





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**

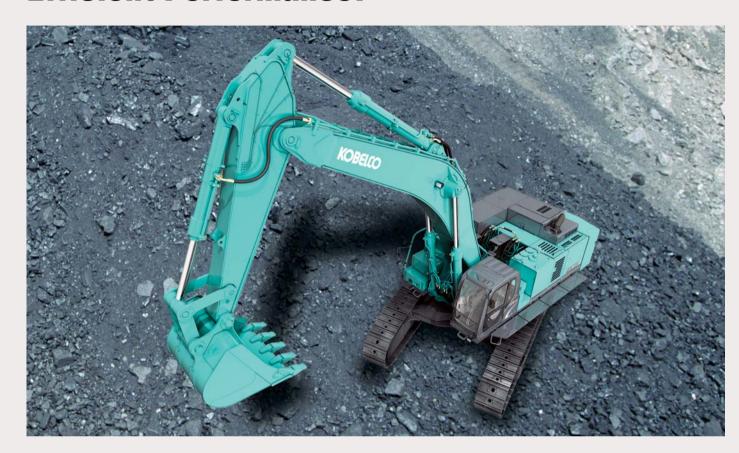
- Auto Idle Stop as standard equipment
- •Noise reduction measures (with improvement of the sound quality) minimize noise and vibration

# GEOSDEC 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.



# **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**

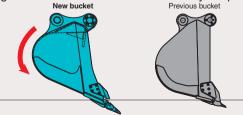
The use of high swing torque delivers a smoother, stronger and swing for faster, more efficient cycle times. It also provides plenty of start-up swing power for safe operation on slopes.

Swing torque:

Swing speed:

### Plenty of Digging Force

Digging is smoother than ever with the newly shaped bucket.



Max. bucket digging force: 403 KN {41.1 tf}

Max. arm crowding force:

# **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:

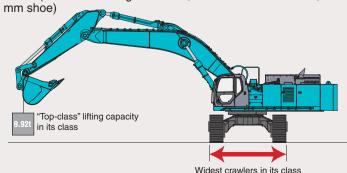
4.2/2.7 km/h

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



# **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

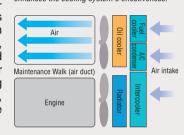
Fuel tank:

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.

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

# **NEXT-3E Technology Next-Generation Electronic Engine Control**

NEXT-3E

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.



# **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)



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 Smode 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.

# **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.



# The Value and Quality of Sturdy Construction!

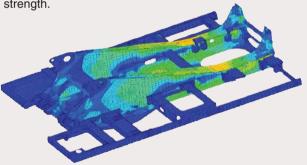
Large excavators are often used on steep, rough roads in mountains and quarries where they are expected to operate continuously for many hours at a time. They have to be durable. The high-strength construction of the SK850LC has already been proven through use in large KOBELCO building demolition machines, 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

# Upper Frame with High Structural Strength

FEM\* analysis was used 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.

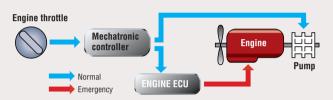


\*FEM (Finite Element Method) Method of numerical analysis used in structural mechanics



# **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

New MCU

Conventional

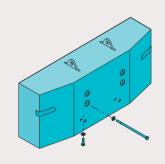
# **Countermeasures Against Electrical System Failure**

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.







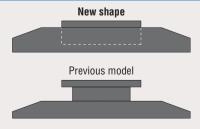
### **Four Disassembly and Transport Patterns**

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

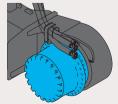
The variable gauge crawler extends the crawlers to a maximum width of 4,300 mm (with 750 mm shoes) for extremely stable operation, and retracts them to a compact minimum width of 3,500 mm for easier

# Strong Carbody Structure



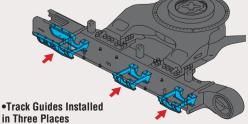
Strength is especially crucial in the carbody. The swing mechanism on the SK850LC is mounted without a column, thereby increasing the carbody's crosssection size for greater strength.

# **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 different places improve travel stability and help prevent the crawlers from coming off the rollers. More track guides can be installed as an option.



# **Easy Maintenance That Supports Large-Scale Operation!**

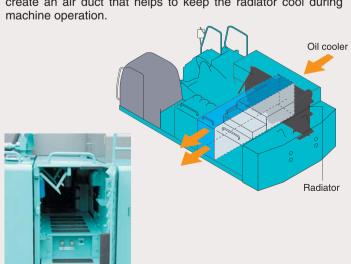
Daily maintenance checks are essential for the successful operation of large, continuously operating excavators. Inspections and maintenance must be quick and easy to maximize productivity. With its maintenance walk, the SK850LC provides easy access to essential components and systems so that more time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



### 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 Bolted Double Service Doors Open and Close Easily** Grease tank Lubrication hose Fuel tank drain valve Around the engine compartmen • Air cleaner Simple Filtration • Hydraulic oil filter x 3 · Cat walk Suction filter 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

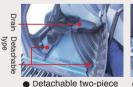
# Highly Durable Super-fine Filter



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



floor mat with handles for easy removal. A floor drain is located locate malfunctions



 Easy-access fuse Air conditioner filter box. More finely differentiated fuses without tools for make it easier to

# **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 earlywarning detection and display of electrical system
- Record previous breakdowns, including irregular and transient malfunctions.



# **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 standards, while 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
- •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**













simplifies opening and

New interior design and materials create an

(Optional)

●Two-speaker FM radio

station

Seat can be reclined to

orizontal position

# The GEOSPEC Difference:

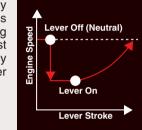
# **Designed for the Environment** and the Future!

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



Photos: Specifications may vary in your areas.





#### Direct injection, water-cooled, 4-cycle electrically-controlled common rail system Type: type diesel engine with turbocharger, intercooler No. of cylinders: Bore and stroke: 140 mm × 165 mm Displacement: 15.24 L 370 kW {503 PS} SAE NET at Rated power output: 1,800 min<sup>-1</sup>{rpm} (ISO14396: 2002) Max. torque: 2,197 N·m at 1,350 min<sup>-1</sup>{rpm} D.C. 24V Electrical system: 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 × 504 L/min, 1 × 30 L/min                   |
| Relief valve setting  |   |
| Boom, arm and bucket: | 33.0 MPa {337 kgf/cm <sup>2</sup> }           |
| Travel circuit:       | 33.0 MPa {337 kgf/cm <sup>2</sup> }           |
| Swing circuit:        | 30.0 MPa {306 kgf/cm <sup>2</sup> }           |
| Control circuit:      | 5.0 MPa {50 kgf/cm <sup>2</sup> }             |
| 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 <sup>-1</sup> {rpm}  |
| Swing torque:            | 268 kN•m   |
| Tail swing radius:       | 4,600 mm   |
| Min. front swing radius: | 6,340 mm   |



| Travel motors:         | 2 × 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                            |
| Drawber pulling force: | 637 kN {65,000 kgf} (J1309)             |
| Gradeability           | 70 % (35°)                              |
| Ground clearance:      | 850 mm                                  |



# Cab & Control

All-weather, sound-suppressed steel cab mounted on the silicon-sealed viscous mounts and equipped with a heavy, insulated floor mat

| m | mt | mu   |
|---|----|------|
|   | ш  | ונים |

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 × 1,800 mm |
|------------------|-------------------|
| Arm cylinder:    | 220 mm × 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<br>856 L hydraulic system |

# **Boom, Arm and Bucket Combination**

| _                    |                  |                                   |                             |
|----------------------|------------------|-----------------------------------|-----------------------------|
| Boom                 | Arm              | Bucket<br>5.4 m³                  | Application                 |
| 7.25 m Short boom    | 2.9 m            |                                   |                             |
| Weight: 8,060 kg     | Weight: 4,130 kg | Weight: 3,630 kg                  |                             |
| 7,620 mm             | 4,430 mm         | 2,500 mm                          | Mass Excavation Application |
| 8.25 m Standard Boom | 2.9 m            | 4.6 m³                            |                             |
| Weight: 8,440 kg     | Weight: 4,130 kg | Weight: 3,270 kg                  |                             |
|                      | 4,430 mm         | 2,200 mm                          | Short Arm Application       |
|                      | 3.6 m            | 3.5 m³ 3.5 m³HD                   |                             |
|                      | Weight: 4,240 kg | Weight: 2,610 kg Weight: 3,700 kg |                             |
| 8,620 mm             | 5,190 mm         | 2,000 mm 1,990 mm                 | Standard Arm Application    |
|                      | 4.4 m            | 2,,8 m³                           |                             |
|                      | Weight: 4,730 kg | Weight: 2,380 kg                  |                             |
|                      | 5,990 mm         | 1,680 mm                          | Long Arm Application        |

#### Backhoe bucket and arm combination

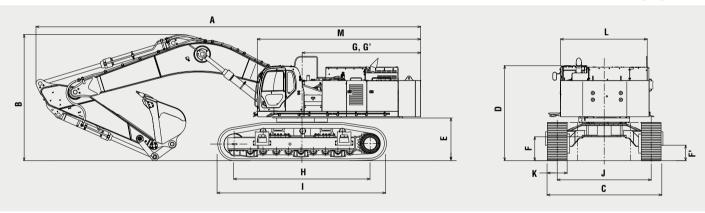
| Use                                 |                        | Backhoe bucket |       |       |       |
|-------------------------------------|------------------------|----------------|-------|-------|-------|
| Dualist sansait.                    | ISO heaped m           | 3 2.8          | 3.5   | 4.6   | 5.4   |
| Bucket capacity                     | Struck m               | 3 2.1          | 2.6   | 3.4   | 4.0   |
| Opening width                       | With side cutter mr    | 1,680          | 2,000 | 2,200 | 2,500 |
| Opening width                       | Without side cutter mr | 1,580          | 1,900 | 2,100 | 2,400 |
| No. of bucket teeth                 |                        | 5              | 5     | 6     | 6     |
| Weight                              | k                      | 2,370          | 2,610 | 3,270 | 3,630 |
|                                     | 2.9 m short arm        | 0              | 0     | 0     | Δ     |
| Combinations                        | 3.6 m standard arm     | 0              | 0     | Δ     | _     |
| Comminations                        | 4.4 m long arm         | 0              | Δ     | _     | _     |
| 2.9 m short arm + 7.25 m short boom |                        | _              | _     | _     | 0     |



# Dimensions

Unit: mm Long Arm 3.6 m 4.4 m 2.9 m 2.9 m 7.25 m Short B Overall length 14,600 14,530 14,480 13,590 Overall height (to top of boom) 4,830 4,760 5,160 4,850 (Extended) 4,440 with 750 mm shoe (Retracted) 3,500 C Overall width 4,450 (Extended) (Retracted) 3,800 3,590 Overall height (to top of cab) Ground clearance of rear end\* 1,560 850 Ground clearance\* 580 Ground clearance\* 4,600 Tail swing radius Distance from center of swing to rear end 4.480 5,140 Tumbler distance Overall length of crawler 6,370 (Extended) 3,550 with 750 mm shoe (Retracted) 2.750 J Track gauge (Extended) 3,550 with 900 mm shoe (Retracted) 2,900 Shoe width 650/750/900 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)

|                  |               | Triple grouser shoe (even height) |           |           |
|------------------|---------------|-----------------------------------|-----------|-----------|
| Shoe width       | mm            | 650                               | 750       | 900       |
| Overall width    | mm            | 4,440                             | 4,440     | 4,440     |
| Ground pressure  | kPa {kgf/cm²} | 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 standard arm, and 3.5 m³ bucket)

| • |               |                                   | ,         |           |
|---|---------------|-----------------------------------|-----------|-----------|
|   |               | Triple grouser shoe (even height) |           |           |
| Shoe width                              | mm            | 650                               | 750       | 900       |
| Overall width                           | mm            | 4,440                             | 4,440     | 4,450     |
| Ground pressure                         | kPa {kgf/cm²} | 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 long arm, and 2.8 m³ bucket)

|                  |               | Triple grouser shoe (even height) |           |           |
|------------------|---------------|-----------------------------------|-----------|-----------|
| Shoe width       | mm            | 650                               | 750       | 900       |
| Overall width    | mm            | 4,440                             | 4,440     | 4,450     |
| Ground pressure  | kPa {kgf/cm²} | 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 short boom, 2.9 m short arm, and 5.4 m³ bucket)

|                  |               | Triple grouser shoe (even height) |           |           |  |
|------------------|---------------|-----------------------------------|-----------|-----------|--|
| Shoe width       | mm            | 650                               | 750       | 900       |  |
| Overall width    | mm            | 4,440                             | 4,440     | 4,450     |  |
| Ground pressure  | kPa {kgf/cm²} | 107 {1.09}                        | 93 {0.95} | 79 {0.80} |  |
| Operating weight | kg            | 78,700                            | 79,300    | 80,400    |  |

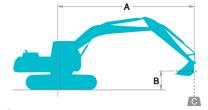
# **Transportation Plan**

| Configuration                                     | Description   | Total weight |
|---|---|--------------|
| Plan 1  13,840 mm  Transportation width: 3,500 mm | 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  12,130 mm  Transportation width: 3,500 mm | Base machine without counterweight, bucket and arm, with lower structure and 8.25 m standard boom.                | 58,500 kg    |
| Plan 3  6,990 mm  Transportation width: 3,500 mm  | Base machine with lower structure, without counterweight, bucket, arm and boom.                                   | 48,800 kg    |
| Plan 4  Figure 1                                  | Base machine with carbody, without counterweight, bucket, arm,boom and lower structure.                           | 24,900 kg    |

<sup>\*</sup>Counterweight: 13,400 kg

# **Lifting Capacities**







- 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**

|        | Α  | 3.0     | ) m         | 4.5     | m            | 6.0     | ) m          | 7.5     | m            | 9.0     | m           | 10.     | 5 m         | 12.0    | 0 m         | Max.    | Reach        |         |
|--------|----|---------|-------------|---------|--------------|---------|--------------|---------|--------------|---------|-------------|---------|-------------|---------|-------------|---------|--------------|---------|
| В      |    | 1       | <del></del> | 1       | <del>-</del> | ı       | <del>-</del> | -       | <del>-</del> |         | <del></del> | 1       | <del></del> | -       | <del></del> |         | <del>-</del> | Radius  |
| 10.5 m | kg |         |             |         |              |         |              |         |              |         |             |         |             |         |             | *11,550 | *11,550      | 9.07 r  |
| 9.0 m  | kg |         |             |         |              |         |              |         |              |         |             |         |             |         |             | *11,250 | *11,250      | 10.19 n |
| 7.5 m  | kg |         |             |         |              |         |              |         |              | *11,850 | *11,850     | *11,200 | *11,200     |         |             | *11,200 | 10,570       | 10.98 n |
| 6.0 m  | kg |         |             |         |              |         |              | *14,790 | *14,790      | *12,870 | *12,870     | *11,690 | 11,450      |         |             | *11,290 | 9,340        | 11.52 n |
| 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 n |
| 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 n |
| 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 n |
| 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      | *23,980 | *23,980      | *18,980 | 16,820       | *14,920 | 12,720      |         |             |         |             | *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 Buc | ket: 3.5 m³  | ISO heaped | 2,610 kg     | Shoe: 650 r | nm           |         |          |         |              |         |             |         |
|---------|----|----------|-------------|-----------|--------------|------------|--------------|-------------|--------------|---------|----------|---------|--------------|---------|-------------|---------|
|         | A  | 3.0      | m           | 4.5       | m            | 6.0        | ) m          | 7.5         | i m          | 9.      | 0 m      | 10.     | 5 m          | Max.    | Reach       |         |
| В       |    |          | <del></del> |           | <del>-</del> |            | <del>-</del> |             | <del>-</del> |         | <b>—</b> |         | <del>-</del> |         | <del></del> | Radius  |
| 9.0 m   | kg |          |             |           |              |            |              |             |              |         |          |         |              | *10,280 | *10,280     | 10.07 m |
| 7.5 m   | kg |          |             |           |              |            |              |             |              |         |          | *11,170 | *11,170      | *10,380 | *10,380     | 10.87 m |
| 6.0 m   | kg |          |             |           |              |            |              |             |              | *12,770 | *12,770  | *11,700 | *11,700      | *10,760 | 10,060      | 11.42 m |
| 4.5 m   | kg |          |             |           |              | *21,290    | *21,290      | *16,670     | *16,670      | *14,060 | *14,060  | *12,450 | 11,390       | *11,410 | 9,210       | 11.75 m |
| 3.0 m   | kg |          |             |           |              | *24,940    | *24,940      | *18,820     | 18,790       | *15,390 | 14,090   | *13,260 | 10,890       | *11.960 | 8,730       | 11.87 m |
| 1.5 m   | kg |          |             |           |              | *27,400    | 24,840       | *20,550     | 17,730       | *16,530 | 13,400   | *13,980 | 10,450       | *12,420 | 8,560       | 11.80 m |
| G. L.   | kg |          |             | *20,070   | *20,070      | *28,460    | 24,050       | *21,600     | 17,040       | *17,310 | 12,900   | *14,460 | 10,130       | *12,960 | 8,700       | 11.53 m |
| -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 Bı | ıcket: 2.8  | m³ ISO hear | ed 2,380     | kg Shoe: 6 | 50 mm        |         |             |         |             |         |             |         |             |         |
|---------|----|---------|-----------|------------|-------------|-------------|--------------|------------|--------------|---------|-------------|---------|-------------|---------|-------------|---------|-------------|---------|
|         | Α  | 3.0     | ) m       | 4.5        | m           | 6.0         | m            | 7.5        | m            | 9.0     | m           | 10.     | 5 m         | 12.0    | 0 m         | Max.    | Reach       |         |
| В       |    |         | <b></b>   |            | <del></del> |             | <del>-</del> |            | <del>-</del> |         | <del></del> |         | <del></del> |         | <del></del> |         | <del></del> | Radius  |
| 9.0 m   | kg |         |           |            |             |             |              |            |              |         |             | *9,760  | *9,760      |         |             | *8,080  | *8,080      | 10.95 m |
| 7.5 m   | kg |         |           |            |             |             |              |            |              |         |             | *10,040 | *10,040     |         |             | *8,100  | *8,100      | 11.69 m |
| 6.0 m   | kg |         |           |            |             |             |              |            |              | *11,540 | *11,540     | *10,670 | *10,670     | *9,500  | 9,260       | *8,320  | *8,320      | 12.20 m |
| 4.5 m   | kg |         |           |            |             |             |              | *15,100    | *15,100      | *12,900 | *12,900     | *11,500 | *11,500     | *10,600 | 8,950       | *8,740  | 8,210       | 12.51 m |
| 3.0 m   | kg |         |           | *26,910    | *26,910     | *22,800     | *22,800      | *17,410    | *17,410      | *14,350 | 14,290      | *12,420 | 10,990      | *11,140 | 8,600       | *9,400  | 7,780       | 12.62 m |
| 1.5 m   | kg |         |           | *19,100    | *19,100     | *25,870     | 25,290       | *19,420    | 17,950       | *15,670 | 13,490      | *13,280 | 10,470      | *11,650 | 8,280       | *10,350 | 7,610       | 12.56 m |
| G. L.   | kg |         |           | *20,730    | *20,730     | *27,650     | 24,120       | *20,830    | 17,070       | *16,670 | 12,880      | *13,940 | 10,050      | *12,010 | 8,030       | *11,670 | 7,680       | 12.30 m |
| -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 Buc | ket: 5.4 m³ | ISO heaped | 3,570 kg     | Shoe: 650 r | nm       |         |          |         |              |         |          |         |
|---------|----|----------|------------|-----------|-------------|------------|--------------|-------------|----------|---------|----------|---------|--------------|---------|----------|---------|
|         |    | 3.0      | ) m        | 4.5       | m           | 6.0        | m            | 7.5         | 5 m      | 9.      | 0 m      | 10.     | 5 m          | Max.    | Reach    |         |
| В       |    |          | <b>—</b>   |           | <b>—</b>    |            | <del>-</del> | l l         | <b>—</b> | 1       | <b>—</b> |         | <del>-</del> |         | <b>—</b> | Radius  |
| 9.0 m   | kg |          |            |           |             |            |              |             |          |         |          |         |              | *11,770 | *11,770  | 8.93 m  |
| 7.5 m   | kg |          |            |           |             |            |              |             |          | *13,290 | *13,290  |         |              | *11,540 | *11,540  | 9.83 m  |
| 6.0 m   | kg |          |            |           |             |            |              | *15,580     | *15,580  | *14,040 | *14,040  |         |              | *11,690 | 11,540   | 10.43 m |
| 4.5 m   | kg |          |            | *30,130   | *30,130     | *21,760    | *21,760      | *17,600     | *17,600  | *15,160 | 14,980   | *13,660 | 11,220       | *12,190 | 10,530   | 10.79 m |
| 3.0 m   | kg |          |            |           |             | *25,450    | *25,450      | *19,690     | 19,400   | *16,370 | 14,310   | *14,260 | 10,870       | *13,050 | 10,020   | 10.93 m |
| 1.5 m   | kg |          |            |           |             | *28,110    | 26,150       | *21,400     | 18,410   | *17,400 | 13,720   | *14,750 | 10,550       | *14,230 | 9,910    | 10.85 m |
| G. L.   | kg |          |            | *27,360   | *27,360     | *29,310    | 25,210       | *22,370     | 17,740   | *17,980 | 13,290   | *14,840 | 10,340       | *14,690 | 10,220   | 10.55 m |
| -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  |

- 1. 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.
- above in 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.

- 4. 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.

  5. 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 an inition.

  C. Lift capacities apply to only machine as originally manufactured and normally equipped by KOBELCO CONSTRUCTION MACHINERY CO., LTD.

# **Working Ranges**

| Working Hangoo                                |           |                      |          | Unit: m           |
|---|-----------|----------------------|----------|-------------------|
| 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 m³                 | 4.6       | 3.5                  | 2.8      | 5.4               |

15m 14 13 12 11 10 9 8 7 6 5 4 3 2 1

— Short Arm (2.9 m) — Standard Arm (3.6 m) Long Arm (4.4 m) Mass Excavator

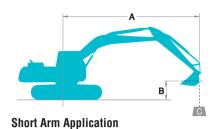
(Short Boom 7.25 m + Short Arm 2.9 m)

# **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<br>{44,100} | 403<br>{40,900}      | 403<br>{41,100} | 432<br>{44,100}   |
| Arm crowding force   | kN {kgf} | 351<br>{35,800} | 311<br>{31,600}      | 272<br>{27,700} | 351<br>{35,800}   |







Rating over side or 360 degrees

- 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)

| SK850LC |    | Boom: 8 | .25 m Arm | ı: 2.9 m Bı | ıcket: 4.6 ı | m³ ISO hear | ed 3,160    | kg Shoe: 7 | '50 mm       |         |              |         |              |         |             |         |              |         |
|---------|----|---------|-----------|-------------|--------------|-------------|-------------|------------|--------------|---------|--------------|---------|--------------|---------|-------------|---------|--------------|---------|
|         | A  | 3.0     | ) m       | 4.5         | m            | 6.0         | m           | 7.5        | m            | 9.0     | m            | 10.     | 5 m          | 12.     | 0 m         | Max.    | Reach        |         |
| В       |    |         | <b></b>   |             | <del></del>  |             | <del></del> | 1          | <del>-</del> | l       | <del>-</del> | 1       | <del>-</del> |         | <del></del> | l       | <del>-</del> | Radius  |
| 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 | 10,670       | 10.98 m |
| 6.0 m   | kg |         |           |             |              |             |             | *14,790    | *14,790      | *12,870 | *12,870      | *11,690 | 11,560       |         |             | *11,290 | 9,440        | 11.52 m |
| 4.5 m   | kg |         |           |             |              | *21,870     | *21,870     | *16,900    | *16,900      | *14,120 | *14,120      | *12,400 | 11,120       |         |             | *11,480 | 8,690        | 11.85 m |
| 3.0 m   | kg |         |           |             |              | *25,290     | *25,290     | *18,940    | 18,510       | *15,380 | 13,850       | *13,160 | 10,650       | *11,710 | 8,290       | *11,760 | 8,280        | 11.97 m |
| 1.5 m   | kg |         |           |             |              | *27,410     | 24,510      | *20,520    | 17,490       | *16,440 | 13,190       | *13,820 | 10,240       |         |             | *12,100 | 8,170        | 11.90 m |
| G. L.   | kg |         |           |             |              | *28,130     | 23,850      | *21,400    | 16,870       | *17,110 | 12,730       | *14,210 | 9,950        |         |             | *12,490 | 8,370        | 11.63 m |
| -1.5 m  | kg |         |           | *22,200     | *22,200      | *27,770     | 23,700      | *21,510    | 16,600       | *17,250 | 12,500       | *14,160 | 9,820        |         |             | *12,910 | 8,940        | 11.15 m |
| -3.0 m  | kg | *22,670 | *22,670   | *32,630     | *32,630      | *26,450     | 23,910      | *20,790    | 16,640       | *16,670 | 12,520       |         |              |         |             | *13,320 | 10,050       | 10.43 m |
| -4.5 m  | kg | *33,200 | *33,200   | *30,680     | *30,680      | *23,980     | *23,980     | *18,980    | 16,990       | *14,920 | 12,850       |         |              |         |             | *13,630 | 12,100       | 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 Buc | ket: 3.5 m³  | ISO heaped | 2,610 kg    | Shoe: 750 r | nm       |         |          |         |             |         |         |         |
|---------|----|----------|--------------|-----------|--------------|------------|-------------|-------------|----------|---------|----------|---------|-------------|---------|---------|---------|
|         | A  | 3.0      | m            | 4.5       | m            | 6.0        | ) m         | 7.5         | i m      | 9.      | 0 m      | 10.     | 5 m         | Max.    | Reach   |         |
| В       |    |          | <del>-</del> |           | <del>-</del> | i          | <del></del> | i           | <b>—</b> |         | <b>—</b> |         | <del></del> |         | <b></b> | Radius  |
| 9.0 m   | kg |          |              |           |              |            |             |             |          |         |          |         |             | *10280  | *10280  | 10.07 m |
| 7.5 m   | kg |          |              |           |              |            |             |             |          |         |          | *11,170 | *11,170     | *10,380 | *10,380 | 10.87 m |
| 6.0 m   | kg |          |              |           |              |            |             |             |          | *12,770 | *12,770  | *11,700 | *11,700     | *10,760 | 9,940   | 11.42 m |
| 4.5 m   | kg |          |              |           |              | *21,290    | *21,290     | *16,670     | *16,670  | *14,060 | *14,060  | *12,450 | 11,260      | *11,410 | 9,100   | 11.75 m |
| 3.0 m   | kg |          |              |           |              | *24,940    | *24,940     | *18,820     | 18,590   | *15,390 | 13,930   | *13,260 | 10,760      | *11.960 | 8,620   | 11.87 m |
| 1.5 m   | kg |          |              |           |              | *27,400    | 24,570      | *20,550     | 17,530   | *16,540 | 13,240   | *13,980 | 10,320      | *12,420 | 8,450   | 11.80 m |
| G. L.   | kg |          |              | *20,080   | *20,080      | *28,460    | 23,780      | *21,600     | 16,850   | *17,310 | 12,750   | *14,460 | 10,000      | *12,960 | 8,580   | 11.53 m |
| -1.5 m  | kg | *18,170  | *18,170      | *27,080   | *27,080      | *28,360    | 23,520      | *21,890     | 16,510   | *17,580 | 12,470   | *14,530 | 9,830       | *13,590 | 9,090   | 11.04 m |
| -3.0 m  | kg | *25,840  | *25,840      | *35,680   | *35,680      | *27,250    | 23,620      | *21,350     | 16,480   | *17,170 | 12,440   |         |             | *14,290 | 10,130  | 10.31 m |
| -4.5 m  | kg | *34,380  | *34,380      | *32,370   | *32,370      | *25,020    | 24,040      | *19,790     | 16,740   | *15,730 | 12,680   |         |             | *15,040 | 12,120  | 9.28 m  |
| -6.0 m  | kg | *35,580  | *35,580      | *27,010   | *27,010      | *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 Bı | ucket: 2.8 | m³ ISO hear | ped 2,380   | kg Shoe:7 | 50 mm    |         |             |         |              |         |             |         |             |         |
|---------|----|---------|-------------|------------|------------|-------------|-------------|-----------|----------|---------|-------------|---------|--------------|---------|-------------|---------|-------------|---------|
|         | Α  | 3.0     | ) m         | 4.5        | m          | 6.0         | m           | 7.5       | i m      | 9.0     | ) m         | 10.     | 5 m          | 12.     | 0 m         | Max. I  | Reach       |         |
| В       |    | ł       | <del></del> | 1          | <b>—</b>   |             | <del></del> | 1         | <b>—</b> |         | <del></del> |         | <del>-</del> | 1       | <del></del> | 1       | <del></del> | Radius  |
| 9.0 m   | kg |         |             |            |            |             |             |           |          |         |             | *9,760  | *9,760       |         |             | *8,080  | *8,080      | 10.95 m |
| 7.5 m   | kg |         |             |            |            |             |             |           |          |         |             | *10,040 | *10,040      |         |             | *8,100  | *8,100      | 11.69 m |
| 6.0 m   | kg |         |             |            |            |             |             |           |          | *11,540 | *11,540     | *10,670 | *10,670      | *9,500  | 9,360       | *8,320  | *8,320      | 12.20 m |
| 4.5 m   | kg |         |             |            |            |             |             | *15,100   | *15,100  | *12,900 | *12,900     | *11,500 | *11,500      | *10,600 | 9,040       | *8,740  | 8,300       | 12.51 m |
| 3.0 m   | kg |         |             | *26,910    | *26,910    | *22,800     | *22,800     | *17,410   | *17,410  | *14,350 | *14,350     | *12,420 | 11,100       | *11,140 | 8,700       | *9,400  | 7,870       | 12.62 m |
| 1.5 m   | kg |         |             | *19,100    | *19,100    | *25,870     | 25,530      | *19,420   | 18,120   | *15,670 | 13,620      | *13,280 | 10,580       | *11,650 | 8,370       | *10,350 | 7,700       | 12.56 m |
| G. L.   | kg |         |             | *20,730    | *20,730    | *27,650     | 24,350      | *20,830   | 17,240   | *16,670 | 13,010      | *13,940 | 10,160       | *12,010 | 8,120       | *11,670 | 7,770       | 12.30 m |
| -1.5 m  | kg | *16,210 | *16,210     | *25,320    | *25,320    | *28,210     | 23,800      | *21,530   | 16,730   | *17,230 | 12,620      | *14,280 | 9,900        |         |             | *12,240 | 8,140       | 11.85 m |
| -3.0 m  | kg | *22,270 | *22,270     | *31,750    | *31,750    | *27,710     | 23,690      | *21,450   | 16,540   | *17,200 | 12,450      | *14,100 | 9,810        |         |             | *12,900 | 8,920       | 11.17 m |
| -4.5 m  | kg | *29,150 | *29,150     | *34,720    | *34,720    | *26,150     | 23,930      | *20,460   | 16,650   | *16,370 | 12,540      |         |              |         |             | *13,630 | 10,350      | 10.23 m |
| -6.0 m  | kg | *37,520 | *37,520     | *30,320    | *30,320    | *23,230     | *23,230     | *18,230   | 17,070   |         |             |         |              |         |             | *14,400 | 13,100      | 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 Buc | ket: 5.4 m³ | ISO heaped | 3,570 kg | Shoe: 750 r | nm       |         |          |         |              |         |          |         |
|---------|----|----------|-------------|-----------|-------------|------------|----------|-------------|----------|---------|----------|---------|--------------|---------|----------|---------|
|         |    | 3.0      | ) m         | 4.5       | m           | 6.0        | ) m      | 7.5         | 5 m      | 9.      | 0 m      | 10.     | 5 m          | Max.    | Reach    |         |
| В       |    |          | <del></del> |           | <b>—</b>    | -          | <b>—</b> | ŀ           | <b>—</b> | 1       | <b>—</b> |         | <del>-</del> |         | <b>—</b> | Radius  |
| 9.0 m   | kg |          |             |           |             |            |          |             |          |         |          |         |              | *11,770 | *11,770  | 8.93 m  |
| 7.5 m   | kg |          |             |           |             |            |          |             |          | *13,290 | *13,290  |         |              | *11,540 | *11,540  | 9.83 m  |
| 6.0 m   | kg |          |             |           |             |            |          | *15,580     | *15,580  | *14,040 | *14,040  |         |              | *11,690 | 11,650   | 10.43 m |
| 4.5 m   | kg |          |             | *30,130   | *30,130     | *21,760    | *21,760  | *17,600     | *17,600  | *15,160 | 15,120   | *13,660 | 11,330       | *12,190 | 10,640   | 10.79 m |
| 3.0 m   | kg |          |             |           |             | *25,450    | *25,450  | *19,690     | 19,570   | *16,370 | 14,450   | *14,260 | 10,980       | *13,050 | 10,120   | 10.93 m |
| 1.5 m   | kg |          |             |           |             | *28,110    | 26,380   | *21,400     | 18,580   | *17,400 | 13,850   | *14,750 | 10,660       | *14,230 | 10,010   | 10.85 m |
| G. L.   | kg |          |             | *27,360   | *27,360     | *29,310    | 25,440   | *22,370     | 17,910   | *17,980 | 13,430   | *14,840 | 10,450       | *14,690 | 10,330   | 10.55 m |
| 1.5 m   | kg | *21,140  | *21,140     | *36,280   | *36,280     | *29,060    | 25,100   | *22,390     | 17,590   | *17,830 | 13,230   |         |              | *15,190 | 11,190   | 10.02 m |
| 3.0 m   | kg | *31,710  | *31,710     | *36,250   | *36,250     | *27,320    | 25,230   | *21,180     | 17,630   | *16,450 | 13,330   |         |              | *15,640 | 12,920   | 9.20 m  |
| 4.5 m   | kg | *41,720  | *41,720     | *30,930   | *30,930     | *23,680    | *23,680  | *18,040     | *18,040  |         |          |         |              | *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  |

#### **Short Arm Application**

| SK850LC |    | Boom: 8 | .25 m Arm | ı: 2.9 m Bı | ıcket: 4.6 | m3 ISO hea | ped 3,160   | kg Shoe: | 900 mm      |         |              |         |              |         |             |         |         |         |
|---------|----|---------|-----------|-------------|------------|------------|-------------|----------|-------------|---------|--------------|---------|--------------|---------|-------------|---------|---------|---------|
|         | Α  | 3.0     | m         | 4.5         | m          | 6.0        | m           | 7.5      | m           | 9.0     | m            | 10.     | 5 m          | 12.0    | ) m         | Max. I  | Reach   |         |
| В       |    | 1       | <b></b>   |             | <b></b>    |            | <del></del> |          | <del></del> | l       | <del>-</del> |         | <del>-</del> | l       | <del></del> |         | <b></b> | Radius  |
| 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 | 10,850  | 10.98 m |
| 6.0 m   | kg |         |           |             |            |            |             | *14,790  | *14,790     | *12,870 | *12,870      | *11,690 | *11,690      |         |             | *11,290 | 9,610   | 11.52 m |
| 4.5 m   | kg |         |           |             |            | *21,870    | *21,870     | *16,900  | *16,900     | *14,120 | *14,120      | *12,400 | 11,300       |         |             | *11,480 | 8,850   | 11.85 m |
| 3.0 m   | kg |         |           |             |            | *25,290    | *25,290     | *18,940  | 18,800      | *15,380 | 14,070       | *13,160 | 10,830       | *11,710 | 8,450       | *11,760 | 8,440   | 11.97 m |
| 1.5 m   | kg |         |           |             |            | *27,410    | 24,910      | *20,520  | 17,780      | *16,440 | 13,410       | *13,820 | 10,420       |         |             | *12,100 | 8,330   | 11.90 m |
| G. L.   | kg |         |           |             |            | *28,130    | 24,240      | *21,400  | 17,150      | *17,110 | 12,950       | *14,210 | 10,130       |         |             | *12,490 | 8,530   | 11.63 m |
| -1.5 m  | kg |         |           | *22,200     | *22,200    | *27,770    | 24,090      | *21,510  | 16,880      | *17,250 | 12,730       | *14,160 | 10,010       |         |             | *12,910 | 9,110   | 11.15 m |
| -3.0 m  | kg | *22,670 | *22,670   | *32,630     | *32,630    | *26,450    | 24,300      | *20,790  | 16,920      | *16,670 | 12,750       |         |              |         |             | *13,320 | 10,240  | 10.43 m |
| -4.5 m  | kg | *33,200 | *33,200   | *30,680     | *30,680    | *23,980    | *23,980     | *18,980  | 17,270      | *14,920 | 13,080       |         |              |         |             | *13,630 | 12,320  | 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 m³ ISO heaped 2,610 kg Shoe: 900 mm |    |         |          |         |          |         |          |         |          |         |          |         |          |            |          |         |  |
|---|----|---------|----------|---------|----------|---------|----------|---------|----------|---------|----------|---------|----------|------------|----------|---------|--|
|   | А  | 3.0     | m        | 4.5     | m        | 6.0 m   |          | 7.5 m   |          | 9.0 m   |          | 10.5 m  |          | Max. Reach |          |         |  |
| В   |    | l l     | <b>—</b> |         | <b>—</b> | 1       | <b>—</b> | ı       | <b>—</b> | 1       | <b>—</b> | -       | <b>—</b> | 1          | <b>—</b> | Radius  |  |
| 9.0 m   | kg |         |          |         |          |         |          |         |          |         |          |         |          | *10,280    | *10,280  | 10.07 m |  |
| 7.5 m   | kg |         |          |         |          |         |          |         |          |         |          | *11,170 | *11,170  | *10,380    | 10,380   | 10.87 m |  |
| 6.0 m   | kg |         |          |         |          |         |          |         |          | *12,770 | *12,770  | *11,700 | *11,700  | *10,760    | 10,320   | 11.42 m |  |
| 4.5 m   | kg |         |          |         |          | *21,290 | *21,290  | *16,670 | *16,670  | *14,060 | *14,060  | *12,450 | 11,690   | *11,410    | 9,470    | 11.75 m |  |
| 3.0 m   | kg |         |          |         |          | *24,940 | *24,940  | *18,820 | *18,820  | *15,390 | 14,450   | *13,260 | 11,190   | *11.960    | 8,990    | 11.87 m |  |
| 1.5 m   | kg |         |          |         |          | *27,400 | 25,470   | *20,550 | 18,180   | *16,530 | 13,760   | *13,980 | 10,750   | *12,420    | 8,820    | 11.80 m |  |
| G. L.   | kg |         |          | *20,700 | *20,700  | *28,460 | 24,670   | *21,600 | 17,500   | *17,310 | 13,260   | *14,460 | 10,420   | *12,960    | 8,960    | 11.53 m |  |
| 1.5 m   | kg | *18,170 | *18,170  | *27,080 | *27,080  | *28,360 | 24,410   | *21,890 | 17,160   | *17,580 | 12,990   | *14,530 | 10,260   | *13,590    | 9,490    | 11.04 m |  |
| 3.0 m   | kg | *25,830 | *25,830  | *35,680 | *35,680  | *27,250 | 24,520   | *21,350 | 17,130   | *17,170 | 12,950   |         |          | *14,290    | 10,560   | 10.31 m |  |
| 4.5 m   | kg | *34,370 | *34,370  | *32,370 | *32,370  | *25,030 | 24,940   | *19,790 | 17,390   | *15,740 | 13,190   |         |          | *15,040    | 12,610   | 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 m³ ISO heaped 2,380 kg Shoe:900 mm |         |             |         |             |         |              |         |              |         |             |         |         |         |              |            |              |         |
|---------|--|---------|-------------|---------|-------------|---------|--------------|---------|--------------|---------|-------------|---------|---------|---------|--------------|------------|--------------|---------|
| A       |  | 3.0 m   |             | 4.5 m   |             | 6.0 m   |              | 7.5     | m            | 9.0 m   |             | 10.5 m  |         | 12.0 m  |              | Max. Reach |              |         |
| В       |  |         | <del></del> | 1       | <del></del> |         | <del>-</del> |         | <del>-</del> |         | <del></del> |         | <b></b> |         | <del>-</del> |            | <del>-</del> | Radius  |
| 9.0 m   | kg   |         |             |         |             |         |              |         |              |         |             | *9,760  | *9,760  |         |              | *8,080     | *8,080       | 10.95 m |
| 7.5 m   | kg   |         |             |         |             |         |              |         |              |         |             | *10,040 | *10,040 |         |              | *8,100     | *8,100       | 11.69 m |
| 6.0 m   | kg   |         |             |         |             |         |              |         |              | *11,540 | *11,540     | *10,670 | *10,670 | *9,500  | *9,500       | *8,320     | *8,320       | 12.20 m |
| 4.5 m   | kg   |         |             |         |             |         |              | *15,100 | *15,100      | *12,900 | *12,900     | *11,500 | *11,500 | *10,600 | 9,200        | *8,740     | 8,450        | 12.51 m |
| 3.0 m   | kg   |         |             | *26,910 | *26,910     | *22,800 | *22,800      | *17,410 | *17,410      | *14,350 | *14,350     | *12,420 | 11,280  | *11,140 | 8,860        | *9,400     | 8,020        | 12.62 m |
| 1.5 m   | kg   |         |             | *19,100 | *19,100     | *25,870 | *25,870      | *19,420 | 18,410       | *15,670 | 13,850      | *13,280 | 10,760  | *11,650 | 8,530        | *10,350    | 7,850        | 12.56 m |
| G. L.   | kg   |         |             | *20,730 | *20,730     | *27,650 | 24,740       | *20,830 | 17,530       | *16,670 | 13,230      | *13,940 | 10,350  | *12,010 | 8,280        | *11,670    | 7,930        | 12.30 m |
| -1.5 m  | kg   | *16,210 | *16,210     | *25,320 | *25,320     | *28,210 | 24,190       | *21,530 | 17,020       | *17,230 | 12,840      | *14,280 | 10,080  |         |              | *12,240    | 8,310        | 11.85 m |
| -3.0 m  | kg   | *22,270 | *22,270     | *31,750 | *31,750     | *27,710 | 24,080       | *21,450 | 16,830       | *17,200 | 12,680      | *14,100 | 10,000  |         |              | *12,900    | 9,090        | 11.17 m |
| -4.5 m  | kg   | *29,150 | *29,150     | *34,720 | *34,720     | *26,150 | 24,320       | *20,460 | 16,940       | *16,370 | 12,760      |         |         |         |              | *13,630    | 10,540       | 10.23 m |
| -6.0 m  | kg   | *37,520 | *37,520     | *30,320 | *30,320     | *23,230 | *23,230      | *18,230 | 17,350       |         |             |         |         |         |              | *14,400    | 13,320       | 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 Buc | ket: 5.4 m³  | ISO heaped | 3,570 kg     | Shoe: 900 r | nm       |         |             |         |          |            |         |         |
|---------|----|----------|-----------|-----------|--------------|------------|--------------|-------------|----------|---------|-------------|---------|----------|------------|---------|---------|
|         |    | 3.0 m    |           | 4.5 m     |              | 6.0 mm     |              | 7.5 m       |          | 9.0 m   |             | 10.5 m  |          | Max. Reach |         |         |
| В       |    |          | <b>—</b>  |           | <del>-</del> |            | <del>-</del> |             | <b>—</b> |         | <del></del> |         | <b>—</b> | <b>↓</b>   | Radius  |         |
| 9.0 m   | kg |          |           |           |              |            |              |             |          |         |             |         |          | *11,770    | *11,770 | 8.93 m  |
| 7.5 m   | kg |          |           |           |              |            |              |             |          | *13,290 | *13,290     |         |          | *11,540    | *11,540 | 9.83 m  |
| 6.0 m   | kg |          |           |           |              |            |              | *15,580     | *15,580  | *14,040 | *14,040     |         |          | *11,690    | *11,690 | 10.43 m |
| 4.5 m   | kg |          |           | *30,130   | *30,130      | *21,760    | *21,760      | *17,600     | *17,600  | *15,160 | *15,160     | *13,660 | 11,520   | *12,190    | 10,820  | 10.79 m |
| 3.0 m   | kg |          |           |           |              | *25,450    | *25,450      | *19,690     | *19,690  | *16,370 | 14,670      | *14,260 | 11,170   | *13,050    | 10,300  | 10.93 m |
| 1.5 m   | kg |          |           |           |              | *28,110    | 26,770       | *21,400     | 18,870   | *17,400 | 14,080      | *14,750 | 10,850   | *14,230    | 10,190  | 10.85 m |
| G. L.   | kg |          |           | *27,360   | *27,360      | *29,310    | 25,840       | *22,370     | 18,190   | *17,980 | 13,650      | *14,840 | 10,630   | *14,690    | 10,520  | 10.55 m |
| -1.5 m  | kg | *21,140  | *21,140   | *36,280   | *36,280      | *29,060    | 25,500       | *22,390     | 17,880   | *17,830 | 13,460      |         |          | *15,190    | 11,390  | 10.02 m |
| -3.0 m  | kg | *31,710  | *31,710   | *36,250   | *36,250      | *27,320    | 25,620       | *21,180     | 17,910   | *16,450 | 13,560      |         |          | *15,640    | 13,140  | 9.20 m  |
| -4.5 m  | kg | *41,720  | *41,720   | *30,930   | *30,930      | *23,680    | *23,680      | *18,040     | *18,040  |         |             |         |          | *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  |

- 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.
- above in 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.

- 4. 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.

  5. 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.
- 6. Lift capacities apply to only machine as originally manufactured and normally equipped by KOBELCO CONSTRUCTION MACHINERY CO., LTD.



### STANDARD EQUIPMENT

#### FNGINE

- 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.

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