

KOBELCO

STANDARD EQUIPMENT

ENGINE

- Engine, HINO J05E-TJ engine with turbocharger and intercooler
- Batteries (2 x12V 92 Ah)
- Starting motor (24 V- 5 kW), 50 A alternator
- Automatic engine shut-down for low engine oil pressure
- Engine oil pan drain valve
- Double element air cleaner

CONTROL

Working mode selector (H-mode, S-mode and ECO-mode)
 Power Boost

SWING SYSTEM & TRAVEL SYSTEM

- Swing rebound prevention system
- Straight propel system
- Two-speed travel with automatic shift down
- Sealed & lubricated track links
- Grease-type track adjusters
- Automatic swing brake
- **MIRRORS & LIGHTS**
- Three rear view mirrors
- Three front working lights
- Rear view camera

CAB & CONTROL

- Two control levers, pilot-operated
- Horn, electric
- Integrated left-right slide-type control box
- Cab light (interior)
- Coat hook
- Luggage tray
- Large cup holder
- Detachable two-piece floor mat
- 7-way adjustable suspension seat
- Retractable seatbelt
- Headrest
- Handrails
- Heater and defroster
- Intermittent windshield wiper with double-spray washer
- Tinted safety glass
- Pull-type front window and removable lower front window
- Easy-to-read multi-display monitor
- Automatic air conditioner
- Emergency escape hammer
- Gear pump
- Refueling pump
- Pressure release switch
- DPF switch

OPTIONAL EQUIPMENT

- Wide range of bucket
- Various optional arms
- Wide range of shoes
- Boom safety valve
- Front-guard protective structure (may interfere with bucket action)
- Object Handling Kit (boom safety value + hook)
- Additional hydraulic circuit
- Extra piping
- Add-on type counterweight
- Cab additional light
- Control pattern changer
- Air suspension seat
- Rain visor (may interfere with bucket action)

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.

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SK SK

an

SK230SR-3/ SK230SRLC-3

ZZOSR ZZOSRLC

 Bucket Capacity: 0.51 - 0.93 m³ ISO heaped
 Engine Power: 124 kW/2,000 min⁻¹(ISO14396)
 Operating Weight: 22,500 kg - SK230SR 22,900 kg - SK230SRLC

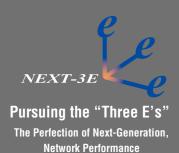
KOBELC



Powerful, Agile and Quiet.

New performance Capacities with a Small Rear Swing

The rounded form says it all: an excavator built with a tiny rear swing for maximum maneuverability. But KOBELCO has taken this concept one step further by seeing just how much digging performance can be packed into a machine. It is not the compact design that matters so much as the performance and functions that are actually used on site. And that's just where the new SR Series really shines, thanks to our NEXT-3E concept. Thanks to key iNDr technology, we've realized a whole new level of quiet operation, backed by a next-generation power plant that pushes performance to extraordinary new heights. Ten years after developing groundbreaking machines with tiny rear swings, KOBELCO continues to forge ahead as the leader in the field.



Enhancement Greater Performance Capacity

> Economy Improved Cost Efficiency

Environment Features That Go Easy on the Earth



Amazingly Quiet! Effective Dust Protection!

Remarkable Ease of Maintenance!

Image illustrates iNDr system

The iNDr Revolution



Concept

KOBELCO has developed the revolutionary integrated Noise and Dust Reduction Cooling System, with the engine compartment placed inside a single duct that connects the air intake to the exhaust outlet.



•Reduces Noise

The intake and exhaust are offset, with the holes and joints in the sections corresponding to the duct wall completely covered to reduce noise at the intake and exhaust apertures. This design, plus the generous use of insulation-material inside the duct, minimizes engine noise.



•Reduces Dust

The high-performance iNDr filter removes dust from intake air, ensuring a quieter, cleaner engine and keeping the cooling unit free of clogging so that no regular cleaning is necessary.

iNDr Filter

Far Surpassing Legal Requirements

The SR series has broken through to a new frontier in quiet operation, with a noise level a full 5 dB below the Japanese government's requirements for ultra-low-noise machinery. In fact, compared with previous KOBELCO models, we have achieved a 10 dB reduction on the right-side surface of the machine, a difference that is clearly audible.

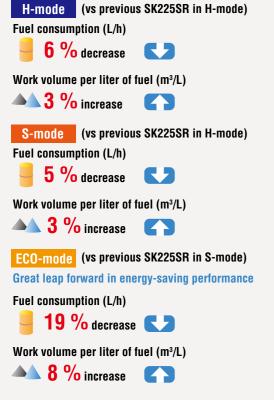




More Work with Less Fuel!

Fuel Consumption and Work Volume

The new hydraulic system and an additional ECO-mode have cut fuel consumption by up to 19%.



* Figures for fuel consumption: fuel consumed per hour (L/h) compared with previous model, in KOBELCO tests.

* Figures for work volume: digging volume per liter of fuel (m³/L) com pared with previous model, in KOBELCO tests.

Significant Extension of Continuous Working Hours

Fuel tank:

330 L

The combination of a largecapacity fuel tank and excellent fuel efficiency delivers an impressive max. 34 % increase in continuous operation hours.*

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.

NEXT-3E Technology New Hydraulic System

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



NEXT-3E Technology Total Tuning Through Advanced ITCS Control

The next-generation engine control is governed by a new version of ITCS, which responds quickly to sudden changes in hydraulic load to ensure that the engine runs as efficiently as possible with a minimum of wasted output.



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



Performance



NEXT-3E Technology Next-Generation Electronic Engine Control

The new electronic-control commonrail 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.



Tier 4-compliant engine

PM emissions cut: Limits creation of particulate matter (which results from incomplete combustion of fuel)

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.





At low-speed At high-speed

At high-spee

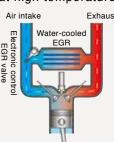
Platinum catalyzer

Filter

NOx emissions cut: Reduces nitrous oxides (created by reac tion with oxygen at high temperature)

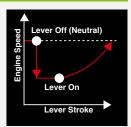
EGR cooler

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.



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 the previous speed when the lever is moved out of neutral.





Efficient Performance!

Top-Class" Powerful	Digging		-	A Low, Solid Center	of Gravity
Max. arm crowding force: With Power boost:	88 kN {8.98 tf} 96.8 kN {9.88 tf}			more stable than their p	r-duty attachments, these mad redecessors, resulting in wide eight equal to or greater than
Max. bucket digging force:	120 kN {12.2 tf}		A AT		
With Power boost:	132 kN {13.46 tf}			Max. digging h	eight:
Powerful Travel Travel torque: increase by	6 %			10,580 mm	
Drawbar pulling force:	227.2 kN {23.2 tf}				ia
	r and breaker) desired mode from inside the cab, comatically configures the machine			Max. digging rea 9,700 mm	
Attachment Mode Sele		(<u>-</u> 1-			
accommodate bucket, cru	e different hydraulic circuits, to usher or breaker, and the desired selected with a switch, which auto-			Greater Swing Pow	er, Shorter Cycle Times
	elector valve. All attachment modes			Swing torque:	71.4 kN•n
		DBELCO		Swing Speed:	13.3 min ⁻¹
		•			
			1.2		
			The Part		
			C. C.		
		LARDS			

Requires 4.0 m of Working Space

The compact design allows the machine to perform continuous dig, 180° swing and dump operations within a working space of 4.0 m.



*Working width (180°) equals the sum of the minimum front swing radius and tail swing radius.

*Photos are the optional specs with add-on counterweight. **Figure shows the value without add-on counterweight.

Mild Operating Sound

The iNDr cooling system also helps to keep the machine quiet, even at close quarters. Even the hydraulic relief valves have been designed specially to reduce irritating noise during operation.

Meets EMC (Electromagnetic Compatibility) Standards in Europe

Electrical shielding ensured that the machine s clear all European standards and neither cause or are affected by electromagnetic interference.

A Working Environment that Helps the Operator Concentrate on the Job at Hand!

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.

Photo is the optional specs with air suspension seat.

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.

•In-cab noise —5dB



In-Cab Noise is Reduced by 5 dB

Compared with Previous Models

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 machinestatus data can readily be checked.











Rearview monitoring



Maintenance





Comfortable Operating Environment







The photo includes optional pedals for N & B. Suspension seat not shown.



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

•Double slide seat

7

Comfort and Safety

ROPS Cab



The newly developed, ROPS (Roll-Over-Protec tive Structure)-compliant cab clears ISO standards (ISO-12117-2: 2008) and ensures greater safety for the operator should the machine tip over.

To fit vandalism guards, please contact your KOBELCO dealer. (Mounting brackets for vandalism guards)

Safety Features That Take Various Scenarios into Consideration

•Firewall separates the pump compartment from the engine •Handrails meet European standards •Thermal guard prevents contact with hot components during engine inspections

Retractable seatbelt requires no manual adjustment Travel alarm



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.



Hammer for emergency exit

Fast, Accurate and Low-Cost Maintenance

Comfortable "On the Ground" Maintenance

All of components that require regular maintenance are laid out for easy access. Newly designed, the bonnet opens widely and at lower level.

And in a new layout, equipment that requires maintenance is positioned in easily accessible locations. The servicing jobs can be completed from ground or in the cab.

Easy access to cooling units

Left side



Radiator reservoir tank

Easy access to pump





Fuel filte Engine oil filter





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60

Fast Maintenance

•Engine quick •Fuel tank

drain cock can equipped with

be turned with- bottom flange

valve.



out tools.





•Hour meter

while standing

and large drain on the ground.

can be checked



ated fuses

to locate

fuse box. More

make it easier

malfunctions.

•Easy-access •Washer fluid

finely differenti- under the cab

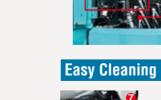
tank located

floor mat.



•Easy replaceable engine oil filter Starter easily replaced from the pump side

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







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

Control valve





Easy access to

main control valves



crawler frame easily cleaned of mud.

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iNDr Means Easy Maintenance

iNDr Filter Blocks Out Dust



Outside air goes directly form the intake duct through the iNDr filter for dust removal. The filter features a 60-mesh screen, which means it has sixty holes



per inch both vertically and horizontally, with a wide front surface area accordion structure that resist clogging.

Visual Checking and Easy Cleaning



When checking and cleaning the cooling system, one must deal with several different components like the radiator, oil cooler and intercooler, which all must be handed in different ways. But with the iNDr filter, there's just one filter in one place. If it looks dirty during start-up inspection, It can be cleaned easily and quickly.

Long-Interval Maintenance



• Long-life hydraulic oil reduces cost and labor.



High performance, superfine filter has a 1.000 hour replacement cycle.

• Super-fine filter

High-grade Fuel Filter with Superior Filtration Performance

The high-performance, large capacity filter is specially designed for a common-rail engine and features 2.9 times more filtering area than previous Filters.

Monitor Display with Essential Information for Accurate Maintenance Checks



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

Choice of 16 Languages for Monitoring 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.

Specifications



Model	HINO J05E-TJ
	Direct injection, water-cooled,
	4-cycle diesel engine
Туре:	With turbocharger, intercooler
	(Complies with EU Stage IIIB and US Tier IV)
No. of cylinders:	4
Bore and stroke:	112 mm x 130 mm
Displacement:	5.123 L
Rated power output:	124 kW/2,000 min-1 (ISO 14396: Without fan)
Max. torque:	660 N·m/1,600 min ⁻¹ (ISO 14396: Without fan)

Hydraulic System

Pump	
Type:	Two variable displacement pumps +
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	one gear pump
Max. discharge flow:	2 x220 L/min, 1 × 20 L/min
Relief valve setting	
Boom, arm and bucket:	34.3 MPa {350 kgf/cm ² }
Power Boost:	37.8 MPa {385 kgf/cm ² }
Travel circuit:	34.3 MPa {350 kgf/cm ² }
Swing circuit:	27.0 MPa {285 kgf/cm ² }
Control circuit:	5.0 MPa {50 kgf/cm ² }
Pilot control pump:	Gear type
Main control valves:	8-spool
Oil cooler:	Air cooled type

Swing System

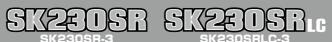
Swing motor:	Axial piston motor		
Brake:	Hydraulic; locking automatically when the swing control lever is in the neutral position		
Parking brake:	Oil disc brake, hydraulic operated automatically		
Swing speed:	13.3 min ⁻¹ {rpm}		
Tail swing radius:	1,680 mm		
Min. front swing radius:	2,340 mm		

Attachments

Backhoe bucket and arm combination

			Backhoe bucket					
Use		Normal digging						
Ducket conseitu	ISO heaped	m³	0.51	0.7	0.8	0.93		
Bucket capacity	Struck	m³	0.39	0.52	0.59	0.67		
Opening width	With side cutter	mm	870	1,080	1,160	1,330		
Without side cutter		mm	770	980	1,060	1,230		
No. of bucket teeth		3	5	5	5			
Bucket weight kg		520	630	650	710			
Combinations 2.87 m arm		0	0	O	0			

 \bigcirc Standard \bigcirc Recommended \triangle Loading only



Travel System

Travel motors:	2 × axial-piston, two-step motors			
Travel brakes:	Hydraulic brake per motor			
Parking brakes:	Oil disc brake per motor			
Travel shoes:	46 each side (SK230SR)			
Traver shoes.	49 each side (SK230SRLC)			
Travel speed:	6.0/3.6 km/h			
Drawbar pulling force:	227.2 kN {23,200 kgf} (ISO 7464)			
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. Contro

Two hand levers and two foot pedals for travel Two hand levers for excavating and swing Electric rotary-type engine throttle

Boom, Arm & Bucket D

Boom cylinders:	120 mm × 1,355 mm
Arm cylinder:	130 mm × 1,406 mm
Bucket cylinders:	110 mm × 1,064 mm

Refilling Capacities & Lubrications

Fuel tank:	330 L
Cooling system:	24 L
Engine oil:	20.5 L
Travel reduction gear:	2 × 5.0 L
Swing reduction gear:	4.7 L
Hydraulic oil tank:	114 L tank oil level 230 L hydraulic system

Working Ranges

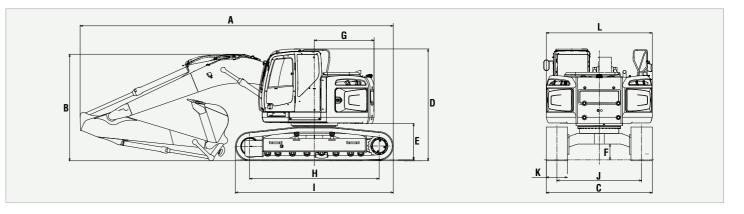
Boom	Unit: m 5.62 m
	0.02 m
Arm	2.87 m
a- Max. digging reach	9.70
b- Max. digging reach at ground level	9.53
c - Max. digging depth	6.58
d- Max. digging height	10.58
e- Max. dumping clearance	7.71
f - Min. dumping clearance	2.98
g- Max. vertical wall digging depth	5.95
h- Min. swing radius	2.34
i - Horizontal digging stroke at ground level	5.02
j - Digging depth for 2.4 m (8') flat bottom	6.37
Bucket capacity ISO heaped m ³	0.80
Digging Force (ISO 6015)	Unit: kN
Arm length	2.87 m
Puekot diaging force	120
Bucket digging force	130*

Arm length	2.87 m
Bucket digging force	120
Bucket digging force	132*
Arm arounding force	88
Arm crowding force	96.8*

*Power Boost engaged

Dimensions

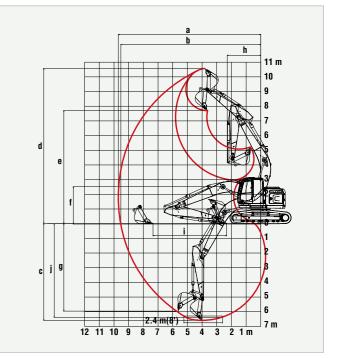
					Tall and a madine	-	4 000
Arm length			2.87 m	G	Tail swing radius	6	1,680
		SK230SR	8,690		Tumbles distance	SK230SR	3,370
A	Overall length	SK230SRLC	8,830	n	Tumbler distance	SK230SRLC	3,660
	Overall height				Overall length of	SK230SR	4,170
В	B (to top of boom)		3,160		crawler S	SK230SRLC	4,450
•	Overall width	SK230SR	2,800	J	Track gauge	SK230SR	2,200
C	C of crawler	SK230SRLC	2,990	J	TTACK YAUYE	SK230SRLC	2,390
D	Overall height (to	o top of cab)	3,160	K	Shoe width		600/700/800
E Ground clearance of rear end*		e of rear end*	1,030	L	L Overall width of upperstructure		2,990
F Ground clearance*		e*	445				* Without including height of shoe lug.



Operating Weight & Ground Pressure In standard trim, with standard boom, 2.87 m arm, and 0.80 m³ ISO heaped bucke

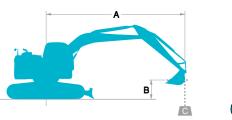
Shaped			Triple grouser shoes (even height)			
Shoe width mm		600	700	800		
Owners II with the standard	mm	SK230SR	2,800	2,900	3,000	
Overall width of crawler		SK230SRLC	2,990	3,090	3,190	
Ground averaging	kPa	SK230SR	50	44	39	
Ground pressure		SK230SRLC	48	42	37	
Operating weight		SK230SR	22,500	22,900	23,200	
	kg	SK230SRLC	22,900	23,300	23,600	

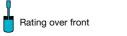




Unit: mm

SBLG





Rating over side or 360 degrees

- A Reach from swing centerline for bucket hook
- B Bucket hook height above/below ground
- C Lifting capacities in kilograms
- * Max. discharge pressure: 37.8 MPa {385 kgf/cm²}

で行きて

Sile

SK230SR		Arm: 2.87 m, Bucket: 0.8 m³ ISO heaped 630 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			# =	-		ł		4		ł				Radius
7.5 m	kg							*2,520	*2,520			*2,180	*2,180	6.15 m
6.0 m	kg							*4,090	*4,090			*2,070	*2,070	7.27 m
4.5 m	kg					*6,250	*6,250	*5,370	3,930	*3,360	2,610	*2,090	*2,090	7.95 m
3.0 m	kg			*13,080	11,270	*8,410	5,840	6,050	3,670	4,150	2,490	*2,230	2,050	8.31 m
1.5 m	kg			*7,640	*7,640	9,230	5,290	5,750	3,410	4,010	2,360	*2,490	1,930	8.39 m
G.L.	kg			*8,070	*8,070	8,830	4,950	5,530	3,210	3,900	2,260	*2,950	1,950	8.19 m
-1.5 m	kg	*6,940	*6,940	*10,870	9,440	8,680	4,830	5,430	3,110	3,850	2,210	3,700	2,130	7.69 m
-3.0 m	kg	*10,110	*10,110	*12,880	9,600	8,720	4,860	5,440	3,130			4,460	2,580	6.84 m
-4.5 m	kg			*9,240	*9,240	*6,800	5,050					*5,360	3,780	5.45 m

SK2305	SK230SRLC Arm: 2.87 m, Bucket: 0.8 m ³ ISO heaped 630 kg Shoe: 600 mm HEAVY LIFT													
A B		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		At Max. Reach		
			-	-		ł	#	ł	#	ł	#	Ľ	#	Radius
7.5 m	kg							*2,520	*2,520			*2,180	*2,180	6.15 m
6.0 m	kg							*4,090	*4,090			*2,070	*2,070	7.27 m
4.5 m	kg					*6,250	*6,250	*5,370	4,430	*3,360	2,970	*2,090	*2,090	7.95 m
3.0 m	kg			*13,080	13,060	*8,410	6,640	*6,530	4,170	*4,720	2,850	*2,230	*2,230	8.31 m
1.5 m	kg			*7,640	*7,640	*9,930	6,080	6,670	3,900	4,640	2,720	*2,490	2,240	8.39 m
G.L.	kg			*8,070	*8,070	10,430	5,730	6,440	3,700	4,530	2,620	*2,950	2,270	8.19 m
-1.5 m	kg	*6,940	*6,940	*10,870	*10,870	10,270	5,600	6,330	3,600	4,480	2,570	*3,800	2,480	7.69 m
-3.0 m	kg	*10,110	*10,110	*12,880	11,310	*9,210	5,630	6,350	3,620			5,190	2,990	6.84 m
-4.5 m	kg			*9,240	*9,240	*6,800	5,820					*5,360	4,350	5.45 m

SK230SRLC Arm: 2.87 m, Bucket: 0.8 m ³ ISO heaped 630 kg Shoe: 600 mm Add. Counterweight: 1,400 kg HEAVY LIFT														
		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		At Max. Reach		
В		ł		4	# =		# =	ł	# =	ł	# =	ł	# =	Radius
7.5 m	kg							*2,520	*2,520			*2,180	*2,180	6.15 m
6.0 m	kg							*4,090	*4,090			*2,070	*2,070	7.27 m
4.5 m	kg					*6,250	*6,250	*5,370	5,100	*3,360	*3,360	*2,090	*2,090	7.95 m
3.0 m	kg			*13,080	*13,080	*8,410	7,620	*6,530	4,840	*4,720	3,360	*2,230	*2,230	8.31 m
1.5 m	kg			*7,640	*7,640	*9,930	7,050	*7,270	4,570	5,300	3,230	*2,490	*2,490	8.39 m
G.L.	kg			*8,070	*8,070	*10,630	6,700	7,340	4,370	5,180	3,120	*2,950	2,730	8.19 m
-1.5 m	kg	*6,940	*6,940	*10,870	*10,870	*10,380	6,580	7,230	4,270	5,130	3,080	*3,800	2,970	7.69 m
-3.0 m	kg	*10,110	*10,110	*12,880	*12,880	*9,210	6,610	*6,760	4,290			*5,590	3,560	6.84 m
-4.5 m	kg			*9,240	*9,240	*6,800	*6,800					*5,360	5,110	5.45 m

Notes:

- 1. Do not attempt to lift or hold any load that is greater than these lift capacities at 4. The above lifting capacities are in compliance with SAE J/ISO 10567. They do their specified lift point radius and heights. Weight of all accessories must be deducted from the above lift capacities.
- 2. Lift capacities are based on machine standing on level, firm, and uniform ground. User must make allowance for job conditions such as soft or uneven ground, out of level conditions, side loads, sudden stopping of loads, hazardous conditions, experience of personnel, etc.

3. Bucket lift hook is defined as lift point.

- not exceed 87 % of hydraulic lifting capacity or 75 % of tipping load. Lifting capacities marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.
- 5. Operator should be fully acquainted with the Operator's and Maintenance Instructions before operating this machine. Rules for safe operation of equipment should be adhered to at all times.
- 6. Lift capacities apply to only machines as originally manufactured and normally equipped by KOBELCO CONSTRUCTION MACHINERY CO., LTD.



