

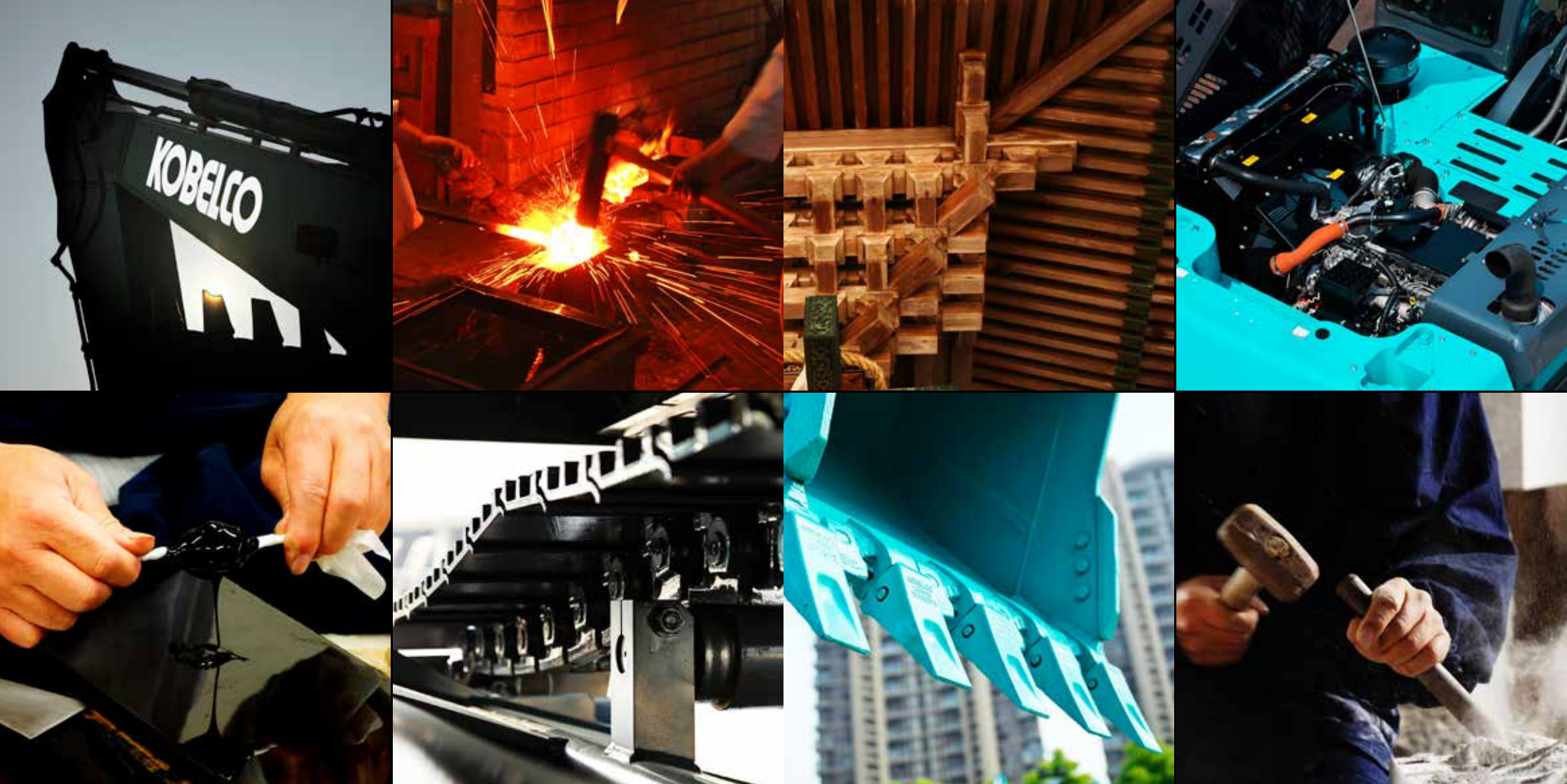


KOBELCO

**KGSP**

CONCEPT BOOK





# KGSP

## In The pursuit of True Value.

Traditional techniques with beauty and quality.

These clearly reflected the spirit of monozukuri, Japanese craftsmanship and manufacturing, that has passed down today. Delicate sensitivity, abundant creativity, and uncompromising handicraft prove our true value. True value makes us proud to hold and love to enjoy for a long time.

To deliver true value, Kobelco has manufactured machines that only Kobelco can manufacture, pursuing a value exceeding expectations. Pouring these thoughts into each and every part, KGSP (Kobelco Global Service Parts).

We will carefully support our customer needs, aiming to achieve genuine products of high quality, without the high costs.

# Filters

Japanese traditional lacquer craft work is known for their glossy coating. Its beauty creates by filtration process.

Lacquer filtering is a process that removes impurities of lacquer that come with being a natural material before painting. In lacquer characteristic of smooth finish, the Japanese washi paper used for filtering is extremely fine with a strong texture.

This quality has been protected by the special craftwork of Japanese paper manufacturers.

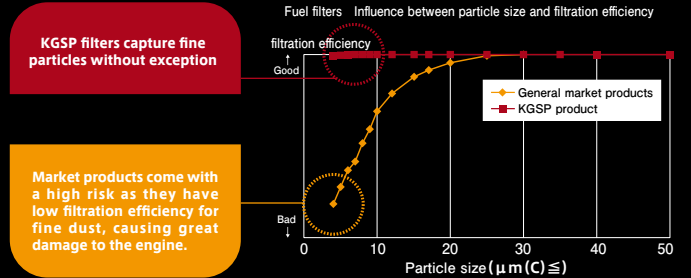
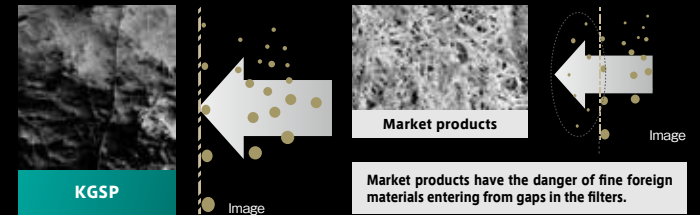
High quality crafts are protected by skilled craftsmen. By adopting high-performance filter paper, KGSP filters capture fine foreign materials and reduce trouble due to contamination.

The cleanliness of the oil is one of the most essential for work efficiency, the life of the machines, and the finishing works. Kobelco supports high quality work with uncompromising quality.



## KGSP Filters (Fuel and Oil)

When using filters that are rough in texture, foreign materials can escape from the gaps causing suction trouble. The KGSP filter uses genuine product level high-performance filter paper. The dense structure can achieve high filtration efficiency that firmly captures fine dust of under 20µm. The possibility of contamination is low, allowing use with confidence. It has also accomplished the same usage time as the genuine product.







Track Link

With commitment to the selection of materials, pursuing thorough management through processing, heat treatment, and assembly operation to achieve superior quality.

K G S P			Market product		
link	bush	pin	link	bush	pin
Stable durability performance is maintained by heat treatment as the same as genuine product level.			Because heat treatment is insufficient, it may cause defects and abnormal wear due to insufficient heat treatment.		



Track roller

Stable quality is realized through an assembly process that thoroughly controls contamination on an exclusive production line. With the adoption and special attention to rubber rings with low temperature performance and the grooves on the seals, this can be used widely in all environments from cold areas to tropical regions

<b>KGSP</b>	Heat Treatment + Induction hardening *For SK 200-08	<b>Market product</b>	No heat treatment of R or edge Induction hardening only, no tempering
Heat treatment with the genuine product level is sufficient durability.		Heat treatment not uniform, quality unstable.	

\*Tempering treatment is the process of stabilizing the metal structure and increasing the hardness of the core portion to improve durability.

# Undercarriage Iron Parts

Japanese swords have a sharpness in the shine that exudes dignified ambience. The key to creating swords with the contradictory properties of hardness and suppleness is heat treatment. Since quenching largely affects the hardness of the blade, it is one of the most tense processes. From the fact that many swordsmen keep the process a secret, it is easy to see how vital it is. It can be said that an excellent edge always comes with a skilled technique. Undercarriage iron parts that continue to support heavy machine body also use heat treatment to increase durability. Insufficient heat treatment can cause defects and abnormal wear, but KGSP undercarriage iron parts are carefully heat treated to enhance durability and thorough quality control. The more you use it, the more you will feel the height of the quality.



Rubber Crawler

KGSP rubber crawlers were reviewed from their basic structure, for quality improvement.

By reviewing the structure, we were able to improve derricking performance and increase breaking power by 15%. In addition, riding comfort was improved by 20% compared with the previous model by adopting a core metal arrangement, shape, and lag pattern in consideration of the elasticity of rubber while running.

## Undercarriage Rubber Parts

Tabi socks that complete Japanese traditional attire with sharpness.

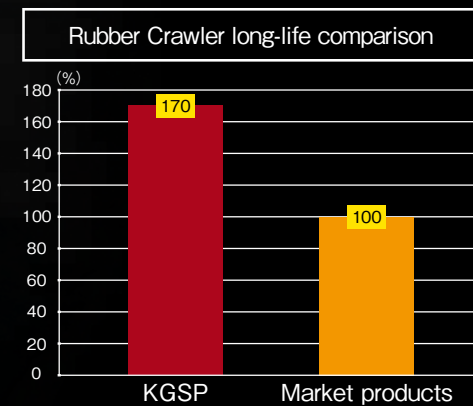
It is said that the prototype of tabi is two pieces of cloth sewn together. By changing the material and shape, these socks evolved over and over again. These tabi are still alive and well today at the worksite, with its snug fit and underfoot grip. The evolution continues while taking advantage of inherited features not only for usability, but also by reducing the burden on the sole and adding work safety features.

Kobelco has also evolved undercarriage features for comfortable footwork.

Undercarriage parts made of rubber requires high durability that is good on the road and to the person.

KGSP rubber parts maintain the quality of genuine products because they are developed without compromising.

They are excellent in abrasion- and damage resistance with consideration to staying firmly in place while driving, yet easy to install.



# Bucket Tooth

From ancient times, stone has been used as building material everywhere in shrines and temples, from entranceways to stairways, and torii gates. Stone structures increased with the prosperity of Buddhism during the Kamakura period. Stone was used for ishigaki dry stone walls of the Azuchi-Momoyama castles. Later, it came to be used in the culture of tea ceremony. As such, stone was processed for various uses with the changing times. Indeed, this must have involved continuous efforts by craftsmen through technical progress and the evolution of tools.

Equipments used at quarries and mines also require the evolution of penetrating power and durability. KGSP's bucket teeth have improved wearability and strengthened manageability by reviewing fitting standards. We will support a wide range of work sites with three types of teeth with equivalent quality of genuine products, depending on application.



**STD Bucket Tooth**  
tooth for general excavation



**Tiger Bucket Tooth**  
tooth for hard sand and earth  
that does not collapse



**Rock Bucket Tooth**  
tooth for quarry and mining

## Horizontal Bucket Tooth Pins [KOBELCO genuine type]

A lineup of sizes to suit all teeth from mini-excavators to 80-ton class machines. Metal materials with excellent wear- and impact resistance are used, and we have carefully pursued additive components, giving the pins longevity at all sites. Tooth shape can be chosen for use as appropriate purpose. (\*20t and over)



The adapter has a stepped portion on one side to attach a retainer (washer).



The pin and retainer are separate.  
\*Pin and retainer guard for 30t only.





# Lubricants

When restoring historic Japanese buildings, only the severely damaged roof tiles are exchanged. Usable tiles can be used for a very long time. Tiles on the Shosoin Repository that completed its restoration in 2014 were very old, some even from when it was constructed during the Nara period (eighth century AD).

It is not easy to create something that can be useful for ages.

What has kept the Shosoin Repository maintained for more than one thousand years is surely the technique and wisdom of craftsmen who have assessed the true essence of strength.

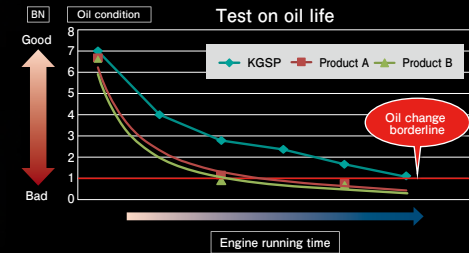
Long-life is advantageous in terms of cost, too. Lubricants help smooth and stable operation and protect the machine from wear. Still, deterioration due to operation is inevitable. KGSP lubricants make use of the know-how of genuine products and bring out the best performance that the machine originally has, giving it a longer life, supporting both performance and cost.



※For Japanese customers

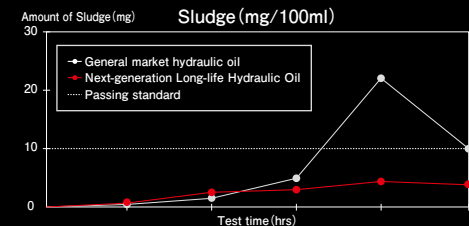
## Multi Next Engine Oil

The Multi Next Engine Oil DH-2 was developed to achieve an oil that would correspond to engines meeting the Tier4A and the Stage3B at a reasonable price. Continued use of oxidized engine oil can damage engine parts, leading to serious failures. This product is excellent in stabilizing oxidation and protects the inside of the engine by controlling oil degradation. It also complies with the Tier3 and the Stage3A.



## Next-Generation Long-Life Hydraulic Oil

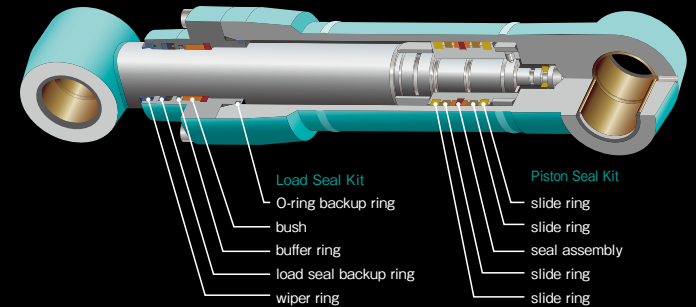
The exchange cycle for Next-Generation Long-Life Hydraulic Oil boasts 5,000 hours, equivalent to genuine products, yet helping to reduce running costs. This product is adopted to non-zinc type hydraulic oil, which prevents sludge that can cause malfunction of hydraulic equipment, and is characterized by very little discoloration. It is also compatible with genuine products, so it can be used as an addition, and not necessarily completely exchanged.





# Seal Kits

Joinery is a technique or a product that assembles wood without using any iron nails or glue, to make wooden products such as drawers and chests. If the joint is unstable, it might reduce the value of the furniture or a tool, so it is necessary to make it solid by calculating usability, the shape of the board, or how the moisture and temperature could change the wood, by making full use of various joining methods. It is this preciseness of craftsmanship that allows the perfect balance of value as a beautiful creation and as a piece of furniture or a tool. KGSP's seal kits too, are made with the skills of a craftsman who knows the machine well. Seal kits require sealing performance and endurance to prevent oil leakage and the intrusion of dust. To meet that requirement, we developed a seal kit with precision design and advanced technical capabilities based on the results of tests simulating cylinder size and movement.



## KGSP Seal Kits

Using a seal kit with low endurance can cause leakage or contamination of hydraulic oil, or the hydraulic drift of an attachment, leading to low work efficiency, not to mention safety issues. Seal kits may be small parts, but for safe, reliable work, at Kobelco, we stand by our quality.

- ① sliding durability test
- ② pressure resistance test
- ③ dust resistance test
- ④ sliding resistance test
- ⑤ vibration test
- ⑥ high pressure aging test
- ⑦ oil resistance test
- ⑧ stick-slip test

### Reliable quality demonstrated by eight different tests.

Reliable quality demonstrated by eight different tests. A seal kit must have the quality to support the smooth and powerful movement of a hydraulic excavator under high temperatures, high pressure, vibration and other severe conditions. Like genuine products, the KGSP seal kit has excellent quality that has cleared all eight quality tests including the sliding durability test, vibration test, and pressure resistance test.

\*Genuine product level quality and durability were ensured through these tests.

## The KGSP seal kits won't wear out!

⟨deformation after endurance test⟩

Endurance tests revealed that the KGSP seal kits have less wear and deterioration compared to the average market product, proving that the seals last longer.

<b>KGSP</b>				
<b>Market product</b>				

● Dotted line... before durability test ● Solid line... after durability test





**KOBELCO**

KOBELCO Construction Machinery Co., Ltd. Parts Business Promotion Dept.

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