

## SPECIFICATION

JCB E-TECH



## ELECTRIC MINI EXCAVATOR | 19C-IE

Transport weight: 1827kg Zero Emissions. Lithium-ion Technology.

JCB

# 100% electric. Zero emissions.

JCB is leading the way in clean technology and reducing harmful emissions. That's why we are introducing JCB E-TECH, a new generation of electric products with zero emissions at point of use that don't compromise on performance. The new I9C-IE is the first of the electric generation and the industry's first fully electric mini excavator. It lets you do a full day's work on a single charge, giving you access to a whole new world of possibilities.

## CHOOSE ZERO EMISSIONS.

The new I9C-IE is the industry's first fully electric mini excavator, with zero emissions at point of use and zero compromise on performance.

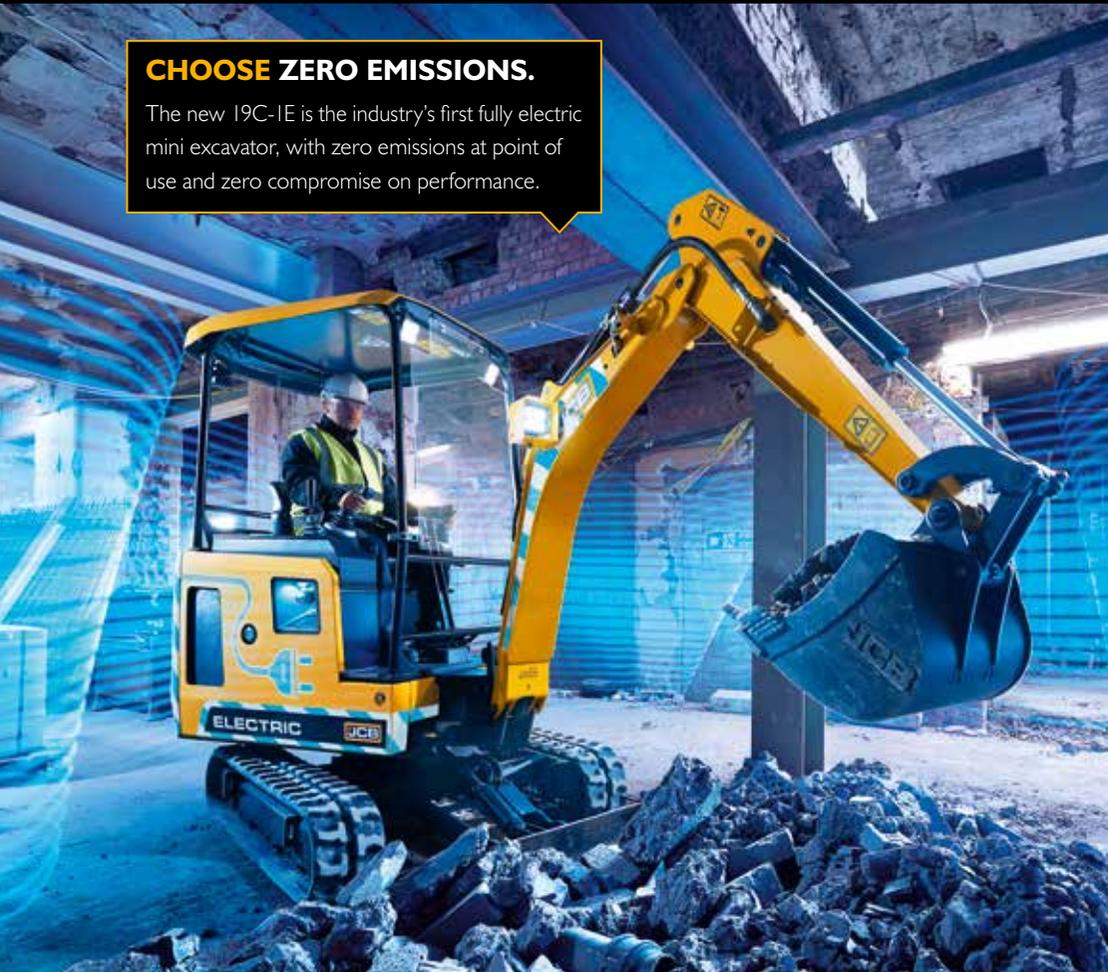


## CHOOSE QUIET.

Low noise levels make the I9C-IE ideal for urban areas, indoor working, 'out-of-hours' working, and allows better communication with co-workers.

## CHOOSE SAFE.

No trailing tethers, zero emissions, low noise levels and other innovative features provide peace of mind for working safely and efficiently.



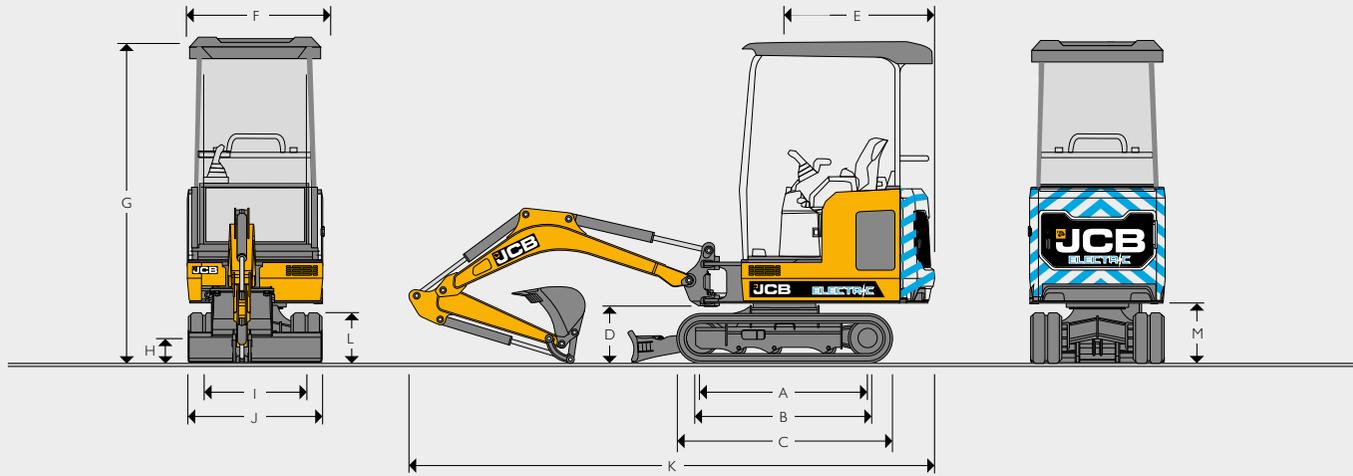
## CHOOSE A FULL DAY'S WORK.

Four lithium-ion batteries power the machine for a full day on a single charge, while three charging options: 110V, 230V & 415V aid versatility.

## CHOOSE ECONOMICAL.

With maintenance-free batteries, minimal daily checks and less servicing, the new I9C-IE will save you time and money. Cab option available in 2021.

STATIC DIMENSIONS



STATIC DIMENSIONS

A	Sprocket idler centres	mm	1218
B	Track length on ground	mm	1220
C	Undercarriage overall length – rubber	mm	1578
	Undercarriage overall length – steel	mm	1578
D	Kingpost clearance	mm	409
E	Tailswing radius	mm	1103
F	Overall width of superstructure	mm	996
G	Height over canopy	mm	2345
H	Ground clearance	mm	162
I	Track gauge – retracted/extended	mm	750 – 1110
J	Width over tracks / rubber / steel – retracted	mm	980
	Width over tracks / rubber / steel @ extended	mm	1330
K	Transport length	mm	3860 – 3815
L	Track height	mm	367
M	Counterweight clearance	mm	434

POWER SOURCE

Battery Type	Manganese laminated Lithium-ion
Gross Capacity	19.8 kWh
System Voltage	48V
Zero Emissions at point of use	

CHARGING

On-board charger allowing direct connection to AC mains power supply	
Indicative Charge Time - 20-80%, subject to environmental conditions.	On-board @ 110V – 10.5 hrs On-board @ 230V – 5 hrs
Off-board fast charge - 0-100% @ 415V	2.5 hrs
Charging cable plug type	16A 110V (Yellow) 16A 230V (Blue) 16A 415V (Red)

MOTOR

Motor Type	3 Phase AC Permanent Magnet
Motor Power	7kW continuous, 20kW peak
Operating Modes	L: 1200rpm G: 1600rpm H: 1800rpm

UNDERCARRIAGE

	Retractable
No. of bottom rollers	3
Track width rubber	mm 230
Travel speed – low	kph 2.4
Travel speed – high	kph 4.1
Tractive effort	kN 13.2

HYDRAULIC SYSTEM

Pump	cc	18
Nominal output @ max rpm	lpm	42
Excavator/track main relief pressure	bar	235
Slew main relief pressure	bar	167
Auxiliary hydraulic pressure (Aux 1)	bar	200
Auxiliary hydraulic pressure (Aux 2)	bar	200
Auxiliary hydraulic flow (Aux 1)	lpm	32
Auxiliary hydraulic flow (Aux 2)	lpm	32
Hydraulic pump		Piston

WEIGHTS

Operating weight	kg	1902
Long dozer	kg	9
Mechanical quickhitch	kg	14
Hydraulic quickhitch (without hoses)	kg	24
Gravemaster dipper	kg	5
Ground bearing pressure (rubber tracks)	kg/cm <sup>2</sup>	0.36
Transport weight (operator weight – 75kg)**	kg	1827

\*Operator weight to ISO 6016 including canopy, rubber tracks, 1100 dipper, 300mm bucket, 75kg operator. \*\*Transport weight to ISO 6016 is mass of the base machine without operator.

SERVICE CAPACITIES

Hydraulic system	ltr	28
Hydraulic tank	ltr	15

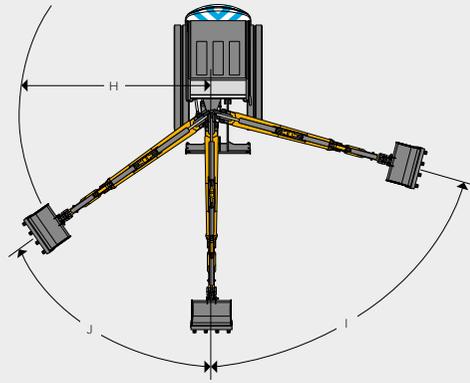
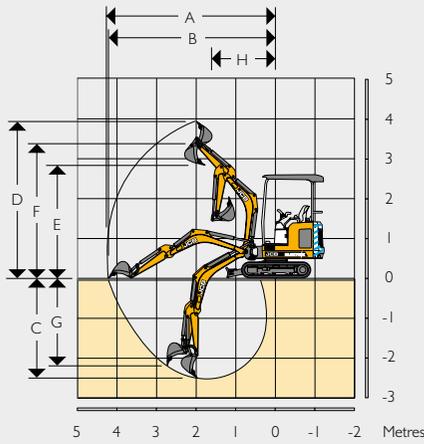
OPERATOR ENVIRONMENT

Canopy height	mm	1364
Canopy length	mm	1427
Canopy width	mm	978

DOZER

Dozer length (STD) centre of boss	mm	787
Max. height above ground	mm	239
Dig depth below ground	mm	225
Approach angle	degrees	25.3
Width (without wings)	mm	980
Width (with wings)	mm	1340
Height	mm	234

WORKING RANGE



		1100mm Dipper	1344mm Gravemaster Dipper	
	Boom length	mm	1800	1800
A	Max. digging reach	mm	4043	4247
B	Max. digging reach on ground	mm	3981	4220
C	Max. digging depth – dozer up	mm	2421	2665
	Max. digging depth – dozer down	mm	2576	2819
D	Max. digging height	mm	3667	3847
E	Max. dump/load-over height	mm	2637	2818
F	Max. height to dipper nose pivot pin	mm	3154	3335
G	Max. vertical wallcut depth	mm	2139	2375
H	Min. front swing radius (no offset)	mm	1517	1565
	Min. front swing radius (fully offset)	mm	1196	1236
I	Boom swing left	degrees	75	75
J	Boom swing right	degrees	55	55
	Bucket rotation	degrees	201	201
	Dipper rotation	degrees	126	126
	Bucket tearout (power position)	kN	18	18
	Dipper tearout	kN	9.1	7.9
	Slew speed	rpm	7.9	7.9

EQUIPMENT

SERVICE AND MAINTENANCE

500 hours dig end greasing intervals	•
Grease gun & cartridge	•
Toolkit	+

TRACKS AND UNDERCARRIAGE

230mm short pitch rubber tracks	•
Two speed tracking	•
Retractable undercarriage	•
Extendable dozer blade	•
Heavy duty recoiled tracked tensioners	•
Long dozer blade	+
Auto kick down track motors	•
Auto Kick-up	•

OPERATOR STATION

On-board charger	•
LED worklights	•
Full audio visual warning systems	•
Full control isolation	•
12 volt power socket	•
ISO servo controls	•
Static seat	•
Electro-proportional thumb controlled dual flow auxiliary	•
Dual patterned controls (ISO/SAE changeover)	+
Vinyl suspension seat	•
Track lever pedals	•

POWER SOURCE

4 power packs	•
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HYDRAULICS

Hydraulic slew travel lock	•
Variable displacement pump	•
Straight line travel circuit	•
ORFS hydraulics	•
Quick release auxiliary couplers	•
Double acting auxiliaries	•
Auxiliary vent	•

PROTECTION AND SAFETY

ROPS, TOPS & FOGS certified canopy	•
Internal lockable toolbox	•
Protected boom work light	•
2GO hydraulic isolation	•
Cesar Data Tag (UK ONLY)	•
Disconnect switch	•
Seat belt engaged green beacon	+
JCB LiveLink	•
Pin pad immobiliser	+
Polycarbonate front screen protection	+
Travel alarm	+

EXTERNAL EQUIPMENT

Charging leads 110V	•
Charging leads 230V	•
Fast charge 415V	+
Standard dipper (mm)	1100
Dipper options (mm)	1100/1344
Tie down points	•
LED amber beacon	•
Heavy duty kingpost	•
Exterior mirrors	+
GP & bladed bucket range	+
Mechanical quick hitch	+
Hydraulic quick hitch incl. pipework	+
Thumb ready dipper	+

STANDARD •  
OPTIONAL +

**LIFT CAPACITIES – 230MM RUBBER TRACKS, 1800MM BOOM, 1100MM DIPPER, NO BUCKET.**

**19C-1E**

Load Point	1.5m				2.0m				2.5m				3.0m				3.5m				Capacity at maximum reach				Distance mm				
																													
Height m	Extended kg	Retracted kg	Dozer Up kg	Dozer Down kg	Extended kg	Retracted kg	Dozer Up kg	Dozer Down kg	Extended kg	Retracted kg	Dozer Up kg	Dozer Down kg	Extended kg	Retracted kg	Dozer Up kg	Dozer Down kg	Extended kg	Retracted kg	Dozer Up kg	Dozer Down kg	Extended kg	Retracted kg	Dozer Up kg	Dozer Down kg					
2.5					520*	417	540*	439*	332*	319*	292*	301*													290*	277	270*	327*	2690
2.0					564*	410	586*	476*	334*	321*	297*	311*	373*	219	341	357*									373*	219	341	357*	3000
1.5					615*	396	634*	615*	402*	298	375*	392*	385*	220	356	375*									296	181	281	349*	3300
1.0	689*	430	837	962*	644*	407	613*	646*	494*	286	461*	482*	395*	218	380	398*	274	170	264	336*	274	170	264	336*	274	170	264	336*	3500
0.5	665	417	789	986*	591	359	634	812*	451	273	454	575*	339	209	390	433*	267	165	272	344*	267	165	272	344*	267	165	272	344*	3500
0	780	490	795	958*	566	359	599	769*	424	267	439	552*	257	205	353	438*									306*	170	328*	332*	3400
-0.5	918*	494	902*	920*	673*	359	590	724*	492*	272	432	532*	371*	214	378	392*									308*	191	313*	324*	3250
-1.0	701*	479	705*	788*	551*	350	559*	596*	424*	266	421*	442*	290*	248*	323*	334*									290*	248*	323*	334*	3000
-1.5	512*	476	480*	527*	460*	360	412*	428*																	354*	298	348*	388*	2200

**NOISE/ VIBRATION**

**19C-1E**

Noise and Vibration		Uncertainty		Measurement conditions	
Noise at the operator station (LpA)	68 dB	(KpA)	± 1 dB	ISO 6396: 2008	
Noise emission from the machine (LWA)	87 dB	(KWA)	± 1 dB	ISO 6395: 1988	
Hand Arm Vibration (m/s <sup>2</sup> )					
Tracking duty	≤ 2.5	(K)	*	EN ISO 5349-2: 2001	Based upon a test cycle defined in SAE J 1166
Low Idle & Excavating duty					
Whole Body Vibration (m/s <sup>2</sup> )	0.41	(K)	0.21	ISO 2631-1: 1997	

\* based on 50% uncertainty of measurement



Lift capacity over 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.
5. Standard equipment region dependent



100% electric. Zero emissions.

Your nearest JCB dealer

### Electric Mini Excavator 19C-1E

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