

STANDARD EQUIPMENT

ENGINE

- Engine, HINO J05E, Diesel engine with turbocharger and intercooler
- Automatic engine deceleration
- Batteries (2 x 12V 96Ah)
- Starting motor (24V 5 kW), 50 amp alternator
- Removable clean-out screen for radiator
- Automatic engine shut-down for low engine oil pressure
- Engine oil pan drain valve
- Double element air cleaner

CONTROL

- Working mode selector (H-mode and S-mode)
- Power Boost
- Heavy lift

SWING SYSTEM & TRAVEL SYSTEM

- Swing rebound prevention system
- Straight propel system
- Swing priority system
- Two-speed travel with automatic shift down
- Sealed & lubricated track links
- Grease-type track adjusters
- Automatic swing brake
- Tropical cooling package
- Three track guides for each crawler

HYDRAULIC

- Arm regeneration system
- Aluminum hydraulic oil cooler

MIRRORS & LIGHTS

- Two rearview mirrors
- Two 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
- Cab light (interior)
- Luggage tray
- Large cup holder
- Detachable two-piece floor mat
- Double slide seat
- Adjustable suspension seat
- Retractable seatbelt
- Headrest
- Handrails
- Heater and defroster
- Intermittent windshield wiper with double-spray washer
- 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
- Travel alarm
- Refueling pump

OPTIONAL EQUIPMENT

- Radio, AM/FM Stereo with speakers
- Wide range of buckets
- Various optional arms
- Wide range of shoes

- Two cab working lights
- Front-guard protective structures
- Additional hydraulic circuit
- Head guard

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

Enhancement

Greater Performance Capacity

- 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
- OHigh structural durability and reliability that retain machine value longer

Environment

Features That Go Easy on the Earth

• Noise reduction measures (with improvement of the sound quality) minimize noise and vibration

Efficient Performance!

Amazing Productivity with a 20 % Decrease in Fuel Consumption and "Top-Class" Cost-Performance



Fuel Consumption

decrease in fuel consumption even when performing more work volume. (S-Mode)



Work Volume*

increase in work volume using the same amount of fuel. (H-Mode)

"Top-Class" Powerful Digging

102 kN {10.4 tf} Max. arm crowding force:

112 kN (11.4 tf) Max. arm crowding force with power boost:

143 kN {14.6 tf} Max. bucket digging force:

157 kN {16.0 tf} Max. bucket digging force with power boost:

Powerful Travel

229 kN {23.3 tf} Drawbar pulling force:

Greater Swing Power, Shorter Cycle Times

71.4 kN {52,662 ibs-tf} Swing torque:

12.5 min-1 Swing speed:

Significant Extension of Continuous Working Hours

The combination of a large-capacity fuel tank and excellent fuel efficiency delivers an impressive up to 20 working hours.**



Fuel tank: 370 L

working hours

Light Lever Operation

It takes 10% less effort to move the control levers, so that operators can work longer hours with less fatigue.





Photos in this catalog are the optional specs with 0.93 m³ bucket and 800 mm shoes

Technology New Hydraulic System



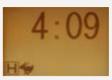
Rigorous inspections pressure loss are performed on all components of the hydraulic piping, from the spool of the control valve to connectors. regimen, combined with the use of a new, high-efficiency pump, cuts energy loss to a minimum.

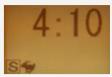
^{*}The value shows results from actual measurements taken by KOBELCO.

^{**}The value shows results from actual measurements taken by KOBELCO for continuous operation in S Mode. Results vary depending on the method of operation and load conditions.



Simple Select: Two Digging Modes







For heavy duty when a higher performance level is required.



For normal operations with lower fuel consumption.

N&B (crusher and breaker)

The operator selects the desired mode from inside the cab, and the selector valve automatically configures the machine accord-

Attachment Mode Selector Switch

There's a choice of three different attachment functions, 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.



Seamless, Smooth Combined **Operations**

The SK series 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.

- Electronic Active Control System
- Arm regeneration system
- Boom lowering system
- Variable swing priority system
- Swing rebound prevention system

3E Technology **Total Tuning Through Advanced ITCS Control**

The engine control is governed by 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.

f 5 ITCS (Intelligent Total Control System) is an advanced, computerized system that provides comprehensive control of all machine functions.

Air intake

Exhaust

Water-cooled EGR

The Value and Quality of Sturdy Construction!

Stable Attachment Strength

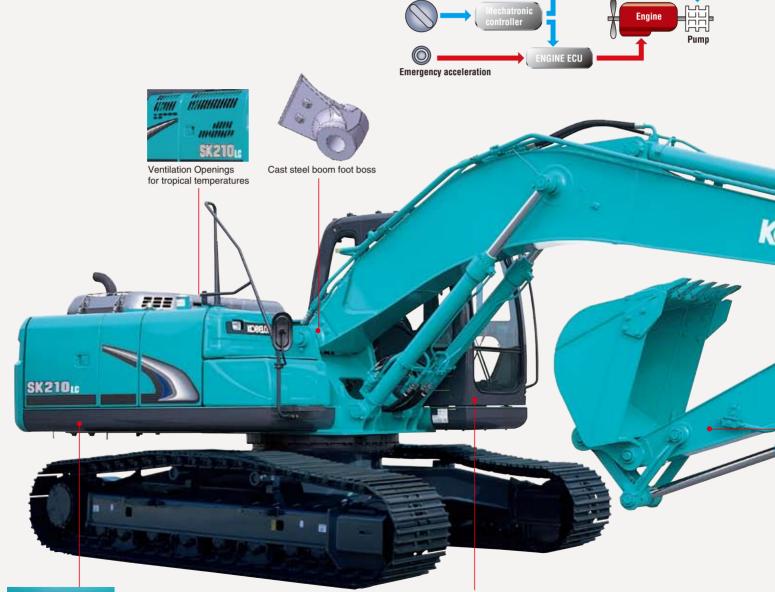
Forged and cast steel components are used throughout. The standard arm and boom also meet specifications that were classified as "reinforced" on previous KOBELCO models to ensure reliable strength.

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



Engine throttle

If unexpected trouble is experienced with the ITCS mechatronic control system, the machine can still be operated using the emergency acceleration system. Digging modes are also automatically relayed to an emergency system so that digging can continue temporarily until a service person arrives to repair the primary system.



P

Heavy Duty Upper Carbody and Side Frames

The structure of the lower portion of the upper frame has been reassessed and the undercover area has been minimized. Also, the side deck's cross-sectional strength has been boosted by 50 %.

High Durability That Retains Machine Value Five and Ten Years in the Future

- Operator's seat covered in durable material
- High-quality urethane paint
- Easily repaired bolted hand rails



New MCU

Conventional MCII

Newly designed Micro Computer Unit

- Vertical alignment and sealedcover gives better protection from water and dust
- Reliable fixture to base plate

Countermeasures Against Electrical System Failure

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

Integrated cast steel boom top Forged steel arm foot boss

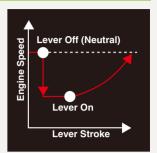
Heavy Duty Attachments

15 % strength up around arm top section

Designed for the Environment and the Future!

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. The proportional Deceleration recovery speed smoothly.



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 SK series meets all requirements cited in latest standards.

Meets EMC (Electromagnetic Compatibility) Standards in Europe.

Measures have been taken to ensure that the SK machines do not cause electro-magnetic interference.

"On the Ground" Maintenance!

Comfortable "On the Ground" Maintenance



machine layout was designed with easy inspection and maintenance in mind.

Access through the right side cover

A new fuel filter has been installed that can handle the most punishing conditions. Double pre-fuel filters with built-in water separator and high- grade main fuel filter.





Engine Oil Filter

Main fuel filter

Pre-fuel filter (with built-in water separators)

Quick Oil Drain Valves for Quick Maintenance



A quick drain valve, which requires no tools, is provided as standard equipment.

Quick drain valve



To facilitate fuel tank cleaning, the fuel drain valve fitted with a flange on the bottom.

Fuel drain valve

Efficient Maintenance Inside the Cab



Detachable twopiece floor mat with handles for easy removal. A floor drain is located under the



Easy-access fuse box with differentiated fuses, easy to locate malfunctions



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



 Hour meter can be checked while standing on the ground.



 Large-capacity tool box can hold up to three pails.



MINIME TO SERVICE OF THE PROPERTY OF THE PROPE

 Special crawler frame design is easily cleaned of mud.







Highly Durable Super-fine Filter



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

Super-fine filter

Double-Element Air Cleaner as Standard



The large-capacity element features a double-filter structure that keeps the engine running clean even in dusty environments.

Air cleaner (double element)

Monitor Display with Essential Information for Accurate Maintenance Checks



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

Choice of 16 Languages for Monitor Display



With messages including those requiring urgent action displayed in the local language, users in all parts of the world can work with greater peace of mind.

	Lichtmaschine defekt	CHARGE ERROR	CHARGE ERROR
Chinese	German	English	English (US)
ERREUR DE CHARGE	PENGISIAN BATT.		ERRORE DI CARICA
French	Indonesian	ISO	Italian
゙ チャージ	ET KESALAHAN CAS	💳 🕂 ချာချင်မဝင်ပါ	ERRO DE CARGA
Japanese	Malay	Myanmar(Brumese)	Portuguese
ERROR EN CARGA	= + தவறாக திணித்தல்	<u>= ∓</u> าฟาบชาร์จ	Sac Điện Bị Lỗi
Spanish	Tamil	Thai	Vietnamese

Photos in this catalog are the optional specs with 0.93 m³ bucket and 800 mm shoes.

Designed from the Operator's Point of View

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.
- Tempered glass windows.

Wide-Access Cab Ensures Smooth Entry and Exit

The left control box and safety lock lever together rise through 54° to give wider cab access and easier entry and exit.



Plenty of Foot Room

Front-to-back foot room in the cab is a comfortable 750 mm. Big travel pedal for operator comfort.

Low 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

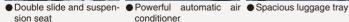


Seat can be reclined to almost horizontal position

Newly Designed Information Display Prioritizes Visual Recognition

The analog gauge provides information that's easy to read regardless of the operating environment. Big screen to display information with a attached visor to further enhance visibility.





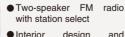


One-touch lock release ● Large cup holder simplifies opening and closing the front window



conditioner







Imagining Possible Scenarios and Preparing in Advance

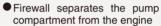
Bracket for Attaching a Head Guard Provided as **Standard Equipment**



A bracket is provided as standard equipment that allows the optional head guard to be simply bolted on.

Safety Features That Take Various Scenarios into Consideration







Hammer for emergency exit



- Swing flashers/rear working
- Thermal guard prevents contact with hot components during engine
- Retractable seatbelt requires no manual adjustment

Other Features



Two cab working lights (Optional)



Adjustable suspension seat

Specifications



Engine

Model	HINO JO5E	
Type:	Direct injection, water-cooled, 4-cycle diese engine with turbocharger, intercooler	
No. of cylinders:	4	
Bore and stroke:	112 mm × 130 mm	
Displacement:	5.123 L	
Rated power output:	158 HP/ 2,000 rpm (ISO14396:2002)	
May tarqua	592 N•m/1,600 min ⁻¹ (ISO14396:2002)	
Max. torque:	572 N•m/1,600 min ⁻¹ (ISO9249:2007)	



Hydraulic System

Pump				
Type:	Two variable displacement pumps + 1 gear pump			
Max. discharge flow:	2 × 220 L/min, 1 × 20 L/min			
Relief valve setting				
Boom, arm and bucket:	34.3 MPa {350 kgf/cm²}			
Power Boost:	37.8 MPa {385 kgf/cm ² }			
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 valves:	8-spool			
Oil cooler:	Air cooled type			



Swing System

Swing motor:	Axial-piston motor
Brake: Hydraulic; locking automatically who swing control lever is in the neutral	
Parking brake:	Hydraulic disc brake
Swing speed:	12.5 min ⁻¹ {rpm}
Tail swing radius:	2,750 mm
Min. front swing radius:	3,540 mm



Attachments Backhoe bucket and arm combination

Use		Backhoe bucket	
		Heavy digging	Normal digging
Bucket capacity	ISO heaped m ³	0.8	0.93
Ducket capacity	Struck m³	0.59	0.67
Onening width	With side cutters mm	1,060	1,300
Opening width	Without side cutters mm	1,130	1,200
No. of bucket teeth		5	5
Bucket weight kg		810	790
Combinations	2.40 m short arm	0	0
oomumations	2.94 m standard arm	0	0



Travel System

Travel motors:	2 × axial-piston, two-step motors
Travel brakes: Hydraulic disc brake	
Parking brakes:	Oil disc brake per motor
Travel shoes:	49 each side
Travel speed:	6.0/3.6 km/h
Drawbar pulling force:	229 kN {23.3 tf} (ISO 7464)
Gradeability:	70 % {35°}
Ground clearance:	450 mm



Cab & Control

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

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 × 1,355 mm
Arm cylinder:	135 mm × 1,558 mm
Bucket cylinder:	120 mm × 1,080 mm



Refilling Capacities & Lubrications

Fuel tank:	370 L
Cooling system:	22 L
Engine oil:	22 L
Travel reduction gear:	2 × 5.3 L
Swing reduction gear:	3.0 L
Hydraulic oil tank:	146 L tank oil level 230 L hydraulic system





Working Ranges

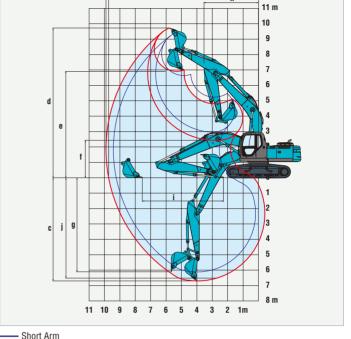
Working Ha	Working Hangoo		
		Unit: m	
Boom	5.	65 m	
Arm	Short	Standard	
Range	2.4 m	2.94 m	
a - Max. digging reach	9.42	9.9	
b- Max. digging reach at ground level	9.24	9.73	
c - Max. digging depth	6.16	6.7	
d- Max. digging height	9.51	9.72	
e- Max. dumping clearance	6.68	6.91	
f - Min. dumping clearance	2.98	2.43	
g- Max. vertical wall digging depth	5.57	6.1	
h- Min. swing radius	3.56	3.54	
i - Horizontal digging stroke at ground level	4.08	5.27	
j - Digging depth for 2.4 m (8') flat bottom	5.95	6.52	
Bucket capacity ISO heaped m	0.8	0.8	

Digging Force (ISO 6015)

Unit: kN (tf)

Arm length	Short 2.4 m	Standard 2.94 m
Bucket digging force	143 {14.6} 157 {16.0}*	143 {14.6} 157 {16.0}*
Arm crowding force	121 {12.3} 133 {13.6}*	102 {10.4} 112 {11.4}*

^{*}Power Boost engaged.







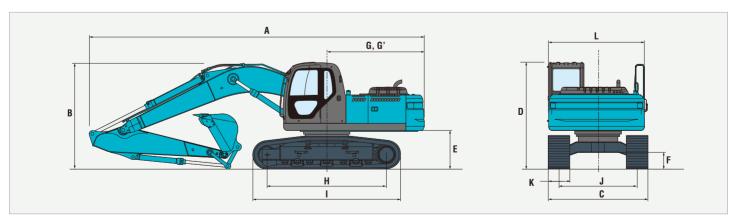
Dimensions

	Arm length	Short 2.4 m	Standard 2.94 m
Α	Overall length	9,640	9,560
В	Overall height (to top of boom)	3,160	2,980
C	Overall width (600mm shoes)	2,990	2,990
D	Overall height (to top of cab)	3,030	3,030
Ε	Ground clearance of rear end*	1,060	1,060
F	Ground clearance*	450	450

G	Tail swing radius	2,860
G'	Distance from center of swing to rear end	2,860
Н	Tumbler distance	3,660
- 1	Overall length of crawler	4,450
J	Track gauge	2,390
K	Shoe width	600/700/800
L	Overall width of upperstructure	2,710

^{*} Without including height of shoe lug.

Unit: mm

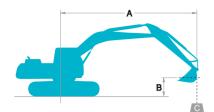


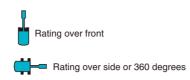
Operating Weight & Ground Pressure

In standard trim, with standard boom, 2.94 m arm, and 0.8 m³ ISO heaped bucket

Shaped	Triple grouser shoes (even height)							
Shoe width mm	600	700	800					
Overall width mm	2,990	3,090	3,190					
Ground pressure kPa (kgf/cm²)	44 {0.45}	39 {0.40}	34 {0.35}					
Operating weight kg	21,300	21,700	21,900					

Lifting Capacities





- A Reach from swing centerline to bucket hook
- B Bucket hook height above/below ground
- C Lifting capacities in kilograms
- Max. discharge pressure: 37.8 MPa (385 kg/cm²)

SK210LC Standard Arm: 2.4 m, Bucket: 0.8 m³ ISO heaped					d 810 kg Sh	810 kg Shoe: 600 mm HEAVY LIFT								
	Α	1.5 m		3.0 m		4.5	4.5 m		6.0 m		7.5 m		At Max. Reach	
В			—		—		—		—		—		—	Radius
7.5 m	kg											*4,680	*4,680	5.67 m
6.0 m	kg							*5,680	4,850			*4,420	3,790	6.86 m
4.5 m	kg					*7,340	*7,340	*6,200	4,670	*4,940	3,140	*4,460	3,080	7.58 m
3.0 m	kg					*9,210	6,890	*7,020	4,390	4,920	3,030	4,460	2,730	7.95 m
1.5 m	kg					*10,810	6,340	6,840	4,120	4,780	2,900	4,290	2,600	8.02 m
G.L.	kg			*7,630	*7,630	10,710	6,060	6,640	3,940	4,680	2,810	4,400	2,650	7.81 m
-1.5 m	kg	*8,550	*8,550	*13,060	12,050	10,650	6,010	6,570	3,880			4,890	2,930	7.28 m
-3.0 m	kg	*13,790	*13,790	*13,740	12,290	*9,920	6,110	6,650	3,950			6,090	3,650	6.36 m
-4.5 m	kg			*9,720	*9,720	*7,030	6,410					*6,450	5,790	4.81 m

SK210LC Short Arm: 2.94 m, Bucket: 0.8 m³ ISO heaped						810 kg Shoe: 600 mm HEAVY LIFT								
	A	1.5	m	3.0	m	4.5 m		6.0 m		7.5 m		At Max. Reach		
В		l	—		—		—		—		—		—	Radius
7.5 m	kg											*3,150	*3,150	6.33 m
6.0 m	kg							*5,070	4,910			*2,980	*2,980	7.42 m
4.5 m	kg							*5,650	4,710	*4,960	3,150	*2,990	2,720	8.09 m
3.0 m	kg			*13,290	*13,290	*8,390	7,020	*6,530	4,410	4,910	3,010	*3,140	2,420	8.44 m
1.5 m	kg			*7,330	*7,330	*10,210	6,400	6,840	4,110	4,740	2,860	*3,450	2,300	8.51 m
G.L.	kg			*8,460	*8,460	10,690	6,030	6,590	3,890	4,620	2,740	3,930	2,330	8.30 m
-1.5 m	kg	*7,580	*7,580	*12,000	11,800	10,530	5,900	6,470	3,780	4,560	2,690	4,300	2,540	7.81 m
-3.0 m	kg	*11,510	*11,510	*14,930	11,990	*10,390	5,940	6,490	3,800			5,170	3,070	6.96 m
-4.5 m	kg			*11,540	*11,540	*8,230	6,160					*6,280	4,440	5.59 m

SK210LC Short Arm: 2.4 m, Bucket: 0.8 m³ ISO heaped							10 kg Shoe: 800 mm								
	Α	1.5	m	3.0	m	4.5	i m	6.0	m	7.5	m	At Max	. Reach		
В			—		—		—		—		—		-	Radius	
7.5 m	kg											*4,680	*4,680	5.67 m	
6.0 m	kg							*5,680	5,000			*4,420	3,910	6.86 m	
4.5 m	kg					*7,340	*7,340	*6,200	4,810	*4,940	3,250	*4,460	3,190	7.58 m	
3.0 m	kg					*9,210	7,110	*7,020	4,530	5,100	3,140	4,620	2,830	7.95 m	
1.5 m	kg					*10,810	6,560	7,080	4,270	4,960	3,010	4,450	2,700	8.02 m	
G.L.	kg			*7,630	*7,630	11,090	6,280	6,880	4,090	4,860	2,920	4,570	2,750	7.81 m	
-1.5 m	kg	*8,550	*8,550	*13,060	12,450	11,020	6,230	6,810	4,030			5,070	3,040	7.28 m	
-3.0 m	kg	*13,790	*13,790	*13,740	12,700	*9,920	6,330	6,890	4,100			6,310	3,780	6.36 m	
-4.5 m	kg			*9,720	*9,720	*7,030	6,630					*6,450	5,990	4.81 m	

SK210LC		Standard A	Standard Arm: 2.94 m, Bucket: 0.8 m³ ISO heaped 810 kg Shoe: 800 mm HEAVY LIFT											
	A		m	3.0 m		4.5	4.5 m		6.0 m		m	At Max. Reach		
В			—		—		—						—	Radius
7.5 m	kg											*3,150	*3,150	6.33 m
6.0 m	kg							*5,070	5,060			*2,980	*2,980	7.42 m
4.5 m	kg							*5,650	4,850	*4,960	3,260	*2,990	2,820	8.09 m
3.0 m	kg			*13,290	*13,290	*8,390	7,230	*6,530	4,560	5,090	3,120	*3,140	2,520	8.44 m
1.5 m	kg			*7,330	*7,330	*10,210	6,610	7,080	4,260	4,920	2,970	*3,450	2,400	8.51 m
G.L.	kg			*8,460	*8,460	11,060	6,240	6,830	4,040	4,790	2,850	*4,000	2,430	8.30 m
-1.5 m	kg	*7,580	*7,580	*12,000	*12,000	10,910	6,110	6,710	3,930	4,740	2,810	4,460	2,650	7.81 m
-3.0 m	kg	*11,510	*11,510	*14,930	12,400	*10,390	6,160	6,730	3,950			5,370	3,190	6.96 m
-4.5 m	kg			*11,540	*11,540	*8,230	6,380					*6,280	4,600	5.59 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.
- 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.
- 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.

