



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

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



Specifications

Working Range

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 x height)	mm 990 / 1300 x 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/cm²) 21,6 (220)
	P3	Gear pump
	Flow rate	ℓ /min 10,4
	Hydraulic pressure	MPa (kgf/cm²) 20,6 (210)
	Auxiliary (AUX1)	Max. flow rate ℓ /min 27,7
		Max. hydraulic pressure MPa (kgf/cm²) 21,6 (220)
	Auxiliary (AUX2)	Max. flow rate ℓ /min 10,4
		Max. hydraulic pressure MPa (kgf/cm²) 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/cm²) 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/s² RMS <2,5
		Levelling m/s² RMS <2,5
		Driving m/s² RMS <2,5
		Idling m/s² RMS <2,5
	Whole body (ISO 2631-1:1997)	Digging m/s² RMS <0,5
		Levelling m/s² RMS <0,5
		Driving m/s² RMS <0,5
		Idling m/s² RMS <0,5

Lifting capacity

Cabin, 1190 mm arm, rubber version

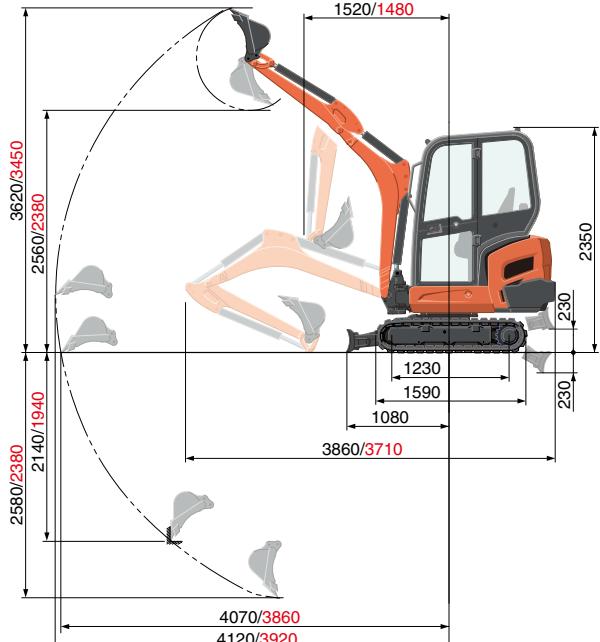
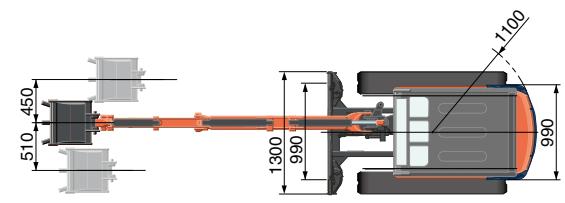
kN (ton)

Lift Point Height	Lifting point radius (2m)		Lifting point radius (max.)		
	Over-front		Over-side		Over-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)
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.

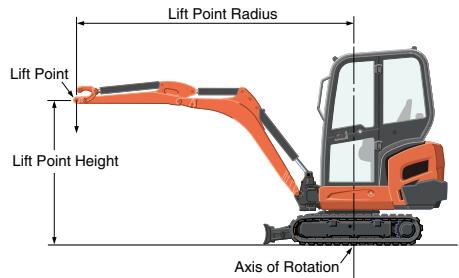
*The excavator bucket, hook, sling and other lifting accessories are not included on this table.

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



1190 mm arm/1810 mm boom
1090 mm arm/1690 mm boom

Unit: mm



* Working ranges are with Kubota original bucket, without quick coupler.

* Specifications are subject to change without notice for purpose of improvement.

*1 With 33.5 kg Kubota original bucket, 1190 mm arm, full tanks.

*2 Machine weight + 75 kg operator

*3 These values are measured under specific conditions at maximum engine speed and can deviate, depending on the operating status.

*4 Depending on working modes and conditions.

*5 Eco (fixed at 1100 rpm)
Normal (from 1300 to 2300 rpm)
Boost (from 1800 to 2300 rpm)

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