

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 X

SK850_{LC}

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

Announcing ACERA GEOSPEC and the Concept of Beautiful Performance.

The Power Wave of Change

When we set out to design our new hydraulic excavators, we kept our eyes on the big picture.
Of course we wanted machines with greater digging capacity.
But they also had to be fuel-efficient and economical, while imposing less of a burden on the local and global environments.
Applying our advanced technologies, we developed KOBELCO's new ACERA GEOSPEC series,
an entirely new kind of excavator that beautifully balances all the demands of today's construction industry.
Lean and efficient with capacity to spare, these sleek powerhouses bring a whole new style to the worksite while setting
new standards for environmental responsibility.



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

Economy

Improved Cost Efficiency

- Advanced power plant that reduces fuel consumption
- Easy maintenance that reduces upkeep costs
- 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



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

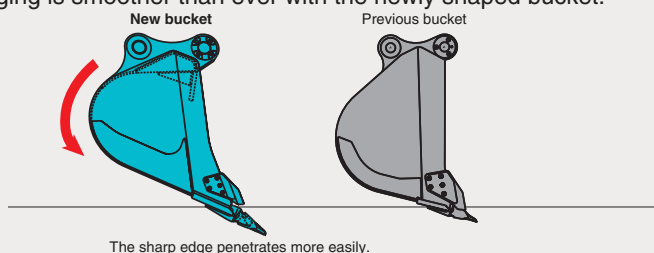
The use of high swing torque delivers a smoother, stronger and swing for faster, more efficient cycle times. It also provides plenty of start-up swing power for safe operation on slopes.

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.



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!

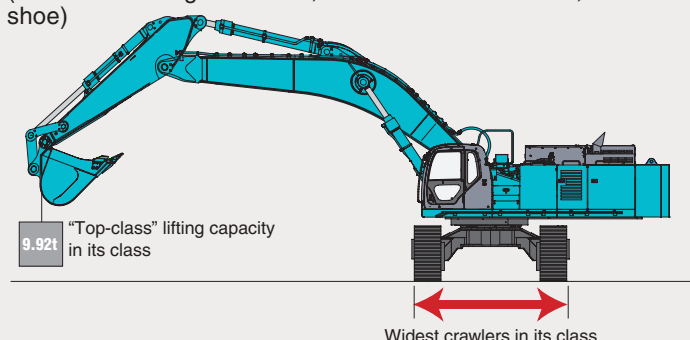
The large-capacity motor delivers the strongest travel power and drawbar pulling force in the machine's class, making it ideal for large civil engineering projects, rock-crushing work, and other power-intensive applications.

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)



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.

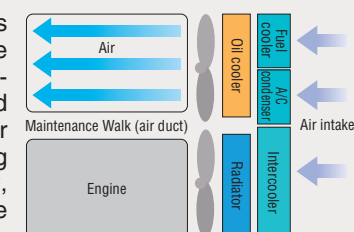
Fuel tank: **960L**

* 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.



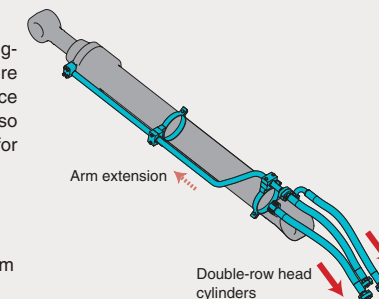
Light-Touch Levers

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.

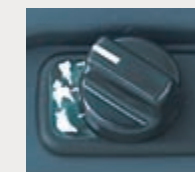
S-Mode:

For normal operations with lower fuel consumption.

Two additional modes for specialized applications:

Optional Attachment Mode Selector Switch

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!

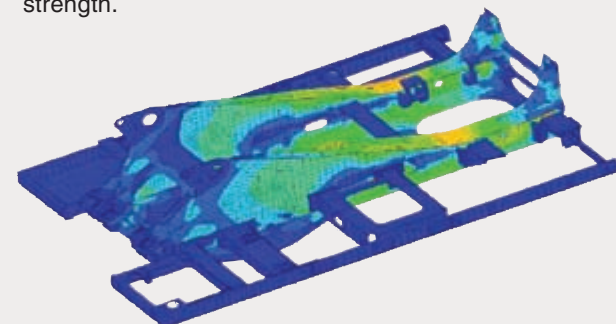
Large excavators are often used on steep, rough roads in mountains and quarries where they are expected to operate continuously for many hours at a time. They have to be durable. The high-strength construction of the SK850LC has already been proven through use in large KOBELCO building demolition machines,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

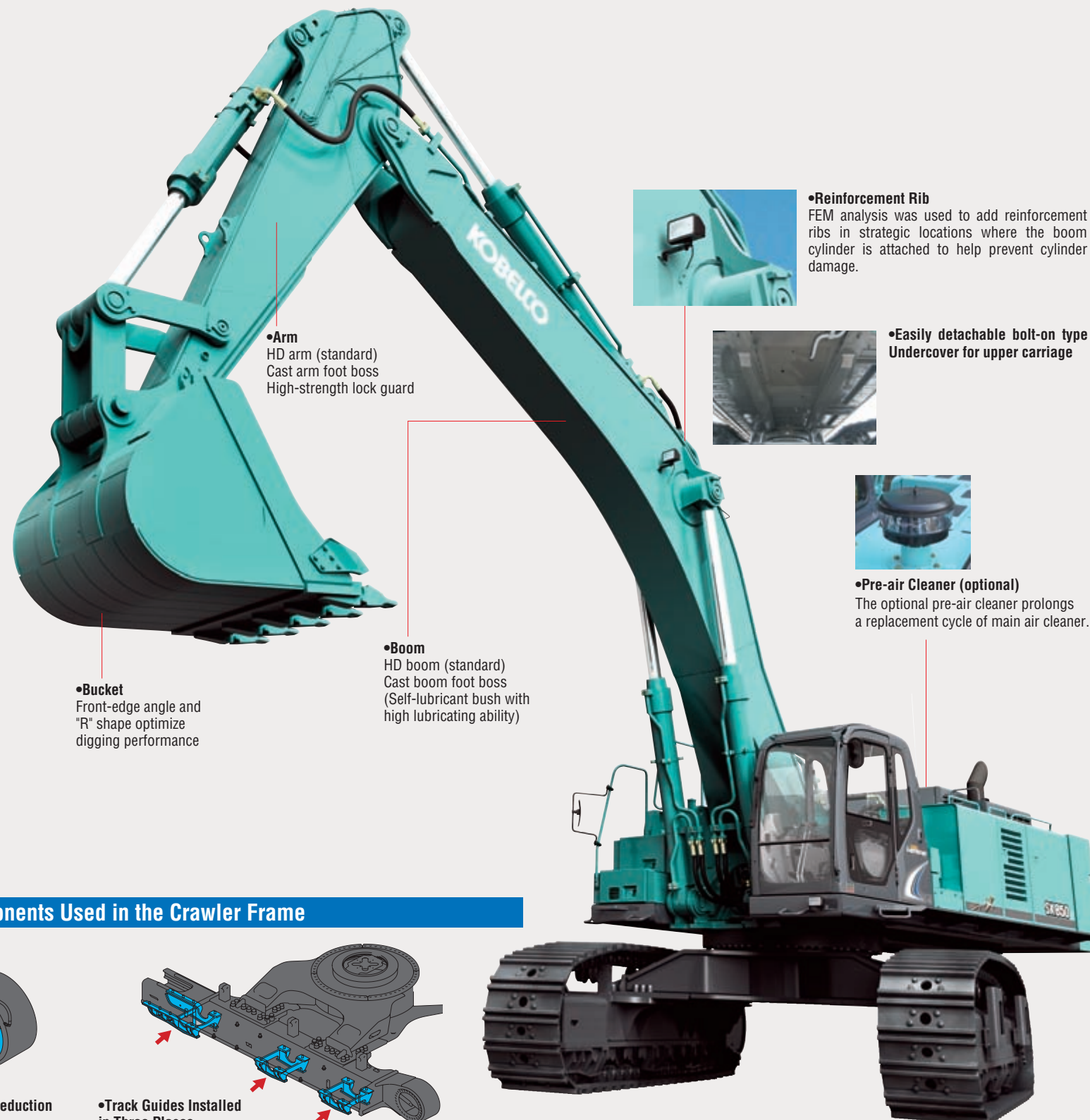
All components are either cast or forged, with HD type boom and arm provided as standard equipment. The balanced design ensures excellent durability even when using a large bucket, providing highly reliable attachment strength.

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



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

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

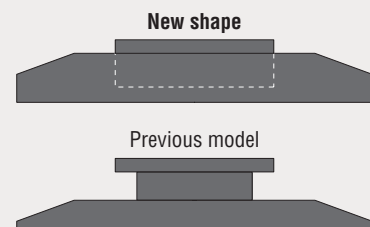
•Boom
HD boom (standard)
Cast boom foot boss
(Self-lubricant bush with
high lubricating ability)

•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

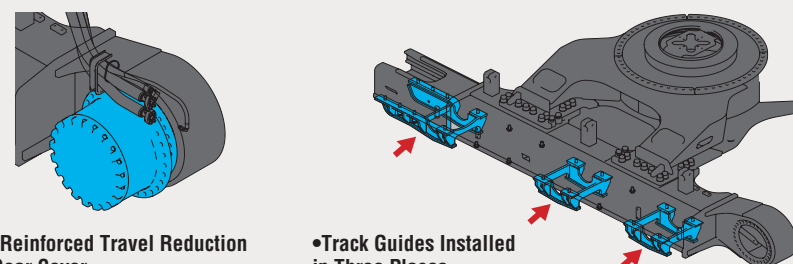
•Pre-air Cleaner (optional)
The optional pre-air cleaner prolongs
a replacement cycle of main air cleaner.

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

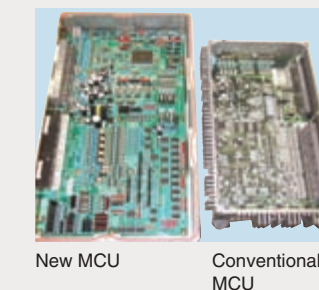
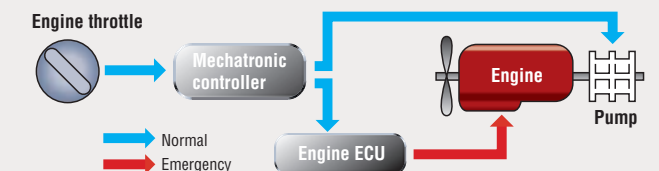


•Reinforced Travel Reduction
Gear Cover
A high-strength protective
cover enhances the dura-
bility of the travel reduc-
tion gear.

•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

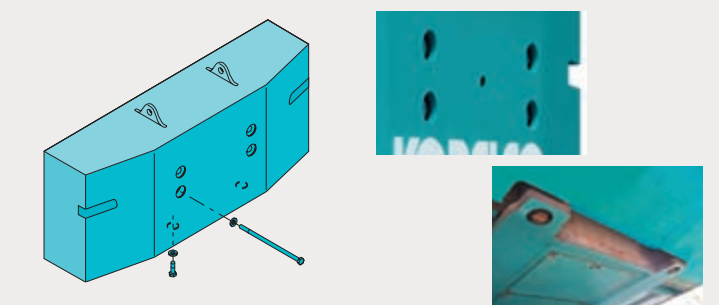
Countermeasures Against Electrical System Failure

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!

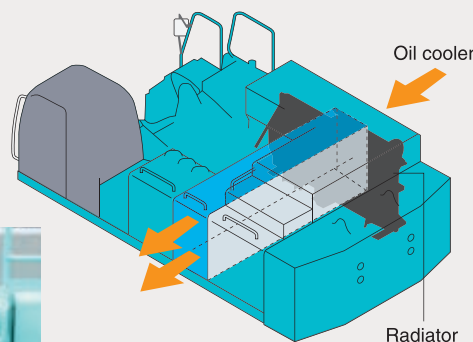
Daily maintenance checks are essential for the successful operation of large, continuously operating excavators. Inspections and maintenance must be quick and easy to maximize productivity. With its maintenance walk, the SK850LC provides easy access to essential components and systems so that more time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

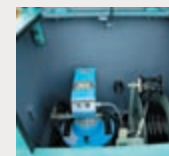
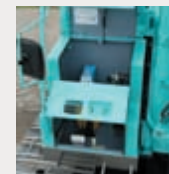
A small access port is located in front of the upper frame to make it easier to inspect the swing bearing, gear and bolt.



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

- Air cleaner



Bolted Double Service Doors Open and Close Easily

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



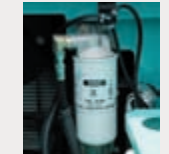
Around the engine compartment



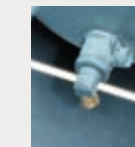
- Fuel filter



- Fuel pre-filter with water separator



- Engine oil drain valve



- Engine oil filter



- Cat walk



- Battery



- Drain filter



- Large tool box



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



- 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.

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:

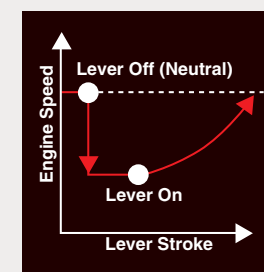
Designed for the Environment and the Future!

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 SAA6D140E-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 × 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 × 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/cm²}
Travel circuit:	33.0 MPa {337 kgf/cm²}
Swing circuit:	30.0 MPa {306 kgf/cm²}
Control circuit:	5.0 MPa {50 kgf/cm²}
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 × 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

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 × 1,800 mm
Arm cylinder:	220 mm × 2,175 mm
Bucket cylinder:	200 mm × 1,570 mm



Refilling Capacities & Lubrications

Fuel tank:	960 L
Cooling system:	76 L
Engine oil:	58 L
Travel reduction gear:	2 × 22 L
Swing reduction gear:	2 × 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	2.9 m	5.4 m³	Mass Excavation Application
Weight: 8,060 kg	Weight: 4,130 kg	Weight: 3,630 kg	
			Short Arm Application
8.25 m Standard Boom	2.9 m	4.6 m³	
Weight: 8,440 kg	Weight: 4,130 kg	Weight: 3,270 kg	
			Standard Arm Application
	3.6 m	3.5 m³	
	Weight: 4,240 kg	Weight: 2,610 kg	
			Long Arm Application
	4.4 m	2.8 m³	
	Weight: 4,730 kg	Weight: 2,370 kg	

Backhoe bucket and arm combination

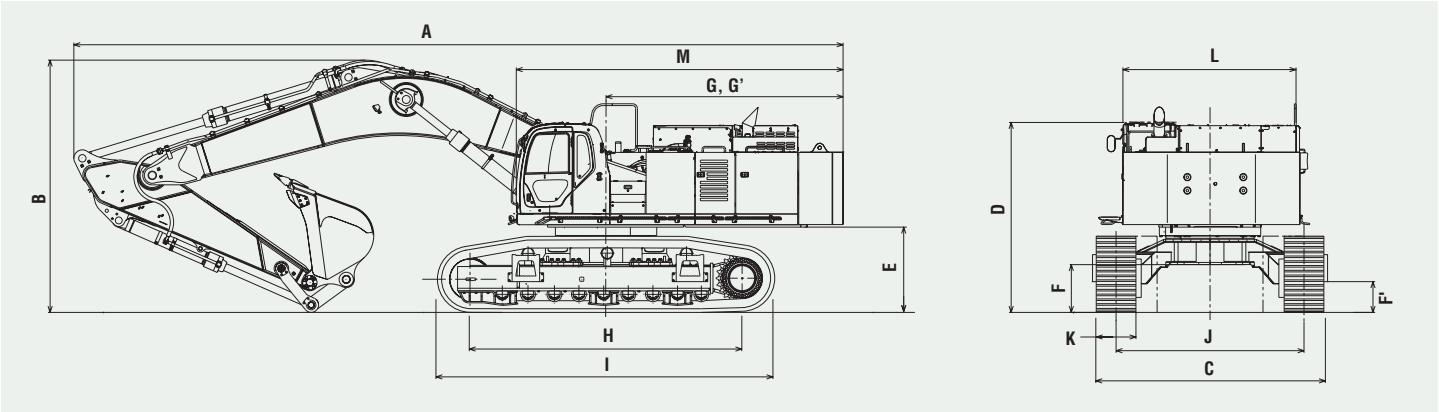
Use	Backhoe bucket				
Bucket capacity	ISO heaped	m³	2.8	3.5	4.6
	Struck	m³	2.1	2.6	3.4
Opening width	With side cutter	mm	1,680	2,000	2,200
	Without side cutter	mm	1,580	1,900	2,100
No. of bucket teeth			5	5	6
Weight		kg	2,370	2,610	3,270
Combinations	2.9 m short arm		○	○	◎
	3.6 m standard arm		○	◎	△
	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/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 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/cm²)	106 (1.08)	92 (0.94)	78 (0.80)
Operating weight	kg	78,200	78,800	79,900

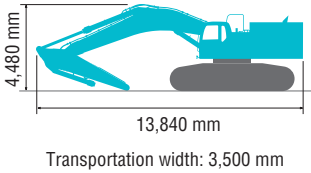
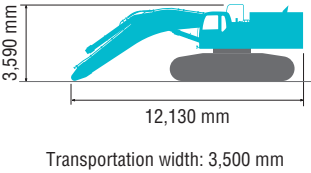
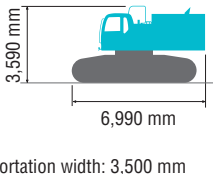
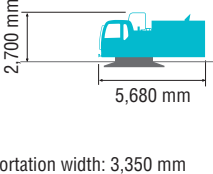
Long Arm Application (In standard trim, with 8.25 m standard boom, 4.4 m short arm, and 2.8 m³ bucket)

		Double grouser shoe (even height)		
Shoe width	mm	650	750	900
Overall width	mm	4,440	4,440	4,450
Ground pressure	kPa (kgf/cm²)	106 (1.08)	93 (0.95)	78 (0.80)
Operating weight	kg	78,400	79,100	80,200

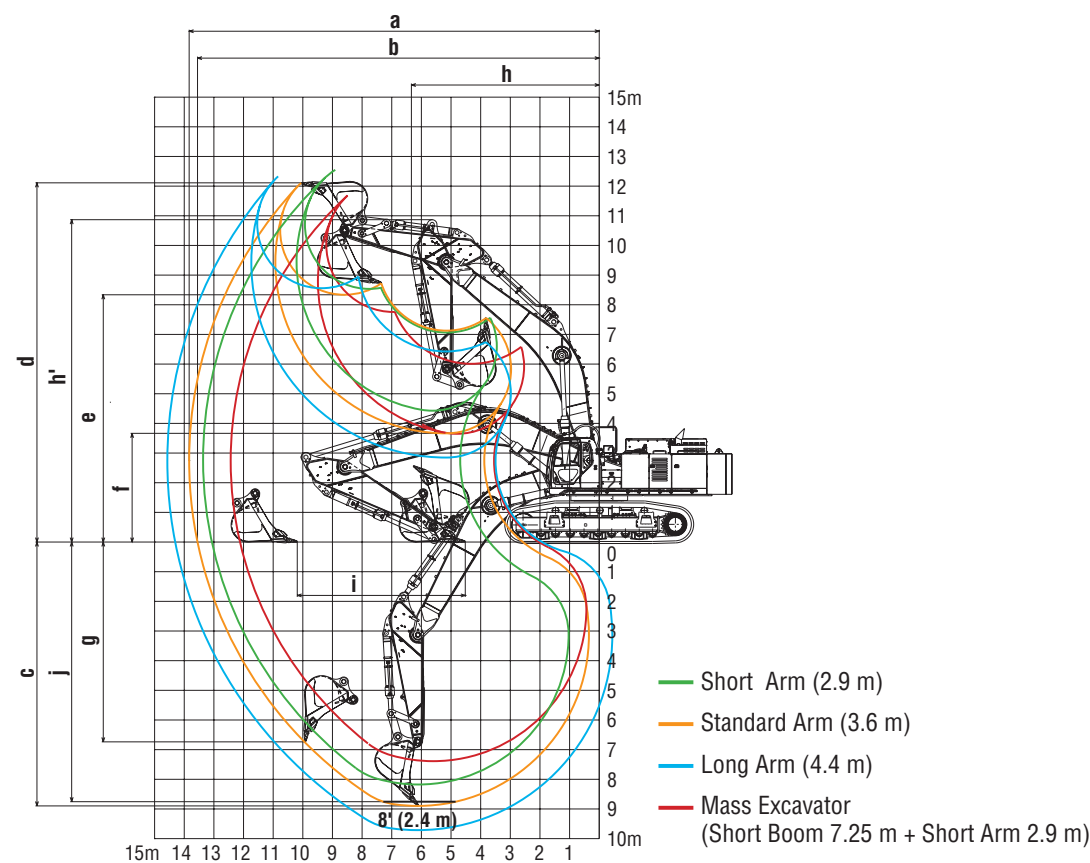
Mass Excavator Arm Application (In standard trim, with 7.25 m standard boom, 2.9 m short arm, and 5.4 m³ bucket)

		Double grouser shoe (even height)		
Shoe width	mm	650	750	900
Overall width	mm	4,440	4,440	4,450
Ground pressure	kPa (kgf/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	 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		
Plan 3	 Base machine without counterweight, bucket and arm, with lower structure and 8.25 m standard boom.	58,500 kg
Plan 4		
Plan 5	 Base machine with lower structure, without counterweight, bucket, arm and boom.	48,800 kg
Plan 6		
Plan 7	 Base machine with carbody, without counterweight, bucket, arm, boom and lower structure.	24,900 kg
Plan 8		

*Counterweight: 13,400 kg

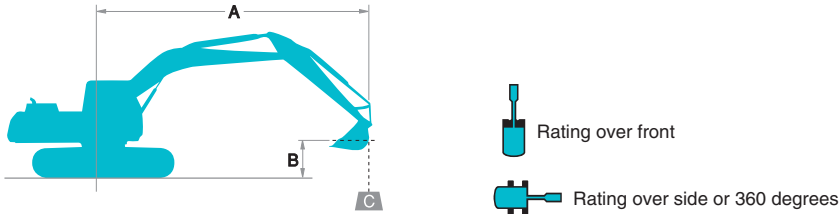


Working Ranges

















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 m³	4.6	3.5	2.8	5.4

Digging Force (ISO 6015)















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 {41,100}	403 {41,100}
Arm crowding force	kN (kgf)	351 {35,800}	311 {31,700}	272 {27,700}



















Short Arm Application

SK850LC		Boom: 8.25 m Arm: 2.9 m Bucket: 4.6 m³ ISO heaped 3,160 kg Shoe: 650 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		Radius	
																			
B																			
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																*11,200	10,570	10.98 m
6.0 m	kg																*11,290	9,340	11.52 m
4.5 m	kg																*11,480	8,590	11.85 m
3.0 m	kg																*11,760	8,180	11.97 m
1.5 m	kg																*12,100	8,070	11.90 m
G. L.	kg																*12,490	8,270	11.63 m
-1.5 m	kg																*12,910	8,840	11.15 m
-3.0 m	kg																*13,320	9,940	10.43 m
-4.5 m	kg																*13,630	11,980	9.40 m
-6.0 m	kg																*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: 650 mm															
A		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		Max. Reach		Radius	
																	
9.0 m	kg														*10,280	*10,280	10.07 m
7.5 m	kg														*10,380	*10,380	10.87 m
6.0 m	kg														*10,760	10,060	11.42 m
4.5 m	kg														*11,410	9,210	11.75 m
3.0 m	kg														*11,960	8,730	11.87 m
1.5 m	kg														*12,420	8,560	11.80 m
G. L.	kg														*12,960	8,700	11.53 m
-1.5 m	kg														*13,590	9,210	11.04 m
-3.0 m	kg														*14,290	10,260	10.31 m
-4.5 m	kg														*15,040	12,270	9.28 m
-6.0 m	kg														*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: 650 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		Radius
																		
B																		
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															*8,320	*8,320	12.20 m
4.5 m	kg															*8,740	*8,210	12.51 m
3.0 m	kg															*9,400	*7,780	12.62 m
1.5 m	kg															*10,350	*7,610	12.56 m
G. L.	kg															*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

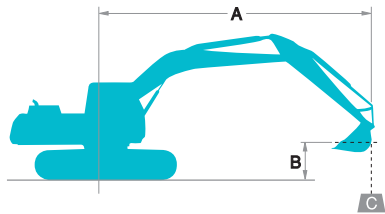
Mass Excavator Application

SK850LC		Boom: 7.25 m Arm: 2.9 m Bucket: 5.4 m³ ISO heaped 3,570 kg Shoe: 650 mm															
A		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		Max. Reach		Radius	
B																	
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		*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	*19,690	*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

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.

















SK850^{LC}




















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: 33.0 MPa (337 kgf/cm²)















Short Arm Application

SK850LC		Boom: 8.25 m Arm: 2.9 m Bucket: 4.6 m³ ISO heaped 3,160 kg Shoe: 750 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																*11,200	10,670	10.98 m
6.0 m	kg																*11,290	9,440	11.52 m
4.5 m	kg																*11,480	8,690	11.85 m
3.0 m	kg																*11,760	8,280	11.97 m
1.5 m	kg																*12,100	8,170	11.90 m
G. L.	kg																*12,490	8,370	11.63 m
-1.5 m	kg																*12,910	8,940	11.15 m
-3.0 m	kg																*13,320	10,050	10.43 m
-4.5 m	kg																*13,630	12,100	9.40 m
-6.0 m	kg																*13,540	*13,540	7.96 m

















SK850LC		Boom: 8.25 m Arm: 2.5 m Bucket: 4.6 m ³ ISO heaped 3,160 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		Radius	
B																					
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																		*11,200	10,850	10.98 m
6.0 m	kg																		*11,290	9,610	11.52 m
4.5 m	kg																		*11,480	8,850	11.85 m
3.0 m	kg																		*11,760	8,440	11.97 m
1.5 m	kg																		*12,100	8,330	11.90 m
G. L.	kg																		*12,490	8,530	11.63 m
-1.5 m	kg																		*12,910	9,110	11.15 m
-3.0 m	kg																		*13,320	10,240	10.43 m
-4.5 m	kg																		*13,630	12,320	9.40 m
-6.0 m	kg																		*13,540	*13,540	7.96 m
















Standard Arm Application

SK50LC		Boom: 8.25 m Arm: 3.0 m Bucket: 3.5 m ³ ISO heaped 2,610 kg Shoe: 750 mm														
		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		Max. Reach		Radius
A																
B																
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















SK850LC		Boom: 8.25 m Arm: 3.9 m Bucket: 3.5 m³ ISO heaped 2,610 kg Shoe: 900 mm														
A		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		Max. Reach		Radius
																
B																
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 m ³ ISO heaped 2,380 kg Shoe: 750 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													*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															*9,500	9,360	*8,320	*8,320	12.20 m
4.5 m	kg										*11,540	*11,540	*11,500	*11,500	*10,600	9,040	*8,740	8,300	12.51 m	
3.0 m	kg													*12,420	11,100	*11,140	8,700	*9,400	7,870	12.62 m
1.5 m	kg													*13,280	10,580	*11,650	8,370	*10,350	7,700	12.56 m
G. L.	kg													*13,940	10,160	*12,010	8,120	*11,670	7,770	12.30 m
-1.5 m	kg																			
-3.0 m	kg																			
-4.5 m	kg																			
-6.0 m	kg																			
-7.5 m	kg																			

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		Radius		
																				
B																				
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																	*8,320	*8,320	12.20 m
4.5 m	kg																	*8,740	*8,450	12.51 m
3.0 m	kg																	*9,400	8,020	12.62 m
1.5 m	kg																	*10,350	7,850	12.56 m
G. L.	kg																	*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							*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

SK50LC		Boom: 7.25 m Arm: 2.9 m Bucket: 5.4 m³ ISO heaped 3,570 kg Shoe: 750 mm															
		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		Max. Reach		Radius	
A																	
B																	
9.0 m	kg														*11,770	*11,770	8.93 m
7.5 m	kg														*11,540	*11,540	9.83 m
6.0 m	kg														*11,690	11,650	10.43 m
4.5 m	kg														*12,190	10,640	10.79 m
3.0 m	kg														*13,050	10,120	10.93 m
1.5 m	kg														*14,230	10,010	10.85 m
G. L.	kg														*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

SK850LC		Boom: 7.25 m Arm: 2.9 m Bucket: 5.4 m³ ISO heaped 3,570 kg Shoe: 900 mm															
A		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		Max. Reach		Radius	
																	
B																	
9.0 m	kg														*11,770	*11,770	8.93 m
7.5 m										*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

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.
2. 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.
3. 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.