

Hydraulic Excavators

SK850^{LC}

- Bucket Capacity:
2.53 – 7.06 cu yd (1.93 – 5.4 m³) SAE heaped
- Engine Power:
510 HP (380 kW)/1,800 min⁻¹ (SAE J 1309)
- Operating Weight:
**181,440 lb (82,300 kg)
with 14' 5" (4.4 m) arm**



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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**DRIVEN BY
PASSION**

ENDLESS EVOLUTION

KOBELCO fuel economy just keeps getting better. The “Three E’s” concept that gave birth to the Acera Geospec series (Enhancement, Economy, Environment) has been further refined to reduce the emission of PM & NOx, minimize fuel consumption to incredible new lows, and create a new breed of hydraulic excavator on the cutting edge of performance.

The SK850LC meets increasingly stringent environmental requirements while delivering revolutionary, next-generation operation.

To offset the cost of reducing the machine’s environmental impact, we’ve cut running costs in quick response to modern needs.

Through our endless evolution of fuel economy, we continue to create value for our customers, the KOBELCO way.



Pursuing The “Three E’s”



Enhancement

- High productivity resulting from lower fuel costs
- New environmental engine and energy-efficient hydraulic circuit improve fuel efficiency

Economy

- New ECO mode greatly reduces fuel consumption
- Low-maintenance design reduces operating costs
- High structural durability and reliability boost machine resale value

Environment

- New design achieves low vibration and low noise levels (including improvements in sound quality)

More Work with Less Fuel!!



New, Environmentally Friendly Engine

Fuel efficiency
(ECO mode, compared with S mode on Tier III machines)
About **17%** reduction

The new ECO mode provides a maximum of about a 17% reduction in fuel consumption.

PM Reduction
(Compared with Tier III models)
About **88%** reduction

Since the adoption of 2006 regulations, PM emissions have been reduced by about 88%, and NOx emissions by about 44%.

Next-Generation Electronic Engine Control

The new electronic-control common-rail engine features high-pressure fuel injection and multiple injection with improved precision. It is fitted with an EGR cooler, and DP filter which deliver high output from optimized combustion and greatly reduce PM and NOx emissions.



PM emissions cut:

Limits creation of particulate matter (which results from incomplete combustion of fuel) (Complies with Interim Tier IV)

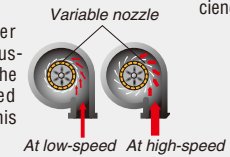
Common rail system

High-pressure injection atomizes the fuel, and injection timing is more precise, improving combustion efficiency.



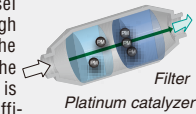
VG Turbo

The variable-geometry turbocharger adjusts air intake to maximize combustion efficiency. At low engine speeds the nozzles are closed, the turbo speed increased and air intake is boosted. This helps lower fuel consumption.



DP filter

Carbon builds up as soot on the diesel particulate filter and is burned off at high temperature. At low engine speeds the exhaust temperature is too low, and the common rail multiple injection system is then used to raise the temperature sufficiently to burn off the soot.

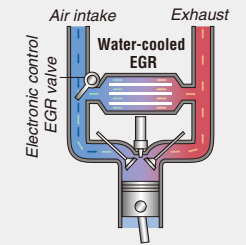


NOx emissions cut:

Reduces nitrous oxides (created by reaction with oxygen at high temperature)

EGR cooler

While ensuring sufficient oxygen for combustion, cooled emission gases are mixed with the air intake and re-circulated into the engine. The lowered oxygen temperature lowers the combustion temperature and increases combustion efficiency.



* Normally, re-circulation occurs automatically. Under certain circumstances, however, it must be done manually using a switch.

Energy-Efficient System

ECO-mode

Work modes for a closer match to the job in hand. An addition to the existing H-mode and S-mode, the new ECO-mode saves even more energy.

H-mode

For heavy duty when a higher performance level is required.

S-mode

For normal operations with lower fuel consumption.

ECO-mode

Puts priority on low fuel consumption and economic performance.

Fuel Savings in Each Mode

(Compared with Tier III models)



- H** About **3.5%** improvement
- S** About **8.5%** improvement
- E** About **17%** improvement, compared with Tier III S mode

Big Power, Little Fuel for Unbeatable Cost Performance

Working Volume Per Unit Fuel
(ECO mode, compared with S mode on Tier III machines)
11% increase

Max. Arm Crowding Force (SAE/ISO)

59,120 lbf (263kN) / **61,148** lbf (272kN)

Max. Bucket Digging Force (SAE/ISO)

79,582 lbf (354kN) / **90,598** lbf (403kN)

Top-of-Class Working Ranges

Max. digging reach: **47' 10"** (14,560mm)

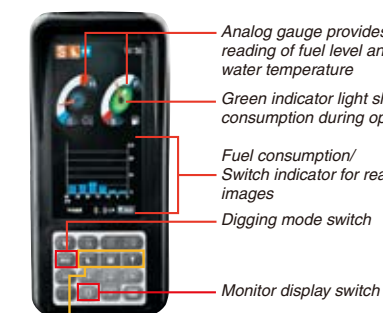
Max. digging depth: **31' 10"** (9,700mm)

Max. vertical wall digging depth: **31' 10"** (7,480 mm)

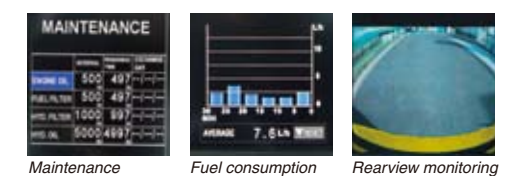
Value are for 14' 5" (4.4m) arm

Multi-Display Color Monitor for Easy Checking

An LCD multi-display color monitor is fitted as standard. Operations data as well as the full range of machine-status data can readily be checked.



- Analog gauge provides an intuitive reading of fuel level and engine water temperature
- Green indicator light shows low fuel consumption during operation
- Fuel consumption/ Switch indicator for rear camera images
- Digging mode switch
- Monitor display switch



One-Touch Attachment Mode Switch

A simple flick of a switch converts the hydraulic circuit and flow amount to match attachment changes. Icons help the operator to confirm the proper configuration at a glance.

Cab Design That Puts the Operator First



Comfort

Big Cab

The big cab provides a roomy operating space with plenty of legroom, and the door opens wide for entry and exit. As well as giving a wide, open view to the front, the cab has increased window areas on both sides and to the rear, for improved visibility in all directions.



Broad View Liberates the Operator

The front window features one large piece of glass without a center pillar on the right side for a wide, unobstructed view.



Wide-Access Cab Aids Smooth Entry and Exit

Easy entry and exit assured with wider cab entry and safety lock lever integrated with mounting for control levers.

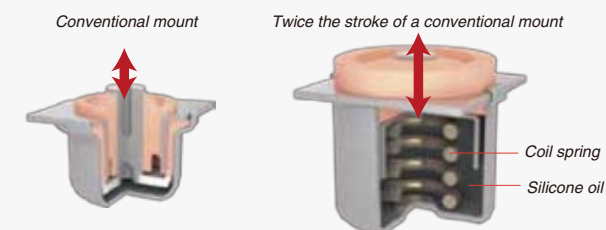


Low Vibration

Coil springs absorb small vibrations, and high suspension mounts filled with silicone oil reduce heavy vibration. The long stroke achieved by this system provides excellent protection from vibration.

Vibration control compared with previous models

- When traveling: about **30%** reduction
- When digging: about **30% to 50%** reduction



Safety

- Wiper is stored out of sight when not in use to maintain a clear view
- Greater safety assured by rearview mirrors on left and right, and a third mirror mounted at lower right



Rear View Camera

A rear view camera is installed as standard to simplify checking for safety behind the machine. The picture appears on the color monitor.



Safety Features Take Various Scenarios into Consideration



Hammer for emergency exit

Retractable seatbelt requires no manual adjustment



Firewall separates the pump compartment from the engine

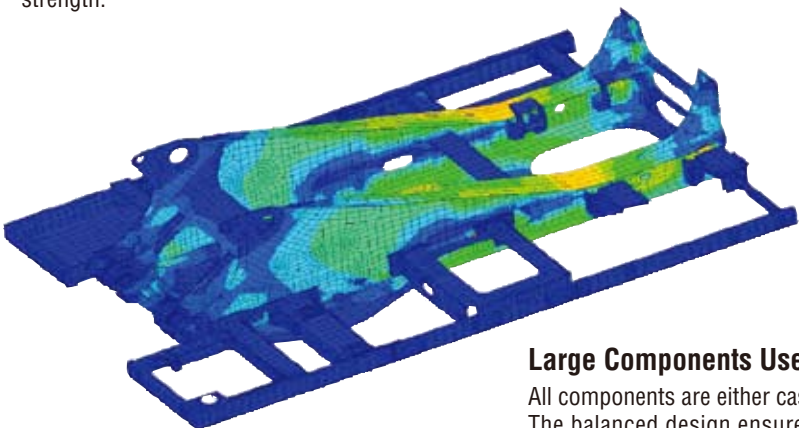
- Handrails meet ISO standards
- Thermal guard prevents contact with hot components during engine inspections
- Travel alarm

The Value and Quality of Sturdy Construction



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.

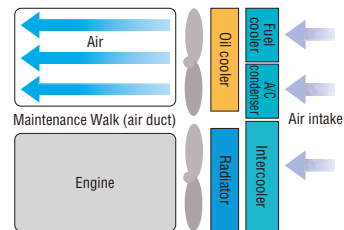


Upper Frame with High Structural Strength

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

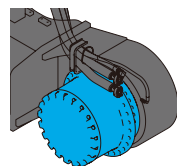
New Cooling System

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.



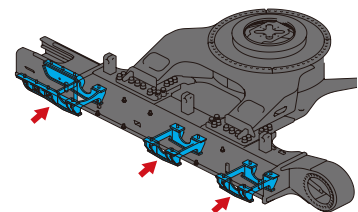
Large Components Used in the Crawler Frame

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.



Reinforce Travel Reduction Gear Cover

A high-strength protective cover enhances the durability of the travel reduction gear.

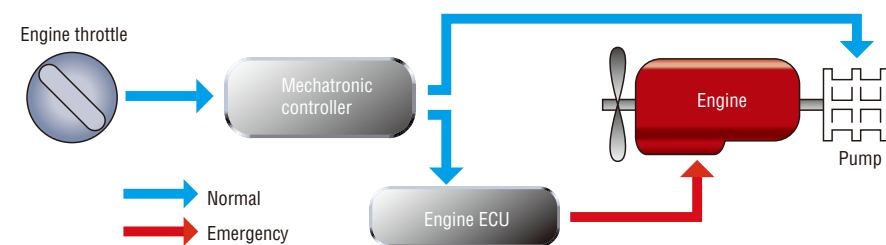


Track Guide Installed in Three Places

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.

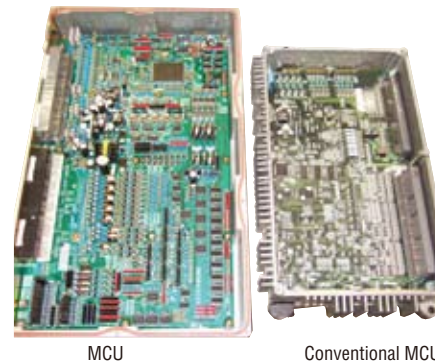
Emergency Acceleration (Dial) Permits Continued Operation in the Unlikely Event of Malfunction

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.



Emergency Acceleration Feature

In the unlikely event of an ITCS control system malfunction, the emergency acceleration feature enables the operator to control the engine directly. The machine's backup system automatically switches to emergency operation mode.



MCU

Conventional MCU

Newly designed MCU (Micro Computer Unit)

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

Countermeasures Against Electrical System Failure

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

Easy Maintenance That Supports Large-Scale Operation

Auto-Coil Grease Gun Holder

- Grease tank
- Lubrication hose
- Fuel tank drain valve



Air cleaner



Bolted Double Service Doors Open and Close Easily

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



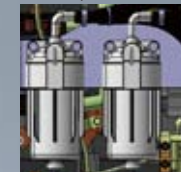
Around the Engine Compartment



Fuel filter



Fuel pre-filter with water separator



Engine oil drain valve



Engine oil filter



Simple Filtration

- Hydraulic oil filter x 3



Suction filter



Battery



Drain filter



Large tool box

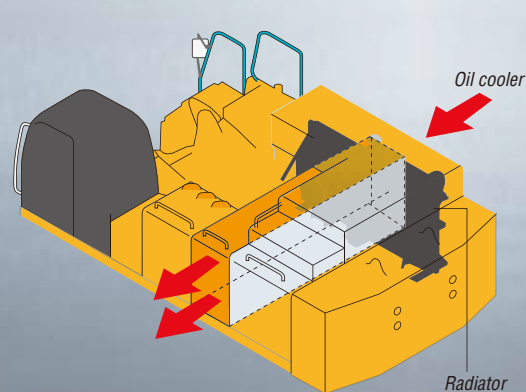


Cat walk



Maintenance Walk Serves as a 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.



Monitor Display with Essential Information for Accurate Maintenance Checks



- Displays only the maintenance information that's needed, when it's needed and display of electrical system malfunctions
- Record function of previous breakdowns including irregular and transient malfunction

	INTERVAL	REMAINING TIME	EXCHANGE DAY
ENGINE OIL	500	497	--/--/--
FUEL FILTER	500	497	--/--/--
HYD. FILTER	1000	997	--/--/--
HYD. OIL	5000	4997	--/--/--

Easy Cleaning



Crawler frame

Special crawler frame design is easily cleaned of mud.



Detachable two-piece floor mat

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



Fuel tank

Fuel tank equipped with bottom flange and large drain valve.

Total Support for Machines with Network Speed and Accuracy

Our "Machine Operation Management System" allows you to use the Internet to manage information from your office for machines operating in all areas. Be prepared for any problems with strategic information and cost management. This provides a wide range of support for your business operations.



Direct Access to Operational Status

Location Data

- Accurate location data can be obtained even from sites where communications are difficult.

Operating Hours

- A comparison of operating times of machines at multiple locations shows which locations are busier and more profitability.
- Operating hours on site can be accurately recorded, for running time calculations needed for rental machines, etc.

Fuel Consumption Data

- Data on fuel consumption and idling times can be used to indicate improvements in fuel consumption.

Graph of Work Content

- The graph shows how working hours are divided among different operating categories, including digging, idling, traveling, and optional operations (N&B).

More Efficient Maintenance Inside the Cab



Easy-access fuse box

More finely differentiated fuses make it easier to locate malfunctions.



Hour meter

Hour meter can be checked while standing on the ground.



DPF reactivation switch

If manual regeneration warning goes off, the filter should be reactivated manually using a switch.



Air conditioner filters

Internal and external air conditioner filters can be easily removed without tools for cleaning.

Maintenance Data and Warning Alerts

Machine Maintenance Data

- Provides maintenance status of separate machines operating at multiple sites.
- Maintenance data is also relayed to KOBELCO service personnel, for more efficient planning of periodic servicing.

Security System

Operation Alarm

- The system can be set an alarm if the machine is operated outside designated hours.

Area Alarm

- It can also be set so that an alarm if the machine is moved out of its designated area to another location.

Excellent Transportability



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 for extremely stable operation, and retracts them for easier transport.

Crawler Width

Shoe	29.5" (750 mm)	35.4" (900 mm)
Extended	14' 1" (4,300 mm)	14' 7" (4,450 mm)
Retracted	12' 0" (3,650 mm)	12' 6" (3,800 mm)

Configuration	Description	Total weight
Plan 1 Transportation with: 12' 0" (3,650 mm)/ 29.5" (750 mm) shoe 12' 6" (3,800 mm)/ 35.4" (900 mm) shoe	Base machine without counterweight and bucket, with lower structure, 27' 1" (8.25 m) boom and 11' 10" (3.6 m) arm	138,300 lb (62,700 kg)
Plan 2 Transportation with: 12' 0" (3,650 mm)/ 29.5" (750 mm) shoe 12' 6" (3,800 mm)/ 35.4" (900 mm) shoe	Base machine without counterweight, bucket and arm, with lower structure and 27' 1" (8.25 m) boom	129,000 lb (58,500 kg)
Plan 3 Transportation with: 12' 0" (3,650 mm)/ 29.5" (750 mm) shoe 12' 6" (3,800 mm)/ 35.4" (900 mm) shoe	Base machine with lower structure, without counterweight, bucket, arm and boom,	107,600 lb (48,800 kg)
Plan 4 Transportation width: 10' 6" (3,190 mm)	Base machine with lcarbody, without counterweight, bucket, bucket, arm, boom and lower structure	54,900 lb (24,900 kg)

Light counterweight: 29,330 lb (13,300 kg)
 Heavy counterweight: 35,940 lb (16,300 kg)

Specifications

Engine

Model	HINO E13CVV
Type	Direct injection, water-cooled, 4-cycle electronically-common rail system diesel engine with turbocharger (for high sulfur fuel) (Complies with Interim Tier IV)
No. of cylinders	6
Bore and stroke	5.39 in (137 mm) x 5.75 in (146 mm)
Displacement	788 cu-in (12.913 L)
Rated power output	510 HP (380 kW)/1,800 min ⁻¹ (SAE J 1309)
Max. torque	1,564 lbs-ft (2,120 N·m)/1,350 min ⁻¹ (SAE J 1309)
Electrical system	D. C. , 24V
Starter	7 kW, 24 V
Alternator	24 V, 60 A
Batteries	2 x 12 V, 190H52

Hydraulic System

Pump	
Type	Three variable displacement pumps + one gear pump
Max. discharge flow	2 x 133 US gal/min 504 L/min), 1 x 7.93 US gal (30 L/min)
Relief valve setting	
Boom, arm and bucket	4,786 psi (33.0 MPa)
Travel circuit	4,786 psi (33.0 MPa)
Swing circuit	3,756 psi (25.9 MPa)
Control circuit	725 psi (5.0 MPa)
Pilot control pump	Gear type
Main control valve	6-spool
Oil cooler	Air cooled type

Swing System

Swing motor	Two axial piston motor
Brake	Hydraulic; locking automatically when the swing control lever is in neutral position
Parking brake	Oil disc brake, hydraulic operated automatically
Swing speed	7.3 min ⁻¹ (rpm)
Swing torque	197,200 lb-ft (268 kN·m)
Tail swing radius	15' 0" (4,580 mm)
Min. front swing radius	20' 10" (6,340 mm)

Travel System

Travel motors	2 x axial-piston, two-step motors
Travel brakes	Hydraulic brake per motor
Parking brakes	Oil disc brake per motor
Travel shoes	51 each side
Travel speed	2.7/1.7 mph (4.2/2.7 km/h)
Drawbar pulling force	143,200 lbf (637 kN) (SAE J 1309)
Gradeability	70 % {35°}

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	8" x 5' 11" (210 mm x 1,800 mm)
Arm cylinder	9" x 7' 2" (220 mm x 2,175 mm)
Bucket cylinder	8" x 5' 2" (200 mm x 1,570 mm)

Refilling Capacities & Lubrications

Fuel tank	254 gal (960 L)
Cooling system	19.6 gal (74 L)
Engine oil	14.3 gal (54 L)
Travel reduction gear	2 x 5.8 gal (22 L)
Swing reduction gear	2 x 2.1gal (8 L)
Hydraulic oil tank	125 gal (473 L) tank oil level 226 gal (856 L) hydraulic system

Attachments

Backhoe Bucket and Arm Combination

Boom	Arm	Application
23' 9" (7.25 m) Short Boom Weight: 17,770 lb (8,060 kg)	9' 6" (2.9 m) Weight: 8,970 lb (4,070 kg)	23' 9" (7.25 m) Short Boom + 9' 6" (2.9 m) ME Arm Application
27' 1" (8.25 m) Standard Boom Weight: 18,610 lb (8,440 kg)	9' 6" (2.9 m) Weight: 8,970 lb (4,070 kg)	9' 6" (2.9 m) Arm Application
	11' 10" (3.6 m) Weight: 9,210 lb (4,180 kg)	11' 10" (3.6 m) Arm Application
	14' 5" (4.4 m) Weight: 10,280 lb (4,660 kg)	14' 5" (4.4 m) Arm Application
17' 9" (5.4 m) Weight: 11,670 lb (5,300 kg)	17' 9" (5.4 m) Weight: 11,670 lb (5,300 kg)	17' 9" (5.4 m) Arm Application

Bucket Selection Chart

Boom length	Capacity (SAE) cu yd (m³)	Width in (m)	Weight lb (kg)	27' 1" (8.25 m)				23' 9" (7.25 m)
				9' 6" (2.9 m) Arm	11' 10" (3.6 m) Arm	14' 5" (4.4 m) Arm	17' 9" (5.4 m) Arm	9' 6" (2.9 m) ME Arm
Light Duty	7.06 (5.4)	98 (2.5)	8,000 (3,630)	X	X	X	X	L
	2.53 (1.93)	42 (1.07)	6,403 (2,904)	H	H	H	H	H
	3.00 (2.29)	48 (1.22)	6,803 (3,086)	H	H	H	H	H
	3.48 (2.66)	54 (1.37)	7,203 (3,267)	H	H	H	M	H
	3.96 (3.03)	60 (1.52)	7,780 (3,529)	H	H	M	M	H
Heavy Duty	4.45 (3.40)	66 (1.68)	8,180 (3,710)	H	H	M	L	H
	4.94 (3.78)	72 (1.83)	8,580 (3,892)	M	M	L	X	H
	5.91 (4.52)	84 (2.13)	9,557 (4,335)	L	L	X	X	M
	1.78 (1.36)	35 (0.89)	5,619 (2,549)	H	H	H	H	H
	2.47 (1.89)	45 (1.14)	6,470 (2,935)	H	H	H	H	H
Extra Heavy Duty	3.26 (2.50)	56 (1.42)	7,211 (3,271)	H	H	H	M	H
	3.99 (3.05)	66 (1.68)	8,061 (3,656)	H	H	M	M	H
	4.43 (3.39)	72 (1.83)	8,466 (3,840)	H	M	L	L*	H
	5.30 (4.05)	84 (2.13)	9,557 (4,335)	L	L	X	X	M

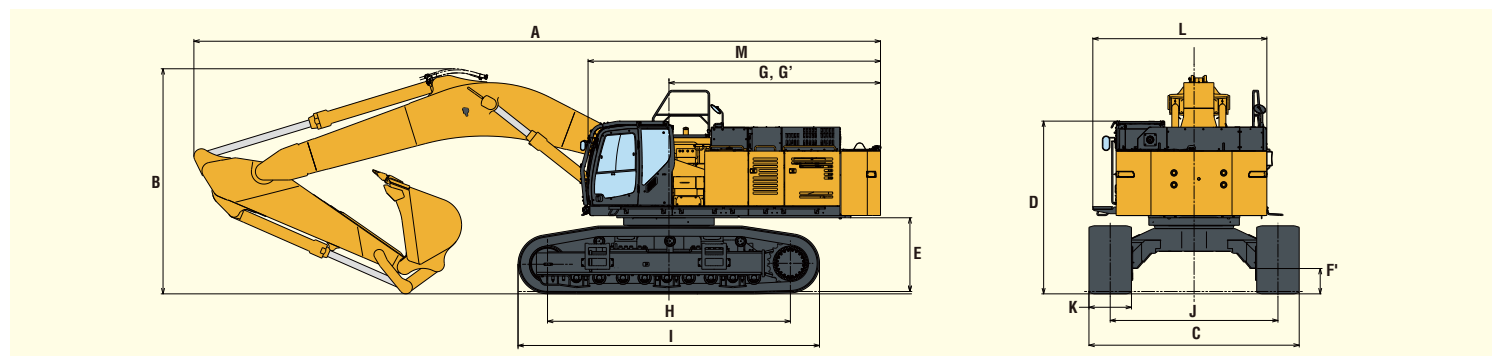
H: Used with material weight up to 3,000 lbs/cu yd (1,780 kg/m³) L: Used with material weight up to 2,000 lbs/cu yd (1,186 kg/m³)
 M: Used with material weight up to 2,500 lbs/cu yd (1,483 kg/m³) L*: Use for loading or light-duty digging
 X: Not recommended

Dimensions

Unit: ft-in (mm)

Arm length	9' 6" (2.9 m)	11' 10" (3.6 m)	14' 5" (4.40 m)	17' 9" (5.40 m)	9' 6" (2.9 m)
Boom length	27' 1" (8.25 m)				
A Overall length	ft-in (mm)				
B Overall height (to top of boom)	47' 11" (14,600)	47' 8" (14,530)	47' 6" (14,480)	46' 8" (14,220)	4' 7" (13,590)
C Overall width of crawler	Extended	ft-in (mm)			14' 7" (4,450)
	Retracted	ft-in (mm)			12' 6" (3,800)
D Overall height (to top of cab)	ft-in (mm)				
E Ground clearance of rear end*	ft-in (mm)				
F Ground clearance*	ft-in (mm)				
G Tail swing radius	ft-in (mm)				
G' Distance from center of swing to rear end	ft-in (mm)				
H Tumbler distance	ft-in (mm)				
I Overall length of crawler	ft-in (mm)				
J Track gauge	Extended	ft-in (mm)			11' 8" (3,550)
	Retracted	ft-in (mm)			9' 6" (2,900)
K Shoe width	in (mm)				
L Overall width of upperstructure	ft-in (mm)				
M Overall length of upperstructure	ft-in (mm)				

* Without including height of shoe lug **With catwalk ***With cab guard



Operating Weight & Ground Pressure

In standard trim, with 27' 1" (8.25 m) standard boom, 9' 6" (2.9 m) arm, 6.0 cu yd (4.6 m³) SAE heaped bucket and heavy counterweight

Shaped	Double grouser shoes (even height)	
Shoe width	in (mm)	29.5 (750) / 35.4 (900)
Overall width of crawler	ft-in (mm)	14' 1" (4,300) / 14' 7" (4,450)
Ground pressure	psi (kPa)	14.1 (97) / 11.9 (82)
Operating weight	lb (kg)	182,100 (82,600) / 184,520 (83,700)

In standard trim, with 27' 1" (8.25 m) standard boom, 11' 10" (3.6 m) arm, 4.58 cu yd (3.5 m³) SAE heaped bucket and heavy counterweight

Shaped	Double grouser shoes (even height)	
Shoe width	in (mm)	29.5 (750) / 35.4 (900)
Overall width of crawler	ft-in (mm)	14' 1" (4,300) / 14' 7" (4,450)
Ground pressure	psi (kPa)	14.1 (97) / 11.9 (82)
Operating weight	lb (kg)	181,880 (82,500) / 184,300 (83,600)

In standard trim, with 27' 1" (8.25 m) standard boom, 14' 5" (4.4 m) arm, 3.66 cu yd (2.8 m³) SAE heaped bucket and heavy counterweight

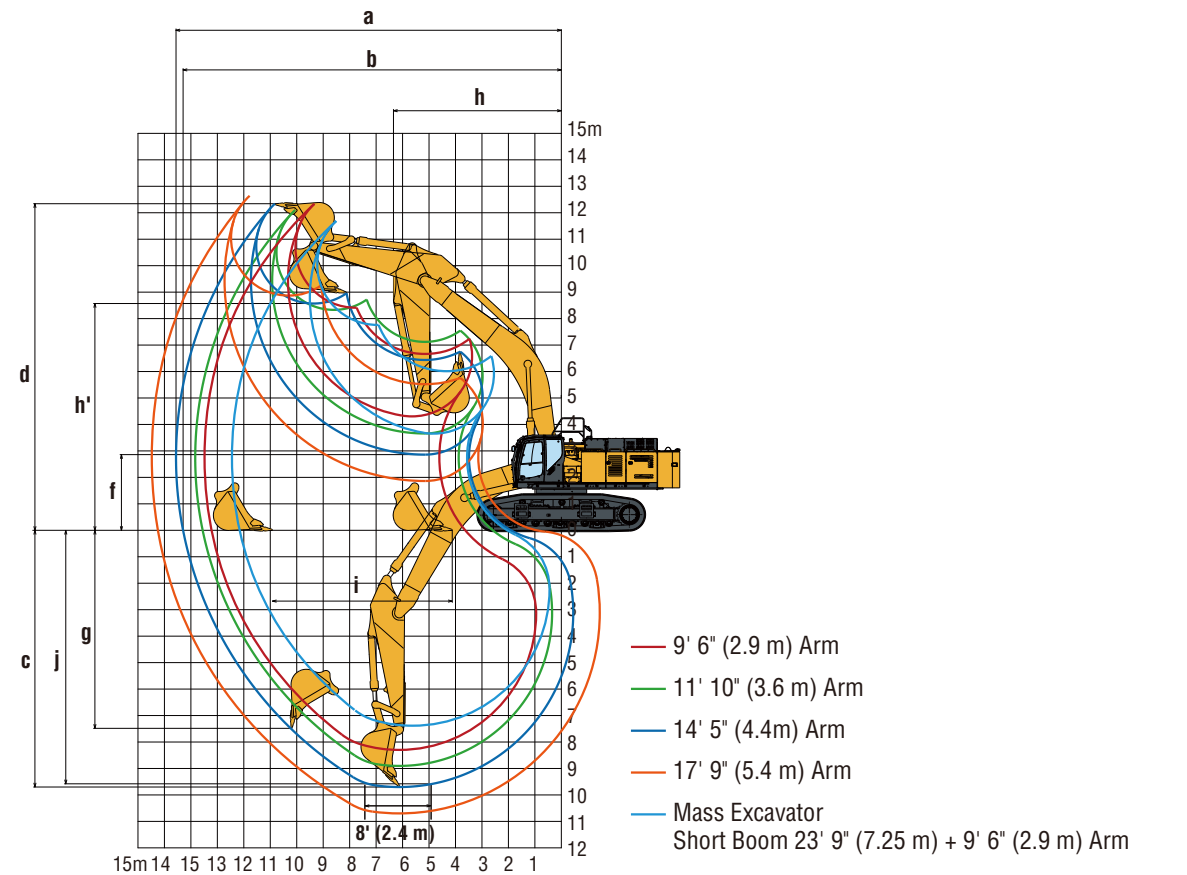
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Overall width of crawler	ft-in (mm)	14' 1" (4,300) / 14' 7" (4,450)
Ground pressure	psi (kPa)	14.1 (97) / 11.9 (82)
Operating weight	lb (kg)	181,440 (82,300) / 183,860 (83,400)

In standard trim, with 27' 1" (8.25 m) standard boom, 17' 9" (5.4 m) arm, 3.0 cu yd (2.3 m³) SAE heaped bucket and heavy counterweight

Shaped	Double grouser shoes (even height)	
Shoe width	in (mm)	29.5 (750) / 35.4 (900)
Overall width of crawler	ft-in (mm)	14' 1" (4,300) / 14' 7" (4,450)
Ground pressure	psi (kPa)	14.1 (97) / 11.9 (82)
Operating weight	lb (kg)	182,320 (82,700) / 184,740 (83,800)

In standard trim, with 23' 9" (7.25 m) standard boom, 9' 6" (2.9 m) arm, 7.06 (5.4 m³) SAE heaped bucket and heavy counterweight

Shaped	Double grouser shoes (even height)	
Shoe width	in (mm)	29.5 (750) / 35.4 (900)
Overall width of crawler	ft-in (mm)	14' 1" (4,300) / 14' 7" (4,450)
Ground pressure	psi (kPa)	13.9 (96) / 11.7 (81)
Operating weight	lb (kg)	180,780 (82,000) / 183,200 (83,100)



Working Ranges

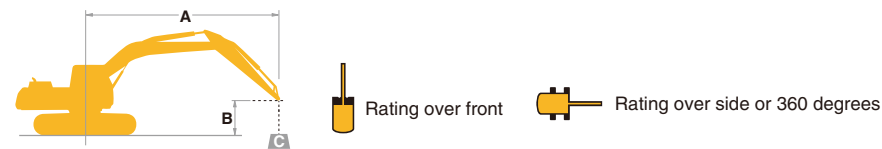
Boom	27' 1" (8.25 m)		23' 9" (7.25 m)		
Arm	9' 6" (2.9 m)	11' 10" (3.6 m)	14' 5" (4.4 m)	17' 9" (5.4 m)	ME 9' 6" (2.9 m)
Range					
a- Max. digging reach	44' 3" (13.48)	45' 4" (13.83)	47' 10" (14.56)	50' 10" (15.48)	40' 10" (12.45)
b- Max. digging reach at ground level	43' 3" (13.19)	44' 6" (13.55)	46' 11" (14.29)	50' 0" (15.23)	39' 10" (12.13)
c- Max. digging depth	27' 3" (8.30)	29' 2" (8.9)	31' 10" (9.7)	35' 1" (10.70)	24' 3" (7.38)
d- Max. digging height	40' 6" (12.34)	39' 9" (12.11)	40' 6" (12.35)	41' 6" (12.64)	38' 4" (11.69)
e- Max. dumping clearance	27' 7" (8.41)	27' 4" (8.34)	28' 1" (8.57)	29' 1" (8.87)	25' 6" (7.77)
f- Min. dumping clearance	14' 2" (4.31)	12' 0" (3.67)	9' 5" (2.86)	6' 1" (1.86)	12' 0" (3.66)
g- Max. vertical wall digging depth	16' 11" (5.16)	22' 1" (6.74)	24' 6" (7.48)	27' 7" (8.41)	14' 6" (4.42)
h- Min. swing radius	18' 10" (5.74)	20' 10" (6.34)	20' 10" (6.34)	21' 0" (6.39)	17' 11" (5.47)
i- Horizontal digging stroke at ground level	14' 7" (4.6)	18' 7" (5.67)	22' 4" (6.80)	26' 6" (8.08)	14' 5" (4.39)
j- Digging depth for 2.4 m (8') flat bottom	26' 9" (8.15)	28' 9" (8.75)	31' 5" (9.58)	34' 9" (10.06)	23' 9" (7.23)
Bucket capacity SAE heaped cu yd (m³)	6.0 (4.6)	4.58 (3.5)	3.66 (2.8)	3.0 (2.3)	6.0 (4.6)

Unit: ft-in (m)

Digging Force

Arm length		9' 6" (2.9 m)	11' 10" (3.6 m)	14' 5" (4.4 m)	17' 9" (5.4 m)	ME9' 6" (2.9 m)
Bucket digging force	SAE	86,551 (385)	79,582 (354)	79,582 (354)	79,582 (354)	86,551 (385)
	ISO	97,117 (432)	90,598 (403)	90,598 (403)	90,598 (403)	97,117 (432)
Arm crowding force	SAE	75,985 (338)	67,443 (300)	59,120 (263)	51,260 (228)	75,985 (338)
	ISO	79,908 (351)	69,916 (311)	61,148 (272)	52,605 (234)	79,908 (351)

Unit: lb (kN)



A: Reach from swing centerline to arm tip
 B: Arm tip height above/below ground
 C: lifting capacities in pounds
 Relief valve setting: 4,786 psi (33.0 MPa)

9' 6" (2.9 m) Arm Application: Heavy Counterweight

SK850LC	A	Boom: 27' 1" (8.25 m) Arm: 9' 6" (2.9 m), Bucket: without Shoe: 35.4" (900 mm) Heavy Counterweight: 35,940 lb (16,300 kg)						At Max. Reach		Radius
		15 ft	20 ft	25 ft	30 ft	35 ft	35 ft	35 ft		
35 ft	lb									*36,680 *36,680 25' 8"
30 ft	lb									*34,860 *34,860 30' 0"
25 ft	lb									*34,140 *34,130 33' 0"
20 ft	lb		*50,500	*50,500	*37,670 *37,670	*34,700 *34,700				*33,960 30,600 *33,950 30,460 35' 1"
15 ft	lb				*45,540 *45,540	*38,600 *37,760	*34,680 30,000			*34,100 28,320 36' 3"
10 ft	lb				*49,380 46,810	*40,840 36,410	*35,720 29,280			*34,460 27,260 36' 9"
5 ft	lb				*51,840 45,290	*42,490 35,380	*36,460 28,710			*34,950 27,100 36' 6"
G.L.	lb				*52,510 44,560	*43,070 34,800	*36,270 28,460			*35,500 27,900 35' 6"
-5 ft	lb				*63,550 61,870	*51,310 44,470	*42,110 34,720			*35,950 29,880 33' 10"
-10 ft	lb	*70,660	*70,660	*58,640	*58,640	*47,850	45,000			*36,050 33,740 31' 2"
-15 ft	lb	*60,460	*60,460	*50,430	*50,430	*40,540				*35,100 *35,100 27' 4"

11' 10" (3.6 m) Arm Application: Heavy Counterweight

SK850LC	A	Boom: 27' 1" (8.25 m) Arm: 11' 10" (3.6 m), Bucket: without Shoe: 35.4" (900 mm) Heavy Counterweight: 35,940 lb (16,300 kg)						At Max. Reach		Radius
		10 ft	15 ft	20 ft	25 ft	30 ft	35 ft	35 ft	35 ft	
30 ft	lb									*31,330 *31,330 31' 10"
25 ft	lb									*31,030 *31,030 34' 8"
20 ft	lb									*31,130 28,560 36' 7"
15 ft	lb									*31,500 26,590 37' 9"
10 ft	lb									*32,060 25,560 38' 3"
5 ft	lb									*32,780 25,330 38' 0"
G.L.	lb									*32,780 25,330 37' 1"
-5 ft	lb									*34,480 27,500 35' 5"
-10 ft	lb	*58,170	*58,170	*54,390	*54,390	*65,080 61,180	*51,660 44,040	*42,270 34,240		*35,130 27,950 *34,860 27,500 32' 11"
-15 ft	lb	*84,750	*84,750	*67,850	*67,850	*54,700	*54,700	*44,110		*35,630 *35,630 29' 4"
-20 ft	lb					*53,220	*53,220	*43,180		*43,180 *34,470 *34,470 24' 1"

14' 5" (4.4 m) Arm Application: Heavy Counterweight

SK850LC	A	Boom: 27' 1" (8.25 m) Arm: 14' 5" (4.4 m), Bucket: without Shoe: 35.4" (900 mm) Heavy Counterweight: 35,940 lb (16,300 kg)						At Max. Reach		Radius
		10 ft	15 ft	20 ft	25 ft	30 ft	35 ft	40 ft	40 ft	
35 ft	lb									*27,130 *27,130 31' 0"
30 ft	lb									*25,970 *25,970 34' 8"
25 ft	lb									*25,580 *25,580 37' 4"
20 ft	lb									*25,760 25,720 39' 1"
15 ft	lb									*26,450 24,060 40' 2"
10 ft	lb									*27,700 23,160 40' 7"
5 ft	lb									*29,430 23,760 *27,700 23,160 40' 5"
G.L.	lb									*30,710 23,300 39' 6"
-5 ft	lb									*31,630 24,480 38' 0"
-10 ft	lb	*50,630	*50,630	*73,020	*73,020	*63,210 60,620	*50,150 43,450	*40,900 33,660		*32,570 26,780 35' 8"
-15 ft	lb	*71,930	*71,930	*74,570	*74,570	*58,240	*58,240	*43,980		*33,580 31,740 *33,580 31,740 32' 4"
-20 ft	lb	*81,540	*81,540	*62,500	*62,500	*49,570	*49,570	*39,230		*33,500 *33,500 27' 9"

17' 9" (5.4 m) Arm Application: Heavy Counterweight

SK850LC	A	Boom: 27' 1" (8.25 m) Arm: 17' 9" (5.4 m), Bucket: without Shoe: 35.4" (900 mm) Heavy Counterweight: 35,940 lb (16,300 kg)						At Max. Reach		Radius
		5 ft	10 ft	15 ft	20 ft	25 ft	30 ft	35 ft	40 ft	
35 ft	lb									*20,470 *20,470 34' 11"
30 ft	lb									*19,680 *19,680 38' 2"
25 ft	lb									*23,770 *23,770 40' 7"
20 ft	lb									*24,350 *24,350 *21,610 *21,610 *19,390 *19,390 40' 7"
15 ft	lb									*25,710 *25,710 *24,720 *24,720 *19,490 *19,490 42' 3"
10 ft	lb									*27,550 *27,550 *25,720 24,240 *19,950 *19,950 43' 3"
5 ft	lb									*29,590 29,170 *26,930 23,510 *20,780 20,250 43' 7"
G.L.	lb									*31,540 28,040 *28,090 22,800 *22,070 19,970 43' 5"
-5 ft	lb									*33,850 *33,850 *33,090 27,110 *28,940 22,240 *23,950 20,200 42' 7"
-10 ft	lb									*40,530 *40,530 *60,450 60,450 *51,330 43,540 *41,860 33,740 *35,120 27,320 *31,630 24,480 38' 0"
-15 ft	lb	*35,040	*35,040	*43,480	*43,480	*64,220	*64,220	*63,690 58,990		*49,800 42,230 *40,460 32,550 *33,710 26,260 *28,950 22,640 39' 1"
-20 ft	lb	*48,160	*48,160	*59,090	*59,090	*80,100	*80,100	*60,630 59,380		*47,910 42,360 *38,860 32,660 *31,600 26,530 *29,940 25,490 36' 1"
-25 ft	lb									*56,400 *56,400 *43,950 *43,950 *33,810 *33,810 *34,410 33,440 *30,730 30,650 32' 1"

Short Boom 23' 9" (7.25 m) + 9' 6" (2.9 m) ME Arm Application: Heavy Counterweight

SK850LC	A	Boom: 23' 9" (7.25 m) Arm: 9' 6" (2.9 m), Bucket: without Shoe: 35.4" (900 mm) Heavy Counterweight: 35,940 lb (16,300 kg)						At Max. Reach		Radius
		10 ft	15 ft	20 ft	25 ft	30 ft	35 ft	35 ft	35 ft	
30 ft	lb									*41,690 *41,690 25' 9"
25 ft	lb									*41,670 *41,670 29' 3"
20 ft	lb									*44,320 *44,320 *40,490 40,220 *40,000 37,060 31' 6"
15 ft	lb									*51,600 *51,600 *48,150 *48,150 *42,070 39,240 *40,040 34,100 32' 10"
10 ft	lb									*66,310 *66,310 *51,950 49,490 *43,940 38,170 *40,380 32,710 33' 4"
5 ft	lb									*70,010 65,880 *54,550 47,990 *45,220 37,300 *40,890 32,590 33' 1"
G.L.	lb									*70,070 64,970 *55,160 47,160 *45,090 36,840 *41,420 33,820 32' 0"
-5 ft	lb									*84,980 *84,980 *66,840 64,990 *53,130 47,040 *42,010 37,020 *41,730 36,860 30' 1"
-10 ft	lb	*88,990	*88,990	*74,750	*74,750	*59,770	*59,770	*46,980		*41,260 *41,260 27' 0"
-15 ft	lb									*57,920 *57,920 *45,840 *45,840 *38,290 *38,290 22' 6"

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.
- Arm tip 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.
- The above figures indicate machine capacity, but in practice the machine should not be used for lifting loads.

Standard

ENGINE

- Engine, HINO 13CVV, diesel engine with turbocharger and intercooler
- Automatic engine deceleration
- Batteries (2 x 12 V, 190H52)
- Starting motor (24 V -7 kW), 60 amp alternator
- Removable clean-out screen for radiator
- Automatic shut-down for low engine oil pressure
- Engine oil pan drain cook
- Double element air cleaner x 2

CONTROL

- Working mode selector (H-mode, S-mode and ECO-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

HYDRAULIC

- Arm regeneration system
- Auto warm up system
- Aluminum hydraulic oil cooler

MIRRORS & LIGHTS

- Two rearview mirrors
- Four front working lights

CAB & CONTROL

- Two control levers, pilot-operated
- Tow eyes
- Horn, electric
- Integrated left-right slide-type control box
- Cab light (interior)
- Luggage tray
- Large cup holder
- Detachable two-piece floor mat
- Retractable seat belt
- Headrest
- Handrails
- Heater and defroster
- Intermittent windshield wiper with double-spray washer
- Skylight
- Tinted safety glass
- Pull-up type front window and removable lower front window
- Easy-to-read multi-display monitor
- Automatic air conditioner
- Emergency escape hammer
- Suspension seat
- Travel alarm
- Pre-air cleaner
- Rear view camera

Optional

- Wide range of buckets
- Various optional arms
- Wide range of shoes (750 mm shoe is standard)
- Additional track guide
- Additional hydraulic circuit
- Pattern changer

- FOPS guard
- Rotation circuit
- Boom safety valve
- Counterweight removal device
- Light counterweight

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