

NEW

8018/8020 CTS | **MINI EXCAVATOR**



8018/8020 Conventional Tail Swing Mini Excavator

Operating Weight: 1822kg / 2067kg Net Engine Power: 14.2kW



Courtesy of Machine.Market

QUALITY, **RELIABILITY** AND STRENGTH

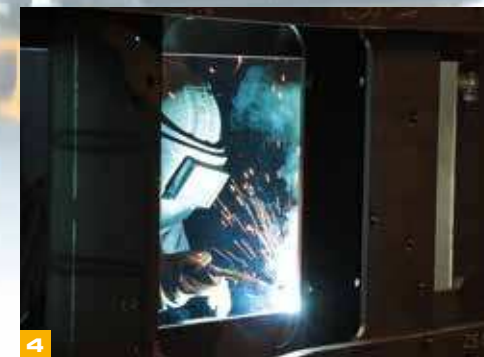
SMALL BUT TOUGH, OUR JCB 8018 AND 8020 CTS MINI EXCAVATORS ARE BUILT TO WORK. LIKE ALL JCBs, THEY BOAST EXCEPTIONAL BUILD QUALITY, SUPERB RELIABILITY AND COLOSSAL STRENGTH.

High-strength undercarriage

- 1** With adjustable wear pads on its track extensions, an 8018/8020 CTS will give you a long service life and a firm, positive, quiet ride during tracking.
- 1** For ultimate rigidity the extending undercarriage beams are constructed from 25mm solid steel plate.
- 2** The 8018 and 8020 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 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 8018/8020 CTS' hydraulic hoses (including the auxiliary) 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 8018 and 8020 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 8018/8020 CTS IS EXTREMELY STRONG, IT'S ALSO HIGHLY MANOEUVRABLE, AND BOASTS CLASS-LEADING PERFORMANCE: THE PERFECT COMBINATION FOR ANY MINI EXCAVATOR.



1

Higher, further, deeper

1 Our 8018 and 8020 CTS excavators have class-leading lift capacity, courtesy of a large lift ram, centrally-positioned kingpost and a low centre of gravity.

2 An 8018/8020 CTS uses new dig-end geometry, providing extra reach, load-over height, and dig depth for class-leading excavation performance.



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Versatility

3 You can choose from JCB's huge range of specially-designed 8018/8020 CTS attachments. They provide ultimate performance, full JCB warranty compliance, and optimum fit and operation.

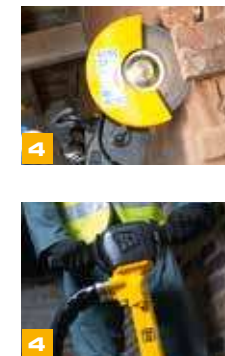
4 A handheld tool circuit option means that the 8018 and 8020 CTS can power a wide range of JCB hydraulic tools, from breakers and drills to pumps and cutters.



3



3



4



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Built for productivity

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

6 Stability is increased further still with an extending undercarriage. In addition to this, retracting the undercarriage improves access to confined areas.

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

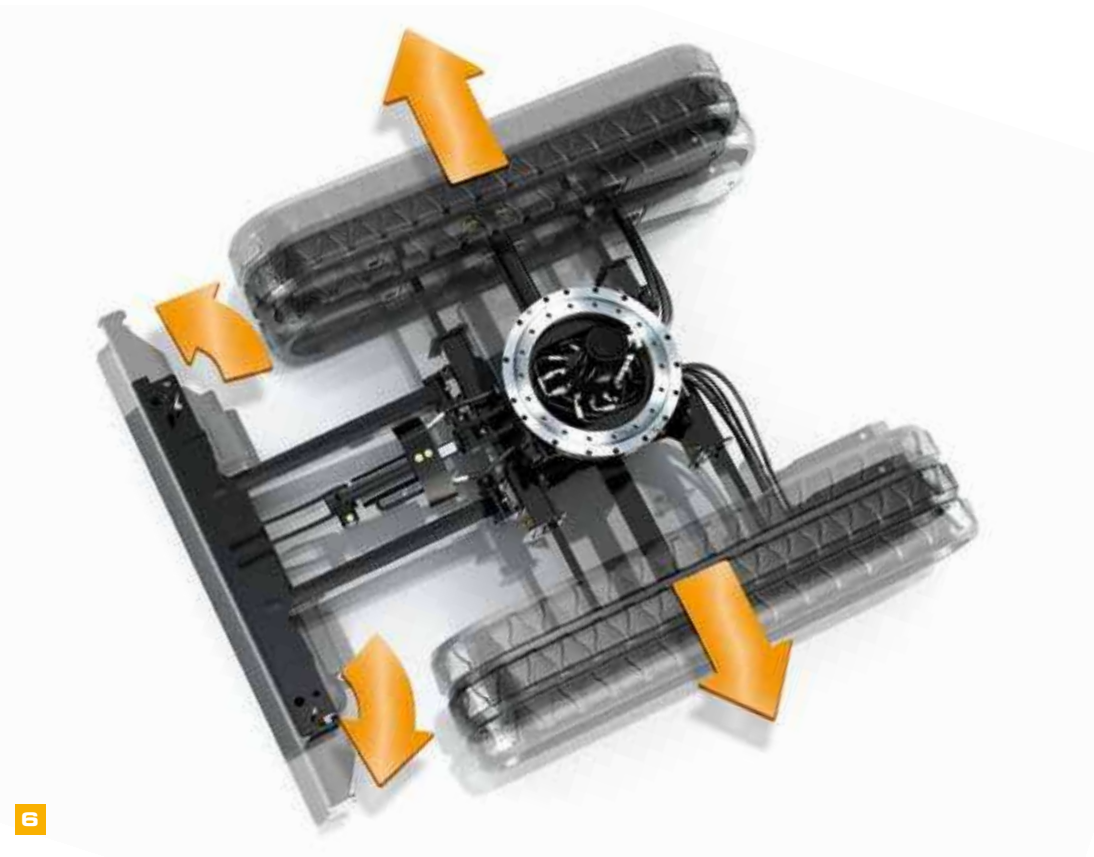
Our 8018 and 8020 CTS have impressive bucket tearout forces (16.2kN/19.0kN respectively). Combined with fast cycle times, this allows you to do more work in less time.

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

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

9 The 8018 and 8020 CTS machines have excellent load hold capability, which means their excavator arms can be accurately controlled, especially during precise lift and placing tasks.

10 Because an 8018/8020 CTS has an operating weight of just 1822kg/2067kg, it can be easily towed to wherever you need it.



EASE OF OPERATION

THE JCB 8018/8020 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 8018 and 8020 CTS have a 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 8018/8020 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 8018 and 8020 CTS don't need mirrors to meet EU regulations.

6 Dozer extensions swing out easily on an 8018/8020 CTS, allowing operators to quickly and easily shift the dozer wings.

5



Designed for easy maintenance

7 By improving the cab tilt angle by 17%, we've increased service access on an 8018/8020 CTS still further (it was already best-in-class). This design eliminates the need to work through restrictive floor hatches during servicing.

8 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.

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

10 All 8018 and 8020 CTS services, including tracking and dozer, are isolated when the control pod is raised.

Safe and sound

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

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

12 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%.

13 A large lockable external toolbox provides safe tool stowage.

14 The large door opening gives easy entry and exit.

15 An optional operator presence switch means an 8018/8020 CTS can't be operated unless its operator is in the seat.

**Region specific*



LIVELINK, WORK 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.



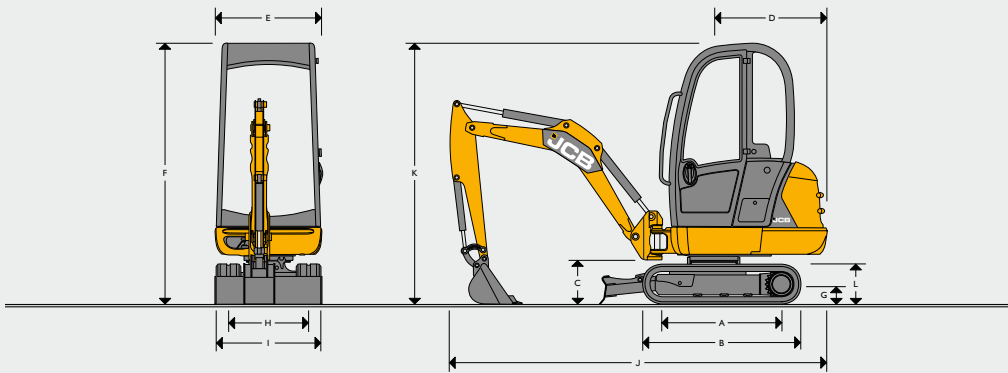
1 Our Technical Support Service provides instant access to factory expertise, day or night, while our Finance and Insurance teams are always on hand to provide fast, flexible, competitive quotes.

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		8018 CTS	8020 CTS
A Sprocket idler centres	mm	1127	1362
B Undercarriage overall length	mm	1484	1724
C Kingpost clearance	mm	394	435
D Tailswing radius	mm	1059	
Tailswing over track	mm	569/389	558/378
E Overall width of superstructure	mm	996	
F Height over cab	mm	2318	2355
G Ground clearance	mm	158	148
H Track gauge	mm	750 to 1110	752 to 1112
I Width over tracks (retracted)	mm	980	1002
Width over tracks (extended)	mm	1340	1362
J Transport length – Standard dipper	mm	3523	3600
J Transport length – Long dipper	mm	3467	N/A
J Transport length – Gravemaster dipper	mm	3265	N/A
K Transport height with FOGS guard	mm	2340	2377
K Transport height without FOGS guard	mm	2318	2355
L Track height	mm	366	

ENGINE

Machine model		8018 CTS & 8020 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		8018 CTS	8020 CTS
No of bottom rollers		3	4
Track width	mm	230	250
Ground bearing pressure	kg/cm ²	0.35	0.30
Ground clearance	mm	158	148
Track tensioning		Grease	
Travel speed – low	kph	2.2	
Travel speed – high	kph	3.9	3.6
Tractive effort (nominal)	kN	13.8	16.8

HYDRAULIC SYSTEM

Machine model		8018 CTS		8020 CTS
		Standard gear pump	Optional variable pump	Variable pump
		Triple section Gear	1 Variable (2 Ports) / 1 Gear	1 Variable (2 Ports) / 1 Gear
Pump				
Nominal output	lpm	43.6 (15.7 x 15.7 x 12.2)	46.9 (17.1 x 17.1 x 12.7)	55.4 (22 x 22 x 11.4)
Excavator/track main relief	bar	230		
Slew main relief	bar	160		
Auxiliary hydraulic flow	lpm	26		44
Hydraulic motors		Piston		

OPERATOR ENVIRONMENT

Machine model		8018 CTS & 8020 CTS
Cab/canopy length	mm	1171
Cab/canopy width	mm	974
Distance from seat base to roof	mm	1223
Door aperture width	mm	624

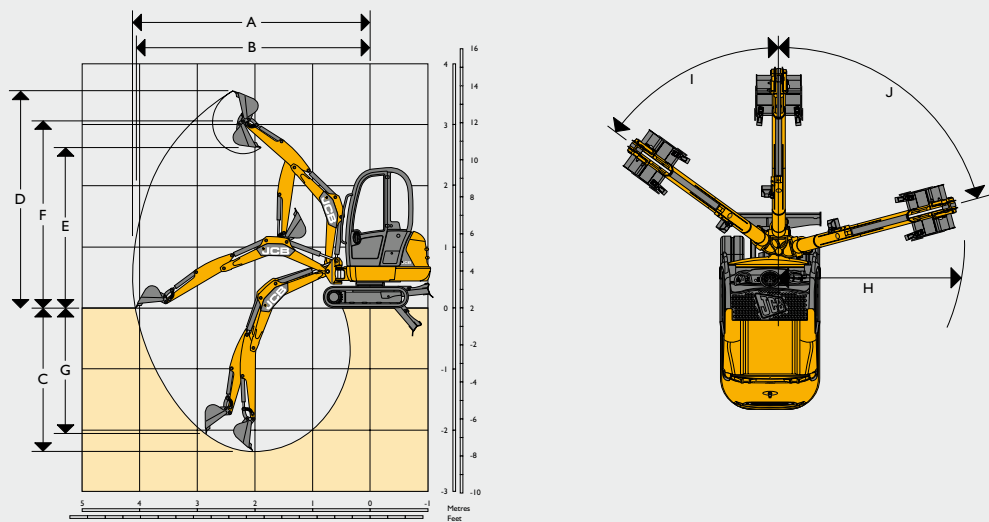
SERVICE CAPACITIES

Machine model		8018 CTS & 8020 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		8018 CTS	8020 CTS
Max height (above ground)	mm	246	308
Dig depth (below ground)	mm	380	201
Approach angle	degrees	25	
Width	mm	1000	
Width (extended)	mm	1362	
Height	mm	175	
Reach in front of tracks	mm	370	

WORKING RANGE



Machine model		8018 CTS			8020 CTS
Boom length	mm		1807		1899
Dipper length	mm	1161	1261	1500	1261
A Max digging reach	mm	4121	4222	4449	4308
B Max digging reach on ground	mm	4073	4170	4401	4252
C Max digging depth – dozer up	mm	2343	2442	2682	2504
Max digging depth – dozer down	mm	2736	2836	3075	2621
D Max digging height	mm	3555	3620	3774	3690
E Max dump height	mm	2628	2692	2846	2779
F Max height to dipper nose pivot pin	mm	3054	3118	3272	3194
G Max vertical wallcut depth	mm	2053	2148	2376	2187
H Min. front swing radius (no offset)	mm	1638	1654	1693	1737
Min. front swing radius (fully offset)	mm	1427	1442	1477	1519
I Boom swing left	degrees		55		
J Boom swing right	degrees		75		
Bucket rotation	degrees		198		
Dipper rotation	degrees		121		
Bucket tearout	kN		16.2		19
Dipper tearout	kN	9.2	8.3	7.1	9.6
Slew speed	rpm		8.1		

EEC NOISE LEVELS (95/27/EC DYNAMIC)

Machine model		8018 CTS & 8020 CTS	
Cab external sound	dB (LwA)	93	
Cab internal sound	dB (LpA)	77	

MACHINE WEIGHTS

Machine model		8018 CTS	8020 CTS
Operating weight*	kg	1822	2067
With canopy	kg	-80	
With FOGS guard	kg	+25	
With long dipper	kg	+2	N/A
With Gravemaster dipper	kg	+7	N/A

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

STANDARD EQUIPMENT

8018 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, 2 speed tracking, hydraulically extending undercarriage, ISO servo controls, static seat, boom worklight, double acting auxiliary circuit, triple section gear pump, straight line travel circuit, extendable dozer blade, top mounted boom ram, 1161mm dipper, bushed kingpost, steel bushes in dipper nose and bucket link, tilting cab, 3mm pressed steel bonnet.

8020 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 250mm rubber tracks, 2-speed autoshift tracking, hydraulically extending undercarriage, extendable dozer blade, heavy-duty recoil track tensioner, ISO servo controls, static seat, boom worklight, double acting auxiliary circuit, variable pump main hydraulics, straight line travel circuit, top mounted boom ram, 1261mm dipper, bushed kingpost, steel bushes in dipper nose and bucket link, tilting cab, 3mm pressed steel bonnet.

OPTIONAL EQUIPMENT





8018 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, 1261mm long dipper, 1500mm Gravemaster dipper*, dipper auxiliary pipework extensions, hand held tool circuit, variable displacement pump, engine fan guard kit, FOPS roof guard, external mirror, track pedals, toolkit, 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 greasegun, heavy-duty recoil track tensioner, JCB impact protection front screen, dozer streetpads, counterweight protection bumper kit, front and rear bolt on tie down points, high visibility reflective decal kit, worklight guards, Ezidig cable detector ready kit, 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.



















8020 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), 250mm steel tracks, suspension seat, dual pattern controls (ISO/SAE change-over), cab/canopy mounted worklights, dipper auxiliary pipework extensions, handheld tool circuit, engine fan guard kit, FOPS roof guard, external mirror, track pedals, toolkit, 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 greasegun, JCB impact protection front screen, dozer streetpads, 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.**8018 CTS**


	Reach from slew centre																				Distance	
Load Point	1.5m				2.0m				2.5m				3.0m				Capacity at maximum reach					
																						
Height	Extended	Retracted	Dozer down	Dozer up	Extended	Retracted	Dozer down	Dozer up	Extended	Retracted	Dozer down	Dozer up	Extended	Retracted	Dozer down	Dozer up	Extended	Retracted	Dozer down	Dozer up	Distance	
m	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	mm	
1.5									335*	232	335*	335*	323*	179	323*	240	245	152	303*	187	3400	
1					518*	330	518*	518*	418*	239	418*	310	357*	182	357*	229	235	146	296*	177	3500	
0.5	665	402			493	296	666*	375	351	222	451*	286	279	173	352*	218	227	140	284*	175	3550	
Ground Level	620	390	870*	526	447	285	644*	361	350	218	485*	278	271	172	346*	203	227	151	266*	172	3500	
– 0.5	664	377	761*	510	427	276	588*	360	327	215	445*	276	327*	172	327*	214	270*	153	270*	185	3350	
– 1	624*	344	624*	473	505*	269	505*	356	375*	212	375*	269	269*	175	269*	209	243*	175	243*	243*	3100	

LIFT CAPACITIES – Standard Dozer, 230mm Rubber Tracks, 1261mm dipper, No bucket.**8018 CTS**


Standard Dozer, 250mm rubber tracks, 120mm dipper, no bucket																						Distance
Load Point	Reach from slew centre																					
	1.5m				2.0m				2.5m				3.0m				Capacity at maximum reach					
																						
Height	Extended	Retracted	Dozer down	Dozer up	Extended	Retracted	Dozer down	Dozer up	Extended	Retracted	Dozer down	Dozer up	Extended	Retracted	Dozer down	Dozer up	Extended	Retracted	Dozer down	Dozer up	Distance	
m	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	mm	
1.5									305*	305*	305*	252	306*	188	306*	232	235	146	291*	186	3500	
1					466*	323	466*	466*	388*	232	388*	353	338*	184	338*	231	224	135	279*	176	3650	
0.5					510	300	613*	377	370	224	467*	280	295	176	351*	212	221	133	270*	165	3650	
Ground Level	620	398	896*	488	455	293	665*	360	342	215	476*	274	270	172	372*	218	221	139	264*	167	3650	
– 0.5	615	360	748*	471	443	277	584*	345	335	210	429*	266	279	167	328*	213	254*	144	254*	184	3450	
– 1	600*	356	600*	475	521*	261	521*	352	383*	207	383*	269	287*	165	287*	216	246*	158	246*	246*	3200	

LIFT CAPACITIES – Standard Dozer, 250mm Rubber Tracks, 1261mm dipper, No bucket.**8020 CTS**

	Reach from slew centre																				Distance	
Load Point	1.5m				2.0m				2.5m				3.0m				Capacity at maximum reach					
																						
Height	Extended	Retracted	Dozer down	Dozer up	Extended	Retracted	Dozer down	Dozer up	Extended	Retracted	Dozer down	Dozer up	Extended	Retracted	Dozer down	Dozer up	Extended	Retracted	Dozer down	Dozer up	Distance	
m	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	mm	
1.5													351*	239	351*	351*	260	173	323*	323*	3600	
1					602*	422	602*	602*	470*	302	470*	470*	398*	230	398*	398*	254	167	319*	267	3700	
0.5					582	379	729*	729*	437	275	527*	527*	335	220	409*	409*	246	151	294*	251	3750	
Ground Level	752	479	990*	791	551	353	778*	618	402	263	580*	468	314	207	427*	353	233	153	301*	301*	3700	
– 0.5	743	484	862*	862*	539	347	684*	684*	390	257	517*	517*	309	203	402*	402*	291*	164	291*	291*	3500	
– 1	723*	458	723*	723*	573*	338	573*	573*	446*	251	446*	446*	329*	186	329*	329*	271*	179	271*	271*	3300	

 Lift capacity front.
Notes:

- 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 and equipped with an approved lifting point.
- A bucket must be fitted when lifting, the weight of this bucket must be deducted from the above lift capacities.
- Lift capacities may be limited by local regulations. Please refer to your dealer.

 Lift capacity full circle.



8018/8020 CTS Mini Excavator

Operating Weight: 1822kg/2067kg

Net Engine Power: 14.2kW

Your nearest JCB dealer

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