



## 8014/8016 Conventional Tail Swing Mini Excavator

Operating Weight: 1634kg/1657kg Net Engine Power: 14.2kW





# QUALITY, RELIABILITY AND STRENGTH

SMALL BUT TOUGH, OUR JCB 8014 AND 8016 CTS MINI EXCAVATORS ARE BUILT TO WORK. LIKE ALL JCBs, THEY BOAST EXCEPTIONAL BUILD QUALITY, SUPERB RELIABILITY AND COLOSSAL STRENGTH.

## High-strength undercarriage

- 1 A robust fixed-width undercarriage with heat-treated track rollers means an 8014/8016 CTS will give you a long service life and a firm, positive, quiet ride during tracking.
- 2 The 8014 and 8016 CTS have high-strength box section dozer blades which can withstand impacts from kerbs and manhole covers. Dozer blade hoses are protected by a steel plate.
- 3 The high quality 230mm wide short pitch tracks perform in the most arduous applications.

## Built to last

- 4 JCB uses state-of-the-art manufacturing processes to achieve ultimate build quality, reliability, durability, service life and machine uptime. Our in-house paint process is a case in point, guaranteeing quality and lasting protection.





We've redesigned the rear structure for improved damage protection on site – there's a new 3mm thick steel bonnet and an inset rear counterweight grill.

### Quality above all

- 5 To optimise durability and service life, we've fitted replaceable steel bushes to the kingpost, dipper nose and bucket tipping link. This also provides smooth and accurate operation.
- 6 An 8014/8016 CTS' hydraulic hoses (including the auxiliary, where specified) are routed through the boom and dipper for ultimate damage protection.
- 7 Zero risk of inadvertently damaging the boom cylinder during hammering or lorry/skip loading activities due to the new positioning of the top mounted boom cylinder.
- 8 The 8014 and 8016 CTS use the very latest sealing technology – O-ring face trapezoidal seal hydraulics minimise leaks.
- 9 The optional lower steel door averts costly glass breakages.



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# PERFORMANCE AND PRODUCTIVITY

WHILST A JCB 8014/8016 CTS IS EXTREMELY STRONG, IT'S ALSO HIGHLY MANOEUVRABLE, AND BOASTS CLASS-LEADING PERFORMANCE: THE PERFECT COMBINATION FOR ANY MINI EXCAVATOR.



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## Higher, further, deeper

1 Our 8014 and 8016 CTS excavators have class-leading lift capacity, courtesy of a large lift ram, centrally-positioned kingpost and a low centre of gravity.

2 An 8014/8016 CTS uses new dig-end geometry, providing extra reach, load-over height, and dig depth for class-leading excavation performance.

## Versatility

3 You can choose from JCB's huge range of specially-designed 8014/8016 CTS attachments. They provide ultimate performance, full JCB warranty compliance, and optimum fit and operation.

4 A handheld tool circuit option means that the 8016 CTS can power a wide range of JCB hydraulic tools, from breakers and drills to pumps and cutters.



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### Built for productivity

5 A solid, stable work platform improves productivity, versatility and operator confidence.

6 Optimally designed, the large footprint area of the tracks offer exception stability without compromising access to confined areas.

7 The 8014 and 8016 CTS machines have excellent load hold capability, which means their excavator arms can be accurately controlled, especially during precise lift and placing tasks.

8 We've designed the dozer blade profile for supremely efficient material roll. This means grading performance is improved during dozing.

9 A powerful 14.2kW engine produces high torque at low revs, providing ample power for even the most demanding tasks.

Our 8014 and 8016 CTS have impressive bucket tearout forces (13.5kN and 16.2kN respectively). Combined with fast cycle times, this allows you to do more work in less time.

10 Because an 8014/8016 CTS has an operating weight of just 1634kg/1657kg, it can be easily towed to wherever you need it.

Our new hydraulic block valve allows you to travel in a straight line at the same time as selecting excavator functions, increasing productivity.



## EASE OF OPERATION

THE JCB 8014/8016 CTS MACHINES ARE DESIGNED TO MINIMISE OPERATOR EXERTION, AND THEREFORE MAXIMISE OPERATOR PRODUCTIVITY. CONTROLLABILITY, COMFORT, VISIBILITY, MAINTENANCE AND SAFETY ARE ALL BUILT IN.

### In perfect control

- 1 The 8016 CTS has an optional two-speed tracking button on the dozer lever that's easy and intuitive to use.
- 2 The new hydraulic valve block results in smooth, controlled, precise and balanced operation of excavator functions.

### Comfortably, visibly better

- 3 We've used a one-piece seat base on the 8014/8016 CTS; this reduces machine vibration and provides high levels of operator comfort.
- 4 The short pitched tracks engage every tooth on the sprocket for less vibration and noise, and a far smoother ride.
- 5 A large glass area and low bonnet profile provide excellent all-round visibility, including to the front right-hand track. As a result, our 8014 and 8016 CTS don't need mirrors to meet EU regulations.





## Designed for easy maintenance

**6** By improving the cab tilt angle by 17%, we've increased service access on an 8014/8016 CTS still further (it was already best-in-class). This design eliminates the need to work through restrictive floor hatches during servicing.

**7** Wide-opening rear bonnet is supported by a gas strut for easy access to routine checks. We've grouped all daily service points to make servicing quick and easy. The push-button bonnet latch and gas strut provide effortless service access.

**8** All hoses are colour coded for quick and easy identification in the event of accidental damage.

**9** All 8014 and 8016 CTS services, including tracking and dozer, are isolated when the control pod is raised.

## Safe and sound

**10** We offer fluorescent paint and reflective decal options to make the machine more visible in low light conditions.

**11** JCB's optional impact protection front screen shields the operator from flying debris when using breakers.

We've fitted tinted cab glass as standard to reflect the sun's energy, increasing operator comfort.

Our Thatcham approved\* immobiliser can help reduce insurance rates by up to 40%.

**12** A large lockable external toolbox provides safe tool stowage.

**13** The large door opening gives easy entry and exit.

**14** An optional operator presence switch means an 8014/8016 CTS can't be operated unless its operator is in the seat.

\*Region specific



## LIVELINK, THINK SMARTER

JCB LIVELINK IS AN INNOVATIVE SOFTWARE SYSTEM THAT LETS YOU MONITOR AND MANAGE YOUR MACHINES REMOTELY – ONLINE, BY EMAIL OR BY MOBILE PHONE.

**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.

*\* Note: Please consult your local dealer for LiveLink availability*



**Maintenance benefits** – Accurate hours monitoring, maintenance history records, critical machine alerts and service alerts improve maintenance planning.

**Security benefits** – Real-time geofencing lets you set operating zones and curfew alerts that tell you when your machinery outside of pre-determined times. Location information helps you store machines safely.

## 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** 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.

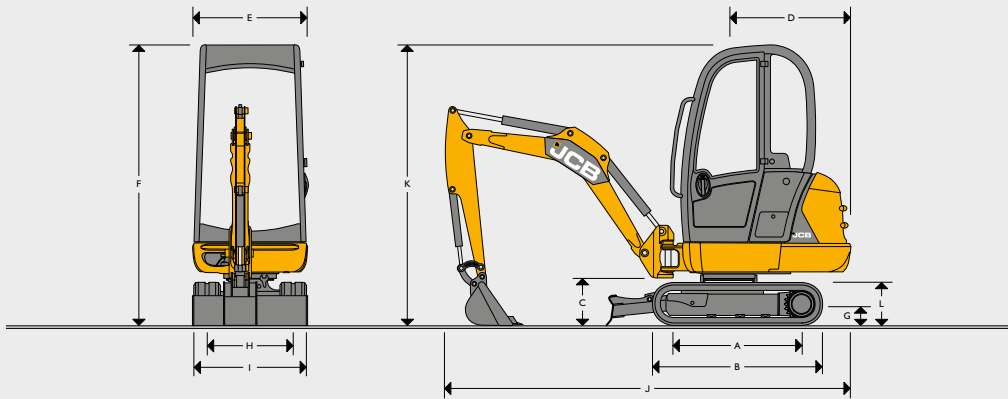
JCB Assetcare offers comprehensive extended warranties and service agreements, as well as service-only or repair and maintenance contracts. Irrespective of what you opt for, our Maintenance teams around the world charge competitive labour rates, and offer non-obligation quotations as well as fast, efficient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



**2** The global network of JCB Parts Centres is another model of efficiency; with 15 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.



## STATIC DIMENSIONS



Machine model		8014 CTS	8016 CTS	
A	Sprocket idler centres	mm	1027	1127
B	Undercarriage overall length	mm	1382	1484
C	Kingpost clearance	mm	373	394
D	Tailswing radius	mm		1059
	Tailswing over tracks	mm		573
E	Overall width of superstructure	mm		996
F	Height over cab	mm		2318
G	Ground clearance	mm	146	154
H	Track gauge	mm		742
I	Width over tracks	mm		972
J	Transport length – Standard dipper	mm		3409
J	Transport length – Long dipper	mm	-	3467
K	Transport height with FOGS guard	mm		2340
K	Transport height without FOGS guard	mm		2318
L	Track height	mm		358

## ENGINE

Machine model		8014 CTS & 8016 CTS
Model		403D-11
Fuel		Diesel
Cooling		Water cooled
Gross power ISO 14396	kW (hp) @ 2200 rpm	14.7 (19.7)
Net power	kW (hp) @ 2200 rpm	14.2 (19)
Gross torque ISO 14396	Nm @ 1600 rpm	66.8
Net torque	Nm @ 1600 rpm	64.2
Displacement	cc / litres	1131 / 1.131
Gradeability	degrees	35
Starter motor	kW (hp)	1.1 (1.48)
Battery	volt / Ah	12v / 60
Alternator	amps	40

## UNDERCARRIAGE

Machine model		8014 CTS	8016 CTS
No of bottom rollers			3
Track width	mm		230
Ground bearing pressure	kg/cm <sup>2</sup>	0.35	0.32
Ground clearance	mm	146	154
Track tensioning		Mechanical	Grease
Travel speed – low	kph	2.33	2.5
Travel speed – high	kph	N/A	3.9 (optional)
Tractive effort (nominal)	kN	10.13	10.16

## HYDRAULIC SYSTEM

Machine model		8014 CTS & 8016 CTS	8016 CTS
		Standard	Optional
Pump		Triple section gear	1 Variable (2 ports) / 1 gear
Nominal output	lpm	43.6 (15.7 x 15.7 x 12.2)	46.9 (17.1 x 17.1 x 12.7)
Excavator/track main relief	bar		230
Slew main relief	bar		160
Auxiliary hydraulic flow	lpm		26
Hydraulic motors			Piston

## OPERATOR ENVIRONMENT

Machine model		8014 CTS & 8016 CTS
Cab/canopy length	mm	1171
Cab/canopy width	mm	974
Distance from seat base to roof	mm	1223
Door aperture width	mm	624

## SERVICE CAPACITIES

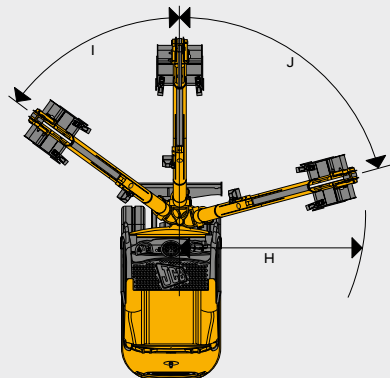
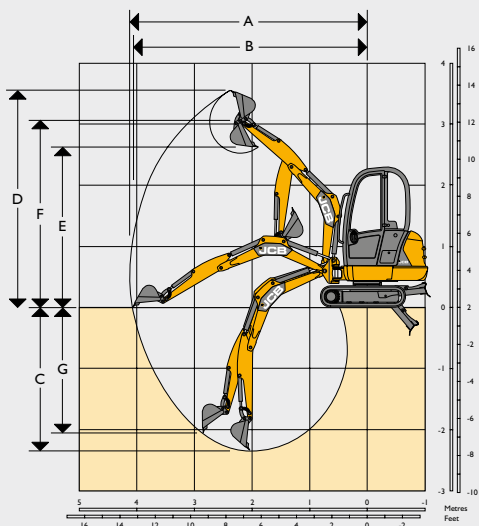
Machine model		8014 CTS & 8016 CTS
Fuel tank	litres	23.5
Engine coolant	litres	5
Engine oil	litres	4
Hydraulic system	litres	28
Hydraulic tank	litres	25

## DOZER BLADE

Machine model		8014 CTS	8016 CTS
Max height (above ground)	mm	240	217
Dig depth (below ground)	mm	385	400
Approach angle	degrees		25
Width	mm		1000
Height	mm		175
Reach in front of tracks	mm		370



WORKING RANGE



Machine model		8014 CTS	8016 CTS	8016 CTS
Boom length	mm	1715		
Dipper length	mm		1161	1261
A Max digging reach	mm		4021	4122
B Max digging reach on ground	mm		3974	4060
C Max digging depth – dozer up	mm		2271	2366
Max digging depth – dozer down	mm	2648	2595	2695
D Max digging height	mm		3453	3531
E Max dump height	mm		2531	2626
F Max height to dipper nose pivot pin	mm		2953	3017
G Max vertical wallcut depth	mm		1961	2048
H Min. front swing radius (no offset)	mm		1570	1570
Min. front swing radius (fully offset)	mm		1356	1356
I Boom swing left	degrees		55	
J Boom swing right	degrees		75	
Bucket rotation	degrees		198	
Dipper rotation	degrees		121	
Bucket tearout	kN	13.5		16.2
Dipper tearout	kN		7.1	
Slew speed	rpm	8.45		8.69

EEC NOISE LEVELS (95/27/EC DYNAMIC)

Machine model		8014 CTS & 8016 CTS
Cab external sound	dB (LwA)	93
Cab internal sound	dB (LpA)	77

MACHINE WEIGHTS

Machine model		8014 CTS	8016 CTS
Operating weight*	kg	1634	1657
With canopy	kg		-80
With FOGS guard	kg		+25
With long dipper	kg	N/A	+2

\*Operating weight to ISO 6016 including cab, rubber tracks, standard dipper, 300mm bucket, full tanks and a 75kg operator.

STANDARD EQUIPMENT

8014 CTS

ROPS & TOPS certified canopy, full audio/visual warning systems, slew travel lock, control isolator, external lockable toolbox, 12v power socket, lifting points, short pitch 230mm rubber tracks, ISO servo controls, static seat, boom worklight, triple section gear pump, straight line travel circuit, dozer blade, top mounted boom ram, 1161 mm dipper, bushed kingpost, steel bushes in dipper nose and bucket link, tilting cab, 3mm pressed steel bonnet.

8016 CTS

ROPS & TOPS certified canopy, full audio/visual warning systems, slew travel lock, control isolator, external lockable toolbox, 12v power socket, lifting points, short pitch 230mm rubber tracks, ISO servo controls, static seat, boom worklight, double acting auxiliary circuit, triple section gear pump, straight line travel circuit, dozer blade, top mounted boom ram, 1161 mm dipper, bushed kingpost, steel bushes in dipper nose and bucket link, tilting cab, 3mm pressed steel bonnet.

OPTIONAL EQUIPMENT

8014 CTS

ROPS & TOPS certified fully glazed cab with steel or glass lower door (includes heater, interior light, door holdback latch with internal/external release, gas strut assisted front screen), suspension seat, dual pattern controls (ISO/SAE change-over), double-acting auxiliary circuit, battery isolator, immobiliser, external fuel filler with lockable cap, inclinometer kit, external mirror, fire extinguisher, cab/canopy mounted worklights, engine fan guard kit, FOPS roof guard, external mirror, biodegradable hydraulic oil, rotating or strobe beacon, toolkit and grease gun, heavy-duty recoil track tensioner, JCB impact protection front screen, dozer street pads, counterweight protection bumper kit, front and rear bolt on tie down points, high visibility reflective decal kit, worklight guards, customised paint, object lifting kit, 9 digging buckets (160mm to 760mm), 2 ditching/grading buckets (900mm & 1000mm), hydraulic breakers, earthdrills, mechanical quickhitch, hydraulic kerb-lifter.










8016 CTS

ROPS & TOPS certified fully glazed cab with steel or glass lower door (includes heater, interior light, door holdback latch with internal/external release, gas strut assisted front screen), 230mm steel tracks, suspension seat, dual pattern controls (ISO/SAE change-over), cab/canopy mounted worklights, 1261 mm long dipper, 2 speed tracking, dipper auxiliary pipework extensions, hand held tool circuit, variable displacement pump, engine fan guard kit, FOPS roof guard, external mirror, track pedals, radio, biodegradable hydraulic oil, fire extinguisher, sunblind (cab builds), battery isolator, travel alarm, immobiliser, external fuel filler with lockable cap, inclinometer kit, rotating or strobe beacon, toolkit and grease gun, heavy-duty recoil track tensioner, JCB impact protection front screen, dozer street pads, counterweight protection bumper kit, front and rear bolt on tie down points, high visibility reflective decal kit, worklight guards, customised paint, object lifting kit, 9 digging buckets 160mm to 760mm), 2 ditching/grading buckets (900mm & 1000mm), hydraulic breakers, earthdrills, mechanical quickhitch, hydraulic kerb-lifter.



## LIFT CAPACITIES – Standard dozer, 230mm rubber tracks, 1161mm dipper, no bucket.


8014


Load Point	Reach from slew centre															Max distance	
	1.5m			2.0m			2.5m			3.0m			Capacity at maximum reach				
Height																Distance	
m	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	mm
1.5							227	355*	266	169	348*	212	137	322*	176	3280	
1.0	431	696*	503	315	513*	362	222	426*	270	162	365*	203	134	313*	165	3450	
0.5	401	983*	480	289	648*	334	213	487*	263	154	364*	191	130	300*	161	3400	
Ground Level	362	909*	432	266	648*	315	197	455*	222	152	341*	170	130	270*	143	3400	
-0.5	365	773*	402	251	572*	289	198	439*	215	157	300*	165	143	263*	153	3250	
-1.0	360	596*	371	257	469*	282	218	351*	210				184	257*	184	2950	

## LIFT CAPACITIES – Standard dozer, 230mm rubber tracks, 1161mm dipper, no bucket.

8016

Load Point	Reach from slew centre															Max distance	
	1.5m			2.0m			2.5m			3.0m			Capacity at maximum reach				
Height																Distance	
m	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	mm
1.5							266*	370*	340*	174	357*	254	150	328*	203	3280	
1.0		729*	653*	338	557*	488*	221	461*	338	176	370*	239	139	318*	200	3450	
0.5	405	957*	570	289	661*	420	203	505*	315	173	383*	237	126	304*	197	3400	
Ground Level	381	893*	497	259	687*	395	200	498*	290	161	366*	227	133	291*	194	3400	
-0.5	380	766*	485	264	574*	365	199	445*	278	158	320*	226	139	278*	209	3250	
-1.0	323	698*	483	263	522*	369	199	387*	275	150	288*	227	150	275*	219	2950	

 Lift capacity front.

 Lift capacity full circle.

- Notes:**
1. 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.
  2. Lift capacities assume that the machine is on firm, level ground and equipped with an approved lifting point.
  3. A bucket must be fitted when lifting, the weight of this bucket must be deducted from the above lift capacities.
  4. Lift capacities may be limited by local regulations. Please refer to your dealer.





**8014/8016 CTS Mini Excavator**

Operating Weight: 1634kg/1657kg

Net Engine Power: 14.2kW

Your nearest JCB dealer

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