

NEW

Backhoe Loader 5CX



Engine Power: 74.2kW (100hp) Backhoe Dig Depth: 6.51 metres Loader Capacity: 1.4m³

A Product of Hard Work



Ultimate **power** ultimate **performance**

The all-new JCB 5CX is quite simply the most powerful and productive JCB backhoe loader ever made. Expanding our world-leading backhoe range, the 5CX has all the engine power, torque, tractive effort and pushing power you could need, as well as unbeatable loading, rehandling, roading and hill climbing performance.





power
and productivity

More power to you

The 74.2kW (100 Hp) DIESELMAX engine is the most powerful ever fitted to a JCB backhoe loader.

Limited Slip Differentials increase traction and make power delivery more efficient.

Low ratio 1st and 2nd gears provide superb pushing power.



Getting the job done

A large 1.4m³ shovel and massive 6590kgf shovel breakout makes rehandling faster.

All-wheel-steer offers great onsite manoeuvrability.

There's a 6.51m dig depth – the deepest on any JCB backhoe loader.

built-in
strength

A stronger loader

Heavy-duty arms, reinforced around the pins and shovel, handle massive reach.

A cushioned ram allows smooth operation and provides excellent load retention.

We use precision design techniques like finite element analysis to make our backhoes stronger.

Strong foundations

The chassis is specially designed and heavy-duty.

Our front axle mount is reinforced to handle huge lifting forces.

High ground clearance makes for superb performance on uneven ground.

A strong performer

25,000kg static load axles are designed to tolerate the very largest loads.

Inboard oil immersed brakes are powerful, efficient and low maintenance.

JCB's DIESELMAX engine and transmission are tried and trusted over hundreds of thousands of hours.



ultimate.
specification

Autoshift transmission

Six gears provide smooth changes and good fuel efficiency.

There's an automatic change from 4th to 6th gears.

A kickdown switch gives extra power when loading.

TorqueLock

JCB's patented TorqueLock feature reduces fuel consumption by up to 25% when roading.

Efficiency gains from TorqueLock means up to 10% shorter travel times.

Smoothride

Our unique Smoothride suspension system improves load retention and operator comfort.



**a great place to
work**

A detailed view of the interior of a JCB telehandler cab. The image shows a black steering wheel with the JCB logo, a dashboard with multiple analog gauges and a digital display, and a large, comfortable-looking seat with a JCB logo on the backrest. The controls are ergonomic and designed for ease of use. The overall aesthetic is professional and functional.

A comfortable favourite

A heated air suspension seat provides all-day comfort.

The heated front screen is ideal for cold mornings.

The interior is inspired by the automotive industry for familiar ergonomics.

Stopping at nothing

Power brakes allow efficient, safe stopping power for low pedal effort.

Stopping is always predictable and controlled.

In control

Ergonomic seat-mounted excavator style controls make for great manoeuvrability.

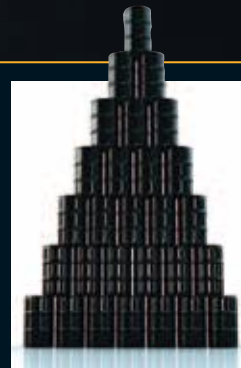
The single servo loader lever is light and intuitive.

LIVELINK, KNOWLEDGE IS POWER

JCB LIVELINK IS AN INNOVATIVE SOFTWARE SYSTEM THAT LETS YOU MONITOR AND MANAGE YOUR MACHINES REMOTELY - ONLINE, BY EMAIL OR BY MOBILE PHONE. LIVELINK GIVES YOU ACCESS TO A WHOLE HOST OF USEFUL DATA. ALL YOUR MACHINE INFORMATION IS HANDLED AT A SECURE DATA CENTRE FOR YOUR PEACE OF MIND.

Productivity and cost benefits

Machine location information can improve fleet efficiency and you may even enjoy reduced insurance costs courtesy of the added security that LiveLink brings.



Maintenance benefits

JCB LiveLink makes it easy to manage machine maintenance. Accurate hours monitoring and service alerts improve maintenance planning, and real-time location data helps you manage your fleet.



Security benefits

Keep your machine operating safely with JCB LiveLink. Real-time geofencing alerts tell you when machines move out of predetermined operating zones, and real-time curfew alerts inform you if machines are being used when they're not supposed to be. Real time location information helps you store your machines in the safest places.



VALUE ADDED

JCB'S WORLDWIDE CUSTOMER SUPPORT IS FIRST CLASS. WHATEVER YOU NEED AND WHEREVER YOU ARE, WE'LL BE AVAILABLE QUICKLY AND EFFICIENTLY TO HELP MAKE SURE YOUR MACHINERY IS PERFORMING TO ITS FULL POTENTIAL.



1

1 Our Technical Support Service provides instant access to factory expertise, day or night, while our Finance and Insurance teams are always on hand to provide fast, flexible, competitive quotes.

2 JCB Assetcare offers comprehensive extended warranties and service agreements, as well as service-only or repair and maintenance contracts. Irrespective of what you opt for, our Maintenance teams around the world charge competitive labour rates, and offer non-obligation quotations as well as fast, efficient insurance repair work.

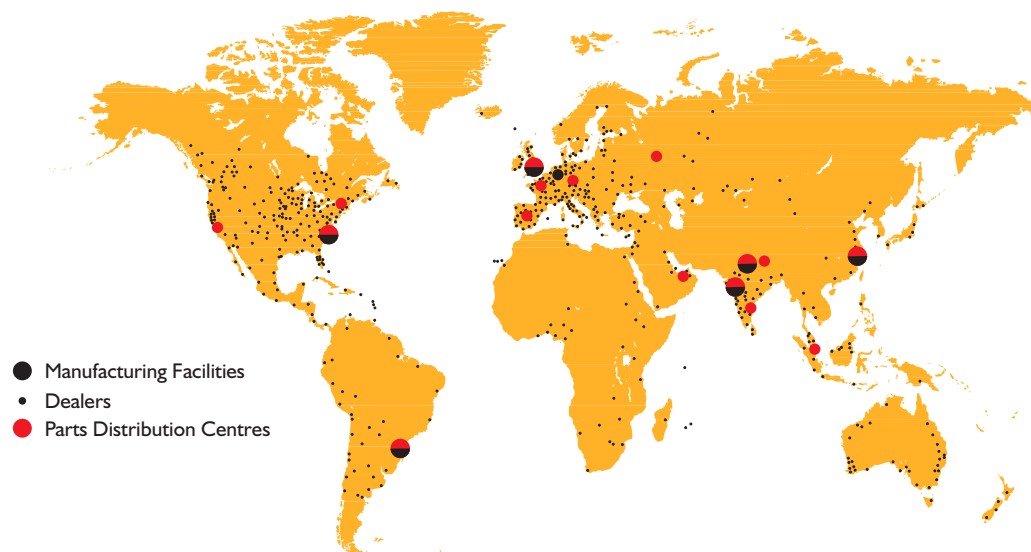


3

3 The global network of JCB Parts Centres is another model of efficiency; with 16 regional bases, we can deliver around 95% of all parts anywhere in the world within 24 hours. Our genuine JCB parts are designed to work in perfect harmony with your machine for optimum performance and productivity.

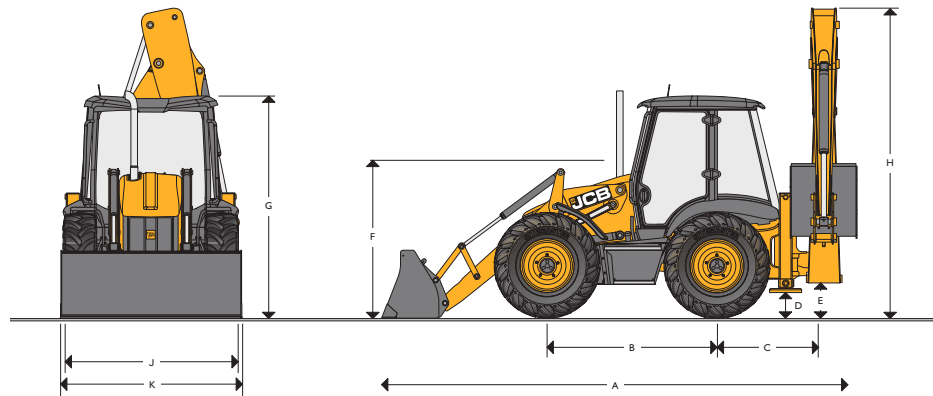


4



5CX ECO MAX. ENGINE POWER: 74.2kW (100hp) MAX. BACKHOE DIG DEPTH: 6.51 metres LOADER CAPACITY: 1.4m³

STATIC DIMENSIONS

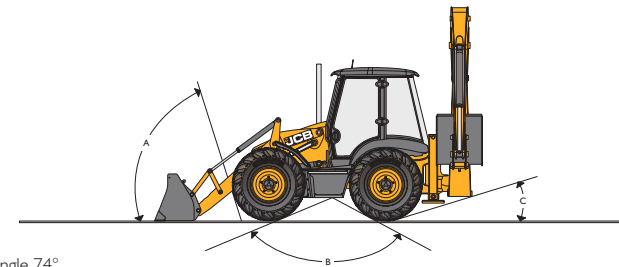


STATIC DIMENSIONS

JCB Backhoe Loaders feature heavy-duty one piece mainframe, componentised driveline and fully enclosed engine compartment. All fluid and component compartments are lockable using the ignition key.

Machine model	5CX
	m (ft-in)
A Total travel length	5.91 (19-5)
B Axle centreline distance	2.22 (7-3)
C Slew centre to rear axle centre distance	1.36 (4-6)
D Stabiliser feet clearance	0.34 (1-1)
E Kingpost clearance	0.50 (1-8)
F Steering wheel centre height	1.88 (6-2)
G Cab roof height	3.03 (9-9)
H Total travel clearance	3.93 (12-11)
J Rear frame width	2.36 (7-9)
K Shovel width (standard)	2.33 (7-8)
K* Shovel width (option)	2.44 (8-0)

GROUND LINE ANGLES



- A Approach angle 74°
- B Interference angle/ramp to ground plane 118°
- C Departure angle 19°

OPERATING WEIGHTS

Operating weight includes machine with 6 in 1 shovel, 610mm excavator bucket, full fuel tank and operator.

Machine model	5CX
	kg (lb)
Extending dipper	9810 (21582)

ENGINE

Direct injection diesel. Belt driven water pump, cold start aid – territory dependent.

Machine model	All models	
Engine standard	Stage III	
Manufacturer	JCB	
Aspiration	Turbocharged	
Displacement	litre	4.4
No. of cylinders		4
Bore	mm	103
Stroke	mm	132
Rated engine rpm		2200
Power ratings		
Rated ISO 14396 (SAE J1995 Gross)	kW (HP)	74.2 (100)
Maximum torque		
Rated ISO 14396 (SAE J1995 Gross)	Nm (lbf ft)	440 (324.5)
Max. torque rpm		1300

STEERING

Full power hydrostatic system utilising the main hydraulic pump via a steering priority valve. In the event of engine failure, emergency steering is maintained. Four equal size wheels with three steering modes – front wheel steering, four wheel steering and crab steer. Steer modes can be selected via the three-position rotary switch on the front dashboard.

Machine model	All models
Steering axles	Steer drive
Steering turns – lock to lock	2¾
	m (ft-in)
Kerb – kerb turning circle – unbraked	9.1 (29-10)
Loader clearance circle – unbraked	10.7 (35-1)
Kerb – kerb turning circle – braked	8.0 (26-3)
Loader clearance circle – braked	9.5 (31-2)

ENGINE SUPPORT SYSTEM

Engine support system is designed for ease of daily checks, routine maintenance and longer service intervals.

Fuel type	Diesel.
Fuel filter	Replaceable cartridge plus water/sediment separator prefilter.
Air cleaner	Dual, dry element type, with self cleaning internal air intake precleaner.
Oil filter and lubrication	Full flow, spin-on type filter.
Cooling system	Hot climate specification, pressurised 14.5 psi (1.0 bar) suction fan. Pressurised recovery tank with integral filler neck.

ELECTRICAL AND INSTRUMENTATION

12 volt negative ground, utilising wiring and connectors meeting IP69 water ingress test standard. Central fuse panel.

Gauges	Tachometer, engine coolant temp, fuel level, hourmeter, clock.
Warning system	Audible and visual system. Engine oil, water in fuel, transmission oil temperature and pressure, park brake, air cleaner, alternator.
Battery	900 CCA/110 A/hr.
Pre-wire	Radio speakers (cab), beacon (all).
Horn	Controlled from both front and rear.
Alternator	95 amp standard.
Front working lights	4 adjustable.
Rear working lights	4 adjustable.

JCB TORQUE LOCK

An industry exclusive, JCB Torque Lock enables an operator to dramatically reduce travel time and improve fuel efficiency during loading operations.

Torque Lock incorporates a clutch which, when engaged, enables a direct connection between the engine and gearbox. By "locking up" the torque converter slippage is eliminated. Torque Lock engages automatically in "A" mode.

Torque Lock reduces fuel consumption by up to 25%, maintains road speed up hills for longer and allows the machine to reach its destination quicker or increase its working radius.

TRANSMISSION

The JCB Transmissions are designed and built specifically for JCB Backhoe Loaders. They feature synchronised shifting in all gears. Powershuttle between forward and reverse. Ground speeds are designed to maximise productivity.

The JCB 6-speed autoshift transmission features automatic upshift and downshift between 4th, 5th and 6th gear controlled by machine travel speed and incorporates a kickdown pedal to select first gear. The operator may use the Autoshift in manual mode when operator control of shift points is desired. The JCB Powershift transmission allows fast gear changing without losing speed or momentum on gradients. The integral torque converter and electrically operated reversing shuttle help this backhoe loader produce fast cycle times for real wheeled loader performance. Low 1st and 2nd gear ratios provide excellent tractive effort for loading and sitestripping. JCB transmissions feature a (SAHR) clutch park brake, hydraulic release, spring engaged.

Machine model	All models
Manufacturer	JCB
Type	Autoshift
Torque converter	305mm (12")
Torque converter ratio	2.54:1
Torque Lock	Standard
Gears forward/reverse	6/4
Gear selection	Powershift
Shuttle control – F/R	Power shuttle
Travel speeds	kph (mph)
Tyres equipped	16.9x28
Gear 1	4.9 (3.0) F / 6.2 (3.9) R
Gear 2	8.1 (5.0) F / 8.4 (5.2) R
Gear 3	11.0 (6.8) F / 22.4 (13.9) R
Gear 4	17.7 (11.0) F / 30.5 (19.0) R
Gear 5	29.6 (18.4) F
Gear 6	38.1 (23.7) F

* Speeds vary dependant on tyre selection.

FRONT AXLE

JCB front axles are designed and built specifically for backhoe loaders and accept a wide variety of tyre combinations.

Machine model	All models
Type	JCB epicyclic hub reduction with torque proportional
Limited slip	Standard
Axle ratings	kg (lb)
Static load rating	25000 (55116)
Dynamic load rating	12500 (27558)
Oscillation angle	16°
Steering ram	Powered track rod

REAR AXLE

JCB rear axles are designed and built specifically for backhoe loaders and accept a wide variety of tyre combinations.

Machine model	All models
Type	JCB epicyclic hub reduction with torque proportional
Limited slip	Standard
Axle ratings	kg (lb)
Static load rating	25000 (55116)
Dynamic load rating	12500 (27558)

CAB

Excellent visibility (and safety) is provided by the extra large tinted glass areas of 6.4 sq m (70 sq ft). Cab frame is ROPS and FOPS approved for maximum operator protection. ISO standard 3471 and 3449 (SAE J1040 and J231).

- A fully adjustable seat with lumbar support combines with ergonomically positioned controls to minimise operator fatigue.
- The in-cab noise levels are the lowest in the business for maximum operator comfort.
- A radio location is provided as standard plus twin speakers for stereo sound.
- Cab provides easy access through a two door frame. Rear side windows open either partially or fully for extra ventilation. Standard features include: lap seat belt, 3 speed fresh air/recycle heater, front and rear screen wash/wipers, front and rear horn, exterior mirrors, and flat easy-clean floor.
- The instrument panel is positioned to the right-hand side for ease of viewing from either the loading or excavating position and has an optional lockable cover for vandal proofing. Engine speed, fuel and coolant temperature gauges, (and clock on cab builds) are mounted in the panel.
- A high performance air conditioning system is optionally available providing the operator with a cool working environment when working in high temperatures.
- Heated air suspension seat gives the operator the ultimate comfort with automatic compensation for weight.
- An in-cab hot drinks machine provides the operator with a hot beverage where site facilities don't exist.
- Heated front windscreen removes built up frost in minutes.
- Air-conditioning option further enhances operator comfort.

JCB POWERSLIDE (Optional)

Exclusive to JCB, this factory fit option enables the excavator's sideshift carriage to be hydraulically powered across the rearframe by the operation of a pedal or joystick mounted proportional switch (EasyControl and Advanced EasyControl) in the cab. With this feature there is no need to "push" the carriage across with the bucket avoiding ground damage and the need to relocate the whole machine. This option is available on open centre system only.

ACCESSORIES

Standard:

- Heated front windscreen.
- Reverse alarm.

Optional:

- Eberspacher cold climate heater.

ADVANCED EASYCONTROL

Advanced EasyControl is an alternative hydraulic control system standard on a 5CX backhoe loader. Building on the successful EasyControl system, it offers even higher levels of operator comfort, control and performance. Features include: seat mounted controls which operate both the excavator and loader; plus a telescopic steering column with integrated forward and reverse control for greater comfort. In addition, Advanced EasyControl boasts high output variable flow hydraulics which provides full flow on demand for increased fuel efficiency, faster digging cycles and maximum productivity and additional filtration for improved efficiency and reliability.

POWER BRAKES

The JCB class leading hydraulic power brakes system is fitted as standard and ensures low effort, effective, fade-free braking. The self-adjusting, multi-disc arrangement is inboard mounted and is oil immersed for minimum maintenance and a long operating life.

- Four wheel braking.
- Twin brake pedals provide tighter turning circle and enhanced steering control on slippery ground.
- Automatic compensation ensures 'straight' machine braking.
- Accumulator back-up provides maximum safety under all conditions and in the case of dead engine applies 4 wheel braking.
- Transmission logic and spring on / hydraulic release 4WD clutch means that the park brake is always applied to front and rear axles for effective braking.
- Increased back off in the brake packs reduces friction and saves fuel.
- Uses the main hydraulic system oil which eliminates the need for a separate brake oil reservoir which also reduces service costs.
- Class leading brakes have proportional braking effort throughout the pedal travel.
- Disc diameter: 220 mm (8.7 in). Friction area: 129,000 sq.mm (200 sq. in) per brake.
- The integral park brake is a ball and ramp, oil immersed type located within the transmission and will hold the machine on 1:3 gradients. It is an over-centre type, adjustable within the cab, with transmission disconnect to prevent premature brake pad wear. There are 5 friction brake discs having an outside diameter of 127mm (5 in). Frictional area per brake disc is 47.65 sq. cm (7.39 sq. in) giving a total frictional area of 476.5 sq. cm (73.9 sq. in).

TYRES

16.9 x 28, 12PR Industrial, 440/80 x R28, Industrial and Traction, 500/70 R28 Traction. JCB branded traction and industrial, Michelin XMCL and Power CL, Goodyear IT520 and IT530 tyres.

JCB SMOOTH RIDE SYSTEM

The JCB Smooth Ride System (SRS) consists of a dry nitrogen and oil filled accumulator installed in line with the loader lift cylinders. When activated, the Smooth Ride System allows the loader arms to float. This action counteracts variations in road or site surfaces and provides the operator with a smooth ride. The JCB Smooth Ride System is manually controlled, via a rocker switch on the instrument panel, for maximum benefit and user flexibility.

HYDRAULIC SYSTEM

The Closed Centre system uses a single variable flow axial piston pump. This load sensing system matches flow to work demand improving productivity and efficiency. Both systems incorporate:

- Ergonomically positioned levers allowing excellent control of the loader and backhoe.
- A full flow 10 micron filter ensures that oil stays free of contaminants.

Pump flows

Closed centre systems (Piston pump) @2200 rpm	l/min
Advanced EasyControl	165
	bar (lbf/sq in)
System relief pressure	251 (3650)

AUXILIARY CIRCUITS

The JCB hydraulic hand-held tool circuit, an industry exclusive, can run a variety of tools including breakers, pumps, and disc cutters, eliminates the need for separate power packs – also available is a 9m retractable hose reel..

Meets the EHTMA Class C tools operation.

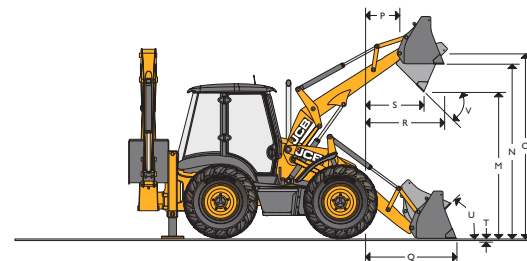
Pressure 138 bar

Maximum flow 20 lpm

The JCB Hammer circuit has the ability to switch between low-flow and high-flow circuits to operate single flow attachments such as hammers, patch planers and compactors.

A combined hammer and bi-directional circuit is also available with the ability to switch between low-flow and high-flow circuits to operate the full range of attachments for incredible versatility.

LOADER DIMENSIONS



LOADER DIMENSIONS

		6-in-1 shovel
M	Dump height	m (ft-in)
N	Load over height	m (ft-in)
O	Pin height	m (ft-in)
P	Pin forward reach	m (ft-in)
Q	Reach at ground (toe plate horizontal)	m (ft-in)
R	Max. reach at full height	m (ft-in)
S	Reach at full height fully dumped	m (ft-in)
T	Dig depth	m (ft-in)
U	Roll back at ground	degrees
V	Dump angle	degrees
	Jaw opening width	

Integrated Quickhitch and Forks are unique to JCB and speeds up attachment changeover times and increases productivity. Mechanical or hydraulic Quickhitch versions are available and with the shovel removed, the flip over forks maximise fork lift capacity to 2000kg and increases visibility to the load.

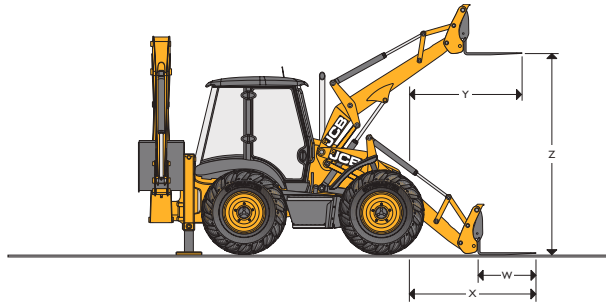
LOADER PERFORMANCE

JCB loaders provide parallel lift self levelling on the up and down cycle enhancing load retention and use of optional pallet forks. High capacity buckets combined with high lift and breakout forces maximise productivity.

		6-in-1 shovel
Shovel breakout	kgf (lbf)	6590 (14498)
Loader arm breakout	kgf (lbf)	5730 (12606)
Rated operating capacity*	kg (lb)	4378 (9631)
Clamping force	kgf (lbf)	2945 (6479)

*Rated operating capacity as determined according to ISO 14397 : 2007.

LOADER ATTACHMENTS



LOADER ATTACHMENTS – FORKLIFT PERFORMANCE AND DATA

		6-in-1 Shovel mounted forks	Quickhitch mounted forks
Section width	m (ft-in)	0.08 (0-3 ¹ / ₈)	0.08 (0-3 ¹ / ₈)
W Fork length	m (ft-in)	1.1 (3-7)	1.1 (3-7)
X Reach at ground	m (ft-in)	2.68 (8.9)	2.13 (7-0)
Y Reach at full height	m (ft-in)	2.30 (7-6)	1.76 (5-9)
Z Fork lift height	m (ft-in)	2.90 (9-6)	3.28 (10-9)
Fork spacing – min	m (ft-in)	0.2 (0-8)	0.2 (0-8)
Fork spacing – max	m (ft-in)	2.17 (7-3)	1.03 (3-4)
SWL @ 500mm load centres	kg (lb)	1000 (2205)	2000 (4410)

LOADER ATTACHMENTS – DIRECT MOUNT

Loader buckets are listed according to size and application. All buckets are drilled to accept optional auxiliary cutting edge or teeth. Flat top box section provides rigidity and assists in bucket levelling.

	Capacity SAE	
	6-in-1 shovel	
Width mm (ft-in)	Rated m ³ (yd ³)	Struck
2440 (8-0)	1.4 (1.78)	1.19 (1.56)

BACKHOE BUCKETS – DEEP PROFILE BUCKET

Width*	Capacity SAE		Weight (+ Teeth)	
	Rated m ³ (ft ³)	Struck m ³ (ft ³)	kg (lb)	Teeth
305 (12)	0.09 (3)	0.07 (2 ¹ / ₂)	102 (225)	3
356 (14)	0.11 (4)	0.09 (3 ¹ / ₄)	117 (257)	1
457 (18)	0.16 (5 ¹ / ₂)	0.13 (4 ¹ / ₂)	122 (269)	3
610 (24)	0.23 (8)	0.18 (6 ¹ / ₄)	142 (314)	4
800 (32)	0.30 (10 ¹ / ₂)	0.24 (8 ¹ / ₂)	163 (359)	5
950 (37)	0.38 (1 ¹ / ₂)†	0.30 (10 ¹ / ₂)	183 (403)	5
1100 (43)	0.48 (2 ³ / ₈)†	0.34 (12)	203 (448)	6

* Including sidecutters. Width less sidecutters deduct 25mm (1 in). † Capacity in cu.yd.

SERVICE CAPACITIES

Machine model	All models
	ltr (gal)
Cooling system	18.5 (4.1)
Fuel tank	160 (35.2)
Engine oil with filter	15 (3.3)
Autoshift transmission with filter	16 (3.5)
Rear axle	16 (3.5)
Front drive axle	16 (3.5)
Hydraulic system incl. tank	132 (29)

DITCHING BUCKETS

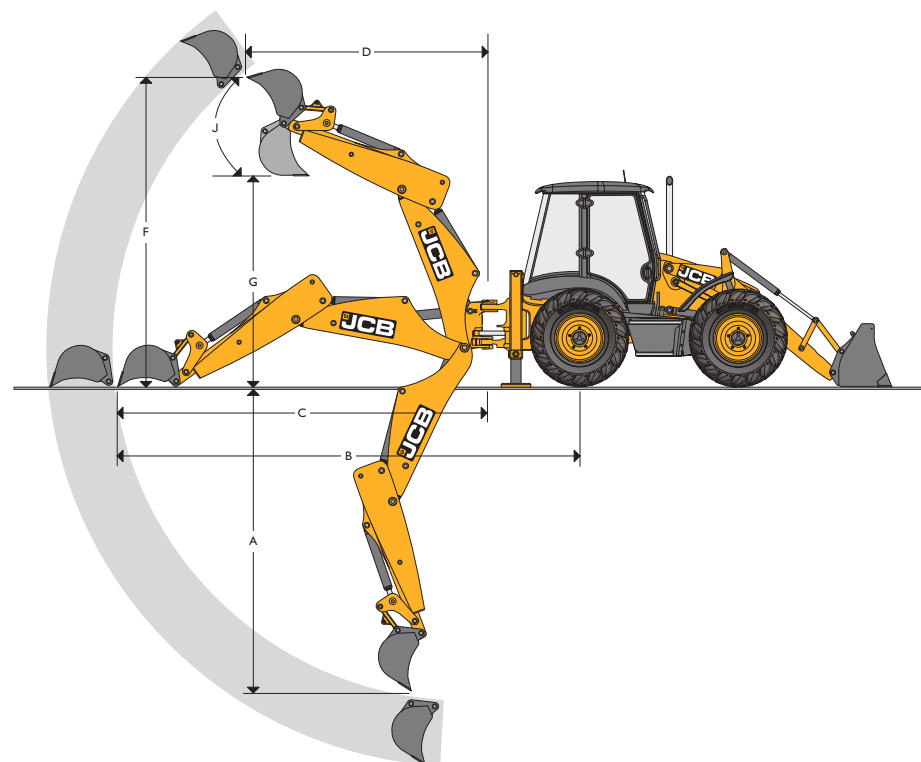
Width*	Capacity SAE		Weight
	Rated m ³ (ft ³)	Struck m ³ (ft ³)	kg (lb)
1525 (60)	0.22 (7 ³ / ₄)	0.16 (5 ¹ / ₂)	150 (330)
1830 (72)	0.26 (9)	0.19 (6 ¹ / ₂)	172 (379)

TAPERED BUCKETS

Width*	Capacity SAE		Angle degrees	Teeth
	Rated m ³ (ft ³)	Struck m ³ (ft ³)		
381–1676 (15–66)	0.07 (2 ¹ / ₂)	0.06 (2)	30	2
305–1067 (12–42)	0.12 (4 ¹ / ₂)	0.10 (3 ¹ / ₂)	60	2

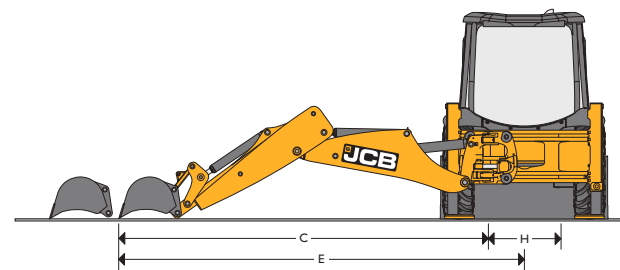
BACKHOE DIMENSIONS

Model		5CX Standard Dipper
		m (ft-in)
A SAE max dig depth	Ext	6.14 (20-2)
	Ret	4.98 (16-4)
SAE 2ft flat bottom	Ext	6.11 (20-1)
	Ret	4.93 (16-2)
Maximum dig depth	Ext	6.51 (21-4)
	Ret	5.35 (17-7)
B Reach – ground level to rear wheel centre	Ext	8.44 (22-8)
	Ret	7.35 (24-1)
C Reach – ground level to slew centre	Ext	7.10 (23-4)
	Ret	6.01 (19-9)
D Reach – at full height to slew centre	Ext	4.47 (14-8)
	Ret	3.43 (11-8)
E Side reach – to centre line of machine	Ext	7.71 (25-4)
	Ret	6.69 (21-11)
F SAE operating height	Ext	6.52 (21-5)
	Ret	5.89 (19-4)
G Maximum loadover height	Ext	5.03 (16-6)
	Ret	4.06 (13-4)
SAE loadover height	Ext	4.55 (14-11)
	Ret	3.58 (11-9)
H Total kingpost travel		1.16 (3-10)
J Bucket rotation		201°



BACKHOE PERFORMANCE

		5CX Standard Dipper
		kgf (lbf)
Bucket tearout	Speed	5387 (11851)
	Power	6230 (13706)
Dipper tearout	Ext	2675 (5885)
	Ret	3722 (8188)
		kg (lb)
Max. lift capacity of bucket pivot at full reach	Ext	1199 (2638)
	Ret	1556 (3423)





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Download the very latest information on this product range at: www.jcb.com

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