# Kubota

For details of the products, please consult your local KCM dealer.



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# **KUBOTA Mini Excavator**







# Zero-tail Swing · Swing Boom —

# To conquer a place in the international market, a mini excavator combining the above two features is the real one.

During the historic development of mini excavator market of over 30 years, the two basic conceptions, boom swing and zero-tail swing, revealed their importance for the first time in 1980s to 1990s to comply with the global need of diversified construction fields. During the late 1990s, Kubota took the lead by launching its international standard mini excavator integrating both features for global market.

### • Swing Boom Device

The front end of the machine is equipped with swing boom device to allow direct digging operation close to the house edge, without frequent moving of the machine.

Combined with zero-tail swing structure, the machine is very suitable for those operations in narrow working sites.

#### Zero-tail Swing

The Kubota mini excavator adopts a so-called zero-tail swing structure. During swivel operation of upper body, its tail always remains within the width range of the tracks. Therefore, barrier-free operation can be realized in narrow working sites.



## Vision for tomorrow

# The evolution of over 30 years perfectly expresses the latest standard of global excavator products.

Since its foundation in **1890,** Kubota has been committed to the high-quality construction of the world with the aim of "Care for Mother Earth and Human Life". Nowadays, Kubota KX-series S-type mini excavator will carry on the deep foundation as the industrial founder. Kubota invite you to experience the crystal of the most advanced technology.



## **ORIGINAL & ADVANCE**

# Unique advanced functions pooling the essence of Kubota technologies



Kubota is the first in the field of compact construction machinery to use advanced equipments such as "Auto Idle · LCD Display with Self-diagnosis Function". It's leading originality ushers the future of mini excavator.

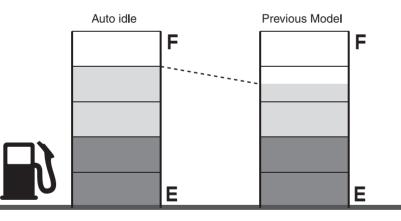


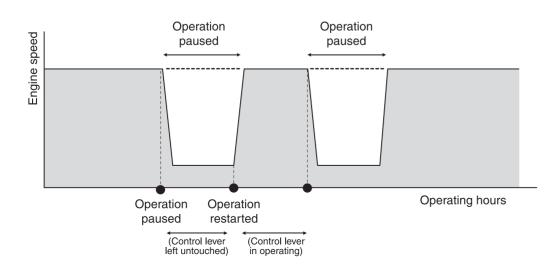
#### Auto Idle = Fuel Saving

The engine is automatically switched to idle running 4 seconds after the control lever is left untouched. When the control lever is operated again, the engine speed will resume to its previous rotation.

#### Reduced Fuel Consumption and Total Noise Level

Kubota's auto idle system can decrease total noise level and reduce fuel consumption by approximately 10%. Even in urban area and during nighttime, you may carry out operations at ease.





#### LCD Display with Self-diagnosis Function

Figures during normal operation, service meter, fuel, water temperature, engine speed, registration information of "SS key" and etc. can be indicated clearly on the display. Once there is abnormality, diagnostic information will be shown instantly to keep you informed of the machine operation status all the time.

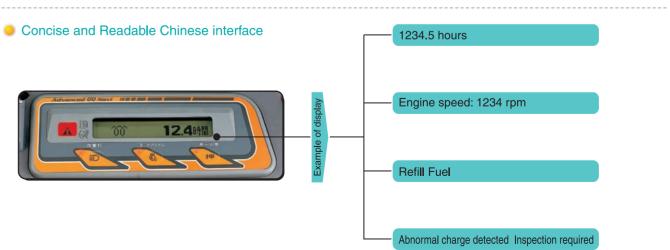




Instant diagnostic information is shown when an error occurs.

Describe the display content by phone.

It is easy to notify the service staff of the real thing on the jobsite through automatic indication of detected error information; Auto Save function that automatically records error history is likely to shorten time of inspection.









When arrive the service staff may retrieve the error history through the display for repairing

## **OPERATION & WORKING**

# Smooth, quick and powerful operation



Relying on its highly productive, ultra maneuverable, cost-efficient and proventies, the new hydraulic system is ready to achieve efficient and powerful operation.



Independent of load changes, the system distributes optimum flow of hydraulic oil according to the movement of the control lever. Therefore, various operations can be finished easily as desired by operators. Since the engine load is small, various inching and compound operations can be realized while eliminating unnecessary loss of hydraulic flow.

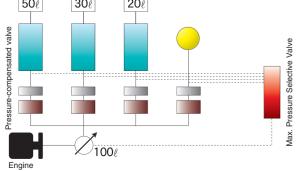
#### Comparison of Co-operation of the Control Lever and Attachment

O FEEE As for 3E hydraulic system, output pressure of main pump is automatically adjusted according to the load.

Load-independent feature delivers smooth operation

 As for traditional hydraulic system, hydraulic flow of attachment may vary according to the change of load. Inching operation will be difficult under heavy load.





When using 3E hydraulic system, co-operation of the control lever and attachment will be optimized and inching operation will not be affected by load change. Any type of operations can be completed precisely.

- Smooth Operation
  - Thanks to the superb matching performance of each component of the attachment, efficient and smooth operation is delivered in actual work.
- Travel on the Straight The machine can travel in a straight line steadily even when operating the attachment.



- Four Simultaneous Operations Bucket, boom, arm and swing can be operated simultaneously and smoothly.
- Powerful Jack-up Performance Even under idling condition, the machine can be jacked up with the bucket or blade.
- Prevention of Boom Lowering Kubota's unique boom retaining valve will keep boom in its working position.
- "H" shaped Track Roller The "H" shaped roller increases lateral stability and operator comfort during driving.
- Backup Power Supply It uses jack type same as cigarette lighter of automobile.(12V)



#### Backup Power Supply

# High output, low fuel consumption and clean exhaust We provide E-TVCS engine with world-class performance.

Kubota has long been maintaining a dominant position in the field of compact industrial diesel engine (below 100 HP). Kubota engine fully complies with U.S. EPA (Environmental Protection Agency) Tier II and EU emission regulations and offers low vibration and noise level, which is beneficial to both environment and operators. The boundless charm of Kubota engine not only derives from its unique product technology, but also its glorious and legendary history of over 80 years.

## **Genuine** Engine

As one of the few manufacturers possessing independent R&D and production ability, Kubota provides compact excavator engines pooling valuable experience and technical expertise of nearly one century. These engines have superb horsepower to handle with operations under various severe conditions.

## **Clean-running Engine**

The clean-running and low fuel consumption engine can minimize compound emission leading to environmental pollution and meet the requirements of next generation.

## Super Silence Design

The engine adopts sound insulation solutions such as semi-floating cylinder head cover, MoS2 coated piston, low-noise F-type fan and sound absorbing materials with strong soundproof performance to deliver silent operation. ENVIRONMENT

& OTHERS



## **SAFETY & COMFORT**

**World-class security** 



Since 1978, Kubota has entered European and North American markets with strict laws and regulations on safety. Now remarkable achievement and experience accumulated over the years are all applied to the latest model to create a reliable working environment for operators.

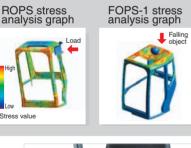
#### **ROPS/FOPS Cabin**

The world-class ROPS/FOPS cabin (supplied with seat belts) is used for enhanced operator safety.

#### Field Test

ROPS (ROU Over Protective Structure);FOPS (Falling Object Protective Structure). Stress analysis has been made on ROPS and FOPS. The following performance requirements can be met during field test:

- Necessary energy absorption capability
- Necessary load carrying capability
- Ensured operator safe zone
- Fastening components free of any abnormality (breakage or crack)



 Wide and Comfortable Cabin
 The cabin offers good visibility and wide space, which

minimize operator fatigue even for long-term operation.

- Deluxe High-back Seat
- Automatic Swivel Locking When the engine shuts off, the swivel will be locked automatically. Therefore, swivel lock pin is not needed during transportation.

• Start-up at Neutral Position The engine can be started up only when the safety lever is set at locking position.



 Safe Handle Operating Mode to Prevent Mis-operation

If safety lever is set at locking position, any movement of operation and travel lever will not work to prevent accidents caused by misoperation. Our unremitting commitment to excellence has given Kubota a head start over its rivals in the convenience of service & maintenance durability

We have simplified those jobs ranging from routine maintenance to formal inspection & service and improved reliability. So that the machine is always kept in good condition and you may carry out all operations at ease.

#### Quick and Convenient Routine Inspection

#### Hood that can be opened from two sides

The hood can be opened from rear side and right side with one touch without any tool, which provides easy access to the area around the engine and fuel system.

## Simple and Easy Maintenance & Service

It takes only a few minutes to remove the left, right and rear covers of the hood. Therefore, all inspection and service of the inside can be carried out guickly.

#### Major Inspection Points Converged at the Right Side

Inspection points of the hydraulic system are converged at the right side of the machine body for enhanced maintainability.



 Anti-collision Structure Design of Hood and Guard Plate
 Both the hood and the guard plate are located 30 mm inside the rotating part to prevent damage by accidental collision.

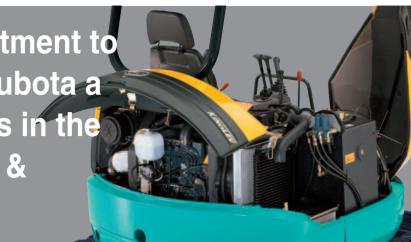


 Guard Plate for Boom Cylinder
 The boom cylinder is safe from damage caused by

material during operation.



## **MAINTENANCE & DURABILITY**



 Independent Hydraulic Hoses for Blade
 Maintenance and replacement of such hoses can be carried out more easily and conveniently.



- Being the First in the Industry that uses Waterproof Electrical System Supplied with sleeve, the highly water-proof electrical joint proves to be a preventive countermeasure against electrical system failures.
- Fuel Tank Drain Valve
   Fuel tank drainage is simple and convenient.
- Double Air Filter Structure Such structure is to keep intake system clean.
- Built-in Hoses for Attachment With such design, hoses are safe from damage during operation.
- "X"-shaped Frame + Slanted Track Frame Both components are designed to reduce soil accumulation to prevent failure of travel section.
- Prolonged Interval of Engine Oil Filter Element Replacement Interval of replacement extended from 250 hours to 500 hours.
- Pilot System with Pipeline Filter
   Pilot filter element is provided to prevent failures
   caused by clogged operation circuit.
- Options
   Pipeline for Auxiliary attachment is
   optionally available.



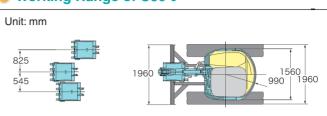
# **Kubota Mini Excavator Active in the Field of Construction in China**

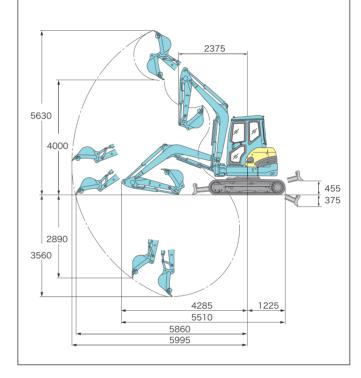
Kubota mini excavator is widely used in various construction fields such as road, municipal works, pipe networks, gardening and water conservancy. Combining with the use of multiple attachments such as breakers and the function of the machine's zerotail swing and boom swing, you may carry out operations at ease under various special conditions and construction environments. The real world-class Kubota mini excavator

is ready to have everything in place. Let us work together for a brilliant future!



#### • Working Range of U50-5







#### Specifications

Model			U50-5
Bucket capacity		m³	0.19
Std. bucket width: (with/without cutting blade)		mm	730/680
Operating weight		Kg	5,115
Dimensions (In transport condition) Engine	Overall length	mm	5,510
	Overall height	mm	2,540
	Overall width	mm	1,960
	Min. ground clearance	mm	320
	Model		Kubota V2203KA
	Total displacement	L (mL)	2.197(2,197)
	Rated output k	W (HP)	29.4(40)/2,250 rpm
Digging Capacity	Max. digging height	mm	5,630
	Max. dumping height	mm	4,000
	Max. digging depth	mm	3,560
	Max. vertical wall digging de	pth mm	2,890
	Max. digging radius	mm	5,995
	Boom swing: right/left	degree	75/48
	Min. slewing radius of front part (sv	ving) mm	2,375(1,875)
	Min. slewing radius of rear	part mm	990
	Max. digging force (bucket)	kN (kgf)	36.5(3,720)
Track type			Steel/rubber track (optional)
Track width		mm	400
Travel section	Overall length of track	mm	2,500
	Wheel base	mm	1,960
	Track gauge	mm	1,560
	Travel speed (1st/2nd gear	r) km/h	2.4/4.2
	Gradeability	degree	30
		rpm	9.3
Blade	Blade (width)	mm	1,960
	Blade (height)	mm	360
	Lift height (GL up/down)	mm	455/375
Hydraulic pump type			Variable pump × 1
		+ gear pump × 1	
Swing motor type			Hydraulic piston motor
Travel motor type			Hydraulic piston motor: 2F
Fuel tank capacity L		64	

• Specifications in this catalog are subject to change without prior notice.