

KOBELCO

Hydraulic Crawler Crane

CK1100G-3

Max. Lifting Capacity : 110 US Tons

Max. Crane Boom Length : 200 ft

Max. Fixed Jib Combination : 190 ft + 60 ft



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CK1100G-3 SPECIFICATIONS

General Description



<i>Type</i>	Crawler mounted, Lattice boom, Hydraulic controlled
<i>Maximum lift capacity</i>	220,000 lbs (99,800 kg) @ 11' operating radius (40' boom)
<i>Basic boom length</i>	40' (12.2 m)
<i>Maximum boom length</i>	200' (61.0 m)
<i>Basic boom & jib length</i>	80' + 30' (24.4 m + 9.1 m)
<i>Maximum boom & jib length</i>	190' + 60' (57.9 m + 18.3 m)
<i>Working weight</i>	Approx. 199,610 lbs (90,540 kg)
<i>Ground bearing pressure</i>	Approx. 13.0 psi (89.4 kPa)
<i>Gradeability</i>	40%

Calculations to determine working weight, ground bearing pressure, and gradeability include the weight of the upper and lower works of the crane, counterweights, and carbody weights, 40' boom and hook block.

General Dimensions

<i>Height to top of gantry (lowered)</i>	10' 10" (3,315 mm)
<i>Width of upper machine w/operator's cab</i>	9' 10" (2,990 mm)*
<i>Radius of rear end (counterweights)</i>	15' 5" (4,700 mm)
<i>Counterweight ground clearance</i>	3' 8" (1,115 mm)
<i>Center of rotation to boom foot pin</i>	3' 7" (1,100 mm)
<i>Height from ground to boom foot pin</i>	5' 10" (1,770 mm)
<i>Height over gantry (raised)</i>	20' 3" (6,185 mm)
<i>Overall length of crawlers</i>	20' 7" (6,280 mm)
<i>Overall width of crawlers</i>	17' 2" (5,244 mm)
<i>Center to center, idler to sprocket</i>	17' 10" (5,440 mm)
<i>Shoe width</i>	36" (914 mm)
<i>Ground clearance of body</i>	1' 3" (390 mm)

Working Speed

<i>Hoist line speed (front and rear drums)</i>	390 to 10 ft/min (120 to 3 m/min)
<i>Lowering line speed (front and rear drums)</i>	390 to 10 ft/min (120 to 3 m/min)
<i>Boom hoist line speed</i>	230 to 6.6 ft/min (70 to 2 m/min)
<i>Boom lowering line speed</i>	230 to 6.6 ft/min (70 to 2 m/min)
<i>Swing speed (max.)</i>	4.0 rpm (4.0 min ⁻¹)
<i>Travel speed (high/low)</i>	1.1/0.72 mph (1.7/1.1 km/h)

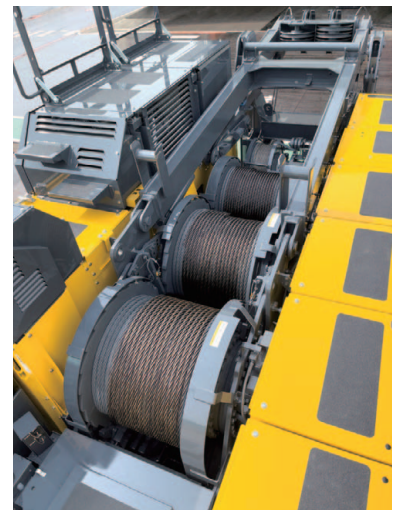
Line speed based on single line, no load, and first layer of rope on the drum.

Upper Machinery

Power Plant :

Diesel engine - make and model

	ISUZU 6HK1 (Tier 4 Final)
<i>No. of cylinders</i>	6
<i>Bore X stroke</i>	115 mm × 125 mm
<i>Cycles</i>	4
<i>Total displacement</i>	475 cu.in. (7.79 L)
<i>Rated output SAE GROSS</i>	281.6 HP / 1,900 rpm (210 kW / 1,900 min ⁻¹)
<i>Maximum torque</i>	796.6 lbs·ft / 1,500 rpm (1,080 N·m / 1,500 min ⁻¹)
<i>Starter</i>	24 Volts / 5.0 kW
<i>Alternator</i>	24 Volts / 90 Amp
<i>Batteries</i>	Two 12 volt, 136 AH/5 HR capacity series connected.
<i>Radiator</i>	Corrugated type core, thermostatically controlled, with cleanout screen.
<i>Throttle</i>	Twist grip type hand throttle, electrically controlled, in conjunction with floor mounted pedal.
<i>Air cleaner</i>	Dry type with replaceable paper element.
<i>Fuel tank capacity</i>	106 US gal. (400 L)
<i>Lube oil filters</i>	Full flow and by-pass type with element cartridge type.
<i>Fuel filter</i>	Replaceable cartridge element.



* 10' 4" wide with step on cab side only.
11' wide with step on both sides.



Self Lifting Device - Standard Equipment

Counterweight and Carbody weight

Counterweight Base	1 × 18,300 lbs (8,310 kg)
Counterweight (R)	2 × 12,700 lbs (5,750 kg)
Counterweight (L)	2 × 12,700 lbs (5,750 kg)
Total Counterweight	69,100 lbs (31,310 kg)
Carbody weight	2 × 15,900 lbs (7,200 kg)
Total Carbody weight	31,800 lbs (14,400 kg)



Hydraulic system

Maximum pressure rating
4,626 psi (31.9 MPa)

Cooling
Oil to air heat exchanger

Filtration
Full flow filters with replaceable paper elements

Oil Quantity (at the reference level)
99.1 US gal. (375 L)

Hydraulic pumps :

Load hoist, boom hoist, and propel
2 piston pumps, max flow rate
67.2 US gal/min × 2 (254.7 L/min × 2)

Swing

1 piston pump, max flow rate
46.8 US gal/min (177.2 L/min)

Control system and auxiliary

2 gear pumps, max flow rate
16.2 US gal/min + 10.6 US gal (61.6 L/min + 40.5 L/min)

Brake cooling system

2 gear pumps, max flow rate
19.4 US gal/min × 2 (73.5 L/min × 2)

Gantry

This high folding type gantry is fitted with a sheave frame for boom reeving. Hydraulic lift is standard. It provides full up, full down positions with linkage.

Operator's cab

Totally enclosed from weather, this full-vision cab has safety glass all around. The adjustable, high-backed seat with armrest is capable of adjustment with or without the control console. Auxiliary controls and instruments are on a side mounted console. A signal horn, windshield wipers, air conditioner / heater, storage compartment for manuals, and swing limiter are all standard features.

Controls

At the operator's right are console-mounted short levers for the front and rear drum and the boom hoist control with individual drum speed dial adjust trimmer of front, rear, and boom drums. Fine inching control switch on boom hoist lever and LMI screen. Free fall activation switches are built in to the levers. Beside the seat on the right are two short levers for propel control. At the left is the console-mounted swing lever, an optional third drum control, switches for the front, rear, and boom drum pawls, and the engine start/stop key. A swing brake control switch and signal horn button are on the swing lever.

Swing :

Swing unit

Hydraulic motor driving spur gears through planetary reducers to output swing pinion for 360 degree rotation. There are three swing options : Free fast, free slow, and auto brake.

Swing brake

Spring set hydraulically released multiple disk brake mounted on swing motor.

Swing circle

Single row ball bearing with an integral internally cut swing gear.

Swing lock

Manual, 4 position lock for transportation.

CK1100G-3 SPECIFICATIONS



Front drum :

Front and rear drums for load hoist powered by hydraulic variable plunger motors, driven through planetary reducers.

Negative brake

A spring-set, hydraulically released multiple disk brake is mounted on the hoist motor and operated through a counter-balance valve.

Drum lock External ratchet for locking drum

Drums :

Front drum (free fall) -

Max. line pull (single line) - 46,800 lbf (208 kN)

Rated line pull - 25,200 lbf (112 kN)

614 mm P.C.D. × 614 mm Lg., grooved for 26 mm wire rope. Rope capacity is 771' (235 m) working length and 1,185' (361.2 m) storage length.

Rear drum (free fall) -

Max. line pull (single line) - 46,800 lbf (208 kN)

Rated line pull - 25,200 lbf (112 kN)

614 mm P.C.D. × 614 mm Lg., grooved for 26 mm wire rope. Rope capacity is 525' (160 m) working length and 1,185' (361.2 m) storage length.

Third drum (optional) -

Max. line pull (single line) - 32,400 lbf (144 kN)

Rated line pull - 17,000 lbf (78.5 kN)

550 mm P.C.D. × 543 mm Lg., grooved for 22 mm wire rope. Rope capacity is 476' (145 m) working length and 1,098' (334.9 m) storage length.

Lower Machinery

Crawlers :

Crawler assemblies can be hydraulically extended or retracted for wide track operation or retracted for transportation. Crawler belt tension adjusted with hydraulic jack and maintained by shims between the idler block and frame.

Crawler drive :

The independent two speed hydraulic propel drive is built into each crawler side frame. Each drive consists of a hydraulic motor driving a propel sprocket through a planetary gear box. The hydraulic motor and gear box are built into the crawler side frame within the shoe width.

Crawler brakes :

Spring set, hydraulically released, multiple disk-type parking brakes are built into each propel drive.

Steering mechanism :

A hydraulic propel system provides both skid steering and counter rotating steering.

Crawler shoe :

66 shoes - 36" wide, each crawler.

Track rollers :

The track rollers are sealed for maintenance free operation.



Crane Attachments

Boom :

The welded lattice construction uses tubular, high-tension steel chords with pin connections between sections.

Maximum boom length	200' (61.0 m)
Basic boom length	40' (12.2 m)
Boom base section	19' (5.8 m)
Boom tip section	21' (6.4 m)

Boom insert (optional) :

Optional boom inserts are available to provide extension capabilities. They are robotic welded, laser aligned, lattice constructed with tubular, high-tension steel chords and pin connections.

Boom insert	10' (3.0 m), 20' (6.1 m), 40' (12.2 m)
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Fixed jib (optional) :

Jib inserts are available to provide extension capabilities. The optional jib employs welded lattice construction with tubular, high-tension steel chords with pin connections between sections.

Maximum jib length	60' (18.3 m)
Basic jib length	30' (9.1 m)
Jib base section	15' (4.6 m)
Jib tip section	15' (4.6 m)
Jib insert	10' (3.0 m), 20' (6.1 m)

Jib is useable on booms of 80' (24.4 m) through 190' (57.9 m)



Auxiliary sheave (optional) :

Auxiliary sheave is extendible on booms of 40' (12.2 m) through 190' (57.9 m)

Boom hoist reeving :

Twelve (12) parts of 16 mm diameter high strength wire rope.

Boom backstops :

Telescopic type with spring bumper

Standard Equipment

Lights :

- Two (2) front flood lights
- One (1) cab inside light

Gauges and warning display :

Gauges

- One (1) tachometer
- One (1) hour meter
- One (1) fuel gauge
- One (1) water temperature
- One (1) DEF gauge

Warning display

- Battery charge
- Engine oil pressure
- Air cleaner
- Engine oil filter
- Control main pressure
- Hydraulic oil temperature
- Exhaust temperature

Others :

- Air conditioner / heater
- Drum turn indicator (front / rear)
- Foot pedal / throttle
- Electric fuel tank transfer pump
- Counterweight self-removal device
- KCROSS (Telematics)
- Free fall winches
- USB port in cab
- Radio with Bluetooth®
- Cigar lighter socket -
- 12 V auxiliary power outlet - in cab

Safety Service

- Function lock lever
- Boom over hoist limit switch
- Signal horn
- Front / rear hoist drum lock
- Swing limiter (Buzzer, lamps, or stops)
- Overload prevention device (LMI)
- Hook over hoist shut off (Anti-two-block)
- Boom angle indicator
- Travel alarm
- Level indicator

Safety Service (cont)

- Boom hoist drum lock
- Swing locks, anti drift, and mechanical
- Boom backstops
- Boom base catwalk
- Upper machinery step, handrails and ladder

Tools and Accessories

A set of tools and manuals are furnished.

Optional Equipment

- Third drum with free fall
- Hook block
- Hook ball
- Auxiliary sheave
- Fixed jib
- Boom inserts
- Boom base mounted cylinder -
- Self-assembly assist
- Translifters

CK1100G-3 G-MODE

The G-Modes are a standard exclusive energy and fuel saving system. The G-Mode eliminates needless operations and engine functions allowing for reduced fuel consumption by using three basic modes that are all operator selectable.

Auto Idling Stop Mode (AIS) :

An Industry First

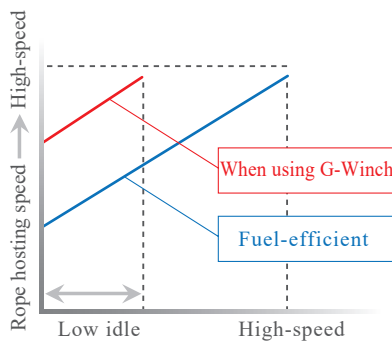
The AIS mode can conserve fuel by stopping the engine, with an operator prompt, after 10 seconds of idling time. Restarting the engine is simple by just twisting the throttle.



G-Winch Mode :

An Industry First

The G-Winch mode can produce maximum winch line speed at a low engine RPM.



The high speed mode allows the line to be raised or lowered at maximum line speed without raising engine speed when lifting without a load.

G-Engine Mode :

An Industry First

The G-Engine mode limits maximum engine speed to approx. 1,500 RPM and controls the pumps to make engine operation in the most efficient condition.



G-Winch



G-Engine



AIS



SCR System

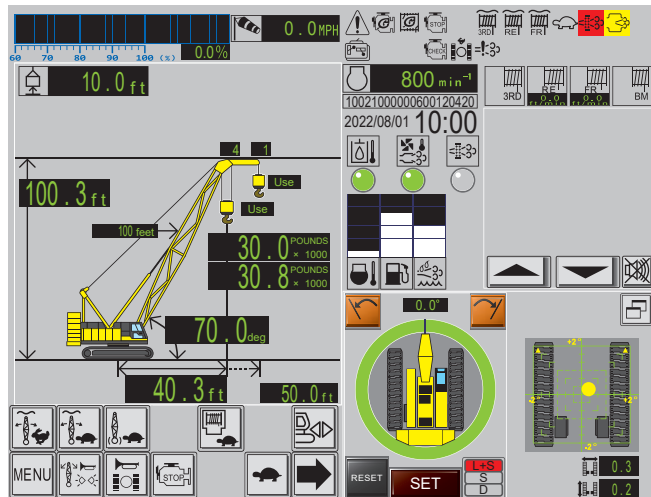
This machine is equipped with the SCR system. The SCR system is used to reduce emission of NOx (nitrogen oxide) from the engine. The SCR system decomposes NOx contained in exhaust gas into water and nitrogen by spraying DEF/ AdBlue® into the muffler. This means that the exhaust gas from the diesel engine is cleaner, conforming with current EPA Tier 4 Final regulations.

This system requires the use of low sulfur diesel.

*Warning : High sulfur diesel will damage the engine.

CK1100G-3 LOAD MOMENT INDICATOR (LMI)

The KOBELCO designed 12" touch panel screen with sunshade and screen protector is an industry first. This intuitive and easy to understand new touch screen monitor gives the operator a full display of essential data. Universal pictograms are used providing easy visual recognition, making this new technology easy to read and understand the information. This new monitor includes : hook height, engine speed, display lamp of standard functions, gauges, over-swing prevention device, maximum load radius, switches, and error messages. Load charts include standard boom, fixed jib, reduced counterweight, clamshell, barge.



Hydraulic oil temperature lamp
Exhaust system cooling call lamp
SCR refresh error lamp

Display lamp

Engine warning lamp
G-Engine indication lamp
G-Winch indication lamp
Auto Idle stop indication lamp
Front drum free fall indication lamp
Rear drum free fall indication lamp
Third drum free fall indication lamp
Inching speed lamp
SCR refresh cancel state lamp
Refresh cancel state lamp
Remote control connection lamp
Engine system error lamp
Travel speed lamp
SCR system error lamp

Boom drum rotation lamp
Front drum rotation lamp
Rear drum rotation lamp
Third drum rotation lamp (optional)

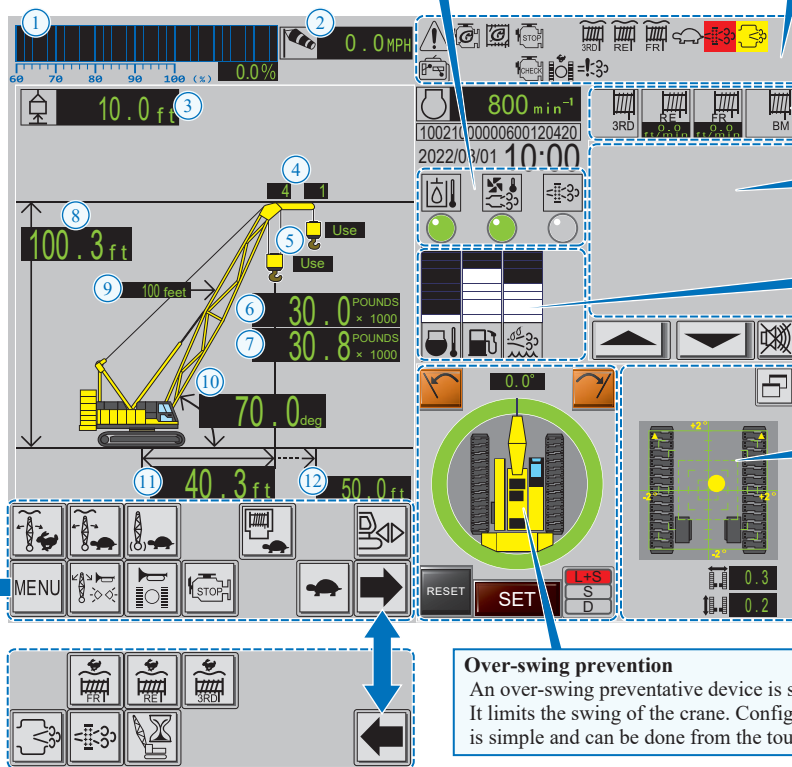
Error message
Touch to display details in a pop-up window.

Gauges
Engine coolant temperature gauge
Fuel bar gauge
Def/adblue® bar gauge
* Figures for the above gauges are only shown when the bar is touched.

Ground incline indicator (optional)
This device is to detect inclination of the crane against the ground to indicate and issue warning.

Over-swing prevention
An over-swing preventative device is standard. It limits the swing of the crane. Configuration is simple and can be done from the touch panel.

- ① Moment ratio indicator
- ② Wind speed indicator
- ③ Hook height
- ④ Front & Rear No. of part line
- ⑤ Main & Aux. hook type
- ⑥ Actual load
- ⑦ Rated load
- ⑧ Point height
- ⑨ Boom length
- ⑩ Boom angle
- ⑪ Working radius
- ⑫ Max. working radius



Main menu

Crane config.
Angle/radius Limiter
Self check Mode



Adjustment mode
Service mode

CK1100G-3 WINCH PERFORMANCE DATA

Note :

Line speed and line pull based on ISUZU 6HK1 at 1,900 rpm.

Line speed and line pull based on single line.

Max. line pull is based on referential performance, not wire rope strength.

		Line speed (ft / min)						
		Layer	1	2	3	4	5	6
Front & Rear Drum (free fall)	0		393	421	449	476	504	
	5,000		393	421	449	476	504	
	10,000		387	414	440	467	494	
	15,000		360	360	348	348	348	
	20,000	Line Pull (lbf)	270	270	261	261	261	storage only
	25,200		214	214	199	187	173	
	30,000		166	149	140	138	136	
	35,000		120	118	114	109		
	40,000		100	95				
Storage Capacity (ft)			139	149	159	169	179	189

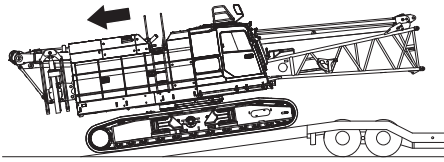
		Line speed (ft / min)						
		Layer	1	2	3	4	5	6
Third Drum (for Load hoist)	0		394	394	394	394	394	
	5,000		394	394	394	394	394	
	10,000		227	227	227	227	227	
	15,000	Line Pull (lbf)	147	152	161	170	179	storage only
	17,000		142	151	160	169	178	
	20,000		140	149	158	167	176	
	25,000		138	147	155	164	172	
	30,000		136	144				
	Storage Capacity (ft)			130	139	148	157	166

Wire Rope Specifications

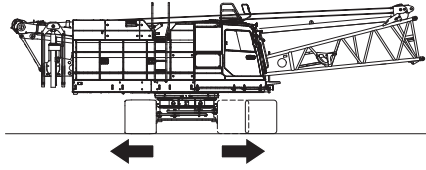
Use	Rope spec.	Rope dia.	Rope length	Safety factor	Breaking strength
Front drum	IWRC 6 × Fi (29) Right-hand Regular lay	1.048" to 1.067" (26.63 mm to 27.09 mm)	771 ft (235 m)	3.5 : 1	120,048 lbf (534 kN)
Front drum (optional)	U3 × SeS (48) Right-hand Regular lay	1.050" to 1.065" (26.68 mm to 27.04 mm)	771 ft (235 m)	3.5 : 1	135,110 lbf (601 kN)
Rear drum	IWRC 6 × Fi (29) Right-hand Regular lay	1.048" to 1.067" (26.63 mm to 27.09 mm)	525 ft (160 m)	3.5 : 1	120,048 lbf (534 kN)
Rear drum (optional)	U3 × SeS (48) Right-hand Regular lay	1.050" to 1.065" (26.68 mm to 27.04 mm)	525 ft (160 m)	3.5 : 1	135,110 lbf (601 kN)
Boom hoist drum	IWRC 6 × P·WS (31) Right-hand Regular lay	0.649" to 0.657" (16.48 mm to 16.70 mm)	492 ft (150 m)	3.5 : 1	47,210 lbf (210 kN)
Boom hoist drum (optional)	IWRC 8 × P·S (19) Right-hand Regular lay	0.649" to 0.657" (16.48 mm to 16.70 mm)	492 ft (150 m)	3.5 : 1	47,210 lbf (210 kN)
Third drum (optional)	IWRC 6 × Fi (29) Right-hand Regular lay	0.888" to 0.905" (22.55 mm to 22.99 mm)	476 ft (145 m)	3.5 : 1	81,606 lbf (363 kN)

CK1100G-3 SELF-ASSEMBLY PROCEDURE

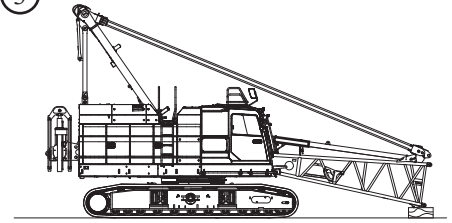
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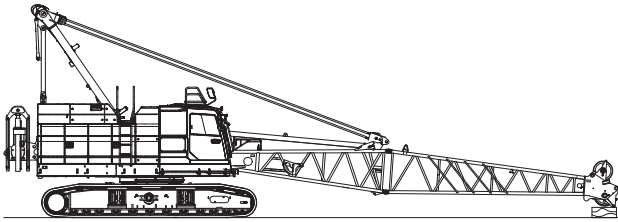
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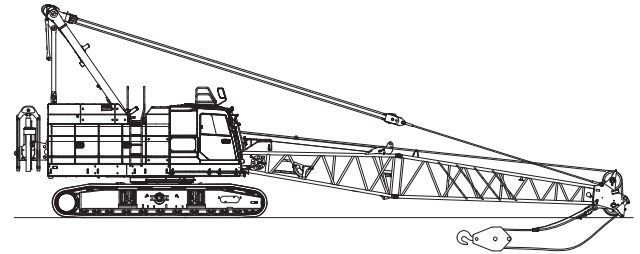
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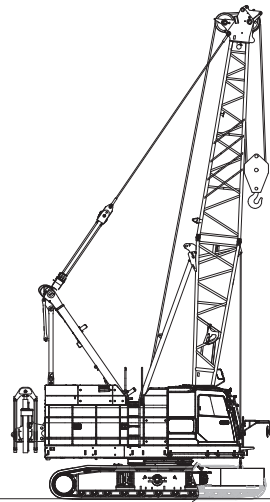
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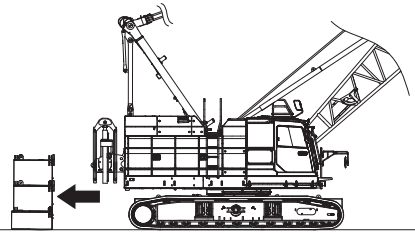
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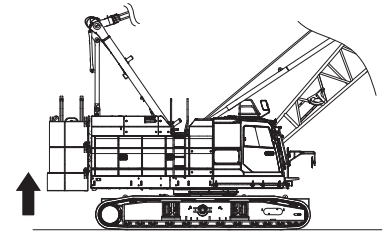
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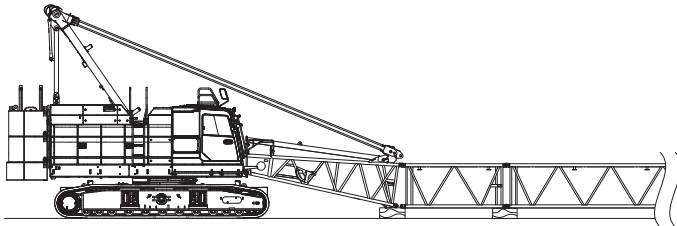
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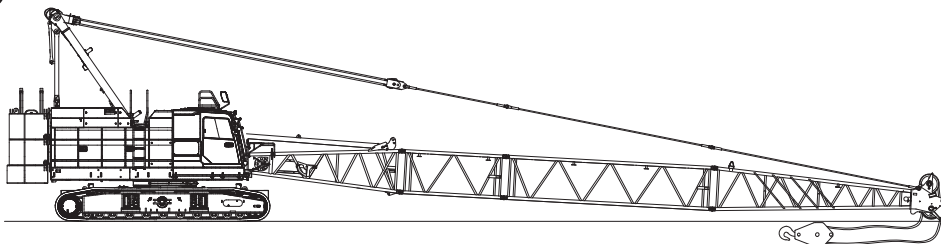
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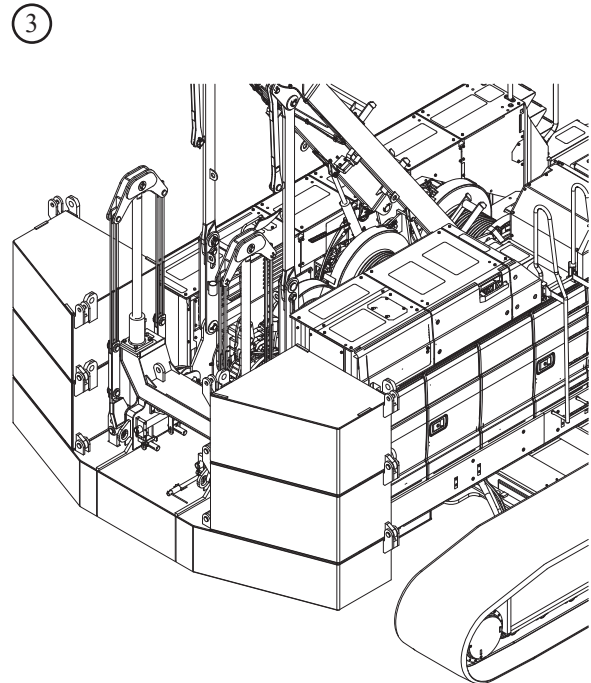
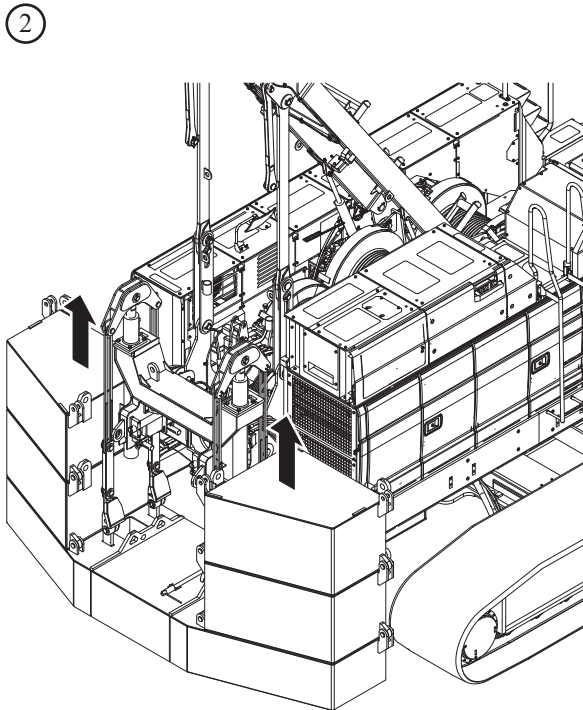
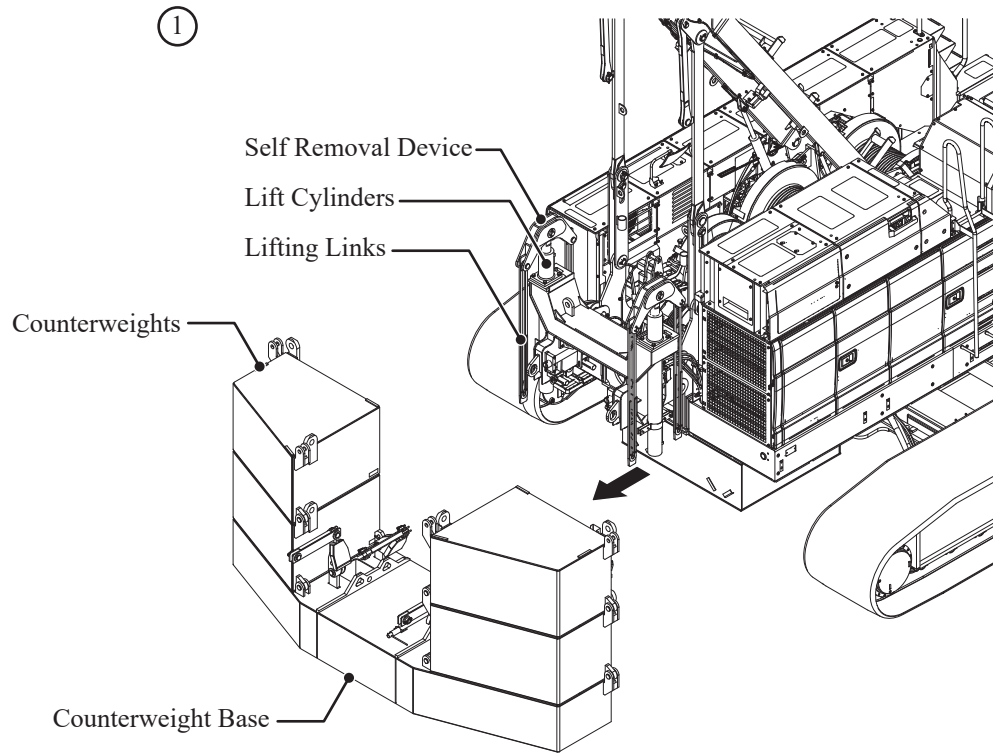
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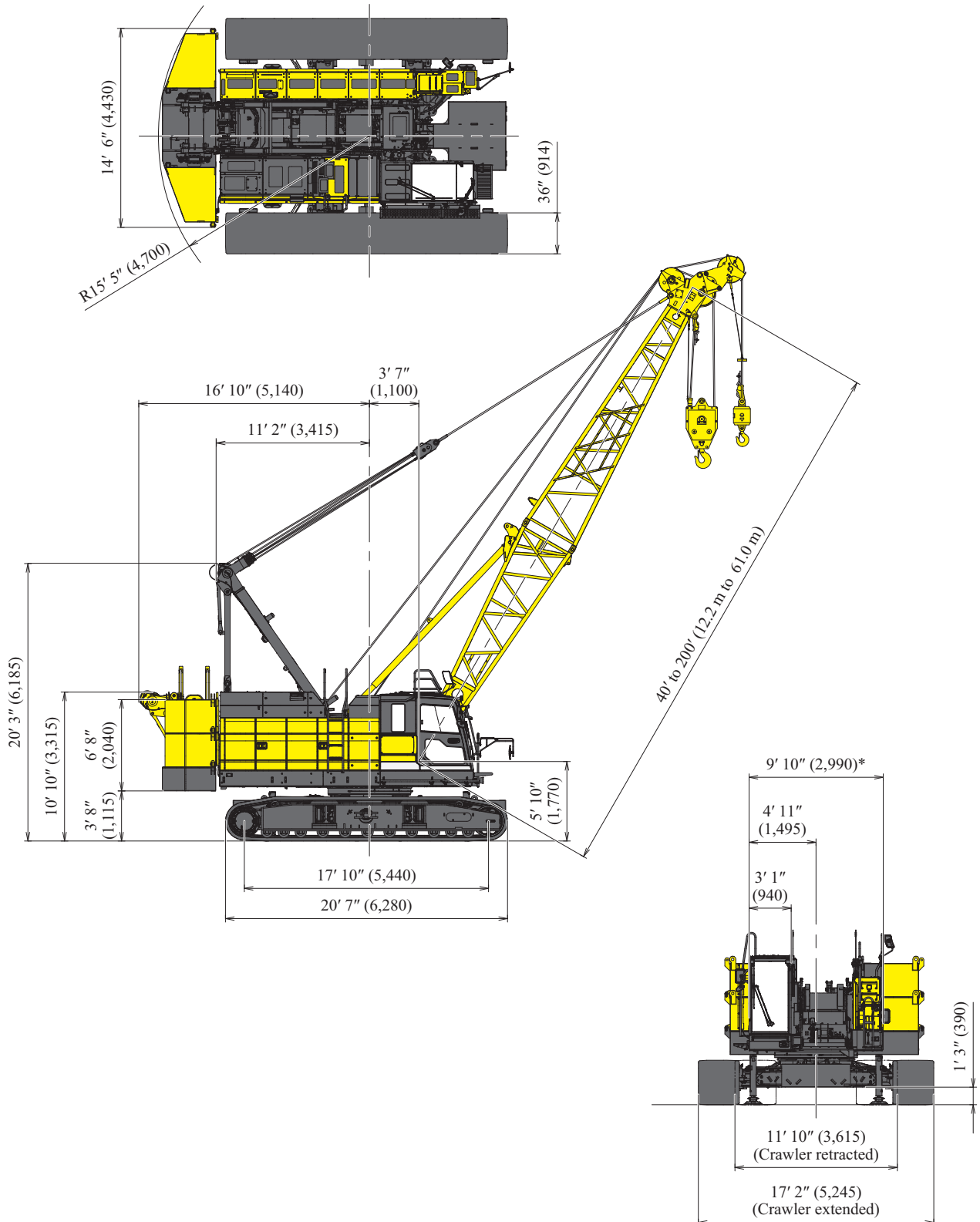


CK1100G-3 COUNTERWEIGHT SELF REMOVAL DEVICE



Crane Boom

Unit : ft. in. (mm)



* 10' 4" wide with step on cab side only.
11' wide with step on both sides.

CK1100G-3

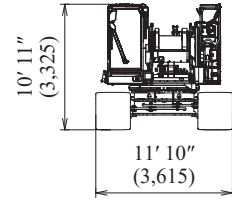
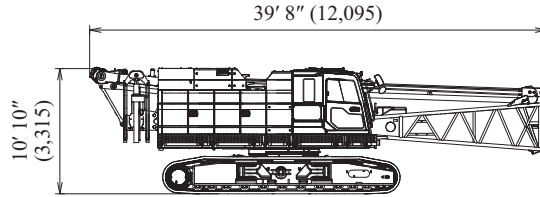
DIMENSIONS & WEIGHT

Dimensions : ft-in (mm) Weight : lbs (kg)

Base Machine - 1

Weight: 96,770 lbs (43,895 kg)

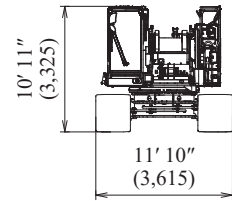
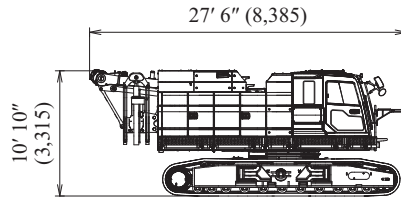
- Gantry○
- Boom base.....○
- Boom drum.....○
- Wire rope Front.....○
- Rear.....○
- Boom.....○
- Self removal device○
- Step○
- Crawler.....○
- Translifter (optional).....×



Base Machine - 2

Weight: 92,285 lbs (41,860 kg)

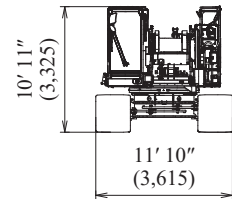
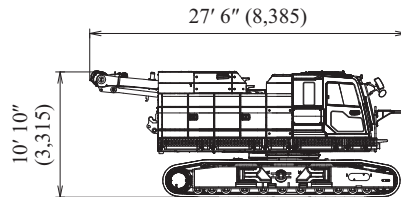
- Gantry○
- Boom base.....×
- Boom drum.....○
- Wire rope Front.....○
- Rear.....○
- Boom.....○
- Self removal device○
- Catwalk○
- Step○
- Translifter (optional).....×



Base Machine - 3

Weight: 90,335 lbs (40,975 kg)

- Gantry○
- Boom base.....×
- Boom drum.....○
- Wire rope Front.....○
- Rear.....○
- Boom.....○
- Self removal device×
- Step○
- Crawler.....○
- Translifter (optional).....×



○ : With
 × : Without

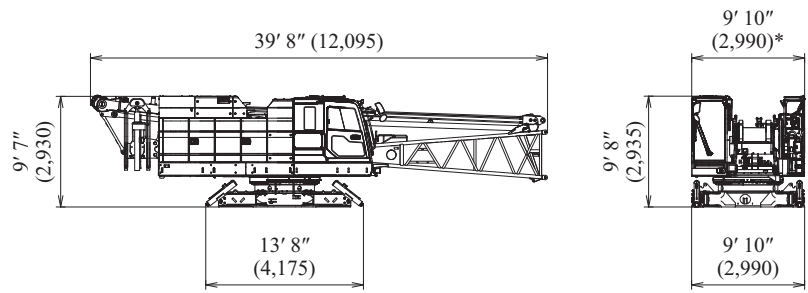
CK1100G-3 DIMENSIONS & WEIGHT

Dimensions : ft-in (mm) Weight : lbs (kg)

Base Machine - 4

Weight: 64,680 lbs (29,340 kg)

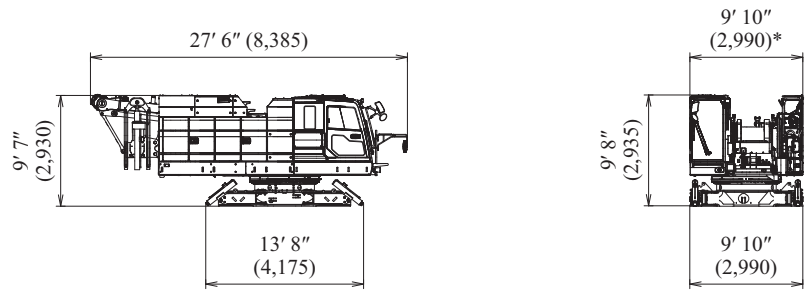
- Gantry
- Boom base.....
- Boom drum
- Wire rope Front.....
- Rear
- Boom.....
- Self removal device
- Step
- Crawler.....
- Translifter (optional).....



Base Machine - 5

Weight: 60,195 lbs (27,305 kg)

- Gantry
- Boom base.....
- Boom drum
- Wire rope Front.....
- Rear
- Boom.....
- Self removal device
- Step
- Crawler.....
- Translifter (optional).....

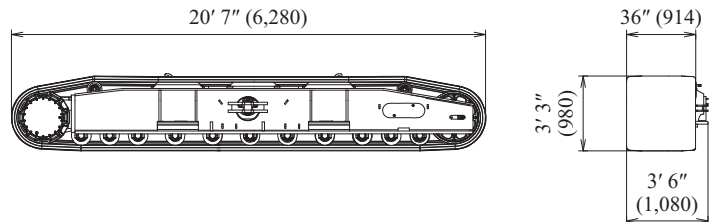


: With
 : Without

* 10' 4" wide with step on cab side only.
11' wide with step on both sides.

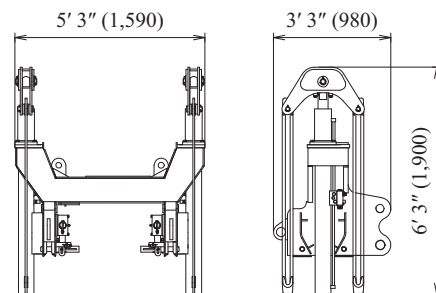
Crawler

Weight: 16,940 lbs (7,685 kg)



Self Removal Unit

Weight: 1,900 lbs (860 kg)



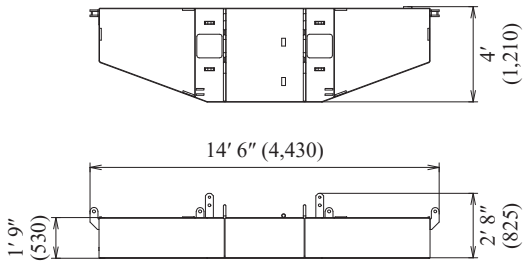
CK1100G-3

DIMENSIONS & WEIGHT

Dimensions : ft-in (mm) Weight : lbs (kg)

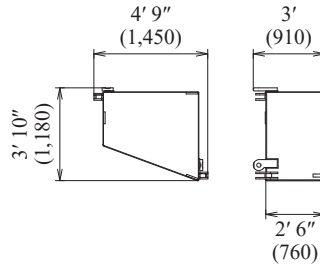
Counterweight Base

Weight: 18,300 lbs (8,310 kg)



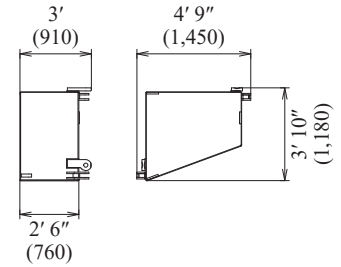
Left Side Counterweight

Weight: 12,700 lbs (5,750 kg)



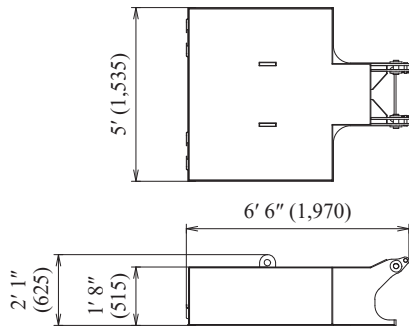
Right Side Counterweight

Weight: 12,700 lbs (5,750 kg)



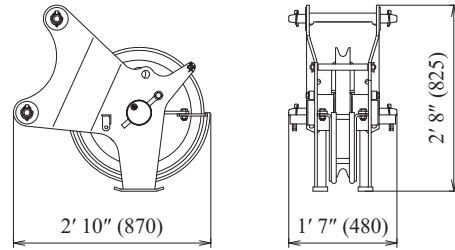
Carbody Weight

Weight: 15,900 lbs (7,200 kg)



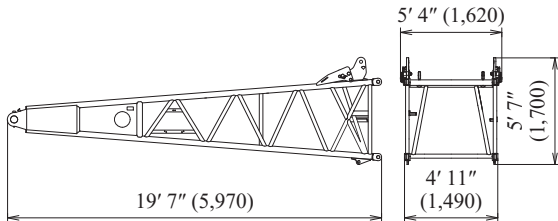
Auxiliary Sheave

Weight: 430 lbs (195 kg)



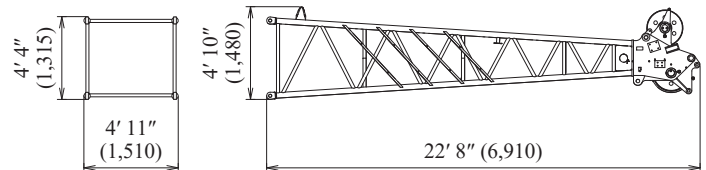
Boom Base

Weight: 2,700 lbs (1,210 kg)



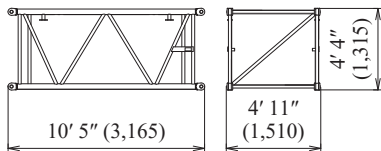
Boom Tip

Weight: 2,700 lbs (1,205 kg)



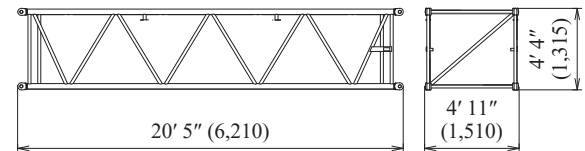
10 ft (3.0 m) Boom Insert

Weight: 680 lbs (310 kg)



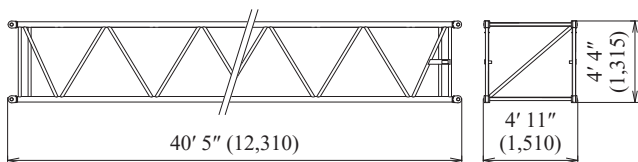
20 ft (6.1 m) Boom Insert

Weight: 1,200 lbs (525 kg)



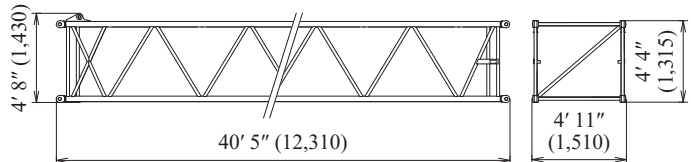
40 ft (12.2 m) Boom Insert

Weight: 2,100 lbs (965 kg)



40 ft (12.2 m) Boom Insert with Lug

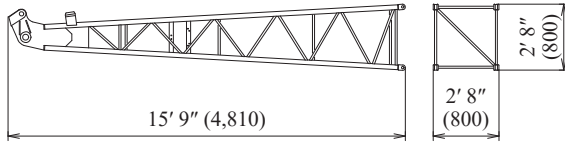
Weight: 2,200 lbs (980 kg)



Dimensions : ft-in (mm) Weight : lbs (kg)

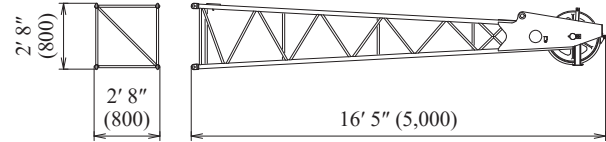
Fixed Jib Base

Weight: 440 lbs (200 kg)



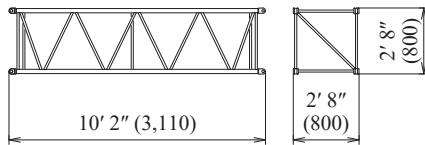
Fixed Jib Tip

Weight: 620 lbs (280 kg)



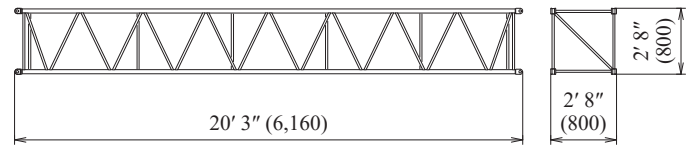
10 ft (3.0 m) Fixed Jib Insert

Weight: 220 lbs (100 kg)



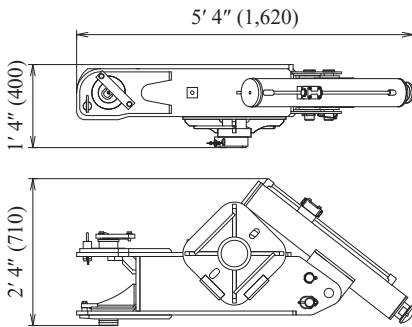
20 ft (6.1 m) Fixed Jib Insert

Weight: 400 lbs (180 kg)



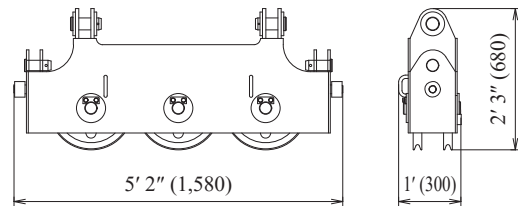
Translifter (optional)

Weight: 640 lbs (290 kg)



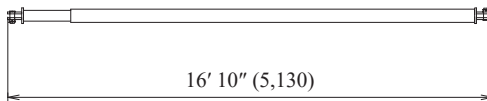
Upper Spreader

Weight: 620 lbs (280 kg)



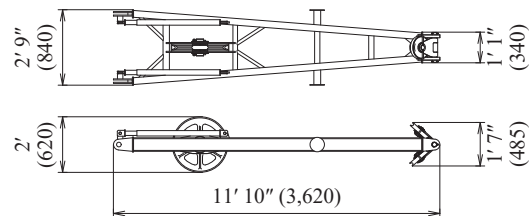
Boom Backstop

Weight: 600 lbs (270 kg)



Fixed Jib Strut

Weight: 610 lbs (275 kg)



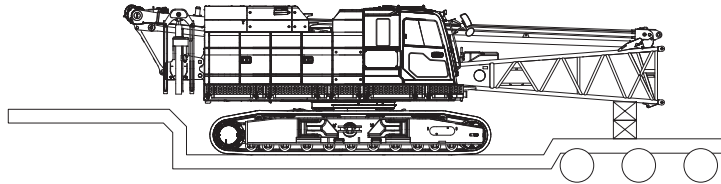
CK1100G-3 TRANSPORTATION PLAN

Shipping plan for 150 ft Boom

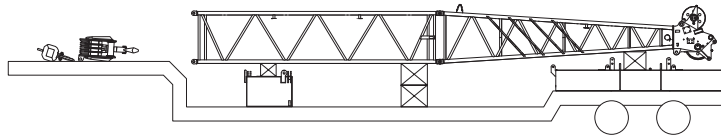
Description of Item	Weight		Trailer Loads			
	lbs	(kg)	#1	#2	#3	#4
Base Machine with Boom Base and Crawler*	96,770	(43,895)	1			
Counterweight Base	18,300	(8,310)		1		
Counterweight (L)	12,700	(5,750)			2	
Counterweight (R)	12,700	(5,750)		1	1	
Carbody Weight	15,900	(7,200)				2
10 ft Boom Insert	680	(310)			1	
20 ft Boom Insert	1,200	(525)		1		
40 ft Boom Insert	2,100	(965)			1	
40 ft Boom Insert (w/ Lug)	2,200	(980)				1
Boom Tip	2,700	(1,205)		1		
Fixed Jib Base and Strut	1,050	(475)				
10 ft Fixed Jib Insert	220	(100)				
20 ft Fixed Jib Insert	400	(180)				
Fixed Jib Tip	620	(280)				
75 Ton Block	3,000	(1,361)		1		
13 Ton Ball	800	(365)		1		
Ladder Assembly	49	(22)				1
Support Box	5,000	(2,268)				1
Approx. Total Shipping Weight		lbs (kg)	96,770 (43,895)	38,700 (17,516)	40,880 (18,525)	39,049 (17,670)

* Steps on both sides are included. Third drum is not included. Add 4,200 lbs if third drum is installed.
 Loads for transportation were targeted at 45,000 lbs, 8' 6" wide, 48' long and 13' 6" high from ground, 48' step deck.
 This may vary depending on truck/trailer weight, style of trailer and state law.

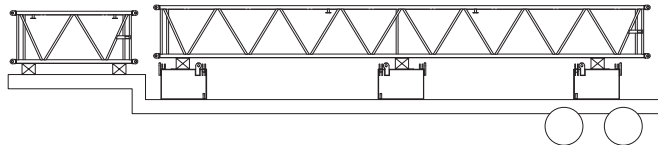
Trailer #1



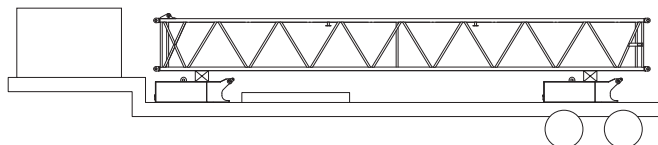
Trailer #2*



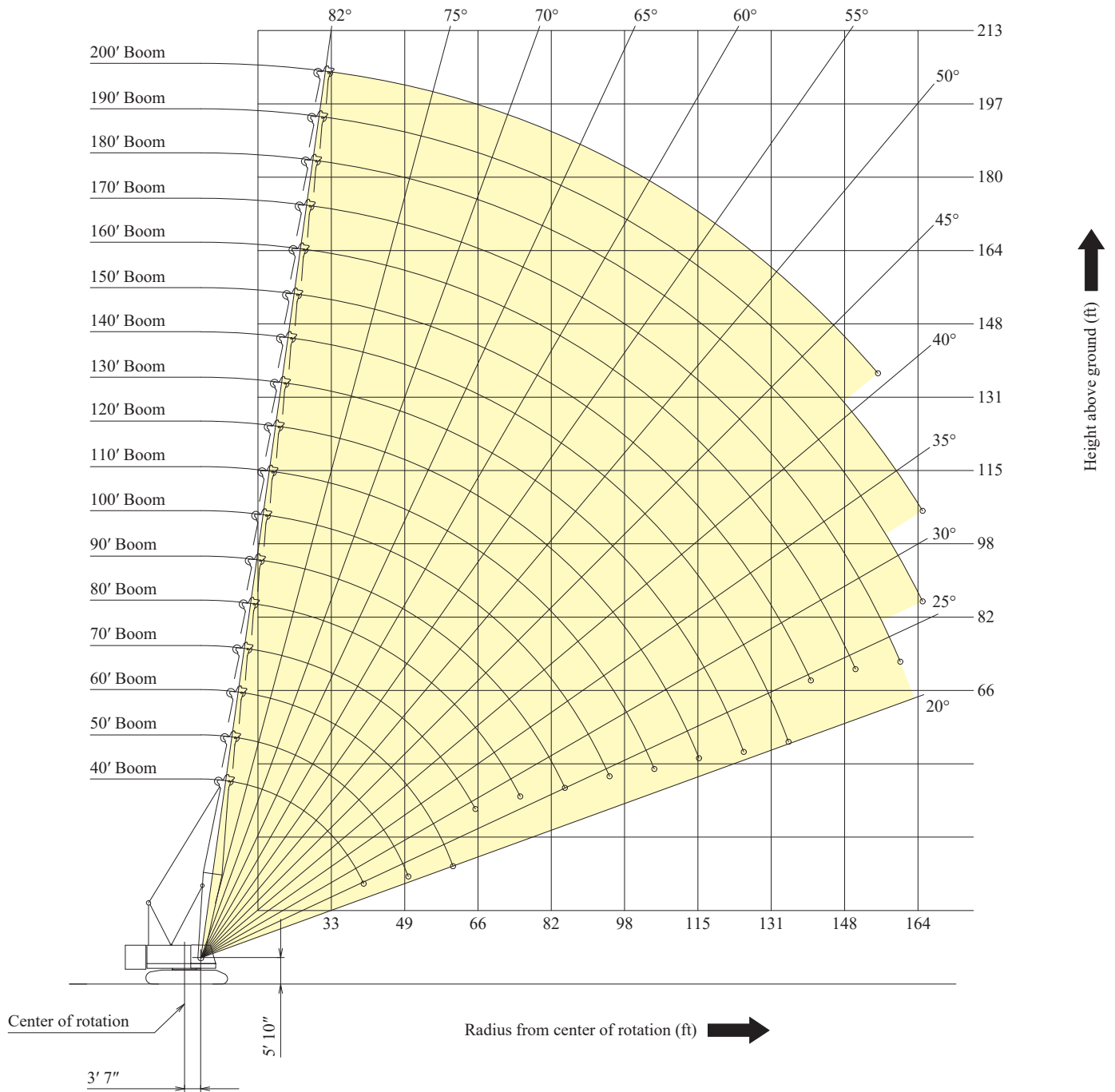
Trailer #3



Trailer #4

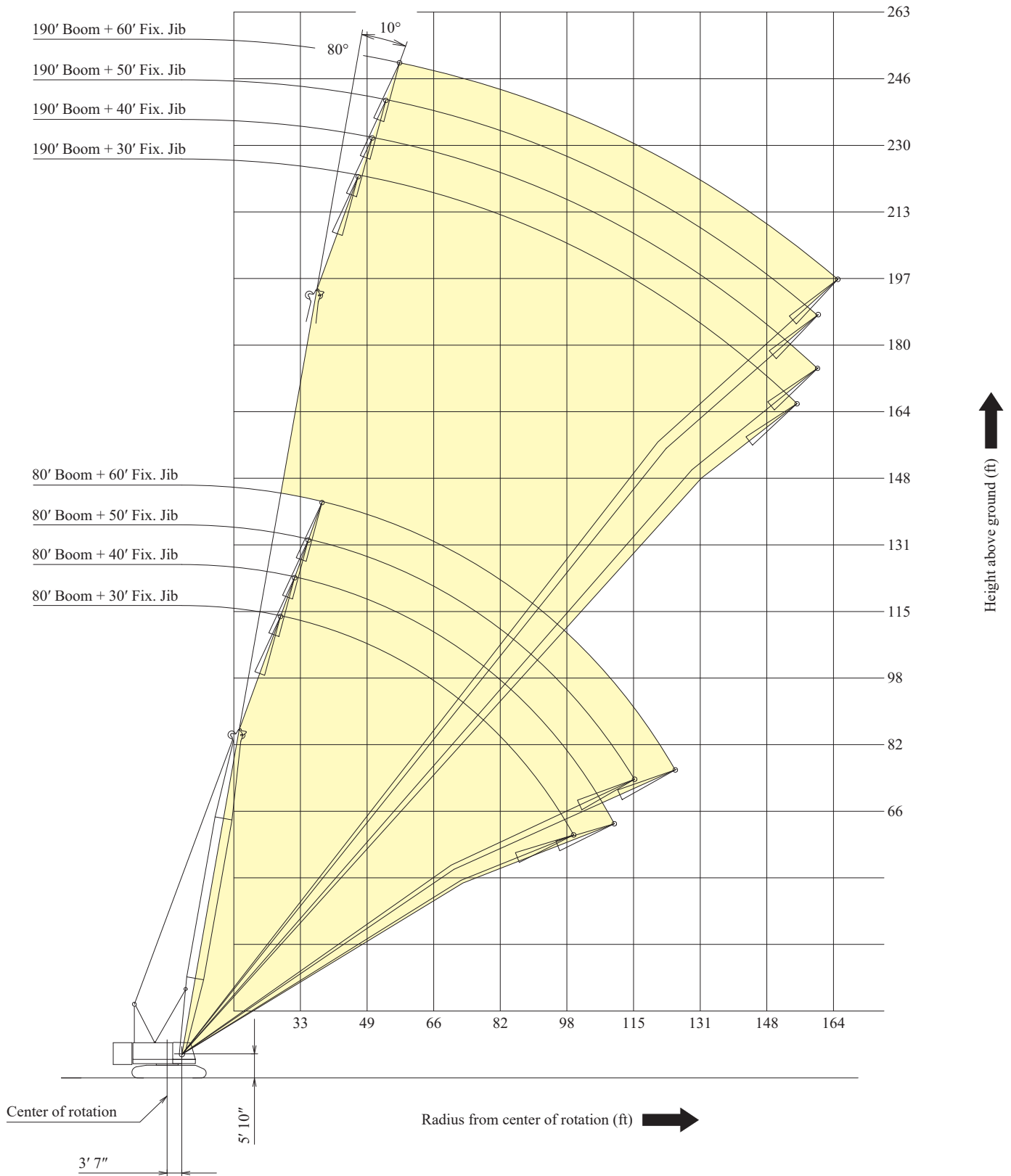


Main Boom

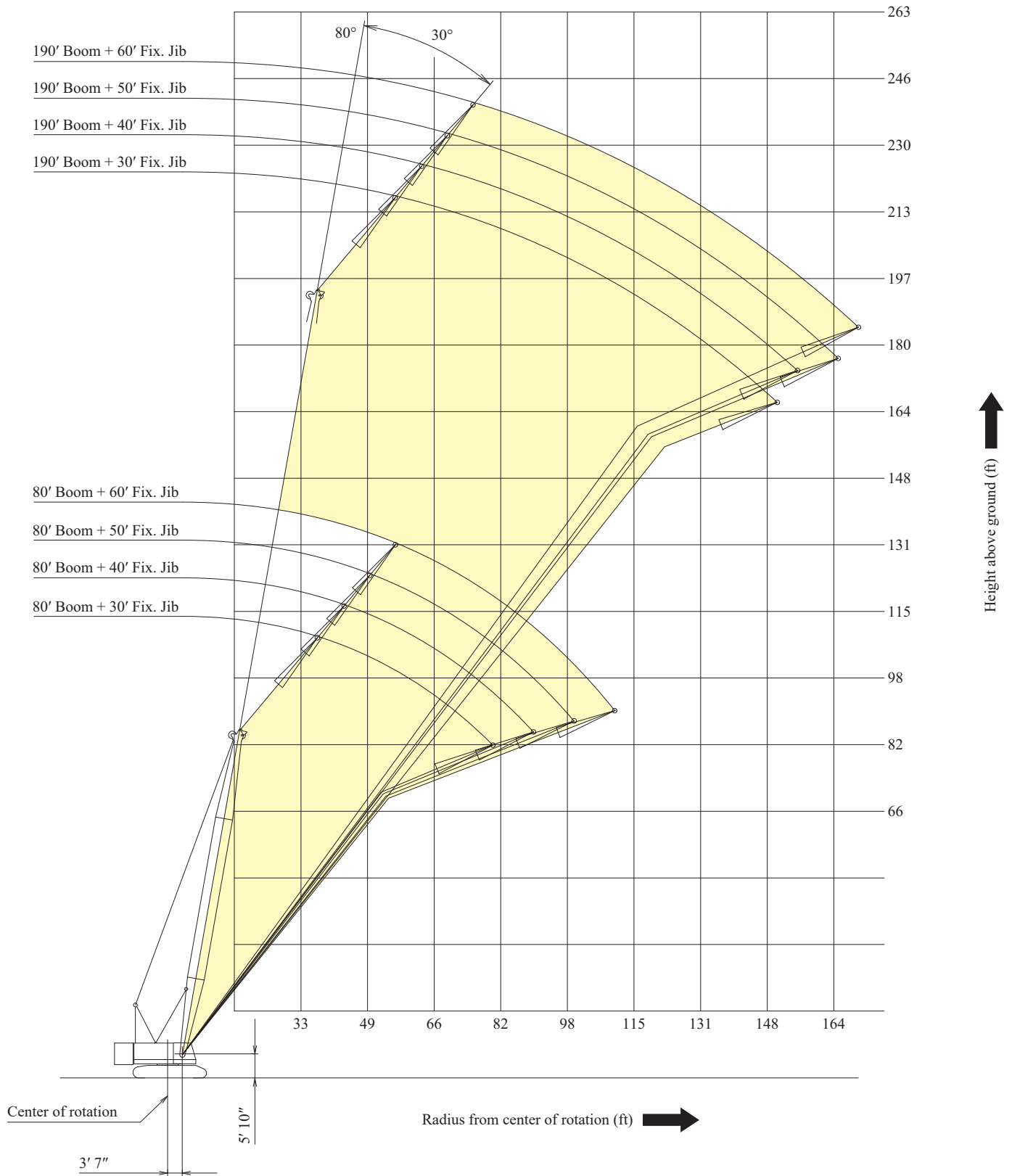


CK1100G-3 WORKING RANGES

Fixed Jib 10°



Fixed Jib 30°



CK1100G-3 BOOM AND JIB ARRANGEMENTS

Boom Arrangement

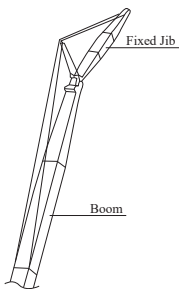
Boom length : ft (m)	Boom arrangement
40 (12.2)	
50 (15.2)	※
60 (18.3)	※
70 (21.3)	※
80 (24.4)	※
90 (27.4)	※
100 (30.5)	※
110 (33.5)	※
120 (36.6)	※
130 (39.6)	※
140 (42.7)	※

Boom length : ft (m)	Boom arrangement
150 (45.7)	※
160 (48.8)	※
170 (51.8)	※
180 (54.9)	※
190 (57.9)	※
200 (61.0)	※

Symbol	Boom Length	Remarks
	19 ft (5.8 m)	Boom Base
	21 ft (6.4 m)	Boom Tip
	10 ft (3.0 m)	Boom Insert
	20 ft (6.1 m)	Boom Insert
	40 ft (12.2 m)	Boom Insert
	40 ft (12.2 m)	Boom Insert with Lug

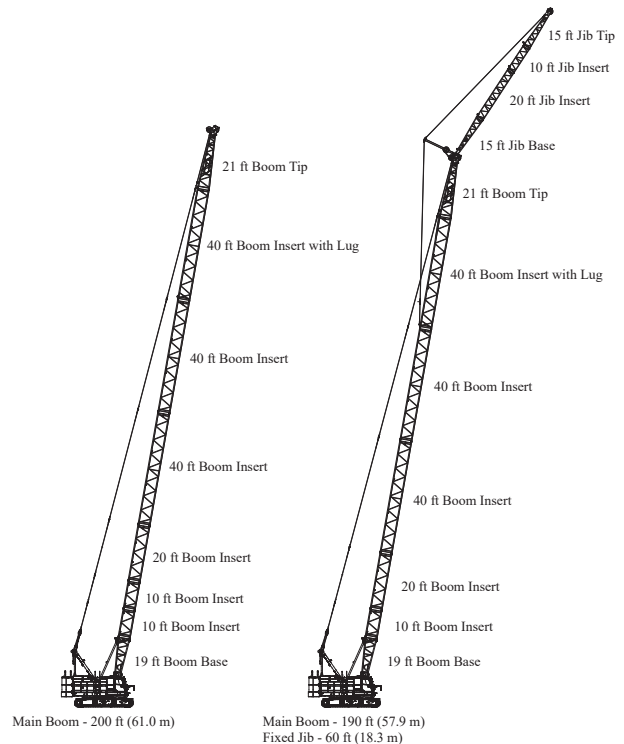
↗ Mark shows the boom insert with lugs attached and the guy line installing position when the jib is used.
 ※ Indicates the most flexible combination of boom inserts, which can be modified to form all shorter boom arrangements.

Fixed Jib Arrangement



Crane boom length	Jib length : ft (m)	Jib arrangement
80 ft (24.4 m) to 190 ft (57.9 m)	30 (9.1)	
	40 (12.2)	
	50 (15.2)	
	60 (18.3)	

Symbol	Jib Length	Remarks
	15 ft (4.6 m)	Jib Base
	15 ft (4.6 m)	Jib Tip
	10 ft (3.0 m)	Jib Insert
	20 ft (6.1 m)	Jib Insert



Boom And Fixed Jib

- Rated loads included in the charts are the maximum allowable freely suspended loads at a given boom length, boom angle and load radius, and have been determined for the machine standing level on firm supporting surface under ideal operating conditions. The user must limit or derate rated loads to allow for adverse conditions (such as soft or uneven ground, out-of-level conditions, wind, side loads, pendulum action, jerking or sudden stopping of loads, inexperience of personnel, multiple machine lifts, and traveling with a load).
- Rated loads do not exceed 75% of minimum tipping loads. Rated loads based on factors other than machine stability such as structural competence are shown by asterisk * in the charts.
- The machine must be reeved and set-up as stated in the operation manual and all the instruction manuals if these manuals are missing, obtain replacements.
 - Boom backstops are required for all boom lengths.
 - Gantry must be fully raised position for all operations.
 - Crawlers must be fully extended and be locked in position.
 - The crane must be leveled to within 1% on a firm supporting surface.
 - Counterweights and carbody weights are fully installed.
- Do not attempt to lift where no ratings are shown as crane may tip or collapse.
- Attempting to lift more than rated loads may cause machine to tip or collapse. Do not tip machine to determine capacity.
- Weight of hooks, hook blocks, slings and other lifting devices are a part of the total load. Their total weight must be subtracted from the rated load to obtain the weight that can be lifted.
- When lifting over boom point with jib or auxiliary sheave, rated loads for the boom must be deducted as shown below.

Jib Length	Aux Sheave	30 ft	40 ft	50 ft	60 ft
Deductions (lbs)	420	2,500	3,700	5,100	6,700

When auxiliary sheave is used for 8 or 7 reeving parts of line, it is not required to deduct 420 lbs from rated loads.
- The total load that can be lifted over a jib is limited by rated jib loads.
- Boom lengths for jib mounting are 80 ft (24.4 m) to 190 ft (57.9 m).
- The total load that can be lifted over an auxiliary sheave is the value for 420 lbs deducted from rated load for the boom without auxiliary sheave, but it should not exceed 24,000 lbs.
- Boom lengths that can attach auxiliary sheave are from 40 ft (12.2 m) to 190 ft (57.9 m).

- The boom should be erected over the front of the crawlers, not laterally. When erecting and lowering the boom at length of 190 ft (57.9 m) with jib, the blocks for erection must be placed at the end of the crawlers.
- Least stable position is over the side.
- Maximum hoist load for number of reeving parts of line for hoist rope.

Main Boom Hoist Loads

No. of Parts of line	1	2	4	5	6
Maximum Loads (lbs)	25,200	50,400	100,800	126,000	151,200

No. of Parts of line	7*	8*	*Use auxiliary sheave.
Maximum Loads (lbs)	176,400	220,000	

Jib Hoist Loads

No. of Parts of line	1
Maximum Loads (lbs)	24,000

Auxiliary Hoist Loads

No. of Parts of line	1
Maximum Loads (lbs)	24,000

- Weight of recommended hook block.

Hook Block	110 USt	77 USt	55 USt	39 USt	BALL HOOK
Weight (lbs)	3,815	1,990	1,875	1,545	660

WARNING

If the weight of hook block to be used is lighter than the recommended weight, the jib may turnover backward or it is difficult to lower the empty hook block.

- Lifting capacities listed apply only to the machine as originally manufactured and designed by KOBELCO CONSTRUCTION MACHINERY CO.,LTD. Modifications to this machine or use of equipment other than that specified can reduce operating capacity.
- Designed and rated to comply with ASME B30.5-2014.

Operation of this equipment in excess of rated loads or disregard of instruction voids the warranty.

CK1100G-3 LIFTING CHART

Main Boom Lift Capacity

Counterweights : 69,100 lbs Carbody weights : 31,800 lbs

40' Boom			50' Boom			60' Boom			70' Boom			80' Boom		
Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)	Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)	Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)	Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)	Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)
11.0	80.5	220,000 *	12.0	81.2	213,200 *	13.0	81.7	200,400 *	15.0	81.3	151,000 *	16.0	81.6	151,000 *
12.0	79.0	213,300 *	13.0	80.0	200,600 *	14.0	80.7	187,400 *	16.0	80.4	151,000 *	17.0	80.9	149,300 *
13.0	77.5	200,800 *	14.0	78.9	187,800 *	15.0	79.8	175,200 *	17.0	79.6	149,400 *	18.0	80.2	146,500 *
14.0	76.0	188,100 *	15.0	77.7	175,600 *	16.0	78.8	164,800 *	18.0	78.7	146,700 *	19.0	79.5	139,400 *
15.0	74.6	175,900 *	16.0	76.6	165,300 *	17.0	77.8	155,500 *	19.0	77.9	139,800 *	20.0	78.8	131,800
16.0	73.1	165,500 *	17.0	75.4	156,000 *	18.0	76.8	146,900 *	20.0	77.1	132,200	22.0	77.3	115,100
17.0	71.6	156,300 *	18.0	74.2	147,400 *	19.0	75.9	139,800 *	22.0	75.4	115,400	24.0	75.8	101,000
18.0	70.1	147,800 *	19.0	72.9	140,100 *	20.0	74.9	132,200	24.0	73.7	101,300	26.0	74.3	89,200
19.0	68.5	140,500 *	20.0	71.7	132,400	22.0	72.9	115,100	26.0	72.0	89,600	28.0	72.8	80,500
20.0	66.9	132,800	22.0	69.3	115,300	24.0	70.9	100,800	28.0	70.3	80,800	30.0	71.2	72,800
22.0	63.7	115,600	24.0	66.8	101,000	26.0	68.8	89,100	30.0	68.5	73,000	32.0	69.7	66,600
24.0	60.4	101,300	26.0	64.3	89,400	28.0	66.7	80,500	32.0	66.7	67,000	34.0	68.2	61,600
26.0	57.0	89,600	28.0	61.7	80,700	30.0	64.6	72,800	34.0	64.9	62,000	36.0	66.6	57,300
28.0	53.4	80,900	30.0	59.1	73,000	32.0	62.5	66,600	36.0	63.0	57,800	38.0	65.1	53,100
30.0	49.8	73,300	32.0	56.3	67,000	34.0	60.3	61,600	38.0	61.2	53,600	40.0	63.5	49,300
32.0	45.8	67,200	34.0	53.4	62,000	36.0	58.0	57,300	40.0	59.3	49,800	42.0	61.8	46,600
34.0	41.2	61,700	36.0	50.3	57,800	38.0	55.7	53,100	42.0	57.3	46,900	44.0	60.2	43,800
36.0	36.2	56,600	38.0	47.3	53,600	40.0	53.4	49,300	44.0	55.3	44,100	46.0	58.5	41,100
38.0	31.1	51,500	40.0	44.0	49,800	42.0	50.9	46,600	46.0	53.3	41,300	48.0	56.8	39,100
40.0	25.4	45,900 *	42.0	40.4	47,000	44.0	48.3	43,800	48.0	51.2	39,400	50.0	55.1	37,100
			44.0	36.7	44,300	46.0	45.8	41,100	50.0	49.0	37,400	55.0	50.5	32,700
			46.0	32.9	41,500	48.0	42.8	39,200	55.0	43.2	33,200	60.0	45.7	29,200
			48.0	27.6	38,300	50.0	39.9	37,200	60.0	36.9	29,600	65.0	40.4	26,300
			50.0	22.3	35,100	55.0	31.2	32,900	65.0	29.2	26,800	70.0	34.3	24,100
						60.0	20.7	28,600 *				75.0	26.9	22,100
Reeves		8	Reeves		8	Reeves		8	Reeves		6	Reeves		6
90' Boom			100' Boom			110' Boom			120' Boom			130' Boom		
Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)	Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)	Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)	Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)	Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)
17.0	81.9	125,800 *	19.0	81.6	125,600 *	20.0	81.8	100,800 *	22.0	81.6	98,700 *	24.0	81.3	85,100 *
18.0	81.3	125,800 *	20.0	81.0	123,600 *	22.0	80.8	100,800 *	24.0	80.6	94,200 *	26.0	80.4	83,900 *
19.0	80.7	125,800 *	22.0	79.9	112,200 *	24.0	79.7	96,500 *	26.0	79.6	88,000 *	28.0	79.5	78,200 *
20.0	80.0	124,000 *	24.0	78.7	100,600	26.0	78.6	88,500 *	28.0	78.6	79,900	30.0	78.6	71,900
22.0	78.7	112,500 *	26.0	77.5	88,900	28.0	77.6	80,200	30.0	77.7	72,200	32.0	77.7	65,900
24.0	77.4	100,800	28.0	76.3	80,200	30.0	76.5	72,400	32.0	76.7	66,100	34.0	76.9	60,900
26.0	76.1	89,100	30.0	75.1	72,400	32.0	75.4	66,300	34.0	75.7	61,100	36.0	75.9	56,600
28.0	74.8	80,500	32.0	74.0	66,300	34.0	74.3	61,300	36.0	74.7	56,800	38.0	75.0	52,300
30.0	73.5	72,800	34.0	72.8	61,300	36.0	73.2	57,000	38.0	73.7	52,500	40.0	74.1	48,400
32.0	72.1	66,600	36.0	71.6	57,000	38.0	72.2	52,700	40.0	72.7	48,700	42.0	73.2	45,600
34.0	70.8	61,600	38.0	70.3	52,700	40.0	71.1	48,900	42.0	71.7	45,800	44.0	72.2	42,800
36.0	69.4	57,300	40.0	69.1	48,900	42.0	70.0	46,200	44.0	70.7	43,000	46.0	71.3	40,000
38.0	68.0	53,100	42.0	67.9	46,200	44.0	68.9	43,400	46.0	69.7	40,200	48.0	70.4	38,000
40.0	66.6	49,300	44.0	66.6	43,400	46.0	67.8	40,700	48.0	68.6	38,300	50.0	69.4	36,000
42.0	65.2	46,500	46.0	65.4	40,700	48.0	66.6	38,700	50.0	67.6	36,300	55.0	67.1	31,600
44.0	63.8	43,700	48.0	64.1	38,700	50.0	65.4	36,600	55.0	65.0	32,000	60.0	64.6	28,100
46.0	62.4	40,900	50.0	62.8	36,600	55.0	62.5	32,300	60.0	62.3	28,300	65.0	62.2	25,200
48.0	60.9	38,900	55.0	59.5	32,300	60.0	59.5	28,700	65.0	59.6	25,400	70.0	59.6	22,900
50.0	59.4	36,900	60.0	56.1	28,700	65.0	56.5	25,900	70.0	56.8	23,200	75.0	57.0	20,900
55.0	55.7	32,500	65.0	52.5	25,900	70.0	53.2	23,500	75.0	53.8	21,200	80.0	54.3	19,000
60.0	51.7	29,000	70.0	48.8	23,500	75.0	49.9	21,400	80.0	50.8	19,400	85.0	51.6	17,500
65.0	47.4	26,100	75.0	44.8	21,400	80.0	46.4	19,600	85.0	47.7	17,700	90.0	48.7	16,100
70.0	42.9	23,800	80.0	40.5	19,600	85.0	42.6	18,100	90.0	44.3	16,500	95.0	45.6	15,000
75.0	37.9	21,800	85.0	36.0	18,100	90.0	38.6	16,800	95.0	40.7	15,300	100.0	42.4	14,000
80.0	32.2	20,100	90.0	30.5	16,900	95.0	34.1	15,600	100.0	36.9	14,200	110.0	35.4	12,100
85.0	25.7	18,600	95.0	24.0	15,800	100.0	29.1	14,600	110.0	27.8	12,600	120.0	26.6	10,800
						105.0	23.2	13,770			11,840	125.0	21.3	10,230
Reeves		5	Reeves		5	Reeves		4	Reeves		4	Reeves		4

Note: Designed and rated to comply with ANSI Code B30.5
Capacities based on factors other than machine stability such as structural competence are shown by asterisk * in the charts.
Refer to notes on page 21.

Main Boom Lift Capacity

Counterweights : 69,100 lbs Carbody weights : 31,800 lbs

140' Boom			150' Boom			160' Boom			170' Boom			180' Boom		
Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)	Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)	Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)	Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)	Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)
24.0	81.9	72,900 *	26.0	81.7	62,200 *	28.0	81.5	50,200 *	30.0	81.3	44,500 *	30.0	81.8	39,300 *
26.0	81.1	71,800 *	28.0	80.9	61,300 *	30.0	80.8	50,100 *	32.0	80.7	43,900 *	32.0	81.2	38,800 *
28.0	80.3	70,800 *	30.0	80.1	60,400 *	32.0	80.1	49,700 *	34.0	80.0	43,200 *	34.0	80.5	38,200 *
30.0	79.4	69,000 *	32.0	79.4	59,400 *	34.0	79.4	49,200 *	36.0	79.3	42,500 *	36.0	79.9	37,600 *
32.0	78.6	64,700 *	34.0	78.6	57,200 *	36.0	78.6	48,500 *	38.0	78.6	41,900 *	38.0	79.2	37,000 *
34.0	77.8	60,500 *	36.0	77.8	54,100 *	38.0	77.9	47,800 *	40.0	77.9	41,200 *	40.0	78.6	36,400 *
36.0	76.9	56,200 *	38.0	77.0	51,000 *	40.0	77.2	46,600 *	42.0	77.2	40,600 *	42.0	77.9	35,800 *
38.0	76.1	52,000 *	40.0	76.3	48,000 *	42.0	76.4	44,300 *	44.0	76.5	40,000 *	44.0	77.2	35,100 *
40.0	75.2	48,200 *	42.0	75.5	45,200 *	44.0	75.6	42,100 *	46.0	75.8	39,300 *	46.0	76.6	34,500 *
42.0	74.4	45,400 *	44.0	74.7	42,400 *	46.0	74.9	39,800 *	48.0	75.1	37,400 *	48.0	75.9	33,900 *
44.0	73.5	42,600 *	46.0	73.9	39,600 *	48.0	74.1	37,800 *	50.0	74.4	35,400 *	50.0	75.3	33,300 *
46.0	72.7	39,800 *	48.0	73.1	37,500 *	50.0	73.4	35,800 *	55.0	72.6	31,200 *	55.0	73.7	30,800 *
48.0	71.8	37,800 *	50.0	72.3	35,500 *	55.0	71.5	31,400 *	60.0	70.9	27,600 *	60.0	72.0	27,400 *
50.0	71.0	35,800 *	55.0	70.3	31,200 *	60.0	69.6	27,800 *	65.0	69.1	24,600 *	65.0	70.3	24,400 *
55.0	68.8	31,400 *	60.0	68.2	27,600 *	65.0	67.7	25,000 *	70.0	67.3	22,300 *	70.0	68.6	21,900 *
60.0	66.6	27,800 *	65.0	66.2	24,800 *	70.0	65.8	22,600 *	75.0	65.4	20,300 *	75.0	66.9	19,900 *
65.0	64.3	25,000 *	70.0	64.0	22,400 *	75.0	63.8	20,500 *	80.0	63.5	18,500 *	80.0	65.2	18,100 *
70.0	62.0	22,600 *	75.0	61.9	20,300 *	80.0	61.8	18,700 *	85.0	61.6	16,800 *	85.0	63.4	16,600 *
75.0	59.7	20,500 *	80.0	59.6	18,500 *	85.0	59.7	17,000 *	90.0	59.7	15,400 *	90.0	61.6	15,200 *
80.0	57.3	18,700 *	85.0	57.4	17,000 *	90.0	57.6	15,700 *	95.0	57.8	14,300 *	95.0	59.8	14,000 *
85.0	54.8	17,200 *	90.0	55.2	15,700 *	95.0	55.4	14,500 *	100.0	55.8	13,300 *	100.0	57.9	12,900 *
90.0	52.2	15,900 *	95.0	52.8	14,400 *	100.0	53.2	13,500 *	110.0	51.5	11,500 *	110.0	54.0	11,100 *
95.0	49.5	14,600 *	100.0	50.3	13,400 *	110.0	48.6	11,700 *	120.0	47.0	9,800 *	120.0	49.9	9,600 *
100.0	46.8	13,600 *	110.0	45.1	11,700 *	120.0	43.6	10,100 *	130.0	42.2	8,700 *	130.0	45.6	8,500 *
110.0	40.8	11,900 *	120.0	39.3	10,300 *	130.0	38.1	8,900 *	140.0	36.8	7,700 *	140.0	40.9	7,400 *
120.0	34.0	10,300 *	130.0	32.8	8,900 *	140.0	31.6	7,900 *	150.0	30.5	6,800 *	150.0	35.7	6,500 *
130.0	25.7	9,200 *	140.0	24.3	8,000 *	150.0	23.7	7,100 *	160.0	23.2	5,900 *	160.0	29.7	5,600 *
135.0	20.5	8,830 *										165.0	26.5	5,100 *
Reeves		4	Reeves		4	Reeves		2	Reeves		2	Reeves		2
190' Boom			200' Boom											
Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)	Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)									
32.0	81.6	34,400 *	34.0	81.5	30,300 *									
34.0	81.0	33,800 *	36.0	80.9	29,700 *									
36.0	80.4	33,300 *	38.0	80.3	29,200 *									
38.0	79.8	32,700 *	40.0	79.7	28,700 *									
40.0	79.2	32,200 *	42.0	79.1	28,200 *									
42.0	78.6	31,700 *	44.0	78.6	27,700 *									
44.0	78.0	31,100 *	46.0	78.0	27,300 *									
46.0	77.4	30,600 *	48.0	77.4	26,800 *									
48.0	76.7	30,100 *	50.0	76.8	26,300 *									
50.0	76.1	29,600 *	55.0	75.3	24,900 *									
55.0	74.5	28,100 *	60.0	73.8	23,200 *									
60.0	73.0	26,200 *	65.0	72.4	21,500 *									
65.0	71.4	24,000 *	70.0	70.9	20,000 *									
70.0	69.8	21,800 *	75.0	69.3	18,500 *									
75.0	68.2	19,900 *	80.0	67.8	17,100 *									
80.0	66.5	18,000 *	85.0	66.2	15,900 *									
85.0	64.9	16,400 *	90.0	64.6	14,700 *									
90.0	63.2	15,000 *	95.0	63.0	13,500 *									
95.0	61.5	13,900 *	100.0	61.4	12,400 *									
100.0	59.7	12,900 *	110.0	58.1	10,600 *									
110.0	56.2	11,000 *	120.0	54.6	9,200 *									
120.0	52.5	9,400 *	130.0	51.1	7,800 *									
130.0	48.5	8,200 *	140.0	47.2	6,500 *									
140.0	44.3	7,200 *	150.0	43.1	5,200 *									
150.0	39.7	6,300 *	155.0	41.0	4,650 *									
160.0	34.8	5,300 *												
165.0	32.1	4,650 *												
Reeves		2	Reeves		2									

*Note: Designed and rated to comply with ANSI Code B30.5
Capacities based on factors other than machine stability such as structural competence are shown by asterisk * in the charts.
Refer to notes on page 21.*

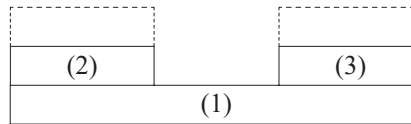
Clamshell

- Rated loads included in the charts are the maximum allowable freely suspended loads at a given boom length, boom angle and load radius, and have been determined for the machine standing level on firm supporting surface under ideal operating conditions. The user must limit or derate rated loads to allow for adverse conditions (such as soft or uneven ground, out-of-level conditions, wind, side loads, pendulum action, jerking or sudden stopping of loads, inexperience of personnel, multiple machine lifts, and traveling with a load).
- Rated loads do not exceed 66% of minimum tipping loads. Rated loads based on factors other than machine stability such as structural competence are shown by asterisk * in the charts.
- The machine must be reeved and set-up as stated in the operation manual and all the instruction manuals. If these manuals are missing, obtain replacements.
 - Boom backstops are required for all boom lengths.
 - Gantry must be fully raised position for all operations.
 - Crawlers must be fully extended and be locked in position.
 - The crane must be leveled to within 1% on a firm supporting surface.
 - 43,700 lbs counterweights and without carbody weights.
- Do not attempt to lift where no rating are shown as crane may tip or collapse.
- Attempting to lift more than rated loads may cause machine to tip or collapse. Do not tip machine to determine capacity.
- Weight of bucket, slings and other lifting devices are a part of the total load. Their total weight must be subtracted from the rated load to obtain the weight that can be lifted.
- Bucket weight must also be decreased according to operating cycle and bucket lowering height. Rated loads are determined by stability and boom strength. During simultaneous operations of boom and swing, rapid acceleration or deceleration must be avoided. Do not attempt to cast the bucket while swinging or diagonal draw-cutting.
- The boom should be erected over the front of the crawlers, not laterally.

- Least stable position is over the side.
- Maximum hoist load for number of reeving parts of line for hoist rope.

No. of Parts of line	1
Maximum Loads (lbs)	22,000

- Assembling the counterweight
 - 43,700 lbs Counterweight (No.1 to No.3)
 - Without carbody counterweight.



COUNTERWEIGHTS



CARBODY WEIGHTS

- Lifting capacities listed apply only to the machine as originally manufactured and designed by KOBELCO CONSTRUCTION MACHINERY CO.,LTD. Modifications to this machine or use of equipment other than that specified can reduce operating capacity.

Operation of this equipment in excess of rated loads or disregard of instruction voids the warranty.

Clamshell

Boom :

Welded lattice construction using tubular, high-tensile steel chords with pin connections between each section.

Basic boom length : 40 ft (12.2 m)

Max. boom length : 120 ft (36.6 m)

Limit on clamshell bucket weight : 4,600 lbs (2,100 kg)

Optional tagline : Hydraulic operated type and spring type.

Boom Component Chart :

Boom length ft (m)	Boom arrangement
40 (12.2)	Base-Tip
50 (15.2)	Base-A-Tip
60 (18.3)	Base-A-A-Tip, Base-B-Tip
70 (21.3)	Base-A-B-Tip
80 (24.4)	Base-A-A-B-Tip, Base-D-Tip, Base-B-B-Tip
90 (27.4)	Base-A-B-B-Tip, Base-A-D-Tip
100 (30.5)	Base-A-A-B-B-Tip, Base-A-A-D-Tip, Base-B-D-Tip
110 (33.5)	Base-A-B-D-Tip
120 (36.6)	Base-A-A-B-D-Tip, Base-C-D-Tip, Base-B-B-D-Tip

Base = Boom Base

Insert : A = 10 ft (3.0 m)

B = 20 ft (6.1 m)

C = 40 ft (12.2 m)

D = 40 ft (12.2 m) with Lug

Tip = Boom Tip

1. Figures represent maximum allowable capacity, and assume level, ground and ideal working conditions.
2. Capacities are calculated at 66% of the minimum tipping loads.
3. Capacities are maximum recommended by PCSA Standard #4. Allowances must be made by the user for such unfavorable conditions as a sort of uneven supporting surface, rapid cycle operations, or bucket.
4. The combined weight of the bucket and load must not exceed these capacities.

Counterweights : 43,700 lbs Without carbody weights

40' Boom			50' Boom			60' Boom		
Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)	Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)	Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)
22.0	63.7	22,000 *	26.0	64.3	22,000 *	30.0	64.6	22,000 *
24.0	60.5	22,000 *	28.0	61.7	22,000 *	32.0	62.5	22,000 *
26.0	57.1	22,000 *	30.0	59.0	22,000 *	34.0	60.3	21,400 *
28.0	53.5	22,000 *	32.0	56.3	22,000 *	36.0	58.1	20,200 *
30.0	49.8	22,000 *	34.0	53.5	21,400 *	38.0	55.8	19,200 *
32.0	45.9	22,000 *	36.0	50.5	20,200 *	40.0	53.4	18,200 *
34.0	41.7	21,400 *	38.0	47.4	19,200 *	42.0	51.0	17,300 *
36.0	37.0	20,200 *	40.0	44.2	18,200 *	44.0	48.4	16,500 *
38.0	31.8	19,200 *	42.0	40.7	17,300 *	46.0	45.8	15,800 *
40.0	25.7	18,200 *	44.0	37.0	16,500 *	48.0	43.0	15,200 *
			46.0	32.9	15,800 *	50.0	40.1	14,600 *
			48.0	28.3	15,200 *	52.0	37.0	14,000 *
						54.0	33.6	13,500 *
						56.0	29.9	13,000 *
						58.0	25.7	12,500 *

Refer to notes on page 30.

CK1100G-3 LIFTING CHART

Clamshell

Counterweights : 43,700 lbs Without carbody weights

70' Boom			80' Boom			90' Boom		
Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)	Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)	Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)
34.0	64.9	21,400 *	38.0	65.1	19,200 *	42.0	65.2	17,300 *
36.0	63.1	20,200 *	40.0	63.5	18,200 *	44.0	63.8	16,500 *
38.0	61.2	19,200 *	42.0	61.9	17,300 *	46.0	62.4	15,800 *
40.0	59.3	18,200 *	44.0	60.2	16,500 *	48.0	60.9	15,200 *
42.0	57.4	17,300 *	46.0	58.6	15,800 *	50.0	59.5	14,600 *
44.0	55.4	16,500 *	48.0	56.9	15,200 *	52.0	58.0	14,000 *
46.0	53.4	15,800 *	50.0	55.1	14,600 *	54.0	56.4	13,500 *
48.0	51.3	15,200 *	52.0	53.3	14,000 *	56.0	54.9	13,000 *
50.0	49.1	14,600 *	54.0	51.5	13,500 *	58.0	53.3	12,500 *
52.0	46.9	14,000 *	56.0	49.6	13,000 *	60.0	51.7	12,100 *
54.0	44.6	13,500 *	58.0	47.7	12,500 *	62.0	50.0	11,700 *
56.0	42.2	13,000 *	60.0	45.7	12,100 *	64.0	48.3	11,400 *
58.0	39.6	12,500 *	62.0	43.7	11,700 *	66.0	46.6	11,000 *
60.0	37.0	12,100 *	64.0	41.5	11,400 *	68.0	44.8	10,700 *
62.0	34.1	11,700 *	66.0	39.3	11,000 *	70.0	43.0	10,400 *
64.0	31.0	11,400 *	68.0	37.0	10,700 *	72.0	41.0	10,100 *
66.0	27.6	11,000 *	70.0	34.5	10,400 *	74.0	39.0	9,700
			72.0	31.8	10,100 *	76.0	36.9	9,200
			74.0	28.9	9,800 *	78.0	34.7	9,000
			76.0	25.7	9,400 *	80.0	32.4	8,500
						82.0	29.9	8,300
						84.0	27.2	7,900
100' Boom			110' Boom			120' Boom		
Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)	Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)	Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)
46.0	65.4	15,800 *	56.0	62.0	11,900 *	56.0	64.5	11,400 *
48.0	64.1	15,200 *	58.0	60.8	11,700 *	58.0	63.4	11,300 *
50.0	62.8	14,600 *	60.0	59.6	11,600 *	60.0	62.3	11,200 *
52.0	61.5	14,000 *	62.0	58.3	11,300 *	62.0	61.3	11,000 *
54.0	60.2	13,500 *	64.0	57.1	11,100 *	64.0	60.2	10,800 *
56.0	58.8	13,000 *	66.0	55.8	10,800 *	66.0	59.0	10,600 *
58.0	57.5	12,500 *	68.0	54.6	10,400 *	68.0	57.9	10,200 *
60.0	56.1	12,100 *	70.0	53.3	10,100	70.0	56.8	9,900
62.0	54.7	11,700 *	72.0	52.0	9,700	72.0	55.6	9,500
64.0	53.3	11,400 *	74.0	50.6	9,300	74.0	54.5	9,100
66.0	51.8	11,000 *	76.0	49.2	8,900	76.0	53.3	8,800
68.0	50.4	10,700 *	78.0	47.8	8,500	78.0	52.1	8,400
70.0	48.8	10,300	80.0	46.4	8,200	80.0	50.8	8,100
72.0	47.3	9,900	82.0	45.0	7,900	82.0	49.6	7,700
74.0	45.7	9,400	84.0	43.4	7,500	84.0	48.3	7,400
76.0	44.1	9,000	86.0	41.9	7,200	86.0	47.0	7,100
78.0	42.4	8,800	88.0	40.3	7,000	88.0	45.7	6,800
80.0	40.6	8,300	90.0	38.6	6,800	90.0	44.3	6,600
82.0	38.8	8,100	92.0	36.9	6,600	92.0	42.9	6,400
84.0	36.9	7,700	94.0	35.1	6,400	94.0	41.5	6,200
86.0	35.0	7,400	96.0	33.3	6,200	96.0	40.0	6,000
88.0	32.9	7,200	98.0	31.3	5,900	98.0	38.5	5,700
90.0	30.7	7,000	100.0	29.2	5,700	100.0	36.9	5,500
92.0	28.3	6,800	102.0	27.0	5,500	102.0	35.3	5,300
94.0	25.8	6,600	104.0	24.5	5,300	104.0	33.6	5,100
						106.0	31.8	5,000

Refer to notes on page 30.

Barge

- Rated loads included in the charts are the maximum allowable freely suspended loads at a given boom length, boom angle and load radius, and have been determined for the machine standing level on firm supporting surface under ideal operating conditions. The user must limit or derate rated loads to allow for adverse conditions (such as soft or uneven ground, out-of-level conditions, wind, side loads, pendulum action, jerking or sudden stopping of loads, inexperience of personnel, multiple machine lifts, and traveling with a load).

- Rated loads do not exceed 75% of minimum tipping loads. Rated loads based on factors other than machine stability such as structural competence are shown by asterisk * in the charts.

- The machine must be reeved and set-up as stated in the operation manual and all the instruction manuals if these manuals are missing, obtain replacements.

- Machine shall be positively secured to prevent shifting.
- Boom backstops are required for all boom length.
- Gantry must be fully raised position for all operations.
- Crawlers must be fully extended and be locked in position.
- 69,100 lbs Counterweight
Counterweights are fully installed.
- 31,800 lbs Carbody weight
Carbody weights are fully installed.

- Do not attempt to lift where no ratings are shown as crane may tip or collapse.

- Attempting to lift more than rated loads may cause machine to tip or collapse. Do not tip machine to determine capacity.

- Weight of hooks, hook blocks, slings and other lifting devices are a part of the total load. Their total weight must be subtracted from the rated load to obtain the weight that can be lifted.

- When lifting over boom point with jib or auxiliary sheave, rated loads for the boom must be deducted as shown below.

Jib Length	Aux Sheave	30 ft	40 ft	50 ft	60 ft
Deduct (lbs)	420	Not Applicable			

When auxiliary sheave is used for 8 or 7 reeving parts of line, it is not required to deduct 420 lbs from rated loads.

- To install the jib is prohibited when the machine on the barge.
- The total load that can be lifted over an auxiliary sheave is the value for 420 lbs deducted from rated load for the boom without auxiliary sheave, but it should not exceed 24,000 lbs.
- Boom lengths that can attach auxiliary sheave are from 40 ft (12.2 m) to 190 ft (57.9 m).

- The boom should be erected over the front of the crawlers, not laterally.

- Least stable position is over the side.

- Maximum hoist load for number of reeving parts of line for hoist rope.

Main Boom Hoist Loads

No. of Parts of line	1	2	4	5	6
Maximum Loads (lbs)	25,200	50,400	100,800	126,000	151,200

No. of Parts of line	7*	8*	*Use auxiliary sheave.
Maximum Loads (lbs)	176,400	220,000	

Auxiliary Hoist Loads

No. of Parts of line	1
Maximum Loads (lbs)	24,000

- Weight of recommended hook block.

Hook Block	110 USt	77 USt	55 USt	39 USt	BALL HOOK
Weight (lbs)	3,815	1,990	1,875	1,545	660

WARNING

If the weight of hook block to be used is lighter than the recommended weight, the jib may turnover backward or it is difficult to lower the empty hook block.

- Lifting capacities listed apply only to the machine as originally manufactured and designed by KOBELCO CONSTRUCTION MACHINERY CO.,LTD. Modifications to this machine or use of equipment other than that specified can reduce operating capacity.

- Designed and rated to comply with ASME B30.5-2014.

Operation of this equipment in excess of rated loads or disregard of instruction voids the warranty.

CK1100G-3 LIFTING CHART

Barge

Counterweights : 69,100 lbs Carbody weights : 31,800 lbs

160' Boom						170' Boom						180' Boom					
360° Rated Load (lbs)						360° Rated Load (lbs)						360° Rated Load (lbs)					
Load Radius (ft)	Boom Angle (deg.)	0 Degree Machine List	1 Degree Machine List	2 Degree Machine List	3 Degree Machine List	Load Radius (ft)	Boom Angle (deg.)	0 Degree Machine List	1 Degree Machine List	2 Degree Machine List	3 Degree Machine List	Load Radius (ft)	Boom Angle (deg.)	0 Degree Machine List	1 Degree Machine List	2 Degree Machine List	3 Degree Machine List
28.0	81.5	50,200 *				30.0	81.3	44,500 *				30.0	81.8	39,300 *			
30.0	80.8	50,100 *				32.0	80.7	43,900 *				32.0	81.2	38,800 *			
32.0	80.1	49,700 *				34.0	80.0	43,200 *				34.0	80.5	38,200 *			
34.0	79.4	49,200 *				36.0	79.3	42,500 *				36.0	79.9	37,600 *			
36.0	78.6	48,500 *				38.0	78.6	41,900 *				38.0	79.2	37,000 *			
38.0	77.9	47,800 *				40.0	77.9	41,200 *				40.0	78.6	36,400 *			
40.0	77.2	46,600 *				42.0	77.2	40,600 *				42.0	77.9	35,800 *			
42.0	76.4	44,300 *				44.0	76.5	40,000 *				44.0	77.2	35,100 *			
44.0	75.6	42,100 *	32,200 *			46.0	75.8	39,300 *				46.0	76.6	34,500 *			
46.0	74.9	39,800	31,700 *			48.0	75.1	37,400 *	28,400 *			48.0	75.9	33,900 *			
48.0	74.1	37,800	31,300 *			50.0	74.4	35,400 *	28,100 *			50.0	75.3	33,300 *			
50.0	73.4	35,800	31,000 *			55.0	72.6	31,200	27,100 *	17,700 *		55.0	73.7	30,800 *	24,200 *		
55.0	71.5	31,400	28,900 *	20,000 *		60.0	70.9	27,600	25,400 *	17,300 *		60.0	72.0	27,400	22,900 *	15,300 *	
60.0	69.6	27,800	26,000	19,300 *		65.0	69.1	24,600	23,000	16,900 *		65.0	70.3	24,400	21,800 *	15,100 *	
65.0	67.7	25,000	23,400	18,900 *	14,400 *	70.0	67.3	22,300	20,900	16,400 *	12,400 *	70.0	68.6	21,900	20,400 *	14,600 *	10,800 *
70.0	65.8	22,600	21,200	18,500 *	14,000 *	75.0	65.4	20,300	19,000	16,000 *	12,200 *	75.0	66.9	19,900	18,700	14,200 *	10,600 *
75.0	63.8	20,500	19,300	18,000 *	13,700 *	80.0	63.5	18,500	17,400	15,600 *	11,800 *	80.0	65.2	18,100	17,100	13,800 *	10,400 *
80.0	61.8	18,700	17,700	16,900	13,400 *	85.0	61.6	16,800	16,000	15,300 *	11,500 *	85.0	63.4	16,600	15,700	13,500 *	10,000 *
85.0	59.7	17,000	16,300	15,600	13,100 *	90.0	59.7	15,400	14,700	14,000	11,300 *	90.0	61.6	15,200	14,400	12,900 *	9,700 *
90.0	57.6	15,700	15,000	14,300	12,800 *	95.0	57.8	14,300	13,600	13,200	11,100 *	95.0	59.8	14,000	13,200	12,200 *	9,500 *
95.0	55.4	14,500	13,900	13,500	12,400 *	100.0	55.8	13,300	12,600	12,100	10,800 *	100.0	57.9	12,900	12,300	11,600 *	9,300 *
100.0	53.2	13,500	12,900	12,400	12,000	110.0	51.5	11,500	10,900	10,600	10,100 *	110.0	54.0	11,100	10,600	10,300	8,500 *
110.0	48.6	11,700	11,100	10,900	10,600	120.0	47.0	9,800	9,600	9,300	9,000	120.0	49.9	9,600	9,100	8,800	7,700 *
120.0	43.6	10,100	9,800	9,600	9,300	130.0	42.2	8,700	8,400	8,200	8,000	130.0	45.6	8,500	8,000	7,700	6,900 *
130.0	38.1	8,900	8,600	8,500	8,300	140.0	36.8	7,700	7,300	7,100	7,000	140.0	40.9	7,400	7,000	6,900	6,000 *
140.0	31.6	7,900	7,800	7,600	7,500	150.0	30.5	6,800	6,500	6,400	6,200 *	150.0	35.7	6,500	6,200	6,000	5,000 *
150.0	23.7	7,100	6,900	6,800	6,700	160.0	23.2	5,900	5,800 *	5,800 *	5,100 *	160.0	29.7	5,600	5,400	5,000 *	4,200 *
												165.0	26.5	5,100	5,100	4,400 *	3,600 *
Reeves		2	2	2	2	Reeves		2	2	2	2	Reeves		2	2	2	2

190' Boom						200' Boom					
360° Rated Load (lbs)						360° Rated Load (lbs)					
Load Radius (ft)	Boom Angle (deg.)	0 Degree Machine List	1 Degree Machine List	2 Degree Machine List	3 Degree Machine List	Load Radius (ft)	Boom Angle (deg.)	0 Degree Machine List	1 Degree Machine List	2 Degree Machine List	3 Degree Machine List
32.0	81.6	34,400 *				34.0	81.5	30,300 *			
34.0	81.0	33,800 *				36.0	80.9	29,700 *			
36.0	80.4	33,300 *				38.0	80.3	29,200 *			
38.0	79.8	32,700 *				40.0	79.7	28,700 *			
40.0	79.2	32,200 *				42.0	79.1	28,200 *			
42.0	78.6	31,700 *				44.0	78.6	27,700 *			
44.0	78.0	31,100 *				46.0	78.0	27,300 *			
46.0	77.4	30,600 *				48.0	77.4	26,800 *			
48.0	76.7	30,100 *				50.0	76.8	26,300 *			
50.0	76.1	29,600 *				55.0	75.3	24,900 *			
55.0	74.5	28,100 *	21,700 *			60.0	73.8	23,200 *	18,200 *		
60.0	73.0	26,200 *	20,600 *			65.0	72.4	21,500 *	17,100 *	11,700 *	
65.0	71.4	24,000 *	19,500 *	13,300 *		70.0	70.9	20,000 *	16,100 *	11,300 *	
70.0	69.8	21,800	18,400 *	13,100 *		75.0	69.3	18,500 *	15,100 *	11,000 *	
75.0	68.2	19,900	17,300 *	12,700 *	9,200 *	80.0	67.8	17,100 *	14,100 *	10,600 *	7,700 *
80.0	66.5	18,000	16,200 *	12,400 *	9,000 *	85.0	66.2	15,900 *	13,300 *	10,100 *	7,500 *
85.0	64.9	16,400	15,300 *	11,900 *	8,800 *	90.0	64.6	14,700	12,400 *	9,500 *	7,200 *
90.0	63.2	15,000	14,100	11,300 *	8,600 *	95.0	63.0	13,500	11,700 *	9,000 *	7,000 *
95.0	61.5	13,900	13,000	10,600 *	8,400 *	100.0	61.4	12,400	11,000 *	8,400 *	6,800 *
100.0	59.7	12,900	12,000	10,000 *	8,200 *	110.0	58.1	10,600	9,500 *	7,400 *	6,000 *
110.0	56.2	11,000	10,400	8,900 *	7,400 *	120.0	54.6	9,200	8,200 *	6,500 *	5,200 *
120.0	52.5	9,400	9,100	7,900 *	6,500 *	130.0	51.1	7,800	7,100 *	5,600 *	4,500 *
130.0	48.5	8,200	7,800	6,800 *	5,700 *	140.0	47.2	6,500	5,900 *	4,600 *	3,700 *
140.0	44.3	7,200	6,800	5,900 *	4,900 *	150.0	43.1	5,200 *	4,900 *	3,700 *	3,100 *
150.0	39.7	6,300	5,900	5,100 *	4,100 *	155.0	41.0	4,650 *	4,400 *	3,500 *	
160.0	34.8	5,300	5,100 *	4,000 *	3,400 *						
165.0	32.1	4,650	4,600 *	3,600 *							
Reeves		2	2	2	2	Reeves		2	2	2	2

Refer to notes on page 33.



Note : This catalog may contain photographs of machines with specifications, attachments and optional equipment not certified for operation in your country. Please consult KOBELCO for those items you may require. Due to our policy of continual product improvements all designs and specifications are subject to change without advance notice.

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