

For Earth, For Life
Kubota



ELECTRIC RETROFIT KIT FOR KUBOTA MINI EXCAVATOR KX019-4e

Battery :
18 kWh / 48 V

1768 kg (Canopy)
1868 kg (Cabin)

INNOVATION

Kubota has developed an electric retrofit kit solution for KX019-4 mini-excavators, **available for new and used models.**

By replacing the combustion engine block with an electrification system, rental companies, public works companies, local authorities, farms, etc. **can support the ecological transition by carrying out decarbonised work** with zero CO2 emissions and quieter operation.

Thanks to a controlled total cost of ownership, there is no increase in the cost of worksites, making **the solution both ecologically and economically viable.**

ELECTRIC RETROFIT KIT

- Local supply chain (casings, electronic boards, etc.)
- Battery pack design and assembly
- Intellectual property of assembly machines
- Quality control on 100% of battery components
- Marking **CE**



Made in France

What is in the electrical retrofit kit?

- BMS (battery management system)
- Battery pack
- Electric motor
- HMI (human-machine interface)
- Battery charger
- Cable harness
- Adapter parts



Removing the combustion engine



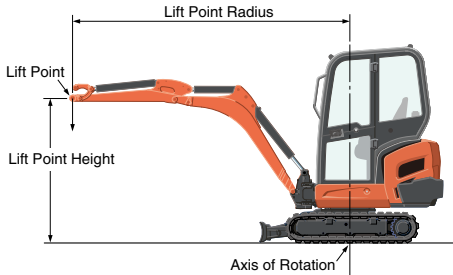
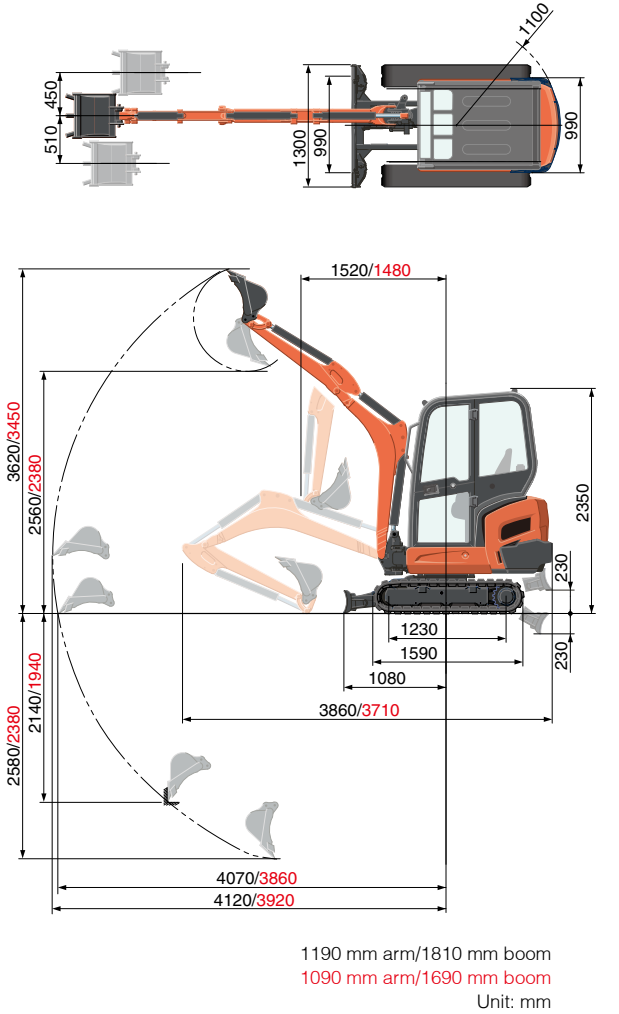
Addition of Electric retrofit kit



Specifications

Model			KX019-4e		
Machine weight* ¹		Cabin / Canopy	kg	1868 / 1768	
Operating weight* ²		Cabin / Canopy	kg	1943 / 1843	
Electrification Kit		Battery		Lithium-ion NMC	
				48 V / 420 Ah	
				18 kWh	
				116.4 kg	
		Electric motor	12 kW		
		Chargers	2 x 3 kW chargers in mode 2		
		Communication	Electronic management by dedicated interface		
		Charging	≈ 3h on a 400V / 32A source		
		Autonomy	≈ 3.5 hours* ⁴		
	Working modes	Eco / Normal / Boost* ⁵			
Dimensions	Overall width	mm	990 / 1300		
	Overall height (Cabin / Canopy)	mm	2350 / 2330		
	Overall length	mm	3860		
	Ground clearance	mm	160		
	Dozer size (width × height)	mm	990 / 1300 × 230		
	Rubber crawler width	mm	230		
	Minimum front swivel radius	mm	1520		
	Boom swing angle (left / right)	°	75 / 60		
Hydraulic System	P1, P2		Variable displacement pump		
			Flow rate	ℓ /min	17,3
			Hydraulic pressure	MPa (kgf/cm ²)	21,6 (220)
	P3		Gear pump		
			Flow rate	ℓ /min	10,4
			Hydraulic pressure	MPa (kgf/cm ²)	20,6 (210)
	Auxiliary (AUX1)	Max. flow rate	ℓ /min	27,7	
		Max. hydraulic pressure	MPa (kgf/cm ²)	21,6 (220)	
	Auxiliary (AUX2)	Max. flow rate	ℓ /min	10,4	
		Max. hydraulic pressure	MPa (kgf/cm ²)	20,6 (210)	
	Max. digging force	Arm	kN (kgf)	7,8 (790)	
		Bucket	kN (kgf)	15,9 (1620)	
Hydraulic reservoir (full)		ℓ	28		
Max. travelling speed (low / high)			km/h	2,2 / 4,0	
Ground contact pressure (cabin / canopy)			kPa (kgf/cm ²)	27,4 (0,28) / 26,5 (0,27)	
Swivelling speed			tr/min.	9,1	
Noise level		LpA	dB (A)	Currently being checked	
		LwA (2000/14/EC)	dB (A)	Currently being checked	
Vibration* ³	Hand arm system (ISO 5349-2:2001)	Digging	m/s ² RMS	<2,5	
		Levelling	m/s ² RMS	<2,5	
		Driving	m/s ² RMS	<2,5	
		Idling	m/s ² RMS	<2,5	
	Whole body (ISO 2631-1:1997)	Digging	m/s ² RMS	<0,5	
		Levelling	m/s ² RMS	<0,5	
		Driving	m/s ² RMS	<0,5	
		Idling	m/s ² RMS	<0,5	

Working Range



Lifting capacity

Cabin, 1190 mm arm, rubber version			kN (ton)			
Lift Point Height	Lifting point radius (2m)			Lifting point radius (max.)		
	Over-front		Over-side	Over-front		Over-side
	Blade Down	Blade UP		Blade Down	Blade UP	
1.5m	2.2 (0.23)	2.3 (0.23)	2.3 (0.23)	–	–	–
1.0m	4.0 (0.41)	4.0 (0.41)	4.0 (0.41)	–	–	–
0.5m	5.2 (0.53)	4.5 (0.46)	4.5 (0.46)	2.3 (0.23)	1.9 (0.20)	2.0 (0.20)
0m	5.4 (0.55)	4.3 (0.44)	4.4 (0.45)	–	–	–

*The lifting capacities are based on ISO 10567 and do not exceed 75% of the static tilt load of the machine or 87% of the hydraulic lifting capacities of the machine.
*The excavator bucket, hook, sling and other lifting accessories are not included on this table.

* All images shown are for brochure purposes only.
When operating the excavator, wear clothing and equipment in accordance to local legal and safety regulations.

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