KUBOTA ZERO-TAIL SWING MINI-EXCAVATOR

U20-3α
U25-3α

Kubota

Intelligent design, sophisticated performance, and new levels of security, and comfort. These mini-excavators are ready for today's tough jobs.

These are minis for modern jobs. Those tough jobs in tight corners that demand precision control, state-of-the-art performance, and maximum safety and security. And these minis are ready to work, offering a wealth of advanced features, including a sophisticated digital panel information system, and the industry's first anti-theft system to be offered as standard equipment. Add high reliability, low operating costs, and superior efficiency, and you've got the ideal minis for a wide range of modern jobs.

U20-3α/U25-3α

ANTI-THEFT SYSTEM NEW

The Ultimate in security that's as easy as turning a key. It's the industry's first standard-equipment anti-theft system, and another original only from Kubota.

THE IMMOBILIZING SYSTEM

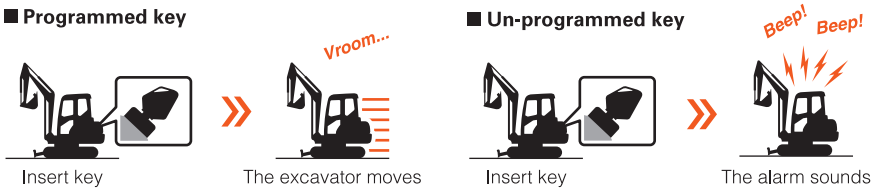
The industry's first standard-equipment anti-theft system makes security as easy as turning a key – the correct key – because the engine only starts when you insert the correct IC-equipped operation key.

EASY OPERATION

No special procedures, no PIN numbers to remember. Simply insert the key to start the engine or gain access to the cabin door, engine bonnet, or fuel tank.

SECURITY

Only an appropriately programmed operation key will start the engine. Inserting other keys and turning them more than six times activates an alarm, which will stop only when the correct key is inserted and the ignition switched to RUN.



EASY PROGRAMMING

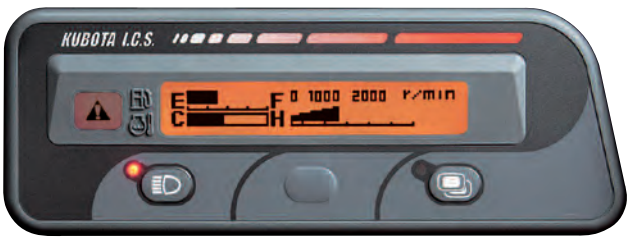
One programming key (red) and two operation keys (black) are provided. To program additional operation keys, simply insert the red key and follow the instructions on the digital panel. A maximum of four black keys can be programmed per mini-excavator.

1 Insert the Red programming key, then press the monitor button

2 Insert new individual Black operational key

DIGITAL PANEL NEW

Kubota's Intelligent Control System keeps you informed with timely diagnostic readings and routine maintenance alerts that can reduce downtime and repair fees. The large digital panel displays current working conditions, warning indicators for engine rpm and hour meter, and fuel, temperature and oil levels. It even tells you during fuel refilling when the tank is nearly full.



Language selection display

Information when service time comes

Low fuel display

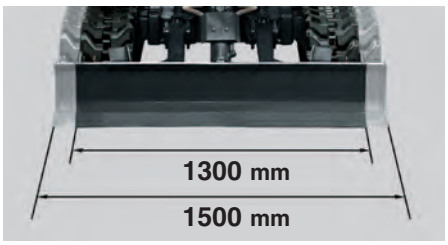
ZERO-TAIL SWING

With zero-tail swing, even the tightest spaces become efficient work places. The tail always stays within the width of the tracks, letting you turn the cab throughout its 360-degree turning radius with complete confidence and safety and fewer accidents with things behind you. Zero-tail swing also means excellent balance and stability and faster operation, making these mini-excavators ideal for work in congested urban areas and inside buildings.

Undercarriage (U20-3α only)

The U20-3α's hydraulic track gauge adjusts to between 1300 mm and 1500 mm. A single lever lets you reduce the track gauge to navigate narrow spaces or increase it to improve stability while operating with hydraulic breakers, etc.

Instantly and simply adjust the blade size by removing the pin and folding or unfolding the blade.



Increase the track gauge for greater stability, or reduce it to navigate narrow spaces.

Dependable Performance from a Wealth of Advanced Features. And Safety You Can Rely On.

Kubota engine

Kubota's unique, new E-TVCS (Three Vortex Combustion System) enables high-energy output, low vibration, and low fuel consumption, while minimising exhaust emissions.

Simultaneous operation of four functions

When the simultaneous operation of the boom, arm, bucket, and swivel are required, two variable pumps will distribute an accurate amount of oil flow to each actuator according to the lever stroke pressure. This process is achieved without the loss of speed or power, and enables continuous high performance digging and dozing.

Powerful digging force

Even with the optional long arm, these mini-excavators are exceptionally stable and well balanced, giving them a powerful digging force that makes short work of even the toughest digging jobs.

NEW

Long arm

The optional long arm gives these mini-excavators a longer reach, letting you get more work done at each location.

Travelling System

Rough terrain is not a problem for these rugged travelers, thanks to a powerful traveling force. The traveling system includes traveling lock levers that activate whenever the pilot control safety lever is not engaged, preventing the machine from moving unexpectedly.

Swivel negative brake

Kubota's swivel negative brake eliminates the need for a swivel transport locking pin. It automatically locks the cabin in its current position whenever the engine is stopped or the pilot control safety level is raised.

ROPS/FOPS Cabin/canopy (Level 1)

Maximum operator safety is ensured by the integrated Roll-Over Protective Structure (ROPS) and Falling Object Protective Structure (FOPS). Both cabin and canopy versions are available. The cabin version features a stylish layout that provides a high level of operator comfort.

Ergonomic design

Smooth operation is the key to reducing operator fatigue. That's why the U20-3α and U25-3α feature ergonomically designed levers, wrist rests, and high-back seat that enhance operator comfort as well as ensure smooth, precise control.

Straight travel

For safer loading/off-loading, the Hydraulic Matching System ensures straight travel even during simultaneous operation.

NEW

2-Speed Travel Switch on Dozer Lever

Conveniently located on the dozer lever for more efficient dozer operation, the newly designed travel switch lets you quickly and easily change travel speeds. The new location also provides more legroom for greater operator comfort.

Intelligent Design for Easy Maintenance, Rugged Construction for Durable Performance.

Easy engine inspection

Major components, such as the engine and air cleaner, are easily accessible for inspection and maintenance through the engine cover. An engine inspection cover behind the seat offers fast access to the engine's injection nozzles. A side cover on the right side of the cab provides quick and simple access to the battery, fuel tank and hydraulic tank.

Protected bucket cylinder hoses

Cylinder hoses are routed within the arm for greater safety. This design vastly improves operator visibility, increases service life, and lowers repair costs.

Boom cylinder protector

The new, thicker, steel-plated, V-shaped, boom-cylinder protector safeguards against accidental damage from attachments or other objects.

Two-piece hose design

The innovative, two-piece, hydraulic hose design for the dozer reduces hose replacement time by 60% when compared to a one-piece hose design. What's more, this design virtually eliminates heavy labour from the actual hose replacement process.

Control valve inspection

Located beneath the cabin floor, the control valve can be accessed by simply removing the steps by hand. When an involved repair is required, the steps and cover below the seat can all be removed by using standard tools.

Standard Equipment

Engine/Fuel System

- Double-element air cleaner
- Electric fuel pump

Undercarriage

- 250mm rubber track (U20-3α)
- 300mm rubber track (U25-3α)
- 1 x upper-track roller
- 3 x double-flange track roller
- 2-speed travel switch on dozer lever

Hydraulic System

- Pressure accumulator
- Hydraulic pressure checking ports
- Straight travel circuit
- Third-line hydraulic return

Safety System

- Engine Start Safety System on the left console
- Travel Lock System on the left console
- Swivel Lock System
- Boom check valve
- Anti-theft system

Working Equipment

- 1190mm arm (U20-3α)
- 1350mm arm (U25-3α)
- Auxiliary hydraulic circuit piping to the arm's end
- 2 working lights on the cabin and 1 light on the boom

Cabin

- ROPS (Roll-Over Protective Structure, ISO 3471)
- FOPS (Falling Objects Protective Structure) Level 1
- Weight adjustable semi-suspension seat
- Seatbelt
- Hydraulic pilot control levers with wrist rests
- Cabin heater for defrosting & demisting
- Emergency exit hammer
- Location for 2 speakers and radio antenna

Canopy

- ROPS (Roll-Over Protective Structure, ISO 3471)
- FOPS (Falling Objects Protective Structure) Level 1
- Weight-adjustable, semi-suspension seat
- Seatbelt
- Hydraulic pilot control levers with wrist rests

Optional Equipment

Undercarriage

- 250mm steel track (+60kg) [U20-3α]
- 300mm steel track (+100kg) [U25-3α]

SPECIFICATIONS (U20-3α)

*Rubber shoe type

Type				Variable track type
Machine weight	Cabin		kg	2380
	Canopy		kg	2180
Bucket capacity, std. SAE/CECE			m^3	0.066/0.056
Bucket width	with side teeth		mm	450
	without side teeth		mm	400
Engine	Model			D1105-E2-BH-12
	Type			Water-cooled,diesel engine E-TVCS(Economical,ecological type)
	Output ISO9249		PS/rpm	19/2200
			kW/rpm	14/2200
	Number of cylinders			3
	Bore × Stroke		mm	72 × 78.4
	Displacement		cc	1123
Overall length			mm	3850
Overall height	Cabin		mm	2360
	Canopy		mm	2380
Swivelling speed			rpm	9.6
Rubber shoe width			mm	250
Tumbler distance			mm	1470
Dozer size (width × height)			mm	1300/1500 × 290
Hydraulic pumps	P1,P2			Variable displacement pump
	Flow rate		ℓ/min	23 + 23
	Hydraulic pressure		MPa(kgf/cm²)	21.6 (220.0)
	P3			Gear type
	Flow rate		ℓ/min	12.8
	Hydraulic pressure		MPa(kgf/cm²)	20.6 (210.0)
Max.digging force	Arm		kN (kgf)	13.2 (1350)
	Bucket		kN (kgf)	18.4 (1880)
Boom swing angle (left/right)			deg	75/55
Auxiliary circuit	Flow rate		ℓ/min	35.8
	Hydraulic pressure		MPa(kgf/cm²)	21.6 (210.0)
Hydraulic reservoir			ℓ	22
Fuel tank capacity			ℓ	28
Max. travelling speed	Low		km/h	2.2
	High		km/h	4.2
Ground contact pressure	Cabin		kPa(kgf/cm²)	27.2 (0.28)
	Canopy		kPa(kgf/cm²)	25.7 (0.26)
Ground clearance			mm	160

LIFTING CAPACITY (U20-3α)

With standard track type : 940 mm

Standard arm — 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	6.9 (0.71)	6.4 (0.65)	5.4 (0.55)	-	-	-
1.0m	9.1 (0.93)	6.1 (0.62)	5.1 (0.52)	4.4 (0.44)	2.6 (0.26)	2.2 (0.23)
0m	-	5.8 (0.59)	4.9 (0.50)	-	-	-
-1.0m	7.4 (0.76)	5.9 (0.60)	4.9 (0.50)	-	-	-

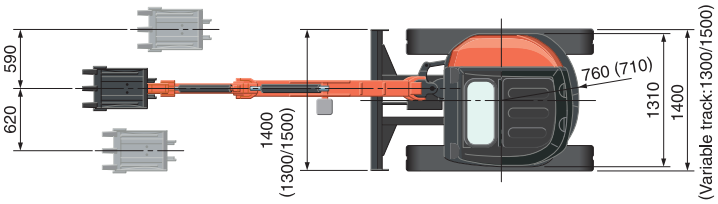
With variable track type : 1190 mm

Long arm — kN (ton)

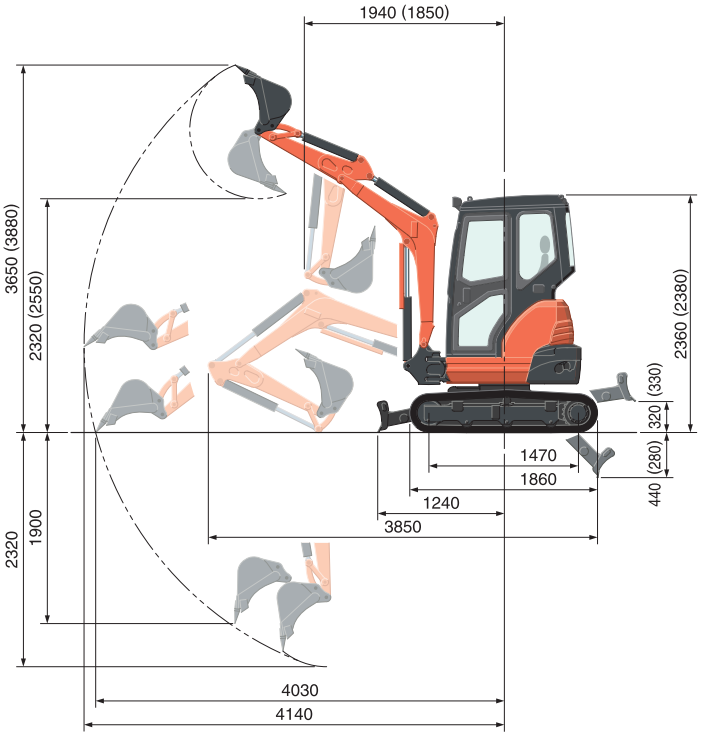
Lift Point Height	Lifting point radius (2.5m)			Lifting point radius (Max)		
	Over-front		Over-side	Over-front		Over-side
	Blade Down	Blade UP		Blade Down	Blade UP	
1.5m	4.7 (0.48)	4.7 (0.48)	4.6 (0.47)	-	-	-
1.0m	5.8 (0.59)	4.6 (0.47)	4.5 (0.45)	3.9 (0.40)	2.5 (0.25)	2.4 (0.25)
0m	7.0 (0.72)	4.3 (0.44)	4.2 (0.43)	-	-	-
-1.0m	6.1 (0.62)	4.3 (0.44)	4.2 (0.43)	-	-	-

Please note:
* 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 capacity of the machine.
* The excavator bucket, hook, sling and other lifting accessories are not included on this table.

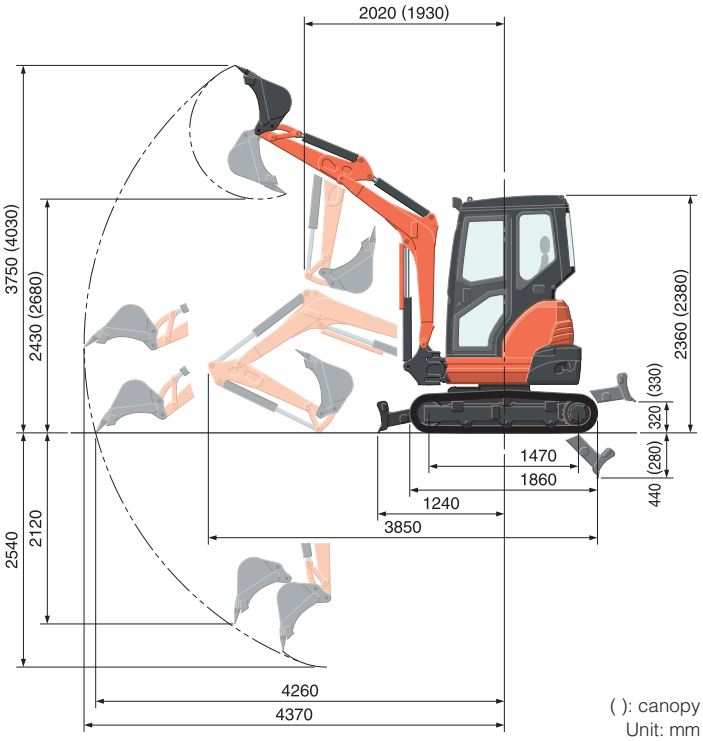
WORKING RANGE (U20-3α)



With standard track type : 940 mm



With variable track type : 1190 mm



( ): canopy
Unit: mm

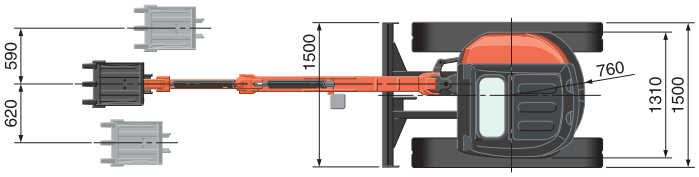
* Working ranges are with Kubota standard bucket, without quick coupler.
* Specifications are subject to change without notice for purpose of improvement.

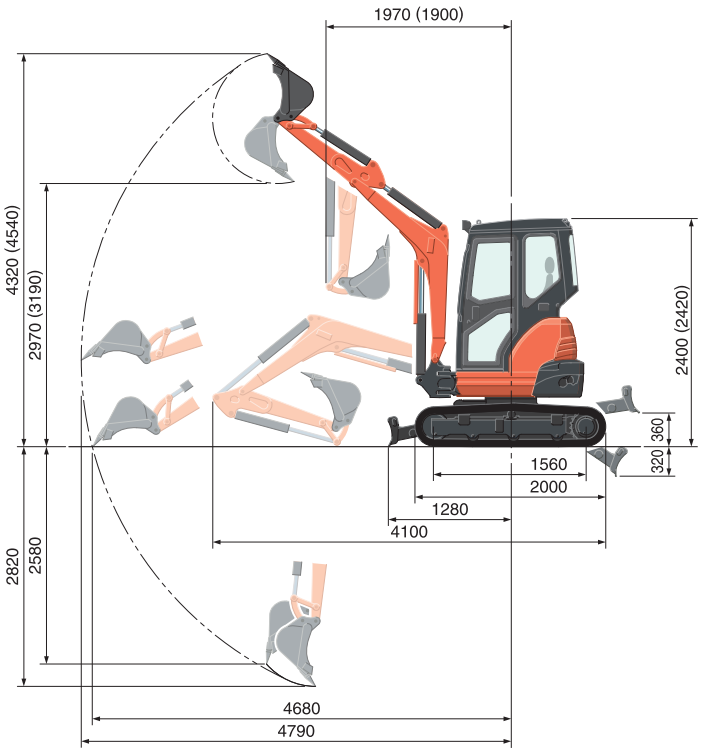
SPECIFICATIONS (U25-3α)

*Rubber shoe type

Machine weight	Cabin		kg	2550
	Canopy		kg	2470
Bucket capacity, std. SAE/CECE			m^3	0.080/0.064
Bucket width	with side teeth		mm	500
	without side teeth		mm	450
Engine	Model			D1105-E2-BH-13
	Type			Water-cooled,diesel engine E-TVCS(Economical,ecological type)
	Output ISO9249		PS/rpm	21/2400
			kW/rpm	15.5/2400
	Number of cylinders			3
	Bore × Stroke		mm	72 × 78.4
	Displacement		cc	1123
Overall length			mm	4100
Overall height	Cabin		mm	2400
	Canopy		mm	2420
Swivelling speed			rpm	9.8
Rubber shoe width			mm	300
Tumbler distance			mm	1560
Dozer size (width × height)			mm	1500 × 290
Hydraulic pumps	P1,P2			Variable displacement pump
	Flow rate		ℓ/min	28.8 + 28.8
	Hydraulic pressure		MPa(kgf/cm^2)	21.6 (220.0)
	P3			Gear type
	Flow rate		ℓ/min	19.2
	Hydraulic pressure		MPa(kgf/cm^2)	17.2 (175.0)
Max.digging force	Arm		kN (kgf)	14.4 (1465)
	Bucket		kN (kgf)	21.6 (2200)
Boom swing angle (left/right)			deg	75/55
Auxiliary circuit	Flow rate		ℓ/min	48
	Hydraulic pressure		MPa(kgf/cm^2)	21.6 (210.0)
Hydraulic reservoir			ℓ	22
Fuel tank capacity			ℓ	28
Max. travelling speed	Low		km/h	2.5
	High		km/h	4.5
Ground contact pressure	Cabin		kPa(kgf/cm^2)	24.0 (0.24)
	Canopy		kPa(kgf/cm^2)	22.9 (0.23)
Ground clearance			mm	300

WORKING RANGE (U25-3α)





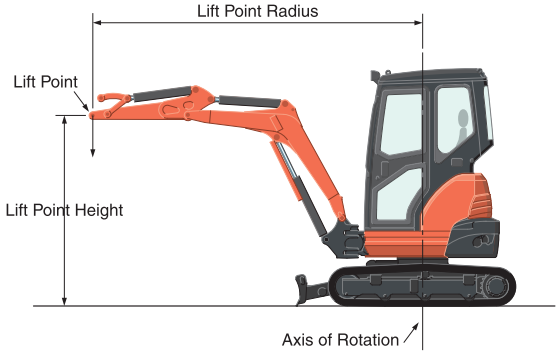
( ): canopy
Unit: mm

LIFTING CAPACITY (U25-3α)

Long arm kN (ton)

Lift Point Height	Lifting point radius (3m)			Lifting point radius (Max)		
	Over-front		Over-side	Over-front		Over-side
	Blade Down	Blade UP		Blade Down	Blade UP	
3m	3.6 (0.37)	3.6 (0.37)	3.6 (0.37)	-	-	-
2m	3.9 (0.40)	3.9 (0.40)	3.8 (0.38)	-	-	-
1m	5.1 (0.52)	4.3 (0.44)	3.6 (0.37)	3.8 (0.39)	2.6 (0.27)	2.2 (0.22)
0m	5.9 (0.60)	4.2 (0.42)	3.4 (0.35)	-	-	-
-1m	5.4 (0.55)	4.1 (0.42)	3.4 (0.35)	-	-	-

Please note:
* 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 capacity of the machine.
* The excavator bucket, hook, sling and other lifting accessories are not included on this table.



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