

STANDARD EQUIPMENT

ENGINE

- Engine, SAA6D140E-5, diesel engine with turbocharger and intercooler
- Automatic engine deceleration
- Auto Idle Stop (AIS)
- Batteries (2x12V - 190Ah)
- Starting motor (24V - 11kW), 60 amp alternator
- Removable clean-out screen for radiator
- Automatic engine shut-off for low engine oil pressure
- Engine oil pan drain valve
- Double element air cleaner x 2
- Fuel filters
- Fuel pre-filter
- Engine oil filter
- Corrosion register
- Radiator reserve tank

CONTROL

- Working mode selector (H-mode and S-mode)

SWING SYSTEM & TRAVEL SYSTEM

- Swing rebound prevention system
- Straight propel system
- Two-speed travel with automatic shift down
- Sealed & lubricated track links
- Grease-type track adjusters
- Automatic swing brake

HYDRAULIC

- Arm regeneration system
- Auto warm up system
- Aluminum hydraulic oil cooler
- Hydraulic oil filter
- Drain filter

MIRRORS & LIGHTS

- Two rearview mirrors
- Four front and two rear working lights
- Swing flashers

CAB & CONTROL

- Two control levers, pilot-operated
- Tow eyes
- Horn, electric
- Integrated left-right slide-type control box
- Cab, all-weather sound suppressed type
- Ashtray
- Cigarette lighter
- Cab light (interior)
- Coat hook
- Luggage tray
- Large cup holder
- Detachable two-piece floor mat
- 7-way adjustable suspension seat
- Retractable seatbelt
- Headrest
- Handrails
- Heater and defroster
- Intermittent windshield wiper with double-spray washer
- Sunshade
- Skylight
- Tinted safety glass
- Pull-type front window and removable lower front window
- Easy-to-read multi-display monitor
- Automatic air conditioner
- Emergency escape hammer
- Radio, AM/FM Stereo with speakers

OPTIONAL EQUIPMENT

- Wide range of buckets
- Various optional arms
- Wide range of shoes
- Travel alarm
- Boom safety valve
- Front-guard protective structures
- Additional hydraulic circuit

Note: Standard and optional equipment may vary. Consult your KOBELCO dealer for specifics.

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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Inquiries To:

Hydraulic Excavators

ACERA GEOSPEC SUPER

SK850LC

- Bucket Capacity:
2.8 – 5.4 m³ ISO heaped
- Engine Power:
370kW (503 PS)/1,800 min⁻¹(rpm)
(ISO14396)
- Operating Weight:
78,200 kg – 80,500 kg

The Power Wave of Change



Announcing ACERA GEOSPEC and the Concept The Concept of Beautiful Performance.

When we set out to design our new ACERA GEOSPEC hydraulic excavators, we kept our eyes on the big picture. Of course we wanted machines that would sell well, but we didn't want to emphasize one aspect of performance at the expense of other features. So, instead of narrowly focusing on fuel-efficient, economical operation, for example, or on environmental compatibility, or on any other particular feature, we sought to develop well-rounded machines that can balance seemingly contradictory demands. Now, we're proud to introduce the latest member of the ACERA GEOSPEC family—the 80-ton SK850LC. This machine has it all: the highest productivity in its class; a resilient power plant; outstanding durability proven in the field in large building demolition machines; easy transportability; and an environmentally responsible design that reduces fuel consumption and operating costs. In short, the SK850LC satisfies all of the tough conditions that must be met by a large excavator engaged in demanding, continuous operations. So welcome to the birth of a new standard of performance: the 80-ton ACERA GEOSPEC SK850LC. With its efficient, sleek design, it brings a whole new excavating style to the worksite that's tuned to the natural beauty of our world.

NEXT-3E



Pursuing the "Three E's"
The Perfection of Next-Generation,
Network Performance

Enhancement

Greater Performance Capacity

- New hydraulic circuitry minimizes pressure loss
- High-efficiency, electronically controlled Common Rail Fuel Injection Engine
- Powerful travel and arm/bucket digging force
- High-power engine and high swing torque

Economy

Improved Cost Efficiency

- Advanced power plant that reduces fuel consumption
- Easy maintenance that reduces upkeep costs
- Maintenance walk ensures easy access and maintenance
- High structural durability and reliability that retain machine value longer

Environment

Features That Go Easy on the Earth

- Auto Idle Stop as standard equipment
- Noise reduction measures (with improvement of the sound quality) minimize noise and vibration

ACERA
GEOSPEC ACERA GEOSPEC

The "GEO" in GEOSPEC expresses our deep respect for our planet, and for the solid ground where excavators are in their element. This is accompanied by SPEC, which refers to the performance specifications needed to get the job done efficiently as we carry on the tradition of the urban-friendly ACERA series.

The GEOSPEC Difference: Efficient Performance!



Great Productivity and Low Fuel Costs

Advanced hydraulic technology keeps fuel costs low matches pump output with a high efficiency engine that conserves fuel, resulting in great productivity and low fuel costs.

High Swing Torque

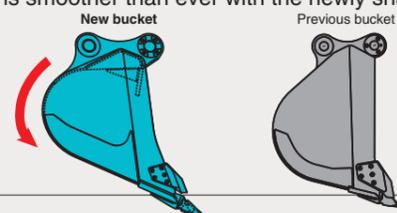
The use of high swing torque delivers a smoother, stronger and swing for faster, more efficient cycle times. It also provides plenty of start-up swing power for safe operation on slopes.

Swing torque: **268 kN·m**

Swing speed: **8.4 min⁻¹**

Plenty of Digging Force

Digging is smoother than ever with the newly shaped bucket.



The sharp edge penetrates more easily.

Max. bucket digging force: **403 kN {41.1 tf}**

Max. arm crowding force: **311 kN {31.7 tf}**

Strongest Travel Power and Drawbar Pulling Force in Its Class!

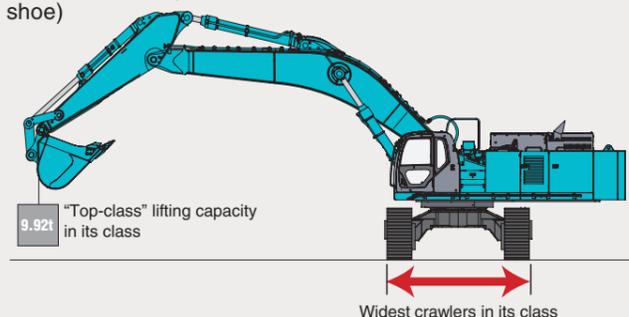
The large-capacity motor delivers the strongest travel power and drawbar pulling force in the machine's class, making it ideal for large civil engineering projects, rock-crushing work, and other power-intensive applications.

Travel speed: **4.2/2.7 km/h**

Drawbar pulling force: **637 kN {65.0 tf}**

Excellent Lateral Stability

The SK850LC has the widest crawlers in its class for outstanding lateral stability. Fitted with a 5.4 m³ bucket, it can safely lift a maximum of 9.92 tons over the side, the most in its class. (Condition: rating over side, 10.7 m reach at G. L., 900 mm shoe)



9.92t "Top-class" lifting capacity in its class

Widest crawlers in its class

Extended Continuous Operation (Large-Capacity Fuel Tank)

The large-capacity fuel tank, combined with higher fuel efficiency, enables the SK850LC to operate continuously for twelve hours.

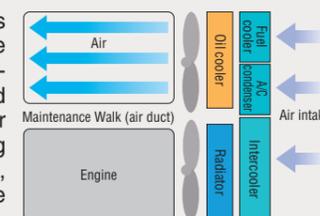
Fuel tank: **960L**

* Continuous digging in S mode. Length of continuous operation will vary with type of operation and load on engine.

New Cooling System

The cooling fan changes speed automatically according to the temperature of the cooling water in the radiator. This prevents overheating when the water temperature rises, allowing continuous, high-load operation. When the water temperature falls, the cooling system operates very quietly, contributing to both low noise and low fuel consumption.

The patented Maintenance Walk as air duct is another KOBELCO innovation that further enhances the cooling system's effectiveness.



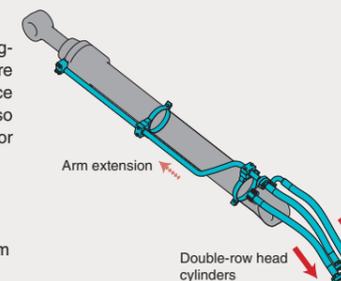
Light-Touch Levers

The operating levers are light and easy to move, reducing operator fatigue over long hours of operation.

Seamless, Smooth Combined Operations

The GEOSPEC machines have inherited the various systems that make inching and combined operations easy and accurate, with further refinements that make a good thing even better. Leveling and other combined operations can be carried out with graceful ease.

- The arm cylinder heads are arranged in a double row to reduce pressure loss in the return line and enhance fuel efficiency. The double row also enables faster arm retraction for better productivity.



- Electronic active control system
- Arm regeneration system
- Boom lowering regeneration system
- Variable swing priority system
- Swing rebound prevention system

1 NEXT-3E Technology New Hydraulic System

Rigorous inspections for pressure loss are performed on all components of the hydraulic piping, from the first spool of the control valve to the connectors. This regimen, combined with the use of a new, high-efficiency pump, cuts energy loss to a minimum.

2 NEXT-3E Technology Next-Generation Electronic Engine Control

The high-pressure, common-rail fuel-injection engine features adjustable control to maximize fuel efficiency and provide powerful medium/low-speed torque. The result is a highly fuel-efficient engine.



3 NEXT-3E Technology Total Tuning Through Advanced ITCS Control

The next-generation engine control is governed by a new version of ITCS, which responds quickly to sudden changes in hydraulic load to ensure that the engine runs as efficiently as possible with a minimum of wasted output.

ITCS (Intelligent Total Control System) is an advanced, computerized system that provides comprehensive control of all machine functions.

Simple Select: Two Digging Modes

H-Mode: For heavy duty when a higher performance level is required.

S-Mode: For normal operations with lower fuel consumption.

Two additional modes for specialized applications:

Attachment Mode Selector Switch (Optional) **NEW!**

There's a choice of three different hydraulic circuits, to accommodate bucket, crusher or breaker, and the desired attachment mode can be selected with a switch, which automatically configures the selector valve. All attachment modes can be used in either S-mode or H-mode.



Dump Counter Is Available

Using the dump counter switch, which operates in tandem with the motor, the operator can display on the monitor and record the number of dumps made.

The GEOSPEC Difference:

The Value and Quality of Sturdy Construction!

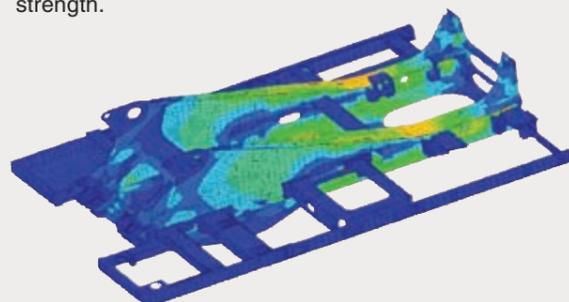
Large excavators are often used on steep, rough roads in mountains and quarries where they are expected to operate continuously for many hours at a time. They have to be durable. The high-strength construction of the SK850LC has already been proven through use in large KOBELCO building demolition machines, and has been carefully scrutinized through 30,000 hours of additional durability testing. It has the tough durability required in all of its components, including the upper and lower body and attachment.

Stable Attachment Strength

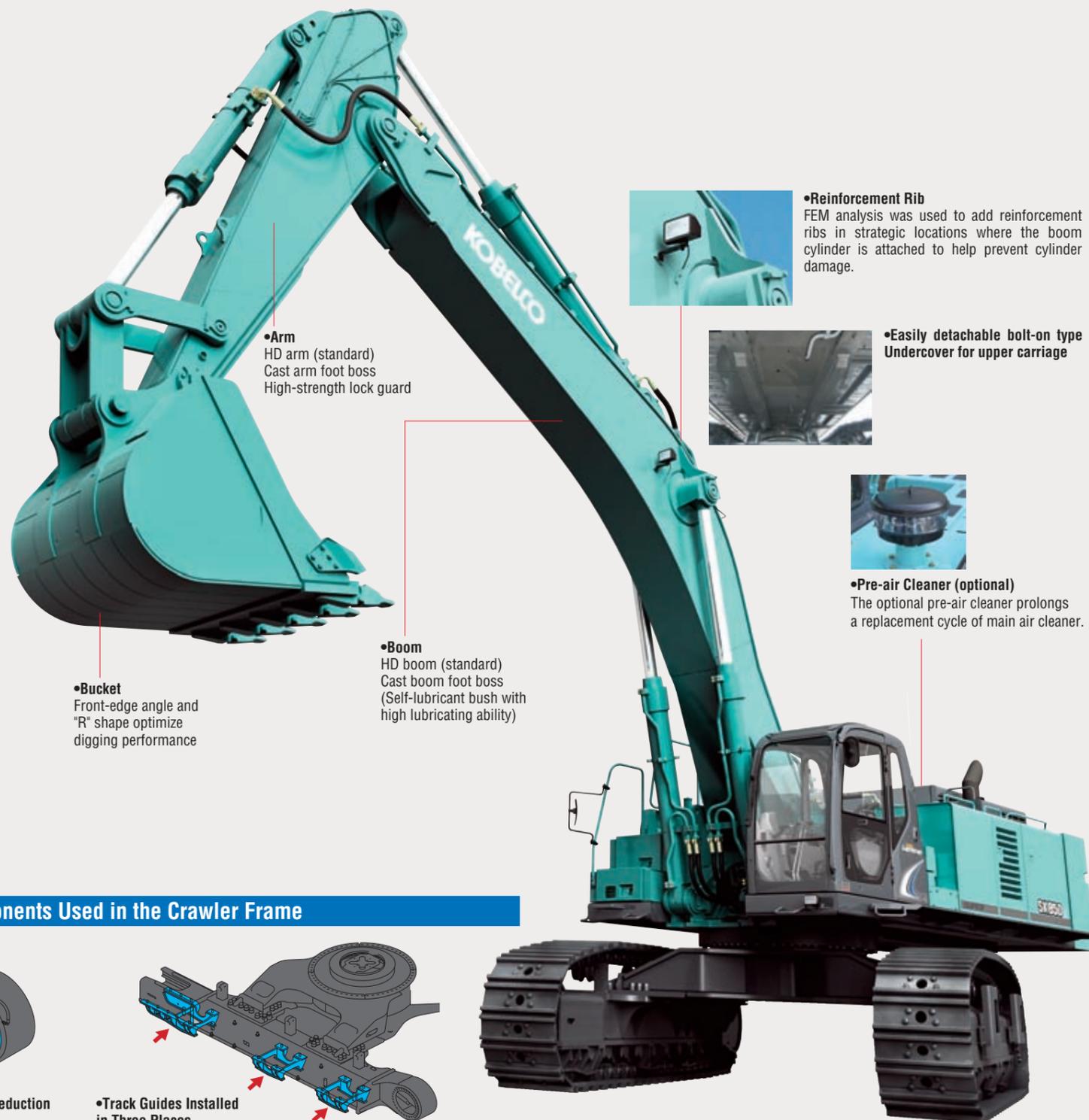
All components are either cast or forged, with HD type boom and arm provided as standard equipment. The balanced design ensures excellent durability even when using a large bucket, providing highly reliable attachment strength.

Upper Frame with High Structural Strength

FEM* analysis was used to determine the best materials, select the steel plate, and create a high-strength design to resulting in an upper frame that features high structural strength.



*FEM (Finite Element Method)
Method of numerical analysis used in structural mechanics



•**Bucket**
Front-edge angle and "R" shape optimize digging performance

•**Arm**
HD arm (standard)
Cast arm foot boss
High-strength lock guard

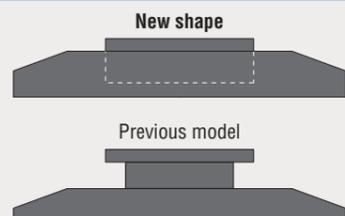
•**Boom**
HD boom (standard)
Cast boom foot boss
(Self-lubricant bush with high lubricating ability)

•**Reinforcement Rib**
FEM analysis was used to add reinforcement ribs in strategic locations where the boom cylinder is attached to help prevent cylinder damage.

•**Easily detachable bolt-on type Undercover for upper carriage**

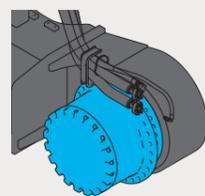
•**Pre-air Cleaner (optional)**
The optional pre-air cleaner prolongs a replacement cycle of main air cleaner.

Strong Carbody Structure

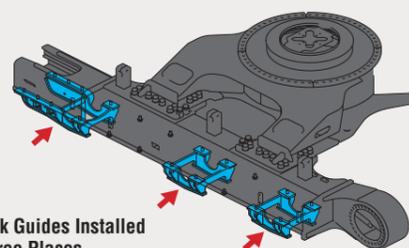


Strength is especially crucial in the carbody. The swing mechanism on the SK850LC is mounted without a column, thereby increasing the carbody's cross-section size for greater strength.

Large Components Used in the Crawler Frame



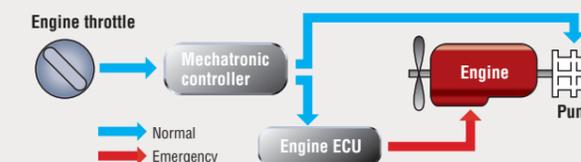
•**Reinforced Travel Reduction Gear Cover**
A high-strength protective cover enhances the durability of the travel reduction gear.



•**Track Guides Installed in Three Places**
Track guides installed in three different places improve travel stability and help prevent the crawlers from coming off the rollers. More track guides can be installed as an option.

Emergency Acceleration (Dial) Permits Continued Operation in the Unlikely Event of Malfunction

If the mechatronic system should happen to malfunction, the ECU will automatically put the engine into high idle (maximum RPM), allowing the operator to continue working until a service specialist can come to repair the machine. During emergency operation, the hydraulic pumps automatically sense any trouble and control hydraulic flow accordingly.



Newly designed MCU

- Vertical alignment and sealed-cover gives better protection from water and dust
- Integration in base plate boosts assembly quality
- Reliable fixture to base plate

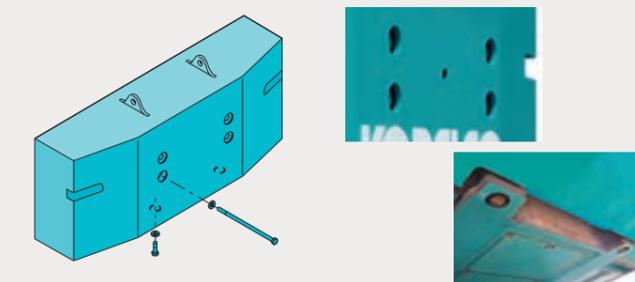
Countermeasures Against Electrical System Failure

All elements of the electrical system, including controller, have been designed for enhanced reliability.

Excellent Transportability

Counterweight Device

The counterweight device operates both vertically and horizontally for safe and efficient onsite assembly and disassembly.



Four Disassembly and Transport Patterns

The SK850LC can be disassembled and transported in four different ways, including: no counterweight, with boom attached; main body only; main body without crawler frame; etc.

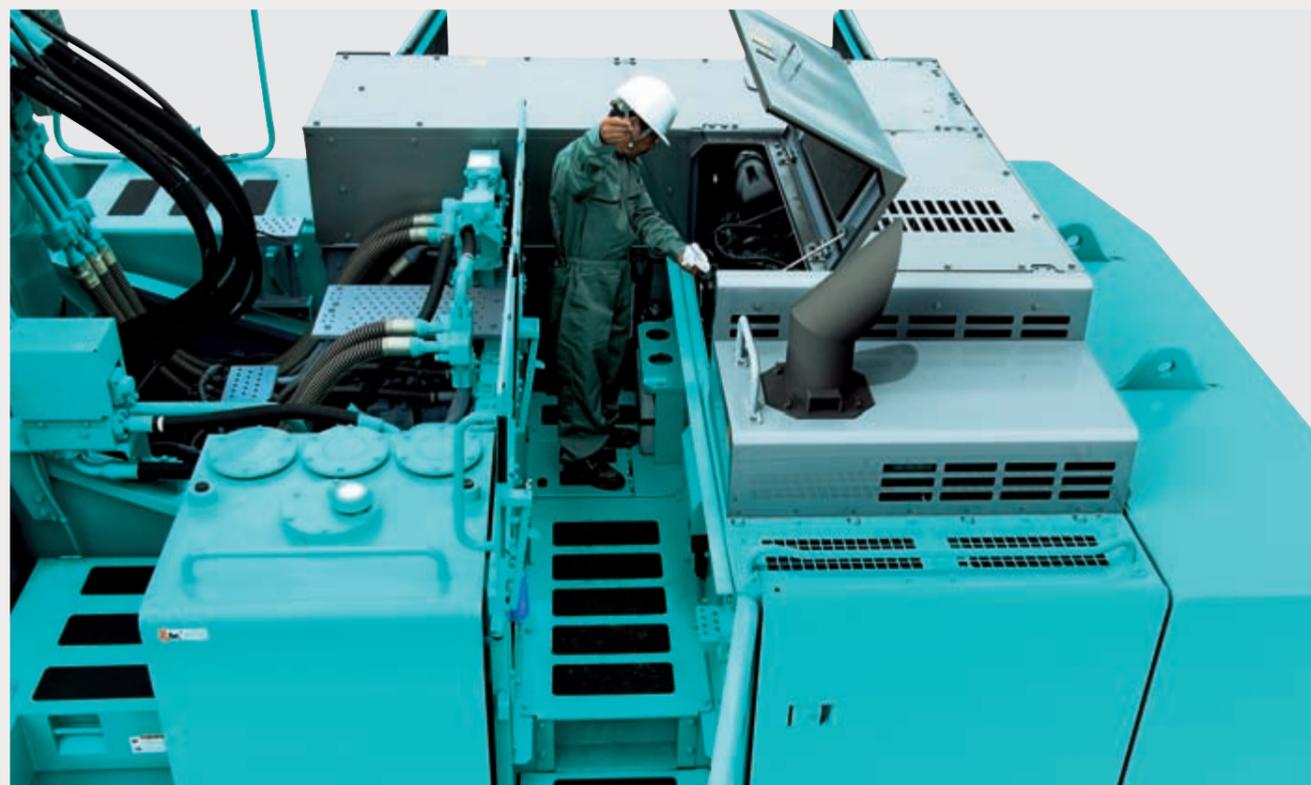
Variable Gauge Crawler

The variable gauge crawler extends the crawlers to a maximum width of 4,300 mm (with 750 mm shoes) for extremely stable operation, and retracts them to a compact minimum width of 3,500 mm for easier transport.

The GEOSPEC Difference:

Easy Maintenance That Supports Large-Scale Operation!

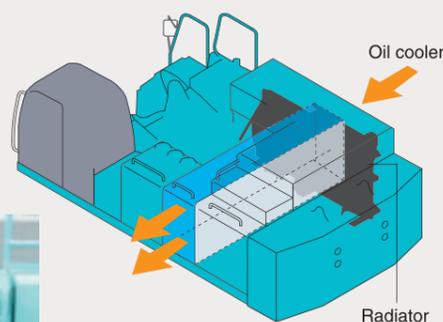
Daily maintenance checks are essential for the successful operation of large, continuously operating excavators. Inspections and maintenance must be quick and easy to maximize productivity. With its maintenance walk, the SK850LC provides easy access to essential components and systems so that more time is spent on the job.



Handrails on top of upper frame and top of counterweight are customized equipment. (Available for Japanese market only)

Maintenance Walk Serves as an Air Duct During Operation

Kobelco's unique design covers the maintenance walk to create an air duct that helps to keep the radiator cool during machine operation.



Easy Inspection of Swing Bearing, Gear and Bolt

A small access port is located in front of the upper frame to make it easier to inspect the swing bearing, gear and bolt.



Photos: Specifications may vary in your areas.

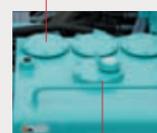
Auto-Coil Grease Gun Holder

- Grease tank
- Lubrication hose
- Fuel tank drain valve



Simple Filtration

- Hydraulic oil filter x 3



- Suction filter

- Battery



Bolted Double Service Doors Open and Close Easily

- Intercooler • A/C condenser • Fuel cooler • Radiator • Oil cooler



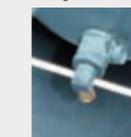
Around the engine compartment



- Fuel filter
- Fuel pre-filter with water separator



- Engine oil drain valve
- Engine oil filter



- Cat walk



- Large tool box



- Drain filter



High-Grade Fuel Filter with Superior Filtration Performance



The high-performance, large capacity filter is designed specially for the common-rail fuel injection engine.

Highly Durable Super-fine Filter



The high-capacity hydraulic oil filter incorporates glass fiber with superior cleaning power and durability. With a replacement cycle of 1,000 hours and a construction that allows replacement of the filter element only, it's both highly effective and highly economical.

- Super-fine filter Long-life hydraulic oil filter: **1,000** hours

More Efficient Maintenance Inside the Cab



- Detachable two-piece floor mat with handles for easy removal. A floor drain is located under the mat.



- Easy-access fuse box. More finely differentiated fuses make it easier to locate malfunctions.



- Air conditioner filter can be easily removed without tools for cleaning.

Monitor Display with Essential Information for Accurate Maintenance Checks



- Displays only the maintenance information that's needed, when it's needed.
- Self-diagnostic function that provides early-warning detection and display of electrical system malfunctions.
- Record previous breakdowns, including irregular and transient malfunctions.

The GEOSPEC Difference:

Designed from the Operator's Point of View



Plenty of Foot Room

Comfortable 1,005 mm-Wide Cab.

Wide Field of View Liberates the Operator



The front field of view easily clears ISO standards, while the peripheral view reduces blind spots to a minimum.

- A long wiper covers a wide area for a broad view in bad weather.
- Back mirrors provide a safe view of the rear.
- Reinforced green glass windows meet European standards.

Wide-Access Cab Ensures Smooth Entry and Exit

The left control box lifts up with the safety lock lever to add 10° to the cab entry angle for easy entrance and exit.



Reduced Vibration for Fatigue-Free Operation

The rigid cab construction and liquid-filled viscous cab mounts minimize cab vibration. In addition, the use of new lower rollers on the crawlers cuts travel vibration in half compared with previous models.

Creating a Comfortable Operating Environment



- Seat can be reclined to horizontal position



- Double slide and suspension seat



- Powerful automatic air conditioner



- Spacious luggage tray



- One-touch lock release simplifies opening and closing the front window



- Large cup holder



- Two-speaker FM radio with station select (Optional)
- New interior design and materials create an elegant feel



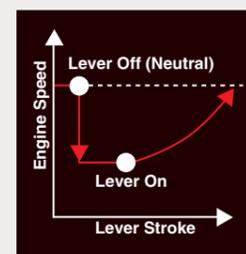
The GEOSPEC Difference:
Designed for the Environment
and the Future!

Auto Idle Stop Provided as Standard Equipment

This function saves fuel and cuts emissions by shutting down the engine automatically when the machine is on stand by. It also stops the hourmeter, which helps to retain the machine's asset value.

Automatic Acceleration/Deceleration Function Reduces Engine Speed

Engine speed is automatically reduced when the control lever is placed in neutral, effectively saving fuel and reducing noise and exhaust emissions. The engine quickly returns to full speed when the lever is moved out of neutral.



Low Noise Level and Mild Sound Quality

The electronically controlled common-rail engine has a unique fuel injection system that runs quietly. Also, the hydraulic pumps have been redesigned to produce a more pleasant sound during pressure relief. In short, the GEOSPEC series meets all requirements cited in latest EU stage II.

Meets EMC (Electromagnetic Compatibility) Standards in Europe.

Measures have been taken to ensure that the GEOSPEC machines do not cause electromagnetic interference.



The GEOSPEC Difference:
Imagining Possible Scenarios
and Preparing in Advance

Safety Features That Take Various Scenarios into Consideration



- Swing flashers/rear working lights



- Hammer for emergency exit lights

- Thermal guard prevents contact with hot components during engine inspections
- Hand rails meet European standards
- Retractable seatbelt requires no manual adjustment



Photos: Specifications may vary in your areas.

Engine

| Model | KOMATSU ASS6D140E-5 |
|---------------------|--|
| Type: | Direct injection, water-cooled, 4-cycle electrically-controlled common rail system type diesel engine with turbocharger, intercooler |
| No. of cylinders: | 6 |
| Bore and stroke: | 140 mm X 165 mm |
| Displacement: | 15.24 L |
| Rated power output: | 370 kW (503 PS) SAE NET at 1,800 min ⁻¹ {rpm} (ISO14396: 2002) |
| Max. torque: | 2,197 N·m at 1,350 min ⁻¹ {rpm} |
| Electrical system: | D.C. 24V |
| Starter: | 24 V, 11 kW |
| Alternator: | 60 AMP |
| Batteries: | 2 X 12 V – 190Ah |

Hydraulic System

| Pump | |
|-----------------------|---|
| Type: | Two variable displacement pumps + 1 gear pump |
| Max. discharge flow: | 2 X 504 L/min, 1 X 30 L/min |
| Relief valve setting | |
| Boom, arm and bucket: | 33.0 MPa {337 kgf/cm ² } |
| Travel circuit: | 33.0 MPa {337 kgf/cm ² } |
| Swing circuit: | 30.0 MPa {306 kgf/cm ² } |
| Control circuit: | 5.0 MPa {50 kgf/cm ² } |
| Pilot control pump: | Gear type |
| Main control valves: | 6-spool |
| Oil cooler: | Air cooled type |

Swing System

| | |
|--------------------------|--|
| Swing motor: | Axial-piston motor |
| Brake: | Hydraulic; locking automatically when the swing control lever is in the neutral position |
| Parking: | Hydraulic disc brake |
| Swing speed: | 8.4 min ⁻¹ {rpm} |
| Swing torque: | 268 kN·m |
| Tail swing radius: | 4,600 mm |
| Min. front swing radius: | 6,340 mm |

Travel System

| | |
|------------------------|---|
| Travel motors: | 2 X axial-piston motor, two-step motors |
| Travel brakes: | Hydraulic disc brake |
| Parking brakes: | Oil disc brake per motor |
| Travel shoes: | 51 each side |
| Travel speed: | 4.2/2.7 km/h |
| Drawbar pulling force: | 637 kN {65,000 kgf} (J1309) |
| Gradeability: | 70 % (35°) |
| Ground clearance: | 850 mm |

Cab & Control

| Cab |
|--|
| All-weather, sound-suppressed steel cab mounted on the silicon-sealed viscous mounts and equipped with a heavy, insulated floor mat. |
| Control |
| Two hand levers and two foot pedals for travel |
| Two hand levers for excavating and swing |
| Electric rotary-type engine throttle |

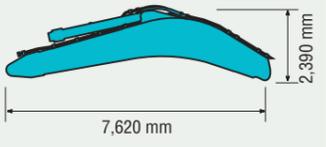
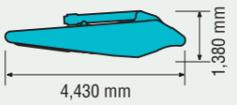
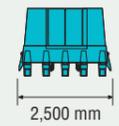
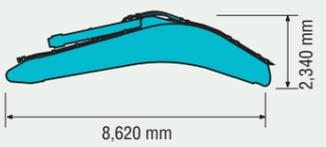
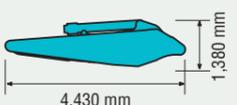
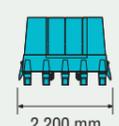
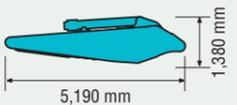
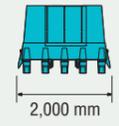
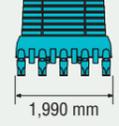
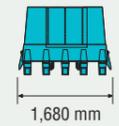
Boom, Arm & Bucket

| | |
|------------------|-------------------|
| Boom cylinders: | 210 mm X 1,800 mm |
| Arm cylinder: | 220 mm X 2,175 mm |
| Bucket cylinder: | 200 mm X 1,570 mm |

Refilling Capacities & Lubrications

| | |
|------------------------|--|
| Fuel tank: | 960 L |
| Cooling system: | 76 L |
| Engine oil: | 58 L |
| Travel reduction gear: | 2 X 22 L |
| Swing reduction gear: | 2 X 21.5 L |
| Hydraulic oil tank: | 473 L tank oil level 856 L hydraulic system |

Boom, Arm and Bucket Combination

| Boom | Arm | Bucket | Application |
|--|---|---|-----------------------------|
| 7.25 m Short Boom Weight: 8,060 kg | 2.9 m Weight: 4,130 kg | 5.4 m ³ Weight: 3,630 kg | Mass Excavation Application |
|  |  |  | |
| 8.25 m Standard Boom Weight: 8,440 kg | 2.9 m Weight: 4,130 kg | 4.6 m ³ Weight: 3,270 kg | Short Arm Application |
|  |  |  | |
| | 3.6 m Weight: 4,240 kg | 3.5 m ³ Weight: 2,610 kg | Standard Arm Application |
| |  |  | |
| | | 3.5 m ³ HD Weight: 3,700 kg | Standard Arm Application |
| | |  | |
| | 4.4 m Weight: 4,730 kg | 2.8 m ³ Weight: 2,370 kg | Long Arm Application |
| |  |  | |

Backhoe bucket and arm combination

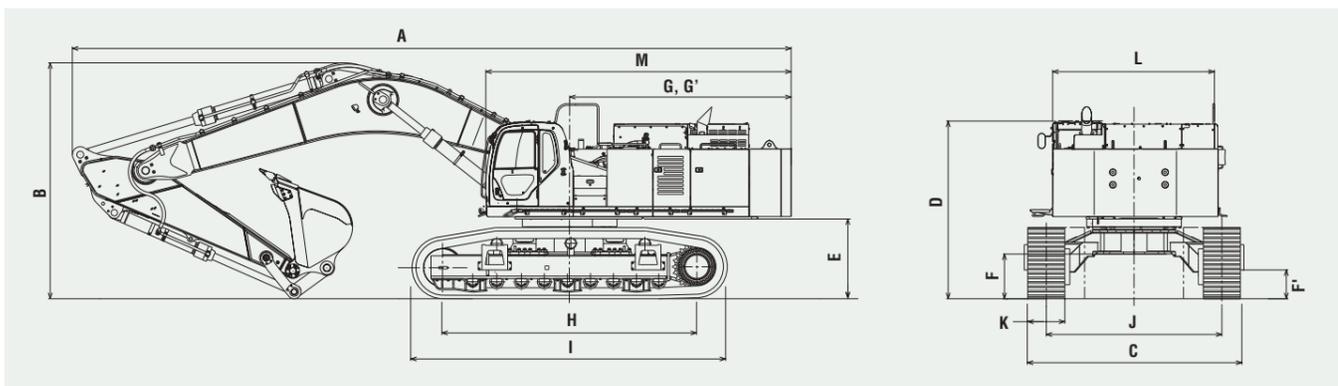
| Use | Backhoe bucket | | | | | |
|---------------------|-------------------------------------|----------------|-------|-------|-------|-------|
| | ISO heaped | m ³ | 2.8 | 3.5 | 4.6 | 5.4 |
| Struck | m ³ | 2.1 | 2.6 | 3.4 | 4.0 | |
| Opening width | With side cutter | mm | 1,680 | 2,000 | 2,200 | 2,500 |
| | Without side cutter | mm | 1,580 | 1,900 | 2,100 | 2,400 |
| No. of bucket teeth | | 5 | 5 | 6 | 6 | |
| Weight | kg | 2,370 | 2,610 | 3,270 | 3,630 | |
| Combinations | 2.9 m short arm | | ○ | ○ | ◎ | △ |
| | 3.6 m standard arm | | ○ | ◎ | △ | — |
| | 4.4 m long arm | | ◎ | △ | — | — |
| | 2.9 m short arm + 7.25 m short boom | | — | — | — | ◎ |

Dimensions

Unit: mm

| Application | Short Arm | Standard Arm | Long Arm | Mass Excavator |
|--|----------------------|--------------|----------|-------------------|
| Arm length | 2.9 m | 3.6 m | 4.4 m | 2.9 m |
| Boom length | 8.25 m Standard Boom | | | 7.25 m Short Boom |
| A Overall length | 14,600 | 14,530 | 14,480 | 13,590 |
| B Overall height (to top of boom) | 4,830 | 4,760 | 5,160 | 4,850 |
| C Overall width | with 750 mm shoe | (Extended) | 4,440 | |
| | | (Retracted) | 3,500 | |
| | with 900 mm shoe | (Extended) | 4,450 | |
| | | (Retracted) | 3,800 | |
| D Overall height (to top of cab) | | | | 3,590 |
| E Ground clearance of rear end* | | | | 1,560 |
| F Ground clearance* | | | | 850 |
| F' Ground clearance* | | | | 580 |
| G Tail swing radius | | | | 4,600 |
| G' Distance from center of swing to rear end | | | | 4,480 |
| H Tumbler distance | | | | 5,140 |
| I Overall length of crawler | | | | 6,370 |
| J Track gauge | with 750 mm shoe | (Extended) | 3,550 | |
| | | (Retracted) | 2,750 | |
| | with 900 mm shoe | (Extended) | 3,550 | |
| | | (Retracted) | 2,900 | |
| K Shoe width | | | | 650/750/900 |
| L Overall width of upperstructure | | | | 3,350 |
| M Overall length of upperstructure | | | | 6,170 |

*Without including height of shoe lug.



Operating Weight & Ground Pressure

Short Arm Application (In standard trim, with 8.25 m standard boom, 2.9 m short arm, and 4.6 m³ bucket)

| | | Double grouser shoe (even height) | | |
|------------------|----------------------------|-----------------------------------|-----------|-----------|
| Shoe width | mm | 650 | 750 | 900 |
| Overall width | mm | 4,440 | 4,440 | 4,450 |
| Ground pressure | kPa (kgf/cm ²) | 107 (1.09) | 93 (0.95) | 79 (0.80) |
| Operating weight | kg | 78,700 | 79,300 | 80,500 |

Standard Arm Application (In standard trim, with 8.25 m standard boom, 3.6 m short arm, and 3.5 m³ bucket)

| | | Double grouser shoe (even height) | | |
|------------------|----------------------------|-----------------------------------|-----------|-----------|
| Shoe width | mm | 650 | 750 | 900 |
| Overall width | mm | 4,440 | 4,440 | 4,450 |
| Ground pressure | kPa (kgf/cm ²) | 106 (1.08) | 92 (0.94) | 78 (0.80) |
| Operating weight | kg | 78,200 | 78,800 | 79,900 |

Long Arm Application (In standard trim, with 8.25 m standard boom, 4.4 m short arm, and 2.8 m³ bucket)

| | | Double grouser shoe (even height) | | |
|------------------|----------------------------|-----------------------------------|-----------|-----------|
| Shoe width | mm | 650 | 750 | 900 |
| Overall width | mm | 4,440 | 4,440 | 4,450 |
| Ground pressure | kPa (kgf/cm ²) | 106 (1.08) | 93 (0.95) | 78 (0.80) |
| Operating weight | kg | 78,400 | 79,100 | 80,200 |

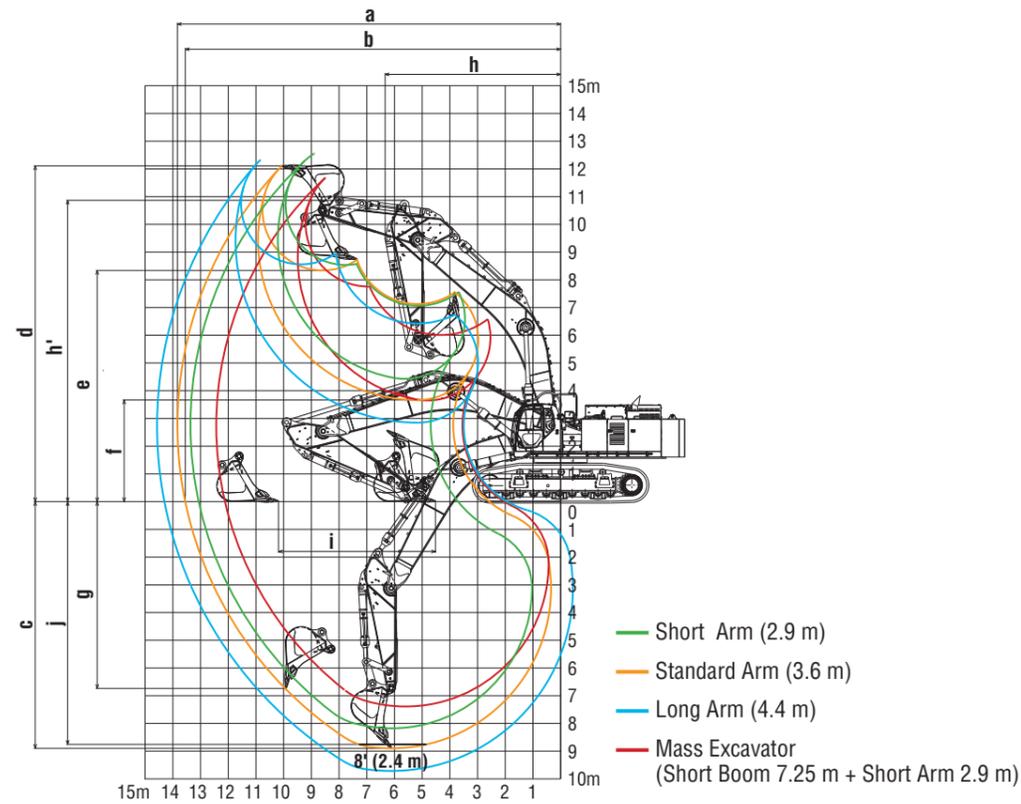
Mass Excavator Arm Application (In standard trim, with 7.25 m standard boom, 2.9 m short arm, and 5.4 m³ bucket)

| | | Double grouser shoe (even height) | | |
|------------------|----------------------------|-----------------------------------|-----------|-----------|
| Shoe width | mm | 650 | 750 | 900 |
| Overall width | mm | 4,440 | 4,440 | 4,450 |
| Ground pressure | kPa (kgf/cm ²) | 107 (1.09) | 93 (0.95) | 79 (0.80) |
| Operating weight | kg | 78,700 | 79,300 | 80,400 |

Transportation Plan

| Configuration | Description | Total weight |
|-------------------|---|--------------|
| Plan 1 | Base machine without counterweight and bucket, with lower structure, 8.25 m standard boom and 3.6 m standard arm. | 62,700 kg |
| Plan 2 | Base machine without counterweight, bucket and arm, with lower structure and 8.25 m standard boom. | 58,500 kg |
| Plan 3 | Base machine with lower structure, without counterweight, bucket, arm and boom. | 48,800 kg |
| Plan 4 | Base machine with carbody, without counterweight, bucket, arm, boom and lower structure. | 24,900 kg |

*Counterweight: 13,400 kg



Working Ranges

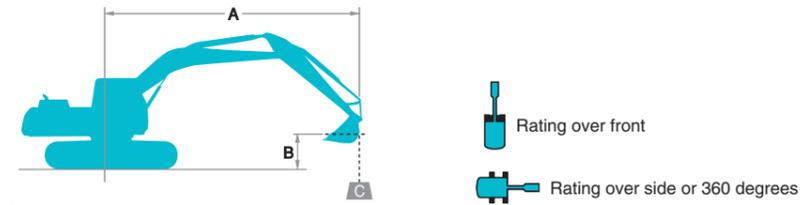
| Application | Short Arm | Standard Arm | Long Arm | Mass Excavator |
|---|----------------------|--------------|-------------------|----------------|
| Arm length | 2.9 m | 3.6 m | 4.4 m | 2.9 m |
| Boom length | 8.25 m Standard Boom | | 7.25 m Short Boom | |
| a - Max. digging reach | 13.48 | 13.83 | 14.56 | 12.45 |
| b - Max. digging reach at ground level | 13.19 | 13.55 | 14.29 | 12.13 |
| c - Max. digging depth | 8.3 | 8.9 | 9.7 | 7.38 |
| d - Max. digging height | 12.34 | 12.11 | 12.35 | 11.69 |
| e - Max. dumping clearance | 8.41 | 8.34 | 8.57 | 7.77 |
| f - Min. dumping clearance | 4.31 | 3.67 | 2.86 | 3.66 |
| g - Max. vertical wall digging depth | 5.16 | 6.74 | 7.48 | 4.42 |
| h - Min. swing radius | 5.74 | 6.34 | 6.34 | 5.47 |
| h' - Height at min. swing radius | 10.89 | 10.87 | 10.87 | 10.24 |
| i - Horizontal digging stroke at ground level | 4.36 | 5.67 | 6.80 | 4.39 |
| j - Digging depth for 2.4 m (8') flat bottom | 8.15 | 8.75 | 9.58 | 7.23 |
| Bucket capacity ISO heaped m ³ | 4.6 | 3.5 | 2.8 | 5.4 |

Unit: m

Digging Force (ISO 6015)

Unit: kN (kgf)

| Application | Short Arm | Standard Arm | Long Arm | Mass Excavator |
|----------------------|-----------------------------|-----------------|-------------------|-----------------|
| Arm length | 2.9 m | 3.6 m | 4.4 m | 2.9 m |
| Boom length | 8.25 m Standard Boom | | 7.25 m Short Boom | |
| Bucket digging force | kN (kgf) 432 {44,100} | 403 {40,900} | 403 {41,100} | 432 {44,100} |
| Arm crowding force | kN (kgf) 351 {35,800} | 311 {31,600} | 272 {27,700} | 351 {35,800} |



A - Reach from swing centerline to bucket hook
 B - Bucket hook height above/below ground
 C - Lifting capacities in kilograms
 • Relief valve setting: 36.0 MPa (367 kgf/cm²)

Short Arm Application

| SK850LC | | Boom: 8.25 m Arm: 2.9 m Bucket: 4.6 m ³ ISO heaped 3,160 kg Shoe: 650 mm | | | | | | | | | | | | | | | | | | | | | |
|---------|----|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------------|--------|---------|---------|---------|---------|---------|---------|
| | | 3.0 m | | 4.5 m | | 6.0 m | | 7.5 m | | 9.0 m | | 10.5 m | | 12.0 m | | Max. Reach | | Radius | | | | | |
| B | A | | | | | | | | | | | | | | | | | | | | | | |
| 10.5 m | kg | | | | | | | | | | | | | | | | | *11,550 | *11,550 | 9.07 m | | | |
| 9.0 m | kg | | | | | | | | | | | | | | | | | *11,250 | *11,250 | 10.19 m | | | |
| 7.5 m | kg | | | | | | | | | *11,850 | *11,850 | *11,200 | *11,200 | | | | | *11,200 | 10,570 | 10.98 m | | | |
| 6.0 m | kg | | | | | | | | | *12,870 | *12,870 | *11,690 | 11,450 | | | | | *11,290 | 9,340 | 11.52 m | | | |
| 4.5 m | kg | | | | | | | | | *21,870 | *21,870 | *16,900 | *16,900 | *14,120 | *14,120 | *12,400 | 11,010 | *11,480 | 8,590 | 11.85 m | | | |
| 3.0 m | kg | | | | | | | | | *25,290 | *25,290 | *18,940 | 18,340 | *15,380 | 13,710 | *13,160 | 10,540 | *11,710 | 8,200 | *11,760 | 8,180 | 11.97 m | |
| 1.5 m | kg | | | | | | | | | *27,410 | 24,280 | *20,520 | 17,320 | *16,440 | 13,050 | *13,820 | 10,130 | | | *12,100 | 8,070 | 11.90 m | |
| G.L. | kg | | | | | | | | | *28,130 | 23,620 | *21,400 | 16,700 | *17,110 | 12,590 | *14,210 | 9,840 | | | *12,490 | 8,270 | 11.63 m | |
| -1.5 m | kg | | | | | | | | | *22,200 | *22,200 | *27,770 | 23,470 | *21,510 | 16,430 | *17,250 | 12,370 | *14,160 | 9,710 | | *12,910 | 8,840 | 11.15 m |
| -3.0 m | kg | *22,670 | *22,670 | *32,630 | *32,630 | *26,450 | 23,680 | *20,790 | 16,470 | *16,670 | 12,390 | | | | | | | | | *13,320 | 9,940 | 10.43 m | |
| -4.5 m | kg | *33,200 | *33,200 | *30,680 | *30,680 | *30,680 | *30,680 | *23,980 | *23,980 | *18,980 | 16,820 | | | | | | | | | *13,630 | 11,980 | 9.40 m | |
| -6.0 m | kg | | | *25,010 | *25,010 | *19,780 | *19,780 | *15,300 | *15,300 | | | | | | | | | | | *13,540 | *13,540 | 7.96 m | |

Standard Arm Application

| SK850LC | | Boom: 8.25 m Arm: 3.6 m Bucket: 3.5 m ³ ISO heaped 2,610 kg Shoe: 650 mm | | | | | | | | | | | | | | | | | | | | | |
|---------|----|---|---------|---------|---------|---------|---------|---------|---------|---------|--------|---------|-------|------------|--|--------|--|--|--|---------|---------|---------|--|
| | | 3.0 m | | 4.5 m | | 6.0 m | | 7.5 m | | 9.0 m | | 10.5 m | | Max. Reach | | Radius | | | | | | | |
| B | A | | | | | | | | | | | | | | | | | | | | | | |
| 9.0 m | kg | | | | | | | | | | | | | | | | | | | | | | |
| 7.5 m | kg | | | | | | | | | | | | | | | | | | | | | | |
| 6.0 m | kg | | | | | | | | | | | | | | | | | | | | | | |
| 4.5 m | kg | | | | | | | | | | | | | | | | | | | | | | |
| 3.0 m | kg | | | | | | | | | | | | | | | | | | | | | | |
| 1.5 m | kg | | | | | | | | | | | | | | | | | | | | | | |
| G.L. | kg | | | | | | | | | | | | | | | | | | | | | | |
| -1.5 m | kg | *16,210 | *18,170 | *27,080 | *27,080 | *28,360 | 23,790 | *21,890 | 16,710 | *17,580 | 12,630 | *14,530 | 9,960 | | | | | | | *13,590 | 9,210 | 11.04 m | |
| -3.0 m | kg | *25,830 | *25,830 | *35,680 | *35,680 | *27,250 | 23,890 | *21,350 | 16,680 | *17,170 | 12,590 | | | | | | | | | *14,290 | 10,260 | 10.31 m | |
| -4.5 m | kg | *34,370 | *34,370 | *32,370 | *32,370 | *25,030 | 24,310 | *19,790 | 16,940 | *15,740 | 12,830 | | | | | | | | | *15,040 | 12,270 | 9.28 m | |
| -6.0 m | kg | *35,580 | *35,580 | *27,020 | *27,020 | *21,200 | *21,200 | *16,600 | *16,600 | | | | | | | | | | | *15,700 | *15,700 | 7.81 m | |

Long Arm Application

| SK850LC | | Boom: 8.25 m Arm: 4.4 m Bucket: 2.8 m ³ ISO heaped 2,380 kg Shoe: 650 mm | | | | | | | | | | | | | | | | | | | | | |
|---------|----|---|---------|---------|---------|---------|---------|---------|--------|---------|--------|---------|-------|--------|--|------------|--|--------|--|---------|---------|---------|--|
| | | 3.0 m | | 4.5 m | | 6.0 m | | 7.5 m | | 9.0 m | | 10.5 m | | 12.0 m | | Max. Reach | | Radius | | | | | |
| B | A | | | | | | | | | | | | | | | | | | | | | | |
| 9.0 m | kg | | | | | | | | | | | | | | | | | | | | | | |
| 7.5 m | kg | | | | | | | | | | | | | | | | | | | | | | |
| 6.0 m | kg | | | | | | | | | | | | | | | | | | | | | | |
| 4.5 m | kg | | | | | | | | | | | | | | | | | | | | | | |
| 3.0 m | kg | | | | | | | | | | | | | | | | | | | | | | |
| 1.5 m | kg | | | | | | | | | | | | | | | | | | | | | | |
| G.L. | kg | | | | | | | | | | | | | | | | | | | | | | |
| -1.5 m | kg | *16,120 | *16,210 | *25,320 | *25,320 | *28,210 | 23,570 | *21,530 | 16,560 | *17,230 | 12,480 | *14,280 | 9,790 | | | | | | | *12,240 | 8,050 | 11.85 m | |
| -3.0 m | kg | *22,270 | *22,270 | *31,750 | *31,750 | *27,710 | 23,460 | *21,450 | 16,370 | *17,200 | 12,320 | *14,100 | 9,700 | | | | | | | *12,900 | 8,820 | 11.17 m | |
| -4.5 m | kg | *29,150 | *29,150 | *34,720 | *34,720 | *26,150 | 23,700 | *20,460 | 16,480 | *16,370 | 12,410 | | | | | | | | | *13,630 | 10,230 | 10.23 m | |
| -6.0 m | kg | *37,520 | *37,520 | *30,320 | *30,320 | *23,230 | *23,230 | *18,230 | 16,900 | | | | | | | | | | | *14,400 | 12,960 | 8.92 m | |
| -7.5 m | kg | | | *23,500 | *23,500 | *18,170 | *18,170 | | | | | | | | | | | | | *14,990 | *14,990 | 7.06 m | |

Mass Excavator Application

| SK850LC | | Boom: 7.25 m Arm: 2.9 m Bucket: 5.4 m ³ ISO heaped 3,570 kg Shoe: 650 mm | | | | | | | | | | | | | | | | | | | | | |
|---------|----|---|---------|---------|---------|---------|---------|---------|--------|---------|--------|--------|--|------------|--|--------|--|--|--|---------|---------|---------|--|
| | | 3.0 m | | 4.5 m | | 6.0 m | | 7.5 m | | 9.0 m | | 10.5 m | | Max. Reach | | Radius | | | | | | | |
| B | A | | | | | | | | | | | | | | | | | | | | | | |
| 9.0 m | kg | | | | | | | | | | | | | | | | | | | | | | |
| 7.5 m | kg | | | | | | | | | | | | | | | | | | | | | | |
| 6.0 m | kg | | | | | | | | | | | | | | | | | | | | | | |
| 4.5 m | kg | | | | | | | | | | | | | | | | | | | | | | |
| 3.0 m | kg | | | | | | | | | | | | | | | | | | | | | | |
| 1.5 m | kg | | | | | | | | | | | | | | | | | | | | | | |
| G.L. | kg | | | | | | | | | | | | | | | | | | | | | | |
| -1.5 m | kg | *21,140 | *21,140 | *36,280 | *36,280 | *29,060 | 24,870 | *22,390 | 17,420 | *17,830 | 13,100 | | | | | | | | | *15,190 | 11,080 | 10.02 m | |
| -3.0 m | kg | *31,710 | *31,710 | *36,250 | *36,250 | *27,320 | 25,000 | *21,180 | 17,460 | *16,450 | 13,200 | | | | | | | | | *15,640 | 12,790 | 9.20 m | |
| -4.5 m | kg | *41,720 | *41,720 | *30,930 | *30,930 | *23,680 | *23,680 | *18,040 | 17,910 | | | | | | | | | | | *15,820 | *15,820 | 8.02 m | |
| -6.0 m | kg | | | *22,110 | *22,110 | *16,500 | *16,500 | | | | | | | | | | | | | *14,900 | *14,900 | 6.25 m | |

Notes:

- Do not attempt to lift or hold any load that is greater than these lift capacities at their specified lift point radius and heights. Weight of all accessories must be deducted from the above lift capacities.
- Lift capacities are based on machine standing on level, firm, and uniform ground. User must make allowance for job conditions such as soft or uneven ground, out of level conditions, side loads, sudden stopping of loads, hazardous conditions, experience of personnel, etc.
- Bucket lift hook defined as lift point.
- The above lifting capacities are in compliance with ISO 10567. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Lifting capacities marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.
- Operator should be fully acquainted with the Operator's and Maintenance Instructions before operating this machine. Rules for safe operation of equipment should be adhered to at all times.
- Lift capacities apply to only machine as originally manufactured and normally equipped by KOBELCO CONSTRUCTION MACHINERY CO., LTD.

