



KUBOTA ZERO-TAIL SWING MINI EXCAVATOR

U35-3*α*3



Kubota's U35-3 α 3 is the excavator of choice for smooth simultaneous operation, powerful digging force, and superb attachment versatility.

Load Sensing Hydraulic System

Kubota's improved 1-pump load sensing hydraulic system ensures smoother operation, regardless of load size. It allows hydraulic oil to flow according to the specific range of the operator's lever motion.

Auto-shift

The auto-shift system enables automatic travel shift from high to low depending on traction effort and terrain. This gives smoother operations when dozing and turning.

Strong digging force

A well-balanced arm and bucket guarantee superior digging force whenever you need it. The U35-3 α 3 delivers an impressive bucket digging force. Its powerful and well-balanced arm and bucket allow the operator to finish the work more effectively.

Adjustable maximum oil flow on auxiliary circuit

The maximum oil flow rate of the auxiliary circuit can be changed/adjusted by simply pushing a switch—there's no need for additional tools. This simplifies the utilisation of front attachments like tilt buckets, brush cutters and hydraulic hammers—you can reduce or increase the flow to get just the right amount of control.

**The maximum oil flow can vary according to the load of front attachments.*



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Swivel negative brake

The swivel negative brake automatically locks the swivel function in its current position when the engine is stopped or the pilot control safety lever is raised. Hence, the swivel transport lock pin is no longer required.

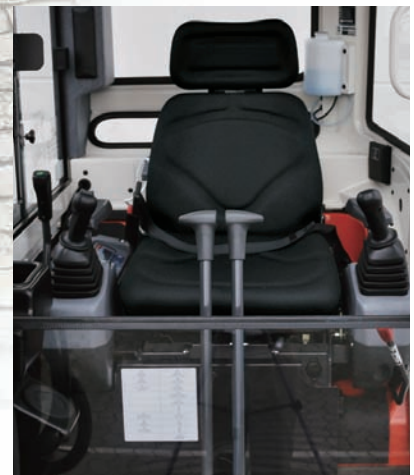
Front attachment should be positioned on the ground during transportation.

Zero-tail swing

Kubota's zero-tail swing is a pivotal advancement in mini excavators. Unmatched power, worry-free 360° swivel and excellent stability mean there are no limits to what you can accomplish, especially in tight spaces. In fact, this excavator's smooth control, improved efficiency and superior value make it ideally suited for jobs in congested urban areas. Plus, enhanced operator comfort and environmental friendliness not only complete the package, but also make this machine ideal for your needs.

ROPS/FOPS cabin (Level 1)

For maximum operator safety, the cabin provides a Roll-over Protection Structure (ROPS) and a Falling Object Protection Structure (FOPS).



Buckets may vary by location.

With a host of advanced features, Kubota excavators deliver the security and ease of operation users demand.

ANTI-THEFT SYSTEM

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



THE SYSTEM

Introducing Kubota's new simple and secure anti-theft system. Our one-key-system has an IC chip, which only starts the engine when the system recognises the appropriate key. Standard equipment includes one Red programming key, plus two Black operational keys. And up to four Black keys can be programmed. What's more, you get peace of mind knowing your construction equipment couldn't be in safer hands.

EASY OPERATION

No special procedures needed. No PIN numbers needed. Just turn the key. Plus, our simple "one-key-security system" allows access to the cabin door and engine bonnet as well as the fuel tank.

SAFETY/SECURITY

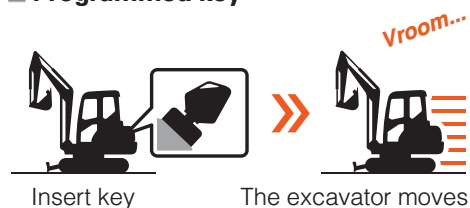
Only "programmed keys" will enable the engine to start. Even identically shaped keys can't start the engine unless they are programmed. In fact, attempting to start the engine with an un-programmed key will activate the system's alarm. This alarm will continue even after the un-programmed key is removed. It will only stop once a programmed key is inserted into the ignition and switched on to start the engine.

EASY PROGRAMMING

One Red programming key and two pre-programmed Black operational keys come standard. If a Black key is misplaced, or if additional Black keys are needed (a maximum of two can be added), key programming is easy. Simply insert the Red key, followed by the Black keys.



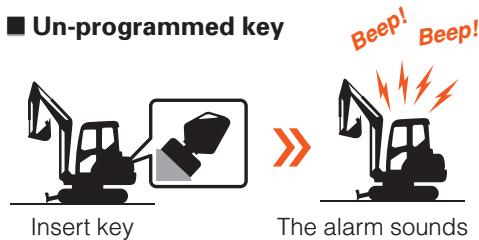
Programmed key



Insert key

The excavator moves

Un-programmed key



Insert key

The alarm sounds

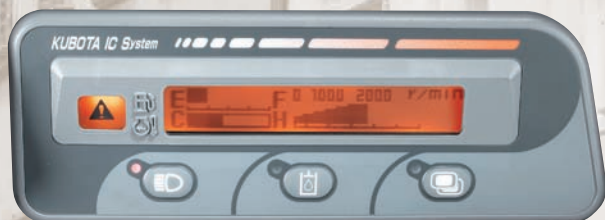


1 Insert the Red programming key, then press the monitor button.



2 Insert new individual Black operational key.

DIGITAL PANEL



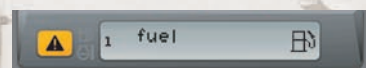
Informative, interactive and functional. Kubota's Intelligent Control System keeps you in tune of the excavator's vital signs. It accurately displays easy-to-understand diagnostics of current working conditions and warning indicators for engine rpm and hour meter, as well as for fuel, temperature and oil levels. When filling up with fuel, our panel also informs the operator that the tank is nearly full, and alerts the operator when routine maintenance is due. Overall, the panel reduces excavator repair time for a decrease in total operating costs.



Language selection display



Information when service is required



Low fuel display

EASY OPERATION

1 Proportional flow auxiliary switch

A convenient thumb-operated switch enables easy operation of auxiliary equipment.

2 2-speed switch

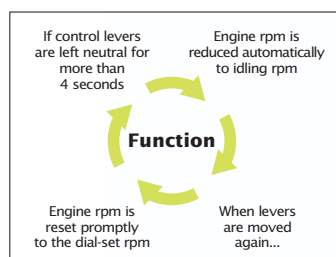
The advanced 2-speed travel switch allows user-friendly travel speed changes, improved operation, comfort and control.

3 Auto Idling system (AI)

Whenever high engine rpm isn't needed, this system automatically reduces the engine to idling rpm, and returns it to its original setting when work resumes. This helps to reduce noise and exhaust emissions, and saves on fuel, energy and running costs.

4 Constant oil flow switch

Any attachment that requires a constant oil flow, this ON/OFF press switch enables a simple operation.



With Kubota, maintenance is fast and easy, so you can work more productively.

Engine inspection

Primary points, like the engine and air cleaner, can be inspected and maintained easily via the rear engine cover. The fuel filter and water separator are independently installed and both are located inside the steel-plated bonnet, which opens widely for quick inspection and routine maintenance. An engine inspection window is also located behind the seat for easier access to the engine's injection nozzles.



Front bush pins

To maximise durability, we've introduced bushings on all of the pivot points on the front attachment and connecting points on the swing bracket. Kubota even uses bushings on the swing bracket's fixed joints—between the pin and the boss—to prevent potential damage caused by shock and vibration over many years of use. This minimises attachment play and helps maintain operating precision for a long time.

Kubota engine

Kubota's unique new E-TVCS (Three Vortex Combustion System) with 31.1 PS enables high-energy output, low vibration and low fuel consumption, while minimising exhaust emissions.

Two-piece hose design

The two-piece hose design on the dozer and boom cylinders reduces hose replacement time. What's more, this design virtually eliminates the need to enter the machine for maintenance.

Control valve inspection

A quick and easy inspection of the control valve is possible simply by opening the latch on the bonnet, located to the right of the cabin. When more detailed maintenance or repairs are required, the remaining panels on the swing frame can be easily removed using standard tools.

Third line hydraulic direct return for AUX

The Third Line Hydraulic Return enables greater oil flow efficiency by reducing back pressure when working with hydraulically actuated attachments, such as a hydraulic hammer. It also prevents the hydraulic oil contamination.





Standard Equipment

Engine/Fuel System

- Double element air cleaner
- Electric fuel pump
- Auto idling system

Undercarriage

- 300 mm rubber track
- 1 x upper track roller
- 4 x outer flange-type track roller
- 2-speed travel switch on dozer lever

Hydraulic System

- Adjustable maximum oil flow on auxiliary circuit (SP1)
- Pressure accumulator
- Hydraulic pressure checking ports
- Straight travel circuit
- Third line hydraulic direct return for AUX
- Auxiliary switch on right control lever

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

- 1350 mm arm
- Auxiliary hydraulic circuit piping to the arm end
- 2 working lights on cabin and 1 light on the boom

Cabin

- ROPS (Roll-over Protective Structure, ISO3471)
- FOPS (Falling Object Protective Structure) Level 1
- Weight-adjustable semi-suspension seat
- Seatbelt
- Hydraulic pilot control levers with wrist rests
- Travel levers with foot pedals
- Cabin heater for defrosting & demisting
- Emergency exit hammer
- Front window power-assisted with 2 gas dampers
- 12 V power source for radio-stereo
- 2 speakers and radio aerial
- Location for radio
- Cup holder

Canopy

- ROPS (Roll-over Protective Structure, ISO3471)
- FOPS (Falling Object Protective Structure) Level 1
- Weight-adjustable semi-suspension seat
- Seatbelt
- Hydraulic pilot control levers with wrist rests
- Travel levers with foot pedals

Optional Equipment

Working Equipment

- 1550 mm arm

Undercarriage

- 300 mm steel track (+ 95 kg)

Safety System

- Anti-fall valve unit (boom, arm, dozer)
- Overload warning buzzer

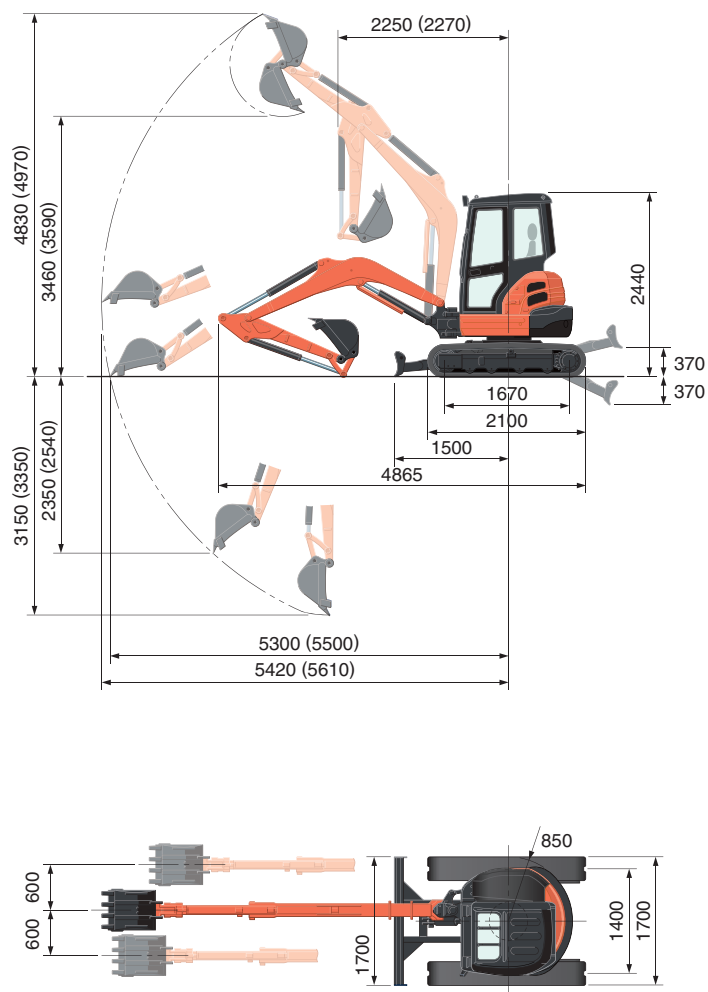
Others

- Special paint upon request

SPECIFICATIONS

*Rubber shoe type			
Model		U35-3a3	
Machine weight	Cabin	kg	3590
	Canopy	kg	3480
Bucket capacity, std. SAE/CECE		m³	0.11/0.10
Bucket width	With side teeth	mm	575
	Without side teeth	mm	550
Engine	Model		D1803-M-E3-BH-EU1
	Type		Water-cooled, diesel engine E-TVCS
	Output ISO9249	PS/rpm	31.1/2300
		kW/rpm	22.9/2300
	Number of cylinders		3
	Bore × Stroke	mm	87 × 102.4
Displacement		cc	1826
Overall length		mm	4865
Overall height	Cabin	mm	2440
	Canopy	mm	2440
Swivelling speed		rpm	9
Rubber shoe width		mm	300
Tumbler distance		mm	1670
Dozer size (width × height)		mm	1700 × 335
Hydraulic pump	P1	Variable displacement pump	
	Flow rate	ℓ /min	96.6
	Hydraulic pressure	MPa (kgf/cm²)	24.5 (250)
Max. digging force	Arm	kN (kgf)	15.9 (1630)
	Bucket	kN (kgf)	31.1 (3180)
Boom swing angle (left/right)		deg	70/50
Auxiliary circuit	Flow rate	ℓ /min	55
	Hydraulic pressure	MPa (kgf/cm²)	20.6 (210)
Hydraulic reservoir		ℓ	36
Fuel tank capacity		ℓ	41.5
Max. travelling speed	Low	km/h	3.0
	High	km/h	4.6
Ground contact pressure	Cabin	kPa (kgf/cm²)	33.0 (0.34)
	Canopy	kPa (kgf/cm²)	32.0 (0.33)
Ground clearance		mm	290

WORKING RANGE

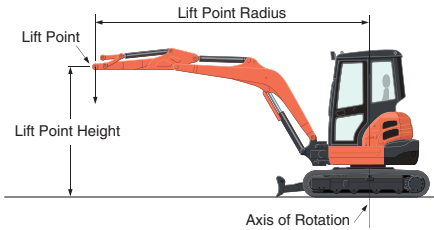


(): Long Arm
Unit: mm

LIFTING CAPACITY

*With cabin, rubber shoe and standard arm kN (ton)									
Lift Point Height	Lift point radius (Min)			Lift point radius (3m)			Max. lift point radius		
	Over-front		Over-side	Over-front		Over-side	Over-front		Over-side
	Blade Down	Blade Up		Blade Down	Blade Up		Blade Down	Blade Up	
2m	-	-	-	7.1 (0.73)	7.0 (0.72)	6.6 (0.67)	-	-	-
1m	-	-	-	9.8 (1.00)	6.5 (0.67)	6.1 (0.62)	6.0 (0.61)	3.5 (0.35)	3.3 (0.33)
0m	-	-	-	11.3 (1.15)	6.2 (0.63)	5.8 (0.59)	-	-	-
-1m	16.2 (1.66)	16.2 (1.66)	16.2 (1.66)	10.9 (1.11)	6.1 (0.63)	5.7 (0.58)	-	-	-
-2m	19.5 (1.99)	19.5 (1.99)	18.9 (1.93)	7.9 (0.80)	6.3 (0.64)	5.8 (0.60)	-	-	-

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

★ 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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