# **Lifting Capacities**

SK210L	210LC Standard Arm: 2.94 m Bucket: Without Shoe: 600 mm Counterweight: 4,300 kg													
	А	1.5	m	3.0	m	4.5	m	6.0	m	7.5	m	At Max.	Reach	
В			<del></del>	4	<del></del>	<u> </u>	<del></del>		<del></del>	ļ	<del></del>	4	<del>#</del> -	Radius
7.5 m	kg							*4,830	*4,830			*3,880	*3,880	6.26 m
6.0 m	kg							*5,330	5,240			*3,590	*3,590	7.36 m
4.5 m	kg							*5,810	5,060	*5,340	3,530	*3,510	3,130	8.03 m
3.0 m	kg					*8,460	7,330	*6,580	4,790	5,320	3,420	*3,580	2,860	8.38 m
1.5 m	kg					*9,970	6,790	7,250	4,530	5,180	3,290	*3,790	2,750	8.45 m
G. L.	kg			*5,760	*5,760	*10,670	6,490	7,050	4,340	5,070	3,200	*4,190	2,800	8.25 m
-1.5 m	kg	*6,100	*6,100	*10,060	*10,060	*10,510	6,410	6,960	4,270	5,050	3,170	4,830	3,040	7.75 m
-3.0 m	kg	*10,670	*10,670	*13,190	12,640	*9,500	6,480	7,010	4,310			*5,700	3,620	6.89 m
-4.5 m	kg			*9,760	*9,760	*7,160	6,730					*5,380	5,090	5.50 m

SK210LC		Standard	Standard Arm: 2.94 m Bucket: Without Shoe: 800 mm Counterweight: 4,300 kg											
A		1.5	m	3.0	m	4.5	m	6.0	m	7.5	m	At Max.	. Reach	
В			<del></del>		<del></del>		<del></del>		<del></del>		<del></del>		<del></del>	Radius
7.5 m	kg							*4,830	*4,830			*3,880	*3,880	6.26 m
6.0 m	kg							*5,330	*5,330			*3,590	*3,590	7.36 m
4.5 m	kg							*5,810	5,200	*5,340	3,640	*3,510	3,230	8.03 m
3.0 m	kg					*8,460	7,540	*6,580	4,930	5,480	3,520	*3,580	2,950	8.38 m
1.5 m	kg					*9,970	6,990	*7,330	4,670	5,340	3,400	*3,790	2,850	8.45 m
G. L.	kg			*5,760	*5,760	*10,670	6,700	7,280	4,480	5,240	3,300	*4,190	2,900	8.25 m
-1.5 m	kg	*6,100	*6,100	*10,060	*10,060	*10,510	6,620	7,190	4,410	5,210	3,280	*4,910	3,150	7.75 m
-3.0 m	kg	*10,670	*10,670	*13,190	13,020	*9,500	6,690	*7,040	4,450			*5,700	3,730	6.89 m
-4.5 m	kg			*9,760	*9,760	*7,160	6,940					*5,380	5,250	5.50 m
Notos:														

- 1. Do not attempt to lift or hold any load that is greater than these lifting capacities at their specified lift point radius and heights. Weight of all accessories must be deducted from the above lifting capacities.
- 2. Lifting 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. Arm top 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. Lifting capacities apply to only machine originally manufactured and normally equipped by KOBELCO CONSTRUCTION MACHINERY CO., LTD.

#### STANDARD EQUIPMENT

- Engine, HINO J05ETG-KSSG, diesel engine with turbocharger and intercooler
- Automatic engine decelerationAuto Idle Stop (AIS)
- Batteries (2 x 12V 96Ah)
- Starting motor (24V 5 kW), 60 amp alternator
- Automatic engine shut-dow
- Engine oil pan drain cock
- Double element air cleane

## 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 & Jubricated track links Grease-type track adjusters
- Automatic swing brake
- HYDRAULIC
- Arm regeneration system
- Auto warm up system Aluminum hydraulic oil cooler
- Arm interflow system
- Hydraulic fluid filter clog detector
- Two rear view mirrors

Additional track guide

Two cab lights ■ N & B piping

- MIRRORS & LIGHTS
- Four front working lights (one for boom, one for boom cylinder, one for right storage box and one for cab)
- Refilling pump

CAB & CONTROL

Cab light (interior)

Luggage tray Large cup holde

Tow eyes ■ Horn, electric

■ Headrest

Handrails

Skylight

■ Two control levers, pilot-operated

■ Detachable two-piece floor mat

Automatic air conditioner

■ Emergency escape hammer

■ Easy-to-read multi-display color monitor

■ Intermittent windshield wiper with double-spray washer

Tinted safety glass
Pull-up type front window and removable lower front window

- 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. Specialist equipment is needed to use this machine in demolition work. Before using it please contact your KOBELCO dealer.

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.

#### **KOBELCO CONSTRUCTION MACHINERY CO., LTD.**

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Inquiries To:

SK200-10/SK210LC-10 **KOBELCO** SK200 SK210<sub>LC</sub> We Save You Fuel



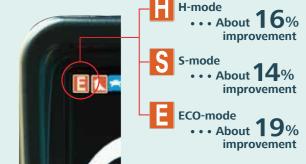


#### In Pursuit of Improved Fuel Efficiency

#### **Operation Mode**

Fuel consumption is lower in H-mode/S-mode/ECO-mode in comparison with the previous model (Generation 8).

Compared to previous models

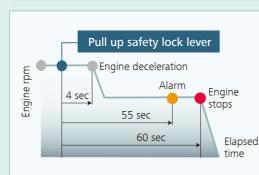


Always and Forever. Yesterday, Today, and Tomorrow. Obsessed with Fuel Efficiency.

Over the past 10 years, Kobelco has achieved an average reduction of about 38% in fuel consumption. And we vow to continue to lead in fuel efficiency.

ECO-mode (SK210LC-10)

About 38%



#### AIS (Auto Idle Stop)

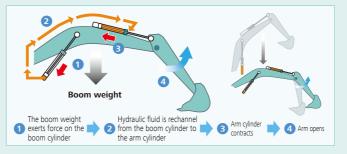
improvement

If the safety lock lever is lifted up, the engine will stop automatically. This eliminates wasteful idling during standby, saving fuel and reducing CO<sub>2</sub> emissions as well.

#### Hydraulic System: Revolutionary Technology Saves Fuel

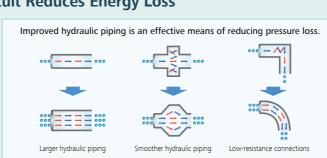
#### Arm Interflow System

When lowering the boom, this system uses the downward force generated by the boom's weight to push fluid to the arm. This greatly reduces the need to apply power from outside the system.



#### **Hydraulic Circuit Reduces Energy Loss**

We have made every effort to enhance fuel efficiency by minimizing hydraulic pressure resistance, improving the hydraulic line layout to control friction resistance loss and minimizing valve resistance.



#### **Pursuing Maximum Fuel Efficiency**

#### **Common Rail System**

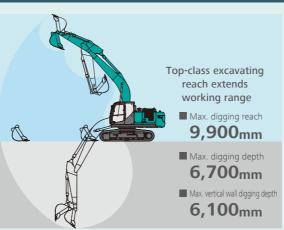
High-pressure injection atomizes the fuel, and more precise injection improves combustion efficiency. This also contributes to better fuel economy.



# **More Power and Higher Efficiency.**



#### **Get More Done Faster with Superior Operability**



\*Values are for STD arm (2.94m)

#### A Light Touch on the Lever Means Smoother, Less Tiring Work

It takes 38% less effort to work the operation lever, which reduces fatigue over





#### **Top Class Traveling Force**

Powerful traveling force and drawbar pulling force deliver plenty of speed when climbing slopes or negotiating bad roads, and the agility to change direction swiftly and smoothly.

■ Drawbar Pulling Force: 228kN

#### Operator-friendly Features Include Controls that Are Easy to See, Easy to Use



### **Multi-Display in Color**

Brilliant colors and graphic displays are easy to recognize on the LCD multi-display in the console. The display shows fuel consumption, maintenance intervals, and more.

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









#### One-Touch Attachment **Mode Switch**

circuit and flow amount to match attachment changes. Icons help the operator to confirm the proper configuration at a glance.

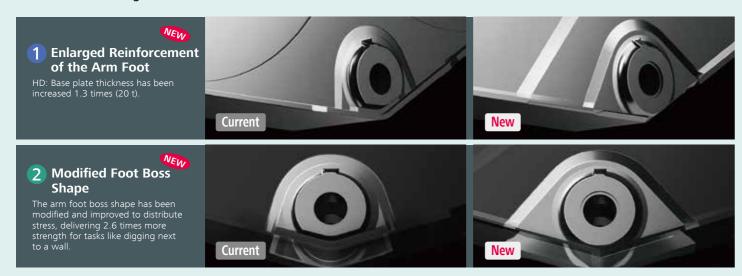
A simple touch of a button, switches the hydraulic





#### **Built to Operate in Tough Working Environments**

The attachment has been reinforced to handle a higher work volume, with greater power and excellent durability that can withstand demanding work conditions.



#### **Improved Filtration System Reliability**

Clean, contaminant-free fuel and hydraulic fluid are essential to stable performance. The improved filtration systems reduce the risk of mechanical trouble and enhance longevity and durability.

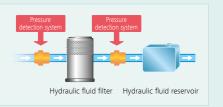
#### Hydraulic Fluid Filter Web

Recognized as the best in the industry, our super-fine filter separates out even the smallest particles. New cover prevents contamination when changing filters.



## **Hydraulic Fluid Filter Clog Detector**

Hydraulic tank pressure sensor monitors the pressure difference between the return line and tank inside pressure to determine the degree of clogging. If the difference exceeds a predetermined level, a warning appears on the multi-display, so any contamination can be trapped by the filter and replaced before it reaches the hydraulic fluid in the tank





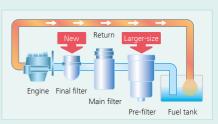
### Metal Mesh Cover Web Air Cleaner

Metal mesh cover ensures strength and durability.



#### Fuel Filter

The pre-filter with built-in water-separator has 1.6 times more filter area compared to the previous models and with a new final stage maintenance free fuel filter to maximize filtering performance.



# **Comfortable Cab Is Now Safer than Ever.**



#### Comfort

#### **Super-Airtight Cab**



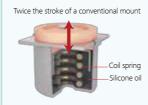
The high level of air-tightness keeps dust out of the cab.

#### **Quiet Inside**

The high level of air-tightness ensures a quiet, comfortable cabin interior.

#### **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.



### **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

#### **Air Conditioner Louvers** behind the Seat



The large air-conditioner has louvers on the back pillars that blow from behind and to the right and left of the operator's seat. They can be adjusted to put a direct flow of cool/warm air on the operator, which means a more comfortable operating environment.

#### **More Comfortable Seat Means Higher Productivity**







#### Large Cab Is Easy to Get in and Out of

The expanded cab provides plenty of room for a large door, more headroom and smoother entry and exit.

#### **Interior Equipment Adds to Comfort and** Convenience





#### Safety

#### **ROPS Cab**

ROPS (Roll-Over-Protective Structure)-compliant cab clears ISO standards (ISO-12117-2: 2008) and ensures greater safety for the operator should the





### **Expanded Field of View for Greater Safety**



Greater safety assured by rearview mirrors on left and right.



Rear view shows the area directly behind the cab.





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



### Easy, On-the-Spot Maintenance

There is ample space in the engine compartment for a mechanic to do maintenance work inside. The distance between steps is lower so entry and exit is easier. And the mechanic can work in comfort, without contortions or unnatural body positions. Finally, the engine hood is lighter and easier to raise and lower.





Simple layout for easy access to radiator

and cooling system elements.



# Maintenance Work, Daily Checks, Etc., Can Be Done from Ground Level

The layout allows for easy access from the ground for many daily checks and regular maintenance tasks.





- 1 Fuel filter
- 2 Fuel filter with built-in water-separator
- B Engine oil filter

#### More Efficient Maintenance Inside the Cab



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

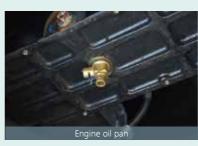
#### **Easy Cleaning**



Special crawler frame design for easy mud removal cleaning.



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



Engine oil pan equipped with drain valve.

# Long-life hydraulic oil: 2,000

#### **Long-Interval Maintenance**

Long-life hydraulic oil reduces cost and labor.



#### Highly Durable Premium-fine Filter

The high-capacity hydraulic oil filter incorporates glass fiber with superior cleaning power and



#### **KOMEXS**

Floor mat's raised edges help keep the cab floor free of mud,

simplify cleaning.

KOMEXS is the remote monitoring system for SK series excavators. When a hydraulic excavator is fitted with this system, data on the machine's operation, such as operating hours, location, fuel consumption, and maintenance status can be obtained remotely.



KOBELCO service personnel/dealer/customer

11



# **Engine**

Model	HINO J05ETG-KSSG			
Type:	Four-stroke liquid-cooled direct injection			
	diesel turbo charged with intercooler			
No. of cylinders:	4			
Bore and stroke:	112 mm x 130 mm			
Displacement:	5.123 L			
Rated power output:	114 kW/2,000 min <sup>-1</sup> (ISO 9249)			
nateu power output.	118 kW/2,000 min <sup>-1</sup> (ISO 14396)			
May torque	569 N·m/1,600 min <sup>-1</sup> (ISO 9249)			
Max. torque:	592 N·m/1,600 min <sup>-1</sup> (ISO 14396)			



# Hydraulic System

Pump	
Type:	Two Variable displacement piston pumps
туре.	+ one gear pump
Max. discharge flow:	2 x 220 L/min, 1 x 21 L/min
Relief valve setting	
Boom, arm and bucket:	34.3 MPa {350 kgf/cm²}
Power Boost:	37.8 MPa {385 kgf/cm²}
Travel circuit:	34.3 MPa {350 kgf/cm²}
Swing circuit:	29.0 MPa {296 kgf/cm²}
Control circuit:	5.0 MPa {50 kgf/cm²}
Pilot control pump:	Gear type
Main control valve:	8-spool valve
Oil cooler:	Air cooled type



# Swing System

Swing motor:	One fixed displacement piston pump
Brake:	Hydraulic; locking automatically when the swing control lever is in the neutral position
Parking brake:	Wet multiple plate
Swing speed:	13.3 min <sup>-1</sup> {rpm}
Tail swing radius:	2,910 mm
Min front swing radius:	3 550 mm



#### **Attachments**

backing backet and combination							
Туре			Backhoe bucket				
Bucket capacity	ISO heaped	m³	0.80	0.80 Side pin type	0.93	0.93 Side pin type	
	ISO Struck	m³	0.59	0.59	0.67	0.67	
	With side cutter	mm	1,160	1,160	1,330	1,300	
Opening width	Without side cutter	mm	1,140	1,060	1,230	1,200	
No. of teeth			5	5	5	5	
Bucket weight kg			640	730	710	790	
Combination 2.94m standard arm		0	0	0	0		

 $\bigcirc$  Standard combination  $\bigcirc$  General operation

### **Operating Weight & Ground Pressure**

In standard trim, with standard boom, 2.94 m arm, and 0.93 m<sup>3</sup> ISO heaped bucket

Shaped			Triple grouser shoes (even height)				
Shoe width	hoe width mm		600	700	800		
Overall width of crawler	mm	SK200	2,800	2,900	3,000		
Overall width of Crawler	mm	SK210LC	2,990	3,090	3,190		
C	kPa	SK200	46	41	36		
Ground pressure	kPa	SK210LC	44	38	34		
Operating weight	kg	SK200	20,700	21,100	21,400		
Operating weight	kg	SK210LC	21,100	21,600	21,800		



# **Travel System**

Travel motors:	Variable displacement piston pump			
Travel brakes:	Hydraulic			
Parking brakes:	Wet multiple plate			
Travalabases	46 each side (SK200)			
Travel shoes:	49 each side (SK210LC)			
Travel speed:	6.0/3.6 km/h			
Drawbar pulling force:	228 kN (ISO 7464)			
Gradeability:	70 % {35°}			
Ground clearance:	450 mm			



# **Cab & Control**

All-weather, sound-suppressed steel cab mounted on the high suspension mounts filled with silicone oil 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:	120 mm x 1,355 mm
Arm cylinder:	135 mm x 1,558 mm
Bucket cylinder:	120 mm x 1,080 mm



# Refilling Capacities & Lubrications

Fuel tank:	320 L
Cooling system:	18 L
Engine oil:	20.5 L
Travel reduction gear:	2 x 5 L
Swing reduction gear:	5 L
Unduquia ail tambo	140 L tank oil level
Hydraulic oil tank:	244 L hydraulic system



# **Working Ranges**

	Unit: m
Boom	
Arm	Standard
Range	2.94 m
a-Max. digging reach	9.9
b-Max. digging reach at ground level	9.73
c- Max. digging depth	6.7
d-Max. digging height	9.72
e-Max. dumping clearance	6.91
f- Min. dumping clearance	2.43
g-Max. vertical wall digging depth	6.1
h-Min. swing radius	3.55
i- Horizontal digging stroke at ground level	5.27
j- Digging depth for 2.4 m (8') flat bottom	6.52

#### Digging Force (ISO 6015)

Arm length	Standard 2.94 m					
Bucket digging force	143					
bucket digging force	157*					
Arm crowding force	102					
7 min crowding force	112*					

\*Power Boost engaged.

Unit: kN

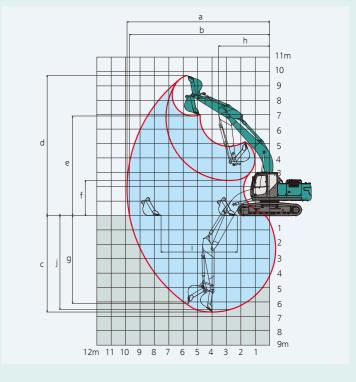
0.93



# **Dimensions**

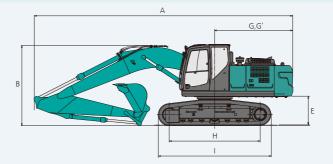
Bucket capacity ISO heaped m<sup>3</sup>

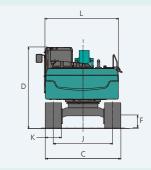
Ar	rm length	Standard 2.94 m				
Α	Overall length	9,600				
В	Overall height (to top of boom)	2,980				
_	Overall width of crawler	SK200	2,800			
		SK210LC	2,990			
D	Overall height (to top of cab)	3,010				
Е	Ground clearance of rear end*	1,060				
F	Ground clearance*	450				
G	Tail swing radius	2,910				



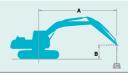
G' Distance from center of swing to rear end 2,900 3,370 H Tumbler distance SK210LC 3,660 SK200 4,170 I Overall length of crawler SK210LC 4,450 SK200 2,200 J Track gauge SK210LC 2,390 K Shoe width 600 L Overall width of upperstructure 2,710

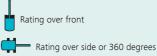
\*Without including height of shoe





# **Lifting Capacities**





A: Reach from swing centerline to arm top B: Arm top height above/below ground C: Lifting capacities in Kilograms Bucket: Without bucket Relief valve setting: 34.3 MPa (350 kgf/cm²)

SK200 Standard Arm: 2.94 m Bucket: Without Shoe: 600 mm Counterweight: 4,300 kg														
A		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		At Max. Reach		
		<b>L</b>	<del></del>	4	<del></del>	4	<del></del>	<u> </u>	<del></del>	ļ	<del></del>		<del></del>	Radius
7.5 m	kg							*4,830	4,770			*3,880	*3,880	6.26 m
6.0 m	kg							*5,330	4,760			*3,590	3,340	7.36 m
4.5 m	kg							*5,810	4,580	4,850	3,190	*3,510	2,830	8.03 m
3.0 m	kg					*8,460	6,580	*6,580	4,320	4,720	3,080	*3,580	2,570	8.38 m
1.5 m	kg					*9,970	6,040	6,390	4,060	4,590	2,950	*3,790	2,470	8.45 m
G. L.	kg			*5,760	*5,760	9,640	5,760	6,190	3,880	4,490	2,860	3,920	2,510	8.25 m
-1.5 m	kg	*6,100	*6,100	*10,060	*10,060	9,550	5,680	6,110	3,810	4,460	2,840	4,270	2,720	7.75 m
-3.0 m	kg	*10,670	*10,670	*13,190	10,980	*9,500	5,750	6,160	3,850			5,090	3,240	6.89 m
-4.5 m	kg			*9,760	*9,760	*7,160	5,990					*5,380	4,560	5.50 m