

# For Earth, For Life

## **Kubota Mini-Excavator**



## Zero-tail Swing - Boom Swing-

## Conquering the international market, Kubota mini excavator combining the zero-tail and boom swing features.

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

#### Boom Swing

The boom swing realizes direct digging operation close to the house edge without put the machine in motion. Combined with zero-tail swing structure, the machine is very suitable for operations in tight places.

#### Zero-tail Swing

The Kubota mini excavator adopts zero-tail swing structure. When the machine is swiveling, the tail always remains within the track width. It realizes the worry-free operation in tight places.

## BASICS

## Vision for tomorrow

Over 40 years experience always set the latest global standard of mini excavator.

By the end of year **2012**, Kubota had manufactured over 400,000 mini excavators in the world. Kubota mini excavator achieved No.1 Share in the world for 11 years in a row. Kubota mini excavator promises you to experience the most advanced technology as the pioneer of mini excavator industry.



# 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  $\cdot$  LCD Display with Self-diagnosis Function". It's leading originality ushers the future of mini excavator.

Industry First

#### Auto Idling System

Save up to 10% of fuel with Kubota's Auto Idle. When the control levers are in neutral for more than 4 seconds, the engine RPM automatically idles. Move any control lever and the engine RPM immediately returns. This innovative feature reduces noise and exhaust emissions while reducing operating costs. Even in urban area and during nighttime, you may carry out operations at ease. \*Fuel efficiency may vary per application.

AutoId





#### **Digital Panel**

A digital panel and the Kubota Intelligent Control System (KICS) help reducing excavator downtime and repair fees by providing accurate and timely diagnostic readings and routine maintenance alerts. The panel not only lets you know when fuel is running low, but warns you during refueling when the tank is nearly full.



Instant diagnostic information is shown when an error occurs.



Describe the display content by phone.



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

It is easy to notify the service staff of the situation 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.



## **OPERATION & WORKING**

## Smooth, Quick and Powerful Operation

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

#### NEW-H · M · S Hydraulic System

Kubota adopts "3 pump system", using three independent pumps for boom, arm and swivel to make the co-operation of bucket, boom and swivel smooth and efficient. It mounts high capacity control valve and hydraulic variable pumps to realize superb shoveling and loading performance.



Smooth Operation Thanks to the superb matching performance of each front attachment, realizes efficient and smooth operations.



 Travel on the Straight The machine can travel straight even when the front attachment is operating.

- 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.

Kubata

- Prevention of Boom Lowering Kubota's unique anti-drop valve will prevent natural lowering of boom from its lifting position.
- "H" shaped Track Roller The "H" shaped roller increases lateral stability and operator comfort during travel.
- Backup Power Supply It uses jack as same as cigarette lighter of automobile. (12V)



Backup Power Supply



### **POWER & ENVIRONMENT**



World's

**NO.1** 

High output, low fuel consumption and clean exhaust E-TVCS engine with worldclass performance.

Kubota has been achieving a dominant position in the field of compact industrial diesel engine (below 100 HP).

#### **Clean-running Kubota Engine**

Powerful and dependable, U30-5's diesel engine delivers superior horsepower and performance. It offers low noise and vibration levels, exceptional fuel efficiency, and complies with the EPA's 2008 Interim Tier IV emissions regulations.

Rated output: 20kW(27.2PS)



### **SAFETY & COMFORT**

## World-class safety

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

FOPS-1 stress

analysis graph

#### **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:

**ROPS** stress

analysis graph

- Necessary energy absorption capability
- Necessary load carrying capability
- Ensured operator safe zone
   Fastening components

free of any abnormality

(breakage or crack)

- Low Stress value
- Wide and Comfortable Space

The cabin offers good visibility and wide space, which minimize operator fatigue even for long-hour operation.

- Deluxe High-back Seat
- Swivel Motor With Disk Break

When the engine shuts off, the swivel will be locked automatically. Therefore, swivel lock pin is not needed during transportation.

• Engine Neutral Start

The engine can be started up only when the safety lever is set at locking position.

Engine Start Safety System
 If safety lever is set at locking position, the
 machine will not move preventing accidents
 caused by mis-operation.



#### Service port as standard

- Big value as standard
- Service Port is for breaker, auger, grabber and other attachments.





## Easy Maintenace



We have simplified the jobs for routine maintenance and formal inspection & service. You are able to carry out all operations at ease to keep good machine condition.

#### Simple and Easy Maintenance & Service

Thanks to the full-opening rear and right side bonnets, engine, control valves, and various components are accessible for easy inspection and repair.

#### Right Side Bonnet

Inspection points of the hydraulic system are consolidated at the right side of the machine body for easier access.

#### Rear Side Bonnet

Consolidating engine components onto rear side for quicker and easier access.



 Anti-collision Structure 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.

 Boom Cylinder Protector
 The new, thicker steel plated V-shaped boom cylinder protector safeguards against damage from attachments, rocks or loading.  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.

- 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 on track frame.
- Pilot System with Pipeline Filter
   Pilot filter element is provided to prevent failures
   caused by clogged operation circuit.

## Application

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. You may carry out operations at ease under various special conditions and construction environments. The real world-class Kubota mini excavator is ready to take any challenge.





#### • Working Range of U30-5



#### Specifications

Model			U30-5
Bucket capacity		m <sup>3</sup>	0.09
Std. bucket width: (with/without cutting blade)		mm (ft. in.)	480/430 (1'6.9"/1'4.9")
Operating weight		Kg (lbs.)	3,300 (7,275.2)
Dimensions (In transport condition)	Overall length	mm (ft. in.)	4,485 (14'8.6")
	Overall height	mm (ft. in.)	2,440 (8'0.1")
	Overall width	mm (ft. in.)	1,550 (5'1")
	Min. ground clearance	mm (ft. in.)	290 (0'11.4")
Engine	Model		D1703-M-E3-BH-SG-1
	Total displacement	L (gal)	1.647 (0.435)
	Rated output	kW (HP)	20(27.2)/2,150rpm
Digging Capacity	Max. digging height	mm (ft. in.)	4,600 (15'1.1")
	Max. dumping height	mm (ft. in.)	3,175 (10'5")
	Max. digging depth	mm (ft. in.)	2,880 (9'5.4")
	Max. vertical wall digging depth	mm (ft. in.)	2,305 (7'6.7")
	Max. digging radius	mm (ft. in.)	4,965 (16'3.5")
	Boom swing: right/left	degree	50/70
	Min. slewing radius of front part (swing)	mm (ft. in.)	2,035/1,650 (6'8.1"/5'5")
	Min. slewing radius of rear part	mm (ft. in.)	790 (2'7.1")
	Rear overhang	mm (in.)	15(0.6)
	Max. digging force (bucket)	kgf (lbs.)	2,700 (5952.5)
Track type			Steel
Track width m		mm (ft. in.)	300 (0'11.8")
Travel section	Overall length of track	mm (ft. in.)	2,100 (6'10.7")
	Wheel base	mm (ft. in.)	1,665 (5'5.6")
	Track gauge	mm (ft. in.)	1,250 (4'1.2")
	Travel speed (1st/2nd gear)	km/h (mph)	3.0/4.6 (1.9/2.9)
	Gradeability	degree	30
Swing speed rpn		rpm	9.0
Blade	Blade (width)	mm (ft. in.)	1,550 (5'1")
	Blade (height)	mm (ft. in.)	345 (1'1.6")
	Lift height (GL up/down)	mm (ft. in.)	360/340 (1'2.2"/1'1.4")
Hydraulic pump type			Variable pump × 2 + gear pump × 1
Auxiliary flow L (gal)			38.7 (10.2)
Swing motor type			Hydraulic piston motor
Travel motor type			Hydraulic piston motor
Fuel tank capacity L (gal)			40 (10.6)

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

