

STANDARD EQUIPMENT

ENGINE

- Engine, HINO P11C-VC, diesel engine with turbocharger and intercooler
- Automatic engine deceleration
- Auto Idle Stop (AIS)
- Batteries (2 x 12V 112Ah)
- Starting motor (24V 5 kW), 60 amp alternator
- Removable clean-out screen for radiator
- Automatic engine shut-down for low engine oil pressure
- Engine oil pan drain cock
- 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
- **HYDRAULIC**
- Arm regeneration system
- Auto warm up system
- Aluminum hydraulic oil cooler
- **MIRRORS & LIGHTS**
- Two rearview mirrors
- Three front working lights

CAB & CONTROL

- Two control levers, pilot-operated
- Tow eyes
- Horn, electric
- Integrated left-right slide-type control box
- Cab light (interior)
- Luggage tray
- Large cup holder
- Detachable two-piece floor mat
- Retractable 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
- Suspension seat
- Travel alarm
- Level indicator
- Pre-air cleaner
- Boom safety valve
- Arm safety valve

OPTIONAL EQUIPMENT

- Wide range of buckets
- Various optional arms■ Wide range of shoes
- Additional track guide

- Additional hydraulic circuit
- Multi-control valve
- FOPS 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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Kobelco engineers are constantly seeking better fuel efficiency and cleaner exhaust emissions. To that end, they've combined a newly developed engine with Kobelco's proprietary energy-efficient system. The result is a machine that opens new frontiers for environmentally responsible operation.

New, Environmentally Friendly Engine



Fuel efficiency

(ECO mode, compared with S mode on previous machines)

3% reduction

The new ECO mode provides a maximum of about a 13% reduction in fuel consumption.



PM Reduction

(Compared with previous models)

About **88%** reduction

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

Next-Generation Electronic Engine Control

The new electronic-control common-rail engine features high-pressure fuel injection and multiple injection with improved

precision. It is fitted with an EGR cooler, and DP filter which deliver high output from optimized combustion and greatly reduce PM and NOx emissions.

Limits creation of particulate matter (which results from incomplete combustion of fuel) temperature)

■ Common rail system

PM emissions cut:

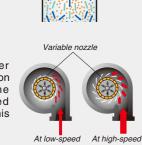
High-pressure injection atomizes the fuel, and injection timing is more precise, improving combustion efficiency.

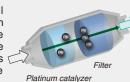
■ VG Turbo

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

■ DP filter

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



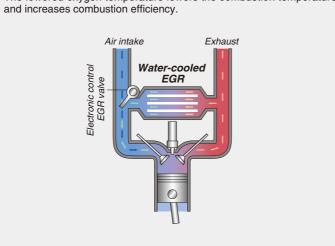


NOx emissions cut:

Reduces nitrous oxides (created by reaction with oxygen at high

■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



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

Energy-Efficient System

ECO-mode

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

H-mode

For heavy duty when a higher performance level is required.

For normal operations with lower fuel consumption.

ECO-mode

Puts priority on low fuel consumption and economic performance.

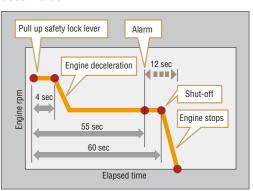
Fuel Savings in Each Mode

(Compared with previous models)



Auto Idle Stop Provided as Standard Equipment

This function saves fuel and cuts emissions by shutting down the engine automatically when the safety lock lever is pulled up. It also stops the hour meter, which helps to retain the machine's asset value.





New Hydraulic System

Rigorous inspections for pressure loss are performed on all components of the hydraulic piping, from the spool of the control valve to the connectors. This regimen, combined with the use a





Working Volume Per Unit Fuel

(ECO mode, compared with S mode on previous machines)

8% increase

Max. Arm Crowding Force

Normal: **203**kN {20.7tf}

With power boost: 222kN {22.7tf}

Max. Bucket Digging Force

Normal: **267**kN {27.2tf}

With power boost: 292kN {29.8tf}

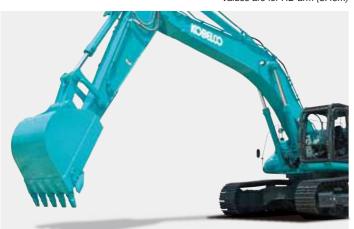
Top-of-Class Working Ranges

Max. digging reach: 12,070mm

Max. digging depth: 7,810mm

Max. vertical wall digging depth: **7,120**mm

* Values are for HD arm (3.45m)



Powerful and Smooth Travel and Swing

Thanks to top-of-class travel torque, smooth travel is assured on slopes and uneven terrain, as well as when changing machine



direction. Powerful swing torque also ensures smooth swing acceleration and deceleration for more efficient performance.

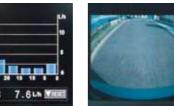
Multi-Display Color Monitor for Easy Checking

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



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.



MAINTENANCE

Emergency Acceleration Feature

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







Comfort

Big Cab

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

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

Twice the stroke of a conventional mount

Vibration control compared with previous models

• When traveling: about 30% reduction • When digging: about 30% to 50% reduction



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.



Low Vibration

vibration.

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.

Safety

ROPS Cab

The newly developed, 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





- To fit vandalism guards, please contact your KOBELCO dealer (Mounting brackets for vandalism guards)
- FOPS guard
- Wiper is stored out of sight when not in use to maintain a clear view
 - mirrors on left and right, and a third mirror mounted at lower right





• Tempered glass windows meet European standards

Rear view camera

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



appears on the color monitor.

Safety Features Take Various Scenarios into Consideration







requires no manual



pump compartment from



• Handrails meet ISO standards

- Thermal guard prevents contact with hot components
- during engine inspections



Monitor Display with Essential Information for Accurate Maintenance Checks



- Displays only the mainte nance information that's needed, when it's needed
- Self-diagnostic function pro vides early-warning detec tion and display of electrical system malfunctions
- Record function of previous breakdowns including irregular and transient mal function

	INTERVAL	REMANDIG TIME	EXCHANGE DAY
ENGINE OIL	500	497	
FUELFILTER	500	497	11
HYD. FILTER	1000	997	11
HYD. OIL	5000	4997	

Comfortable "On the Ground" Maintenance

Most daily inspection and regular maintenance tasks can be easily implemented with ready access on the ground.



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



Fuel filter (built-in water separator)

The large capacity fuel filter is designed specially for common rail engines. This high-grade filter catches 95% of all dust particles and other impurities in the fuel.





Easy Cleaning



Crawler frame

Special crawler frame design is easily cleaned of mud.



Detachable two-piece floor mat



handles for easy removal. A floor flange and large drain valve. drain is located under floor mat

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.

1,000



GEOSCAN

GEOSCAN allows you to use the Internet to manage information from your office for machines operating in all areas. This provides a wide range of support for your business operations.

Maintenance Carried Out on Top of

the Machine Is Safety-Oriented

Three steps are provided for climbing the machine, with handrails that meet ISO standards, so that maintenance can be safely carried out on top of the machine.



Handrails



Three steps

More Efficient Maintenance Inside the Cab



Easy-access fuse box More finely differentiated fuses make it easier to locate malfunctions



Hour meter can be checked while standing on the ground.



DPF reactivation switch If the monitor warning goes off, the filter should be reactivated manually using a switch



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

Direct Access to Operational Status

Location Data

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

Operating Hours

A comparison of operating times of machines at multiple locations shows which locations are busier and

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

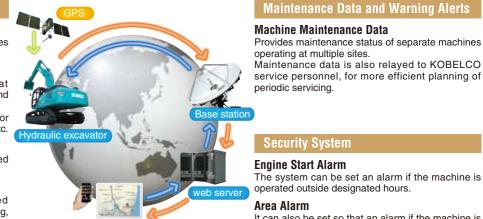
Fuel Consumption Data

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

Graph of Work Content

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

Graph of Machine Duty Cycles



Security System

Engine Start Alarm

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

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





Model	HINO P11C-VC	
Туре	Direct injection, water-cooled, 4-cycle diesel engine with turbocharger, intercooler	
No. of cylinders	6	
Bore and stroke	122 mm x 150 mm	
Displacement	10.520 L	
Rated power output	257 kW/1,850 min ⁻¹ (ISO 9249)	
nateu power output	271 kW/1,850 min ⁻¹ (ISO 14396)	
Max. torque	1,428 N·m/1,400 min ⁻¹ (ISO 9249)	
iviax. torque	1,470 N·m/1,400 min ⁻¹ (ISO 14396)	



Hydraulic System

Pump	
Туре	Two variable displacement pumps + one gear pump
Max. discharge flow	2 x 370 L/min, 1 x 30 L/min
Relief valve setting	
Boom, arm and bucket	31.4 MPa {320 kgf/cm ² }
Power Boost	34.3 MPa {350 kgf/cm ² }
Travel circuit	34.3 MPa {350 kgf/cm ² }
Swing circuit	25.8 MPa {000 kgf/cm ² }
Control circuit	5.0 MPa {50 kgf/cm ² }
Pilot control pump	Gear type
Main control valve	6-spool
Oil cooler	Air cooled type



Swing motors	2 x axial piston motors	
Brake	Hydraulic; locking automatically when the swing control lever is in neutral position	
Parking brake	Oil disc brake, hydraulic operated automatically	
Swing speed	7.8 min ⁻¹ {rpm}	
Tail swing radius	3,700 mm	
Min. front swing radius	5,140 mm	

Travel System

Travel motors	2 x axial-piston, two-step motors	
Travel brakes	Hydraulic brake per motor	
Parking brakes	Oil disc brake per motor	
Travel shoes	50 each side	
Travel speed	5.4 / 3.4 km/h	
Drawbar pulling force	415 kN (ISO 7464)	
Gradeability	70 % {35°}	

Cab & Control

Cab
All-weather, sound-suppressed steel cab mounted on the silicon-sealed
viscous suspension mounts and equipped with a heavy, insulated floor ma
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	170 mm x 1,590 mm
Arm cylinder	190 mm x 1,970 mm
Bucket cylinder	160 mm x 1,410 mm



Refilling Capacities & Lubrications

Fuel tank	640 L
Cooling system	47.4 L
Engine oil	42.5 L
Travel reduction gear	2 x 15 L
Swing reduction gear	2 x 4.7 L
Hydraulic oil tank	283 L tank oil level 538 L hydraulic system



Attachments

Backhoe bucket and combination

Use		Backhoe bucket			
		Normal digging		Heavy digging	Normal digging
Bucket capacity	ISO heaped m ³	1.35	2.1	2.1	2.4
Struck	m³	1.0	1.5	1.5	1.7
Ononing width	With side cutter mm	1,225	1,750	1,660	1,980
Opening width Without side cutter mm	1,100	1,630	1,580	1,860	
No. of teeth		4	5	5	5
Bucket weight	kg	1,250	1,560	2,270	1,690
	3.0 m short arm	0	Δ	Δ	0
Combination	3.45 m standard arm	0	©	0	X
	4.9 m long arm	0	×	×	×



Working Ranges

it:	m	

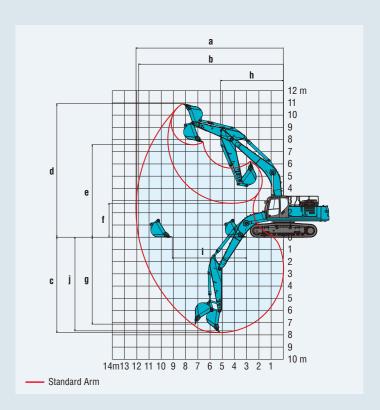
Boom	7.0 m		
Arm	Short	Standard	Long
Range	3.0 m	3.45 m	4.9 m
a-Max. digging reach	11.77	12.07	13.48
b-Max. digging reach at ground level	11.54	11.84	13.28
c- Max. digging depth	7.36	7.81	9.26
d-Max. digging height	11.16	10.93	11.70
e-Max. dumping clearance	7.72	7.58	8.29
f- Min. dumping clearance	3.22	2.77	1.32
g-Max. vertical wall digging depth	6.68	7.12	8.41
h-Min. swing radius	5.27	5.14	5.3
I- Horizontal digging stroke at ground level	5.21	6.10	8.28
j- Digging depth for 2.4 m (8') flat bottom	7.21	7.67	9.15
Bucket capacity ISO heaped m ³	2.1	2.1	1.35

Digging Force (ISO 6015)

Hnit- kM	(+f)
Unit: kN	(11)

Arm length	Short	Standard	Long
	3.0 m	3.45 m	4.9 m
Bucket digging force	266 {27.1}	267 {27.2}	263 {26.8}
	291 {29.7}*	292 {29.8}*	288 {29.4}*
Arm crowding force	223 {22.8}	203 {20.7}	157 {16.0}
	244 {24.9}*	222 {22.7}*	172 {17.6}*

*Power Boost engaged.

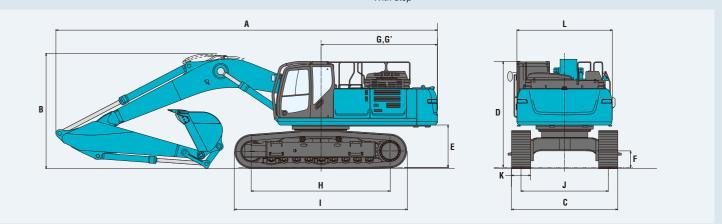


Dimensions

Во	om length	7.0 m
Ar	m length	3.45 m
Α	Overall length	12,060
В	Overall height (to top of boom)	3,610
C	Overall width of crawler	3,350/3,580**
D	Overall height (to top of cab)	3,370
Ε	Ground clearance of rear end*	1,340
F	Ground clearance*	510

		Unit: mm
G	Tail swing radius	3,700
G'	Distance from center of swing to rear end	3,700
Н	Tumbler distance	4,400
1	Overall length of crawler	5,450
J	Track gauge	2,750
K	Shoe width	600
L	Overall width of upperstructure	2,980

*Without including height of shoe

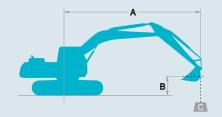


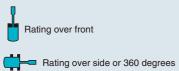
Operating Weight & Ground Pressure

In standard trim, with standard boom, 3.45 m arm, and 2.1 m³ ISO heaped bucket

	· ·	' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '										
Shaped		Triple grouser shoe (even height)										
Shoe width	mm	600	800									
Overall width of crawler	mm	3,350	3,550									
Ground pressure	kPa {kgf/cm²}	83 {0.84}	64 {0.65}									
Operating weight	kg	48,200	49,700									







- A Reach from swing centerline to bucket hook
- B Bucket hook height above/below ground
- C Lifting capacities in kilograms
- Max. discharge pressure: 31.4 MPa (320 kgf/cm²)

SK500LC		Standar	rd Arm: 3.	.45 m, Bu	cket: 2.1	m³ ISO he	aped 1,	560 kg St	10e: 600 r	nm								
	A		5 m	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		At Max. Reach		
В									-									Radius
7.5 m	kg											*7,080	*7,080			*6,510	*6,510	9.16 m
6.0 m	kg											*7,280	7,210			*6,510	6,000	9.87 m
4.5 m	kg									*8,670	*8,670	*7,790	6,940			*6,710	5,350	10.31 m
3.0 m	kg					*17,380	*17,380	*12,300	*12,300	*9,850	8,970	*8,460	6,620	*7,300	4,990	*7,120	4,980	10.52 m
1.5 m	kg					*20,530	18,170	*14,160	11,840	*10,960	8,450	*9,120	6,310	*7,900	4,840	*7,780	4,840	10.51 m
G.L.	kg			*7,890	*7,890	*20,760	17,440	*15,380	11,250	*11,800	8,060	*9,630	6,080			*8,370	4,910	10.28 m
-1.5 m	kg	*9,700	*9,700	*13,350	*13,350	*21,940	17,260	*15,840	10,990	*12,190	7,850	*9,820	5,950			*8,820	5,240	9.81 m
-3.0 m	kg	*14,960	*14,960	*19,600	*19,600	*20,980	17,400	*15,510	10,980	*11,990	7,830	*9,420	5,990			*9,320	5,940	9.07 m
-4.5 m	kg			*26,480	*26,480	*18,860	17,790	*14,170	11,210	*10,810	8,020					*9,840	7,370	7.98 m
-6.0 m	kg					*14,930	*14,930	*11,030	*11,030							*10,190	*10,190	6.35 m

SK500LC		Short A	rm: 3.0 m	ı, Bucket:	2.1 m ³ lS	O heaped									
		3.	0 m	4.	4.5 m		6.0 m		7.5 m) m	At Max. Reach			
В											—			Radius	
9.0 m	kg											*7,930	*7,930	7.79 m	
7.5 m	kg											*7,720	7,460	8.88 m	
6.0 m	kg							*8,300	*8,300	*7,830	7,160	*7,630	6,290	9.61 m	
4.5 m	kg					*11,030	*11,030	*9,260	*9,260	*8,280	6,920	*7,780	5,610	10.06 m	
3.0 m	kg			*18,730	*18,730	*13,060	12,590	*10,380	8,930	*8,890	6,630	*8,170	5,240	10.28 m	
1.5 m	kg			*15,960	*15,960	*14,750	11,770	*11,400	8,450	*9,480	6,350	*8,450	5,110	10.27 m	
G.L.	kg			*17,860	17,480	*15,760	11,280	*12,120	8,120	*9,900	6,160	*8,790	5,210	10.03 m	
-1.5 m	kg	*12,400	*12,400	*21,850	17,440	*15,990	11,100	*12,360	7,960	*9,930	6,080	*9,170	5,600	9.55 m	
-3.0 m	kg	*20,100	*20,100	*20,530	17,660	*15,380	11,160	*11,920	8,000			*9,570	6,410	8.78 m	
-4.5 m	kg	*24,500	*24,500	*17,990	*17,990	*13,660	11,460	*10,220	8,290			*9,870	8,090	7.65 m	
-6.0 m	kg			*13,280	*13,280							*9,660	*9,660	5.93 m	

SK500LC		Long A	rm: 4.9 m	, Bucket:	1.35 m³ l	SO heape	O heaped 1,250 kg Shoe: 600 mm											
	Α	1.	5 m	3.0) m	4.5	5 m	6.0) m	7.5	i m	9.0	m	10.	.5 m	At Max	. Reach	
В							—		-								-	Radius
9.0 m	kg															*4,390	*4,390	9.92 m
7.5 m	kg													*5,050	*5,050	*4,200	*4,200	10.80 m
6.0 m	kg													*5,750	5,560	*4,150	*4,150	11.40 m
4.5 m	kg											*6,370	*6,370	*6,080	5,360	*4,210	4,170	11.79 m
3.0 m	kg									*8,140	*8,140	*7,170	6,830	*6,550	5,110	*4,380	3,900	11.97 m
1.5 m	kg			*9,110	*9,110	*17,060	*17,060	*12,030	*12,030	*9,490	8,700	*8,000	6,420	*7,060	4,860	*4,670	3,770	11.96 m
G.L.	kg	*3,630	*3,630	*8,720	*8,720	*19,910	17,770	*13,850	11,450	*10,650	8,130	*8,750	6,060	*7,520	4,650	*5,120	3,790	11.76 m
-1.5 m	kg	*6,950	*6,950	*11,250	*11,250	*21,310	17,020	*15,010	10,880	*11,480	7,740	*9,300	5,810	*7,820	4,500	*5,810	3,960	11.35 m
-3.0 m	kg	*10,540	*10,540	*15,010	*15,010	*21,530	16,780	*15,450	10,620	*11,860	7,540	*9,510	5,680	*7,760	4,460	*6,900	4,340	10.72 m
-4.5 m	kg	*14,670	*14,670	*19,990	*19,990	*20,660	16,890	*15,100	10,620	*11,620	7,520	*9,150	5,710			*7,970	5,050	9.82 m
-6.0 m	kg	*19,770	*19,770	*26,960	*26,960	*18,520	17,310	*13,700	10,860	*10,410	7,730					*8,430	6,420	8.55 m
-7.5 m	kg			*20,340	*20,340	*14,360	*14,360	*10,430	*10,430							*8,730	*8,730	6.73 m

- 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.
- above int 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 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
- Lift capacities apply to only machine as originally manufactured and normally equipped by KOBELCO CONSTRUCTION MACHINERY CO., LTD.

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