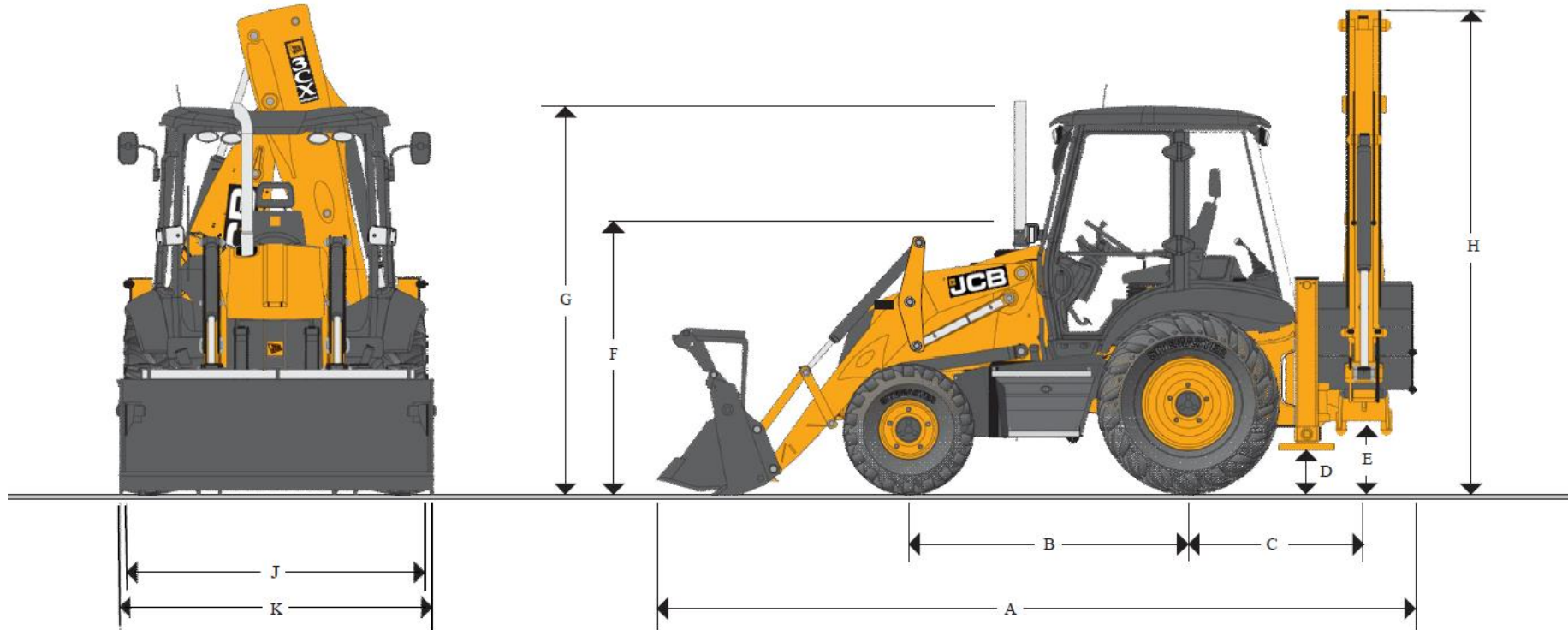


MAX. ENGINE POWER: 74.2Kw MAX. BACKHOE DIG DEPTH: 5.97 metres MAX LOADER CAPACITY: 1.1m³



STATIC DIMENSIONS

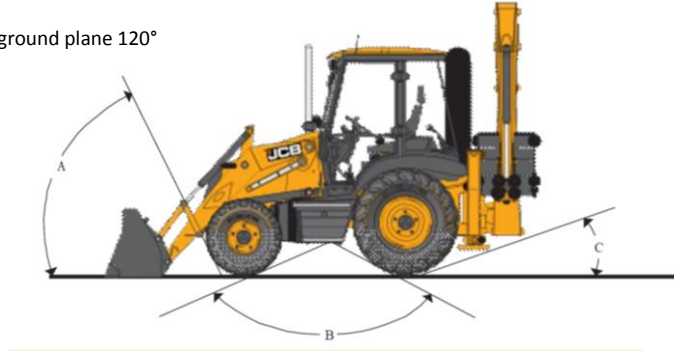
Machine model	3CX Classic, 3CX Sitemaster, 3CX Elite
	<i>Metres</i>
A Total travel length	5.62
B Axle centerline distance	2.17
C Slew centre to rear axle centre distance	1.36
D Stabiliser feet clearance	0.37
E Kingpost clearance	0.52
F Steering wheel centre height	1.94
G Cab roof height	3.03

Machine model	3CX Classic, 3CX Sitemaster, 3CX Elite
	<i>Metres</i>
H Total travel clearance	3.61
J Rear frame width	2.35
K Shovel width	2.35

GROUND LINE ANGLES

3CX Classic, 3CX Sitemaster, 3CX Elite

- A. Approach angle 66°
- B. Interference angle/ramp to ground plane 120°
- C. Departure angle 20°


OPERATING WEIGHTS

Machine model	3CX Classic, 3CX Sitemaster, 3CX Elite
With 6-in-1 shovel	8070kg

STEERING

Machine model	3CX Classic, 3CX Sitemaster, 3CX Elite
Axles	Steer drive
Steering turns – lock to lock	2 ^{3/4}
	<i>Metres</i>
Kerb – kerb turning circle – unbraked	8.1
Loader clearance circle – unbraked	10.4
Kerb – kerb turning circle – braked	6.9
Loader clearance circle – braked	9.5

(Depending on tyre size, ground conditions etc.)

ENGINE

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

Machine model	3CX Sitemaster	3CX Classic	3CX Elite
Manufacturer	JCB	JCB	JCB
Aspiration	Turbocharged	Turbocharged	Turbocharged & Intercooled
Displacement (litres)	4.4	4.4	4.4
No. of cylinders	4	4	4
Bore (mm)	103	103	103
Stroke (mm)	132	132	132
Rated engine (RPM)	2200	2200	2200
<i>Power ratings</i>			
Rated ISO 14396 – SAE J1995 Gross (kW)	68.6	68.6	74.2
<i>Maximum torque</i>			
Rated ISO 14396 – SAE J1995 Gross (Nm)	400	408	440
Maximum torque (RPM)	1200	1200	1300

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, pressurized 14.5 psi suction fan. Pressurised recovery tank with integral filler neck



ELECTRICAL AND INSTRUMENTATION

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

Gauges	Tachometer, engine coolant temperature, fuel level, hourmeter, clock
Warning system	Audible and visual system for 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 (3CX Elite model only)

An industry exclusive, JCB Torque Lock enables an operator to dramatically reduce travel time and improve fuel efficiency during roading 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 in Autoshift models.

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.

REAR AXLE

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

Machine model	3CX Sitemaster, 3CX Classic, 3CX Elite
Type	JCB epicyclic hub reduction with torque proportional
Limited slip	Option
Axle ratings	Kg
Static load rating	25000
Dynamic load rating	12500
Steering ram	Powered track rod

FRONT AXLE

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

Machine model	3CX Sitemaster, 3CX Classic, 3CX Elite
Type	JCB steer drive with torque proportional
Axle ratings	Kg
Static load rating	16500
Dynamic load rating	8300
Oscillation angle	16°
Steering ram	Powered track rod

TRANSMISSION

JCB Transmissions are designed and built specifically for JCB Backhoe Loaders. They feature synchronized shifting in all gears. Powershuttle between forward and reverse. Ground speeds are designed to maximise productivity. Operational 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 Austoshift 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 sitedstripping. JCB transmissions feature a SAHR clutch park brake, hydraulic release, spring engaged.

Machine model	3CX Sitemaster, 3CX Classic	3CX Elite
Manufacturer	JCB	JCB
Type	Powershift	Autoshift
Torque converter (mm)	305	305
Torque converter ratio	2.54:1	2.54:1
Torque Lock	N/A	Option
Gears forward/reverse	4/4	6/4
Gear selection	Powershift	Powershift
Shuttle control – F/R	Power shuttle	Power shuttle
Travel speeds	Kph	Kph
Tyres equipped	F: 12.5x18 R: 18.4x26 (T219 JCB SM)	F: 12.5x18 R: 16.9x28 (T219 JCB SM)
Gear 1	5.4	5.1 F/6.8 R
Gear 2	10.0	8.6 F/8.4 R
Gear 3	22.5	11.6 F/22.8 R
Gear 4	38.3	18.7 F/29.5 R
Gear 5	-	31.1 F/-
Gear 6	-	47 F/-

CAB

Excellent visibility (and safety) is provided by the extra-large tinted glass areas of 6.4m². 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.
- Mechanical suspension seat gives the operator a comfortable operating position.
- An optionally available 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.
- Optional heated front windscreen removes built up frost in minutes.

MANUAL CONTROL (3CX Sitemaster only)

- Two floor-mounted levers control the excavator operations, providing excellent feel and feedback of the hydraulics, while the loader is operated via a manual floor-mounted control lever to the right hand.
- To operate the excavator auxiliary circuit (e.g. hammer) the left foot pushes the floor button and lifts off to stop.
- To operate the Extradig the right foot pushes a rocker pedal – forwards out, backwards in.
- To operate the excavator bi-directional auxiliary circuit, use the left-hand lever proportional roller switch.
- To operate the 6-in-1, use the shadow lever next to the loader control lever.

ADVANCED EASYCONTROL (3CX Classic & 3CX Elite models only)

Advanced EasyControl is an alternative hydraulic control system available on select JCB 3CX and 4CX backhoe loaders. 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 provide full flow on demand for increased fuel efficiency, faster digging cycles and maximum productivity, and additional filtration for improved efficiency and reliability. Auto-up function for stabiliser legs and Boom Lock.

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.

- A 3 position switch allows the selection of 2 wheel drive with 2 wheel braking; 2 wheel drive with 4 wheel braking or 4 wheel drive with 4 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 through the pedal travel.
- Disc diameter: 220mm. Friction area: 129,000mm² per brake.
- For powershift transmissions, 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. Frictional area per brake disc is 47.65cm² giving a total frictional area of 476.5cm².

TYRES

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

Machine model	3CX Sitemaster, 3CX Classic, 3CX Elite
Front	12.5 x 18 x 10 Traction or Industrial
	400/70 R18 Traction or Industrial
	340/80 R18 Traction or Industrial
Rear	16.9 x 28, 12PR Traction or Industrial
	18.4 x 26, 12PR Traction or Industrial
	440/80 R28, Traction
	480/80, R26 Radial Industrial

JCB branded traction and industrial, Michelin XMCL and Power CL, Goodyear IT520 and IT530.

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 SRS allows the loader arms to float. This action counteracts variations in road or site surfaces and provides the operator with a smoother and more comfortable ride. The JCB SRS is manually controlled, via a rocker switch on the instrument panel, for maximum benefit and user flexibility.

JCB POWERSLIDE (3CX Classic & 3CX Elite models only)

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.

SERVICE CAPACITIES

Machine model	3CX Sitemaster, 3CX Classic, 3CX Elite
	<i>Litres</i>
Cooling system	18.5
Fuel tank	160
Engine oil with filter	15
Gearbox with filter	16
Rear axle	16
Front drive axle	16
Hydraulic system incl. tank	132

AUXILIARY CIRCUITS

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

Meets the EHTMA Class C tools operation (pressure: 2000 psi, 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.

HYDRAULIC SYSTEM

The Open Centre system (3CX Sitemaster) uses three gear pumps and Hydraulic Speed Control (HSC) with a power modulation valve that automatically varies hydraulic power to match digging conditions for extra performance, control and power.

- In the EcoDig mode the innovative three pump design allows excavating at lower RPM (up to 1700 RPM) to reduce fuel consumption and engine emissions by up to 15%, without reducing performance.
- A Power Modulation Valve automatically varies the hydraulic power to match digging conditions to improve performance and efficiency – automatically dumps one pump when 4th gear is selected on powershift models.
- The HSC switch enables controlled use of hydraulic response depending upon application.
- An independent pump powers the Extradig dipper so that it can extend or retract without breaking the digging cycle. This allows faster cycle times and simultaneous use of the telescopic and normal excavator actions in operations such as grading and bank dressing.

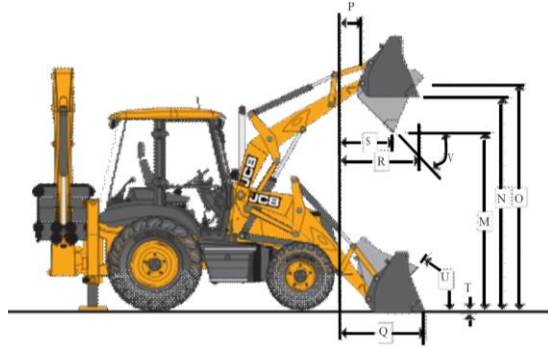
The Closed Centre system (3CX Classic & 3CX Elite) uses a single variable flow axial piston pump/ This load sensing system matches flow to work demand improving productivity and efficiency. Both systems incorporate:

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

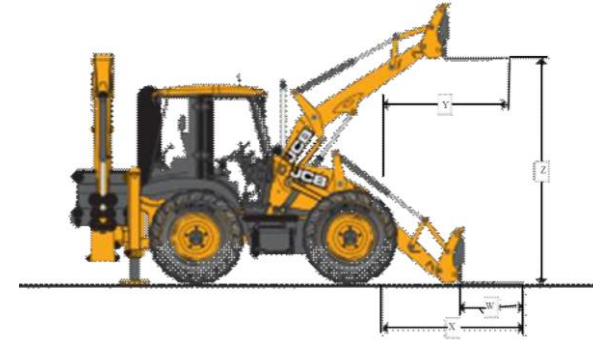
Machine model	3CX Sitemaster,	3CX Classic, 3CX Elite
Open centre systems (Gear pumps) @ 1700 RPM	<i>l/min</i>	<i>l/min</i>
- Manual Control (Gear pump)		
- Pump 1 & 3	73	-
- Pump 2	51	-
Closed centre systems (Piston pumps) @ 2200 RPM	<i>l/min</i>	<i>l/min</i>
- Advanced EasyControl	-	165
System relief pressure [bar(psi)]	251 (3650)	251 (3650)

OPTIONAL ACCESSORIES

- Front bumper bars – protect the front bonnet when loading into high sided lorries
- Heated front windscreen
- Stabiliser street pads
- Eberspacher cold climate heater
- Reverse alarm

LOADER DIMENSIONS


		3CX Sitemaster, 3CX Classic, 3CX Elite
	<i>With 6-in-1 shovel:</i>	<i>Metres</i>
M	Dump height	2.72
N	Load over height	3.20
O	Loader hinge pin height	3.45
P	Pin forward reach	0.36
Q	Reach at ground (toe plate horizontal)	1.37
R	Max. reach at full height	1.15
S	Reach at full height fully dumped	0.78
T	Dig depth	0.10
U	Roll back at ground	45°
V	Dump angle	43°
	Jaw opening width	0.95

LOADER DIMENSIONS – Forklift Performance Data


		3CX Sitemaster, 3CX Classic, 3CX Elite	
		6-in-1 shovel mounted forks	Quickhitch mounted forks (Optional)
		<i>Metres</i>	<i>Metres</i>
W	Forks – tine length	1.1	1.1
	Forks – tine width	0.08	0.08
X	Forks reach at ground level	2.66	2.03
Y	Forks reach at full height	2.25	1.72
Z	Forks lift height – max.	2.92	3.27
	Fork spacing – min.	0.2	0.2
	Fork spacing – max.	2.17	1.03
	SWL @ 500mm load centres	1000 kg	2000 kg

LOADER ATTACHMENTS

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 leveling. Front bolt on edge standard on all models.

Capacity SAE

Width (mm)	Rated (m ³)	Struck (m ³)
<i>GP Shovel</i>		
2235	1.0	0.83
2350	1.1	0.91
<i>6-in-1 shovel</i>		
2235	1.0	0.76
2350	1.0	0.76

LOADER ATTACHMENTS – Forklift Performance and Data

		3CX Sitemaster, 3CX Classic, 3CX Elite	
		6-in-1 shovel mounted forks	Quickhitch mounted forks (Optional)
		<i>Metres</i>	<i>Metres</i>
W	Forks – tine length	1.1	1.1
	Forks – tine width	0.08	0.08
X	Forks reach at ground level	2.78	2.18
Y	Forks reach at full height	2.38	1.81
Z	Forks lift height – max.	2.85	3.23
	Fork spacing – min.	0.2	0.2
	Fork spacing – max.	2.17	1.03
	SWL @ 500mm load centres	1000 kg	2000 kg



LOADER PERFORMANCE

3CX Sitemaster, 3CX Classic, 3CX Elite	
<i>With 6-in-1 shovel:</i>	<i>kgf</i>
Loader breakout – shovel	6531
Loader breakout – arms	4732
Max. lift capacity 2.24m	3229
Max. lift capacity 2.34m	3169
Clamping force	2940

TAPERED BUCKETS

Width*	Capacity SAE		Angle (degrees)	Teeth
	Rated m ³	Struck m ³		
Mm				
381-1676	0.07	0.06	30	2
305-1067	0.12	0.10	60	2

*Including sidecutters. Width less sidecutters deduct 25mm.

BACKHOE ATTACHMENTS – Standard Profile Bucket

Width*	Capacity SAE		Weight (+ teeth)	
	Rated m ³	Struck m ³	Kg	Teeth
Mm				
229	0.04	0.03	95	0
305†	0.06	0.05	102	3
356†	0.075	0.06	105	3
400†	0.09	0.07	109	3
457†	0.12	0.09	116	3
610†	0.17	0.13	140	4
800†	0.24	0.17	162	5
950†	0.30	0.21	198	5

*Including sidecutters. Width less sidecutters deduct 25mm.

† Available with additional wear strips to give added strength and rigidity.

BACKHOE ATTACHMENTS – Deep Profile Bucket

Width*	Capacity SAE		Weight (+ teeth)	
	Rated m ³	Struck m ³	Kg	Teeth
Mm				
305	0.09	0.07	102	3
356	0.11	0.09	117	3
457	0.16	0.13	122	3
610	0.23	0.18	142	4
800	0.30	0.24	163	5
950	0.38	0.30	183	5
1100	0.48	0.34	203	6

*Including sidecutters. Width less sidecutters deduct 25mm.

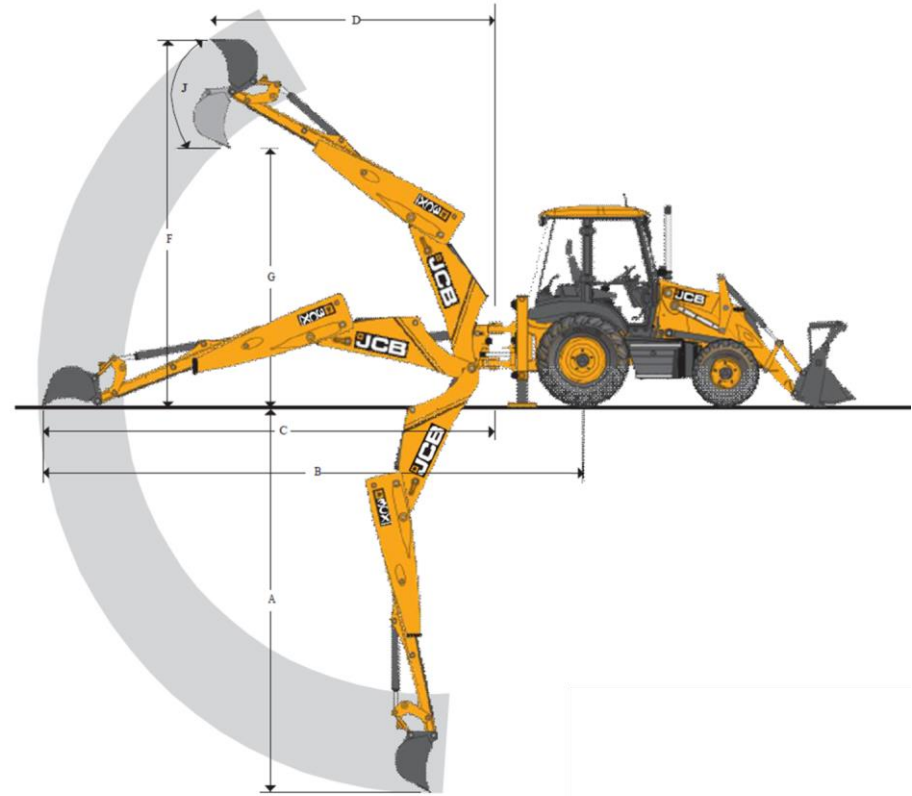
DITCHING BUCKETS

Width*	Capacity SAE		Weight
	Rated m ³	Struck m ³	Kg
Mm			
1525	0.22	0.155	150
1830	0.26	0.186	172

BACKHOE DIMENSIONS

		3CX Sitemaster, 3CX Classic, 3CX Elite	
A	SAE max dig depth	Ext	5.46
		Ret	4.24
	SAE 2ft flat bottom	Ext	5.43
		Ret	4.21
	Max dig depth with deep profile bucket	Ext	5.97
		Ret	4.75
B	Reach – ground level to rear wheel centre	Ext	7.87
		Ret	6.72
C	Reach – ground level to slew centre	Ext	6.52
		Ret	5.37
D	Reach – at full height to slew centre	Ext	3.66
		Ret	2.74
E	Side reach – to centre line of machine	Ext	7.09
		Ret	5.94
F	SAE operating height	Ext	6.35
		Ret	5.53
G	Max loadover height	Ext	4.72
		Ret	3.84
		SAE loadover height	Ext
		Ret	3.4
H	Total kingpost travel Narrow rear frame option		1.16
			1.05
J	Bucket rotation	Speed	201°

*Manual Quickhitch standard on all models


BACKHOE PERFORMANCE

Model		3CX Sitemaster, 3CX Classic	3CX Elite
		<i>kgf</i>	<i>kgf</i>
Bucket tearout	Speed	5385	5385
	Power	6228	6228
Dipper tearout	Ext	2255	2729
	Ret	3225	3903
		<i>Kg</i>	<i>Kg</i>
Lift capacity of bucket pivot at full reach	Ext	719	1082
	Ret	1451	1885

