SK300LC-10



## SK300LC

KOBELCO

# SK300 LC



## **Power Meets Efficiency**

# SK300LG

Higher fuel efficiency means "Efficiency"

KOBELCO

Increase in productivity means "Power"

To urban centers, and to mines around the world. Kobelco's all-out innovation brings you durable earth-friendly construction machinery that's equal to any task, at sites all over the planet. Increased power and even greater fuel economy bring higher efficiency to any project. Kobelco SK300LC machines are also more durable than ever, able to withstand the rigors of the toughest job sites. It all adds up to new levels of value that are a step ahead of the times. While focusing on the global environment of the future, Kobelco offers next-generation productivity to meet the need for lower life cycle costs and exceed the expectations of customers the world over.



X30

## **Evolution Continues, with Improved Fuel Efficiency.**

#### In Pursuit of Improved Fuel Efficiency

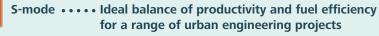
#### ECO-mode: engineered for economy

Kobelco's ECO-mode maximizes the operating efficiency of the engine and other components to achieve much greater fuel efficiency. Just press a button to choose the operation mode best suited to the task at hand and the working conditions.

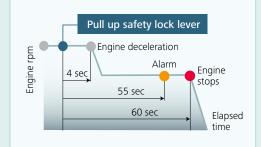
Optimal operation with three modes



H-mode ••••• Maximum power for maximum productivity on your toughest jobs



ECO-mode ••• Minimum fuel consumption for utility projects and other work that demands precision



#### AIS (Auto Idle Stop)

If the boarding/disembarking lever is left up, the engine will stop automatically. This eliminates wasteful idling during standby, saving fuel

and reducing CO<sub>2</sub> emissions as well.

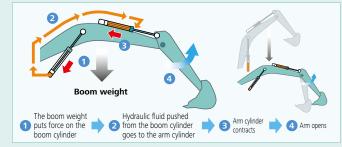
Higher fuel efficiency means "Efficiency"

The new arm interflow system more efficiently controls hydraulic fluid flow, and significant reduction of in-line resistance and pressure loss boosts fuel efficiency. The electronic-control common-rail engine features high-pressure fuel injection and multiple injection with improved precision. It is fitted with an EGR cooler which greatly reduces PM and NOx emissions, and meets TIERIII Standards.

Hydraulic System: Revolutionary Technology Saves Fuel

#### Arm Interflow System

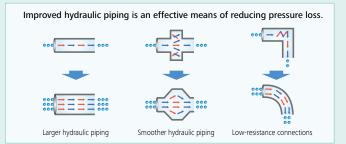
When lowering the boom, this system uses the downward force generated by the boom's weight to push fluid to the shovel arm. This greatly reduces the need to apply power from outside the system.



**sK300**u

#### 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

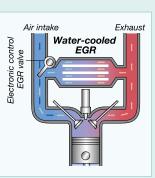
#### **Common rail system**

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



#### EGR cooler

While ensuring sufficient oxygen for combustion, cooled emission gases are mixed with the intake air and recirculated into the engine. This reduces oxygen content and lowers combustion temperature.



## More Power and Higher Efficiency.

The highly efficient hydraulic system minimizes fuel consumption while maximizing power. With nimble movement and ample digging power, this excavator promises to improve your job productivity.

POPEICO

#### **Superior Digging Force**

Max. Bucket Digging Force
Normal:
188kN
With power boost:
208kN

Max. Arm	Crowding Force
Normal:	126kN
With power boo	ost: <b>139kN</b>

#### Get More Done Faster with Superior Operability



\*Values are for HD arm (3.10m)

#### **Piping for Quick Hitch**



A quick hitch hydraulic line, which speeds up attachment changes, is fitted as standard.

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 long working hours or continued operations.

\*Compared to SK330-8

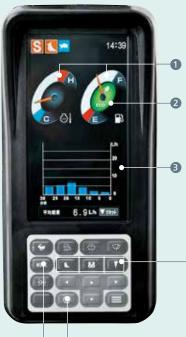
#### **Top Class Traveling Force**

Powerful traveling force and 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: 280kN



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



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

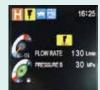
Brilliant colors and graphic displays are easy to recognize on the LCD multi-display in the console. The display shows fuel consumption, maintenance intervals, and more.

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

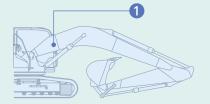








## Increased Power, with Enhanced Durability to Maintain the Machine's Value



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

Redesigned boom offers excellent durability during demanding work conditions to reliably handle work volume.

1 Newly designed boom Increased boom foot cross section for improve durability against tensile stress

Current



Increase in productivity means "Power"

Structural design increases strength, while eliminating hydraulic problems. Enhanced durability takes productivity to a new level.

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 🦇

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



# 33

## Metal mesh cover Web

Metal mesh cover ensures strength and durability.

#### Hydraulic Fluid Filter Clog Detector

Pressure sensors at the inlet and outlet of the hydraulic fluid filter monitor differences in pressure to determine the degree of clogging If the difference in pressure exceeds a predetermined level, a warning appears on the multi-display, so any contamination can be removed from the filter before it reaches the hydraulic fluid reservoir.



**Fuel Filter** The pre-filter, with built-in water separator maximizes filtering performance.

KOBELCC

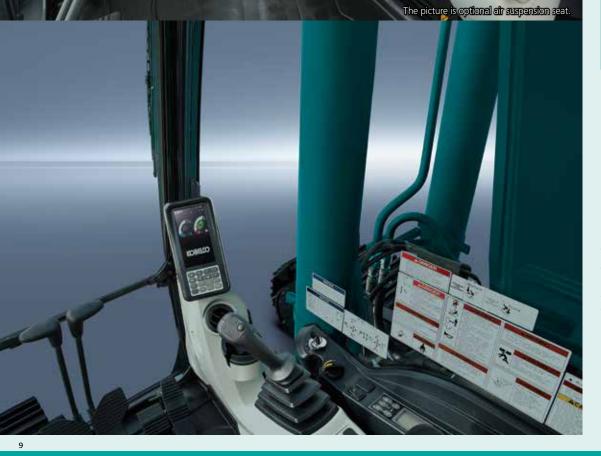
NEW



## Comfortable Cab Is Now Safer than Ever.

A work environment that is quieter and more comfortable. A cab that puts the operator first is key to improved safety.





#### Comfort

#### Super-Airtight Cab



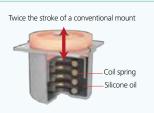
The high level of air-tightness keeps dust out of the cab.

#### **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 view.

#### **Air Conditioner Register** behind the Seat NEW



The large air-conditioner has registers 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







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



#### 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.









#### 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 machine tip over.





TOP Guard is fitted as standard.

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



Greater safety assured by rearview mirrors on left and right.



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



## GEOSCAN

## **Excavator Remote Monitoring System**



#### Direct Access to Operational Status

#### **Location Data**

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





Ferrod 11 Apr. 2015	10 May, 2015	Search	
Type of Operation	Working Hrs	-	Ratio
Total Working Hrs	-	\$69.14%	100 %
Digging Hrs		72.2 Hrs	43.9
Traveling Hrs		18.3 Hrs	11.9
Idle Hrs		15.9 Hrs	0.5
Opt Att Hrs		62.5 Hrs	37.9
Crane Mode Hrs		0 Hrs	0.5

Latest location

#### **Operating Hours**

•A comparison of operating times of machines at multiple locations shows which locations are busier and more profitable.

· Operating hours on site can be accurately recorded, for running time calculations needed for rental machines, etc.



Daily report

#### **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.

#### Serial No. Hour Model Meter Engine Oil YH07-09721 SK135SRLC-734 Hr 434 3/5K1405RL 0.38/0.35 SK135SRLC-¥H07-09789 73 Hr 429 3/SK1405RL 0.38/0.35 YQ13-10454 SK210LC-9 960 Hr 58 0.8/0.7 YQ13-10481 SK210LC-9 549 Hr 498 0.8/0.7 SK75SR-YT08-30374

Work mode

H mode

S mode

E mode

TOTAL

Fuel consumption

**Fuel Consumption Data** 

• Data on fuel consumption and idling times can be

used to indicate improvements in fuel consumption.

Working Hrs

2:06

0:00

169:19

171:25

**Total Fuel** 

mption

24.5 L

0.0 L

1489.7 L

1514.2 L

#### Maintenance

#### **Alarm Information Can Be Received through E-mail**

Alarm information or maintenance notice can be received through E-mail, using a computer or cell phone.





#### **Graph of Work Content**

•The graph shows how working hours are divided among different operating categories, including digging, idling, traveling and optional operations.



Work status

#### Warning Alerts

•This system warns an alert if an anomaly is sensed, preventing damage that could result in machine downtime.

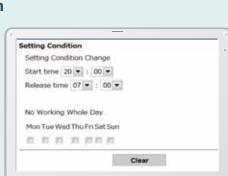
#### **Daily/Monthly Reports**

Operational data downloaded onto a computer helps in formulating daily and monthly reports.

#### **Security System**

#### **Engine Start** Alarm

•The system can be set an alarm if the machine is operated outside designated time.



#### Area Alarm

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

a Arrived	the conset	(latest) location	1 Km	
· Around	the content	(latest) location	JI KID	
in Input L	atitude and	Longitude		
Latitud	e1.			
Longitu	de1			
Latitud	e2			
Longitu	de2			
(† 43 1	Мар	Clear		
Release				

Engine start alarm outside prescribed work time

Alarm for outside of reset area



#### Easy, On-the-Spot Maintenance

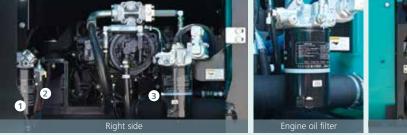
There is ample space in the engine compartment for a mechanic to do maintenance work inside. The distance between steps is lower so entry and exit is easier. And the mechanic can work in comfort, without contortions or unnatural body positions. Finally, the hood is lighter and easier to raise and lower.



#### 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.







Laid out for easy access to radiator and cooling system elements

Fuel filter
 Fuel filter with built-in water-separator
 Engine oil filter

# Efficient Maintenance Keeps the Machine in Peak Operating Condition.



More Efficient Maintenance Inside the Cab

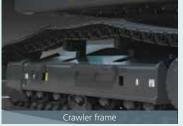


More finely differentiated fuses make it easier to locate malfunctions.



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

#### **Easy Cleaning**



Special crawler frame design is easily cleaned of mud.



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-Interval Maintenance

Long-life hydraulic oil reduces cost and labor.



#### Highly Durable Super-fine Filter

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



### **Specifications**



### Engine

Model	J08ETM-KSDQ
Туре	Direct injection, water-cooled, 4-cycle, 6-cylinder diesel engine with intercooler turbo-charger
No. of cylinders	6
Bore and stroke	112 mm x 130 mm
Displacement	7.684 L
Dated neuror output	173 kW/2,100 min <sup>-1</sup> (ISO 9249)
Rated power output	185 kW/2,100 min <sup>-1</sup> (ISO 14396)
Max. torque	966 N·m/1,600 min <sup>-1</sup> (ISO 9249)
	998 N·m/1,600 min <sup>-1</sup> (ISO 14396)



### Hydraulic System

Pump			
Туре	Two variable displacement pumps + One gear pump		
Man diashawar flaw	2 x 245 L/min, 1 x 21 L/min		
Max. discharge flow	Extra gear pump 1 x 43 L/min		
Relief valve setting			
Boom, arm and bucket	34.3 MPa {350 kgf/cm <sup>2</sup> }		
Power Boost	37.8 MPa {385 kgf/cm <sup>2</sup> }		
Travel circuit	34.3 MPa {350 kgf/cm <sup>2</sup> }		
Swing circuit	29.0 MPa {296 kgf/cm <sup>2</sup> }		
Control circuit	5.0 MPa {50 kgf/cm <sup>2</sup> }		
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 when the swing control lever is in neutral position
Parking brake	Oil disc brake, hydraulic operated automatically
Swing speed	10.3 min <sup>-1</sup> {rpm}
Swing torque	101 kN·m
Tail swing radius	3,300 mm
Min. front swing radius	4,430 mm



Backhoe bucket and arm combination

Туре		Backhoe bucket			
		Normal digging			
Dualization and site	Heaped (ISO7451) m <sup>3</sup>	1.00	1.20	1.40	
Bucket capacity	Struck (ISO7451) m <sup>3</sup>	0.74	0.84	0.96	
Opening width	With side cutters mm	1,350	1,490	1,680	
	Without side cutters mm	1,250	1,400	1,580	
No. of teeth		4	5	5	
Bucket weight	kg 970 1,050		1,140		
Combinations	2.40 m short arm	0	0	0	
	3.10 m standard arm	0	0	0	
	4.00m long arm	0	×	X	

## **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	50 each side
Travel speed	5.2/3.1 km/h
Drawbar pulling force	280 kN (ISO 7464)
Gradeability	70 % {35°}

## 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 retary type engine threttle

Electric rotary-type engine throttle

#### Boom, Arm & Bucket $\mathcal{D}$

Boom cylinders	140 mm x 1,305 mm
Arm cylinder	150 mm x 1,675 mm
Bucket cylinder	130 mm x 1,208 mm

## **Refilling Capacities & Lubrications**

Fuel tank	503 L
Cooling system	35 L
Engine oil	28.5 L
Travel reduction gear	2 x 8.0 L
Swing reduction gear	7.0 L
Hydraulic oil tank	245 L tank oil level
	410 L hydraulic system

 $\odot$  Standard  $\bigcirc$  Recommend  $\triangle$  Loading only  $\times$  Not recommended





			Unit: m
Boom 6.20m			
Arm Range	Short 2.4 m	Standard 3.1 m	Long 4.0 m
a-Max. digging reach	10.23	10.87	11.72
b-Max. digging reach at ground level	10.03	10.68	11.54
c- Max. digging depth	6.50	7.20	8.1
d-Max. digging height	9.74	10.01	10.43
e-Max. dumping clearance	6.83	7.11	7.53
f- Min. dumping clearance	3.26	2.56	1.66
g-Max. vertical wall digging depth	5.65	6.23	7.08
h-Min. swing radius	4.4	4.43	4.55
i- Horizontal digging stroke at ground level	4.0	5.58	7.1
j- Digging depth for 2.4 m (8') flat bottom	6.31	7.04	7.97
Bucket capacity ISO heaped m <sup>3</sup>	1.4	1.2	1.2

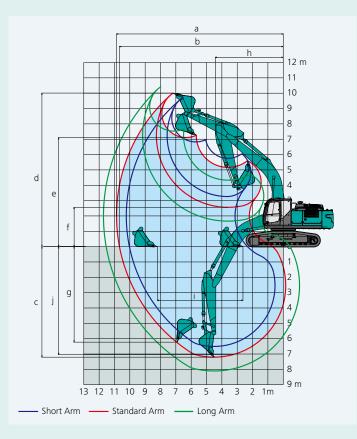
#### Digging Force (ISO 6015)

Digging Force (ISO 6015)	Unit					
Arm length	Short	Standard	Long			
	2.4 m	3.1 m	4.0 m			
Bucket digging force	188	188	188			
	208*	208*	208*			
Arm crowding force	158	126	105			
	174*	139*	115*			

\*Power Boost engaged.

## Dimensions

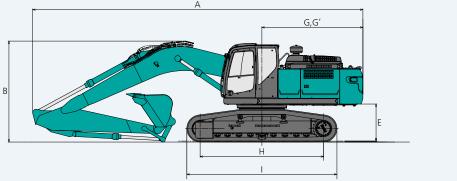
Aı	rm length	Short 2.4 m	Standard 3.1 m							
А	Overall length	10,830	10,710	10,770						
В	Overall height (to top of boom)	3,500	3,270	3,480						
С	Overall width	3,190								
D	Overall height (to top of cab)	3,200								
Е	Ground clearance of rear end*	1,200								
F	Ground clearance*	round clearance* 485								

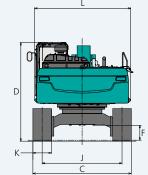


		Unit. mini
G	Tail swing radius	3,300
G'	Distance from center of swing to rear end	3,270
н	Tumbler distance	4,000
I	Overall length of crawler	4,870
J	Track gauge	2,590
к	Shoe width	600
L	Overall width of upperstructure	3,120

\*Without including height of shoe

Linit: mm



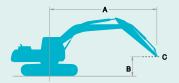


#### **Operating Weight & Ground Pressure**

In standard trim, with standard boom, 3.1 m arm, and 1.2 m<sup>3</sup> ISO heaped bucket

Туре	Triple grouser shoes (even height)						
Shoe width mm	600	700	800				
Overall width mm	3,190	3,290	3,390				
Ground pressure kPa	58	51	45				
Operating weight kg	30,700	31,300	31,700				

### **Lift Capacities**



Rating over front
Rating over side or 360 degrees

A: Reach from swing centerline to arm top B: Arm top height above/below ground C: Lift point Bucket: Without bucket Relief valve setting: 37.8 MPa (385 kgf/cm<sup>2</sup>)

SK3001	.c	Boom: 6	Boom: 6.2 m Arm: 3.1 m, Bucket: without Shoe: 600 mm (Heavy Lift)													
A B		1.5	.5 m 3		3.0 m		4.5 m 6.		.0 m 7.5		m	9.0 m		At Max. Reach		
		ł	<del>,</del>	ł	<b>—</b>	Ŀ	<b>—</b>		<b></b>	L	<b></b>	L	<b></b>	ł	<b>#</b>	Radius
7.5 m	kg													*4,270	*4,270	7.45 m
6.0 m	kg									*6,320	5,880			*4,050	*4,050	8.37 m
4.5 m	kg							*7,490	*7,490	*6,810	5,700			*4,010	*4,010	8.95 m
3.0 m	kg					*12,160	11,480	*8,980	7,570	*7,570	5,450	*6,280	4,110	*4,110	3,930	9.24 m
1.5 m	kg					*14,770	10,630	*10,410	7,120	*8,370	5,220	6,400	4,000	*4,350	3,820	9.28 m
G.L.	kg					*16,020	10,260	*11,410	6,840	8,210	5,040	*5,680	3,930	*4,780	3,890	9.06 m
-1.5 m	kg			*11,640	*11,640	*16,200	10,190	11,340	6,720	8,130	4,970			*5,530	4,180	8.57 m
-3.0 m	kg	*13,600	*13,600	*18,290	*18,290	*15,500	10,300	11,390	6,760	8,200	5,030			*6,950	4,830	7.76 m
-4.5 m	kg			*19,200	*19,200	*13,640	10,610	*10,030	7,000					*8,870	6,320	6.50 m

SK300	LC	Boom: 6	Boom: 6.2 m Arm: 4.0 m, Bucket: without Shoe: 600 mm (Heavy Lift)													
	А	1.5	m	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		At Max. Reach		
в		ł	<b>—</b>	L	<b>#</b>	ł	<b>—</b> —	ł	<b></b> -	ł	<b></b>	Ļ	<b></b>	F	<b>#</b>	Radius
9.0 m	kg													*3,330	*3,330	7.26 m
7.5 m	kg													*3,010	*3,010	8.49 m
6.0 m	kg									*5,200	*5,200	*4,280	*4,280	*2,870	*2,870	9.31 m
4.5 m	kg									*5,780	5,730	*5,660	4,200	*2,840	*2,840	9.83 m
3.0 m	kg			*16,330	*16,330	*9,890	*9,890	*7,670	7,660	*6,620	5,440	*6,090	4,050	*2,890	*2,890	10.10 m
1.5 m	kg					*12,920	10,770	*9,270	7,110	*7,540	5,140	6,300	3,890	*3,040	*3,040	10.13 m
G.L.	kg			*7,330	*7,330	*14,900	10,110	*10,550	6,710	8,080	4,900	6,160	3,760	*3,300	3,250	9.93 m
-1.5 m	kg	*7,060	*7,060	*10,600	*10,600	*15,760	9,840	11,110	6,480	7,920	4,750	6,090	3,690	*3,740	3,440	9.49 m
-3.0 m	kg	*10,760	*10,760	*14,990	*14,990	*15,690	9,840	11,050	6,430	7,890	4,720			*4,490	3,860	8.77 m
-4.5 m	kg	*15,180	*15,180	*21,180	20,300	*14,650	10,040	*10,830	6,550	8,050	4,870			*6,010	4,730	7.68 m
-6.0 m	kg			*17,250	*17,250	*11,980	10,500	*8,330	6,960					*8,270	6,930	6.02 m

SK300L	.c	Boom: 6.2 m Arm: 2.4 m, Bucket: without Shoe: 600 mm (Heavy Lift)											
A B		3.0	m	4.5 m		6.0 m		7.5 m		At Max. Reach			
		L	<b>#</b>	L	<b>#</b>	L	<del>¢</del> -	L	<del>4</del> -	L	<del>4</del> -	Radius	
7.5 m	kg					*7,060	*7,060			*7,330	7,120	6.63 m	
6.0 m	kg					*7,370	*7,370	*7,270	5,790	*7,240	5,570	7.66 m	
4.5 m	kg			*10,620	*10,620	*8,450	7,940	*7,560	5,660	*7,150	4,810	8.28 m	
3.0 m	kg					*9,860	7,490	*8,220	5,450	7,010	4,440	8.60 m	
1.5 m	kg					*11,110	7,120	8,440	5,260	6,860	4,320	8.64 m	
G.L.	kg			*16,430	10,370	11,540	6,910	8,300	5,140	7,070	4,430	8.41 m	
-1.5 m	kg	*11,310	*11,310	*16,080	10,410	11,490	6,870	8,290	5,130	7,760	4,830	7.88 m	
-3.0 m	kg	*20,420	*20,420	*14,910	10,600	*11,230	6,990			*9,210	5,760	6.98 m	
-4.5 m	kg			*12,180	11,010					*9,470	8,220	5.53 m	

#### Notes:

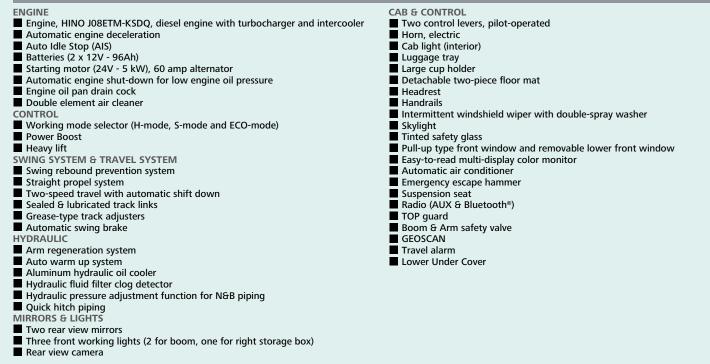
- Do not attempt to lift or hold any load that is greater than these lift capacities at their specified lift point radius and heights. Weight of all accessories must be deducted from the above lift capacities.
- 2. Lift capacities are based on machine standing on level, firm, and uniform ground. User 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. Arm top defined as lift point.

- 4. The above lift capacities are in compliance with ISO 10567. They do not exceed 87% of hydraulic lift capacity or 75% of tipping load. Lift capacities marked with an asterisk (\*) are limited by hydraulic capacity rather than tipping load.
- Imited by hydraulic capacity rather than tipping load interpreters in the preters of the preters o
  - 6. Lift capacities apply to only machine as originally manufactured and normally equipped by KOBELCO CONSTRUCTION MACHINERY CO., LTD.



#### STANDARD EQUIPMENT



#### OPTIONAL EQUIPMENT

- Various optional arms
- Wide range of shoes
- Additional track guide
- Extra hydraulic circuit
- Two cab lights

Note: Standard and optional equipment may vary. Consult your KOBELCO dealer for specifics. Bluetooth $^{\circ}$  is a registered trademark of the Bluetooth SIG Inc.

- Rain visor (may interfere with bucket action)
- Refueling pump
- Cab guard
- Air suspension seat
   Right side camera



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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