheel drive, automatic smooth shift transmission electrically operated selector and gear change incorporating a speed inhibitor and modulation for smooth, responsive on-the-move direction and ratio changes. Single stage integral torque converter 4 forward and 3 reverse gears.

| | | |
|------------------------------|-------------------------|---------------|
| Type | Smooth Shift Powershift | |
| Make & Model | ZF 4WG 190 | |
| Torque Converter Stall Ratio | 2.873 : 1 | |
| 1st Gear | mph (km/h) | 4.27 (6.87) |
| 2nd Gear | mph (km/h) | 7.97 (12.82) |
| 3rd Gear | mph (km/h) | 15.27 (24.58) |
| 4th Gear (forward only) | mph (km/h) | 23.54 (37.88) |

AXLES

| | | |
|-----------------------|---|--|
| Type | Open, limited slip, or automatic differential locking | |
| Make & Model | ZF MTL 3085 II Front / MTL 3075 II Rear | |
| Overall Axle Ratio | 20.184 : 1 Front / 20.365 : 1 Rear | |
| Rear Axle Oscillation | 21° | |

STEERING

Priority steer hydraulic system with emergency steering. Piston pump meters flow through steer valve @ 2756 lb/in² (190 bar) to provide smooth low effort response. Steering angle $\pm 40^\circ$. Steer rams located high in the chassis fabrication to provide protection from damage. Adjustable steering column.

BRAKES

Hydraulic power braking on all wheels, operating pressure 810 psi (60 bar). Dual circuit with accumulator back-up provide maximum safety under all conditions. Hub mounted, oil immersed, multi-plate disc brakes with organic brake linings are environmentally acceptable. Parking brake, mechanical disc type operating on transmission output shaft.

TIRES

A variety of tire options are available including:

20.5 x 25 x 12 ply (L2). 20.5 x 25 SGL (L2). 20.5R25 RL-2+ (L2). 20.5R25 VUT (L2). 20.5R25 XTLA (L2). 20.5R25 VMT (L3). 550/65R25 XLD (L3). 20.5R25 XHA (L3). 20.5R25 XRD 1A (L4). 20.5R25 XMINED2 (L5). 20.5R25 RL-5K (L5).

LOADER HYDRAULICS

Twin variable displacement piston pumps feed a "load sensing" system providing a fuel efficient and responsive distribution of power as required. Main services are servo actuated from a single lever (joystick) loader control. Auxiliary circuit controlled via additional lever or joystick mounted electrical buttons. Accumulator back-up is available to control loader in the event of loss of pump pressure.

| Pump Type | | Twin Variable Displacement Piston Pumps | | | |
|---|--------------------------|---|----------|----------------|------------|
| Pump 1 Max Flow | gal/min (l/min) | 35 (132) | | | |
| Pump 1 Max Pressure | lb/in ² (bar) | 3625 (250) | | | |
| Pump 2 Max Flow | gal/min (l/min) | 35 (132) | | | |
| Pump 2 Max Pressure | lb/in ² (bar) | 2320 (160) | | | |
| Hydraulic Cycle Times at Full Engine Revs | | Seconds | | | |
| Arms Raise (full bucket) | | 5.9 | | | |
| Bucket Dump (full bucket) | | 1.45 | | | |
| Arms Lower (empty bucket) | | 4.3 | | | |
| Total Cycle | | 11.65 | | | |
| Ram Dimensions | | Bore | Rod | Closed Centers | Stroke |
| Bucket Ram x2 | in (mm) | 6.3 (160) | 3.1 (80) | 47.2 (1200) | 21.1 (536) |
| Lift Ram x2 | in (mm) | 5.1 (130) | 2.8 (70) | 49.6 (1259) | 32.0 (813) |
| Steer Ram x2 | in (mm) | 3.1 (80) | 2.0 (50) | 24.4 (621) | 12.3 (312) |



ELECTRICAL SYSTEM

24 V negative ground system, 70 Amp alternator with 2 x 110 Amp hour low maintenance batteries. Isolator located in rear of machine. Ignition key start/stop and pre-heat cold start. Primary fuse box. Other electrical equipment includes quartz halogen, twin filament working lights, front/rear wash/wipe, heated rear screen, full road going lights, clock, gauge and warning light monitoring. Connectors to IP67 standard.

| | | |
|-------------------|----|---------|
| System Voltage | V | 24 |
| Alternator Output | Ah | 70 |
| Battery Capacity | Ah | 2 x 110 |

CAB

Resiliently mounted ROPS/FOPS structure tested in accordance with EN3471:2008/EN3449:2008 (level 2). Deluxe operator environment combines ergonomically located controls with a high level of appointment and low internal noise levels. Entry/exit is via large rear hinged door and anti-slip steps. Excellent forward visibility is provided by a 3 section curved, laminated windshield and low waistline. Extensive instrumentation includes electronic monitoring panel and display (EMS). Heating / ventilation provides balanced and filtered air distribution throughout the cab via a powerful 11 kW capacity heater. The unitary construction allows easy sealing and prevents ingress of dust. A transmission lock on the selector prevents inadvertent engagement and the loader controls can be isolated for safe road travel. Noise level measured in accordance with 86/662/EEC, amendment 95/27/EC

Interior Pressure Level: 73 Lp (A)
Exterior Power Level: 105 Lw (A)

ATTACHMENTS

An extensive range of attachments are available to fit directly or via the JCB quickhitch mounting.

SERVICE FILL CAPACITIES

| | gal (l) |
|-------------------------|-----------|
| Hydraulic System | 55 (210) |
| Fuel Tank | 61 (230) |
| Engine Oil Sump | 4.76 (18) |
| Transmission Oil System | 9.51 (36) |
| Axle Oil (front) | 9.2 (35) |
| Axle Oil (rear) | 6.1 (23) |
| Engine Coolant System | 9 (35) |

STANDARD EQUIPMENT

Loader: Bucket reset mechanism, loader arm kickout mechanism, loader control isolator, high breakout forces with excellent loading characteristics.

Engine: Air cleaner – 2 stage dry type – cyclonic with primary and safety elements, silencer and exhaust stack, sedimenter, twin bowl fuel filters, alternator and air conditioning compressor drive belt guards, isolated cooling pack with hydraulically driven cooling fan.

Transmission: Single lever shift control, speed inhibitor, neutral start, disconnect on footbrake and loader lever, disconnect isolator switch, direction changes and kickdown on gear selector and loader control lever.

Axles: Epicyclic wheel hub reduction, fixed front, oscillating rear.

Brakes: Multi-plate wet disc brakes, organic linings, dual circuit hydraulic power. Parking disc brake on transmission output shaft.

Hydraulics: Twin piston pumps with priority steer, emergency steer back-up, 2 spool loader circuit with accumulator support, 3rd spool auxiliary hydraulic circuit as option.

Steering: Adjustable steering column, "soft feel" steering wheel 5 turns lock to lock, resilient stops on max lock.

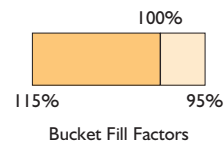
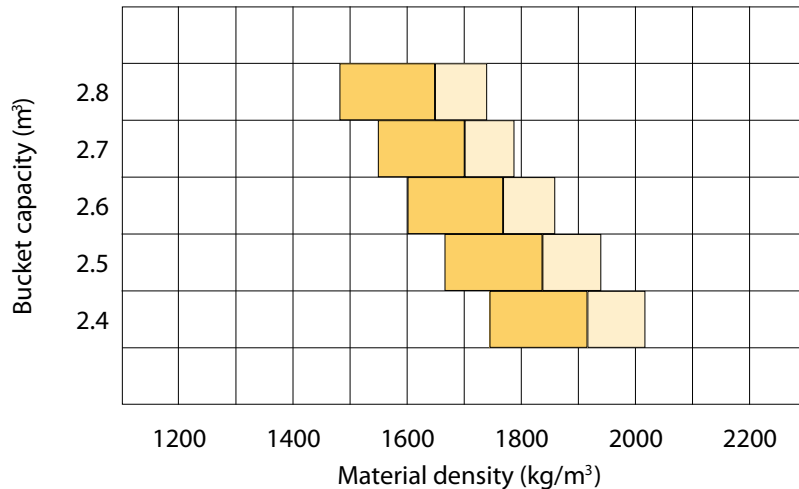
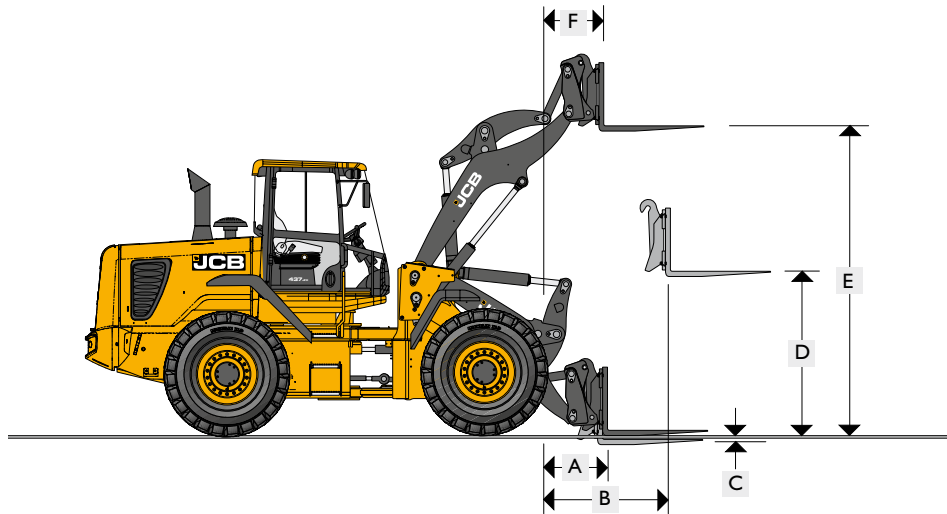
Cab: ROPS/FOPS safety structure, cigar lighter, ashtray, interior reading light, center mounted master warning light. Electronic monitoring panel with LCD message display. Two speed intermittent front windshield wipe/wash and self park, single speed rear windshield wipe/wash and self park. 3 speed heater with replaceable air filter, LH and RH opening windows, sun visor, internal rear view mirror, external mirrors, adjustable suspension seat with belt and headrest, operator storage facilities, laminated windshield, loader control isolator, horn, heated rear screen, adjusting armrest.

Electrical: Road lights front and rear, parking lights, front and rear working lights, reverse alarm and light, rear fog light, battery isolator, radio wiring and speakers, 70 amp alternator, rotating beacon.

Bodywork: Front and rear fenders, side and rear access panels, flexible bottom step, full width rear counterweight, recovery hitch, lifting lugs.

OPTIONAL EQUIPMENT

Air conditioning, limited slip differentials front/rear axles, additional counterweight, oil bath air cleaner, turbo 2 pre-cleaner, visibowl pre-cleaner, tooth guard, replaceable bucket wearparts, sealed alternator, epoxy coated radiator/coolers, Smooth ride system (SRS), hydraulic quickhitch, full rear fenders, reversing camera (color), auto greasing system, auxiliary control buttons on joystick, spark arrestor, 24 V to 12 V in cab converter, cab screen guards, air suspension seat, front chassis apron mat, fire extinguisher, number plate light kit, additional front and rear worklights.



LOADER DIMENSIONS – FORK FRAME WITH FORKS

| | | |
|------------------------------|------------|---------------|
| Fork Carriage Width | ft-in (mm) | 4-11 (1500) |
| Length of Tines | ft-in (mm) | 4-0 (1220) |
| A Reach at Ground Level | ft-in (mm) | 2-7 (798) |
| B Reach at Arms Horizontal | ft-in (mm) | 5-4 (1620) |
| C Below Ground Level | ft-in (mm) | 0-5/8 (16) |
| D Arms, Horizontal Height | ft-in (mm) | 6-4 (1936) |
| E Arms, Maximum Height | ft-in (mm) | 12-6 (3818) |
| F Reach at Maximum Height | ft-in (mm) | 2-10 (869) |
| Payload* | lb (kg) | 5610 |
| Tipping Load Straight | lb (kg) | 18,274 (8289) |
| Tipping Load Full Turn (40°) | lb (kg) | 15,461 (7013) |
| Attachment Weight | lb (kg) | 1063 (482) |

*At the center-of-gravity distance 1 ft 5 1/2 in (500 mm). Based on 80% of full turn tipping load as defined by ISO 8313. Assumes the fitment of Michelin 20.5R25 XHA (L3) tires. Manual fork spacings at 2 in (50 mm) increments. Fork section 4 in x 2 in (100 mm x 50 mm).

BUCKET SELECTOR

| Material | Loose Density | | Fill Factor |
|------------------------------|---------------|-------|-------------|
| | lb/yd³ | kg/m³ | % |
| Snow (fresh) | 337 | 200 | 110 |
| Peat (dry) | 674 | 400 | 100 |
| Sugar Beet | 894 | 530 | 100 |
| Coke (loose) | 961 | 570 | 85 |
| Barley | 1012 | 600 | 85 |
| Petroleum Coke | 1146 | 680 | 85 |
| Wheat | 1231 | 730 | 85 |
| Coal Bitumous | 1290 | 765 | 100 |
| Fertiliser (mixed) | 1737 | 1030 | 85 |
| Coal Anthracite | 1764 | 1046 | 100 |
| Earth (dry) (loose) | 1939 | 1150 | 100 |
| Nitrate Fertilizer | 2180 | 1250 | 85 |
| Sodium Chloride (dry) (salt) | 2192 | 1300 | 85 |
| Cement Portland | 2428 | 1440 | 100 |
| Limestone (crushed) | 2580 | 1530 | 100 |
| Sand (dry) | 2613 | 1550 | 100 |
| Asphalt | 2698 | 1600 | 100 |
| Gravel (dry) | 2782 | 1650 | 85 |
| Clay (wet) | 2832 | 1680 | 110 |
| Sand (wet) | 3187 | 1890 | 110 |
| Fire Clay | 3507 | 2080 | 100 |
| Copper (concentrate) | 3878 | 2300 | 85 |
| Slate | 4721 | 2800 | 100 |
| Magnetite | 5402 | 3204 | 100 |



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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