



**KOBELCO**

**GENERATION 10**

# **SK EXCAVATORS CONCEPT BOOK**

# SK Series – Generation 10

In 2015, This new SK Series, the Generation 10, addresses global needs, representing the current and future needs and expectations for excavators.

It's a trendsetting new excavator that sets new standards in value. Calling on 85 years of experience in innovation, this machine is the best of the best. From KOBELCO.

The KOBELCO revolutionary pedigree marks a new step forward with the new SK Series.



## 1930 | Japan's first

The 50K electric excavator, Japan's first construction machine, produced by Kobe Steel, Ltd.



## 1963 | Japan's first

Renowned for its hydraulic technology, Yutani Heavy Industries, Ltd. produces Japan's first wheel excavator.



## 1983 | The 1st Generation SK

The first SK Series, drawing upon the combined expertise of Kobe Steel and Yutani Heavy Industries.



## Late 1980s | Design

New products take shape, with rounded forms and sophisticated blue-green color schemes: design that harmonizes with both people and urban work sites.

## <KOBELCO Philosophy>

**We will provide innovative solutions that incorporate our creative “wisdom” and “know-how” based on the needs of users in the field\*.**

\*Focusing on the needs of users in the field, we dedicate ourselves to satisfying our customers by supplying them with products, services, and information that have true value.



### 1998 | Space-saving

KOBELCO introduces the world's first hydraulic excavator with an ultra-small rear swing radius to work easily and efficiently in the developed city job site.



### 2006 | High fuel efficiency

KOBELCO set the pace in boosting fuel efficiency, developing the SK Series, which used 20% less fuel than previous models.



### 2007 | Low noise

The iNDR cooling system significantly reduces operating noise, making KOBELCO machines easier on operators and urban environments.



### 2012 | Hybrid

The 20t-class hybrid excavator delivers the ultimate in energy efficiency, based on the world's first hybrid exhibited at Intermat 2006.





# Durable earth-friendly construction machinery – KOBELCO

Demand for construction machinery has reached a global scale. And with that demand comes a need for quality and durability that can withstand the rigors of urban civil engineering anywhere in the world. And given today's acute awareness of environmental issues, development of eco-friendly technology is a must. KOBELCO reflects its commitment in its branding statement: Durable earth-friendly construction machinery. The world is our stage, and we are moving confidently and aggressively into the future.

<Definition of durable earth-friendly construction machinery>

**Heavy excavators are essential in all kinds of projects around the world – far beyond the civil engineering work sites of the past.**

- Construction machinery that operates continually in the harshest conditions on earth.
- Construction machinery that is clean and environment-friendly.
- Construction machinery that provides solutions to the issues customers face and meets their expectations around the world.

Statement



# 3 promises concerning durable earth-friendly construction machinery

The philosophy behind durable earth-friendly construction machinery is reflected in the New SK Series Generation 10 and its world renowned KOBELCO quality and service.

With the delivery of each SK Series excavator, KOBELCO makes three promises to the customer, ever widening the circle of trust around the world.

## The promises made by KOBELCO's durable earth-friendly construction machinery

### Impressive quality

We believe quality is what the customer says it is.

The label MADE BY KOBELCO says it all. It stands for machinery that delivers exceptionally high fuel efficiency and durability that assures non-stop performance at worksites around the world. And it can only come from KOBELCO's advanced manufacturing technology and strict production control; What's more, remote diagnostic and maintenance systems utilize the latest IT innovations to virtually improve operating ratios and contribute to even lower product lifecycle costs.

### Attention to detail

We pursue a dream, a dream we share with you.

We analyze work sites with great care, listen to the opinions of our customers on the front line of their jobs, and use this feedback to develop unique, advanced technology. We never stop thinking about how to make our machinery safer, more earth friendly, more efficient – better in every way. That technology leads to the creation of our "Only One" machinery philosophy, because a full line manufacturer is a master of none, KOBELCO knows and builds "only" excavators.

### Absolute reliability and a sense of security

Our long history as a Japanese manufacturer strengthens our development capabilities.

Japanese manufacturers are well known for attention to detail and careful execution, and our 85 years of *monozukuri* culture have finely honed our technological prowess. Our close ties with Kobe Steel have given us expertise in both metal materials and machinery. We meld all these skills as we develop and produce products our customers can trust.

*monozukuri* : A Japanese word used to connote the high level of production skill, the mental and spiritual commitment, and the reverence for history held by master craftsmen.



Promise



# Power Meets Efficiency





Concept



# Fuel efficiency — the evolution never stops

Say “We save you fuel” and KOBELCO comes to mind. Historically, the model that personified fuel efficiency was the SK Series Model 8 introduced in 2006. Calling upon our world-renowned, ever-advancing technology, we constantly strive to provide efficient machinery for your demanding job conditions.

## Advanced fuel conservation technology from the constant pursuit of greater operating efficiency

### Boom to arm regeneration system

When lowering the boom, this system uses the downward force generated by the boom's weight to the rod side of the excavator arm to aid in the dumping cycle. This greatly reduces the energy required from the engine and fuel system for the dumping operation.

### New SK200 fuel efficiency

H-mode compared to H-mode  
on the previous SK200-8

Approximately  
**16%**  
increase

- 1 The boom weight puts force on the boom cylinder
- 2 Hydraulic fluid pushed from the boom cylinder goes to the arm cylinder
- 3 Arm cylinder retracts
- 4 Arm extends



## Improved fuel efficiency contributes to high performance

Power to do more faster

### Power Boost

When you need more power instantly, engage Power Boost to get 10% more power.

■ Max. Bucket Digging Force

Normal: **143kN**  
With power boost: **157kN**

■ Max. Arm Crowding Force

Normal: **102kN**  
With power boost: **112kN**

### Top Class Traveling Force

Powerful traveling force and pulling force deliver plenty of speed when climbing slopes or negotiating bad roads, and the agility to change direction swiftly and smoothly.

■ Drawbar Pulling Force: **229kN**

**16%**  
Higher fuel efficiency  
means  
“Efficiency”

Compared to H-mode on the SK200-8

Efficiency

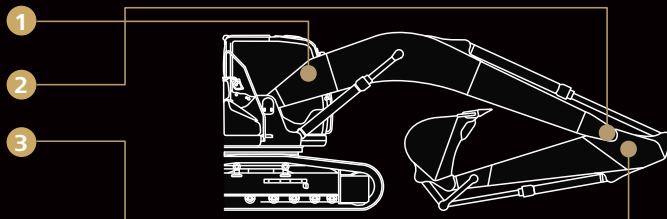




# Power means virtually no downtime

“Power” is the revolutionary concept of Generation 10. Power means greater productivity and an amazingly long service life at all kinds of worksites, all over the globe. KOBELCO strives to offer machines that make downtime a thing of the past.

## Newly developed attachments are reinforced for optimum durability

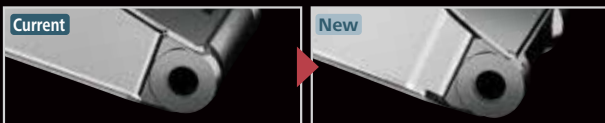


### 2 Enlarged reinforcement of the arm foot



HD: Increased thickness of arm-foot base plate.

### 1 Improved welding techniques at the foot boss



New design spreads load force for exceptional strength.

### 3 Modified foot boss shape



The new boss design further improved strength.

# Toughness

## A filtration system that ensures stable operation

### Hydraulic fluid filter

Recognized as the best in the industry, our super-fine filter separates out even the smallest particles. New cover prevents contamination when changing filters.



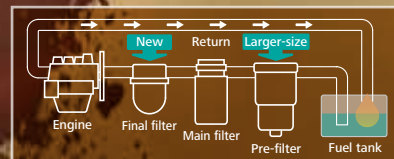
### Metal air cleaner

Metal mesh cover ensures strength and durability.



### Fuel filter

The pre-filter with built-in water-separator has 1.6 times more filter area compared to the previous models. It virtually eliminates foreign particles in the fuel and keeps water out of the fuel system. The final filter in the system also enhances the performance of the entire filtration system.



## Preventive maintenance system backs up KOBELCO's quality and durability

Easy access to maintenance data from the operation management system greatly improves ease of maintenance scheduling and ensures a long service life.

Increase in  
productivity  
means  
"Power"

# "Power meets efficiency" will take us into the next decade

**"Power meets efficiency." With this unique revolutionary value, the New SK Series Generation 10 model moves up to a new stage. Fuel efficiency that maximizes our customers profitability. Durability for tough job sites. KOBELCO has evolved into the company that manufactures durable earth-friendly yet incredibly productive construction machinery the world needs more than ever.**

## Creating future value by keeping ahead of the times

KOBELCO's 85 years of manufacturing construction machinery read like a history of innovation and revolution. We focused our viewpoints on the needs of users in the field, pursued advanced technology with an eye on the future, and consistently produced new values, one after the other. Our SK Series Mark 8 was the first to focus on fuel efficiency, and has earned a solid reputation for "low fuel consumption," demonstrating that KOBELCO is always looking ahead to see what new technology is needed and develop ways of attaining it. Our excavator's "Power", (performance and durability) is another value that has gone unnoticed. At KOBELCO, where we always look for new challenges, taking durability to the next stage has just begun. KOBELCO does not work to keep up with the times; the times have to keep up with KOBELCO. We always strive to stay a step ahead, and we always look to the future.



Future



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Note: This catalog may contain attachments and optional equipment that are not available in your area. And it may contain photographs of machines with specifications that differ from those of machines sold in your areas. Please consult your nearest KOBELCO distributor for those items you require. Due to our policy of continuous product improvements all designs and specifications are subject to change without advance notice. Copyright by **KOBELCO CONSTRUCTION MACHINERY CO., LTD.** No part of this catalog may be reproduced in any manner without notice.

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