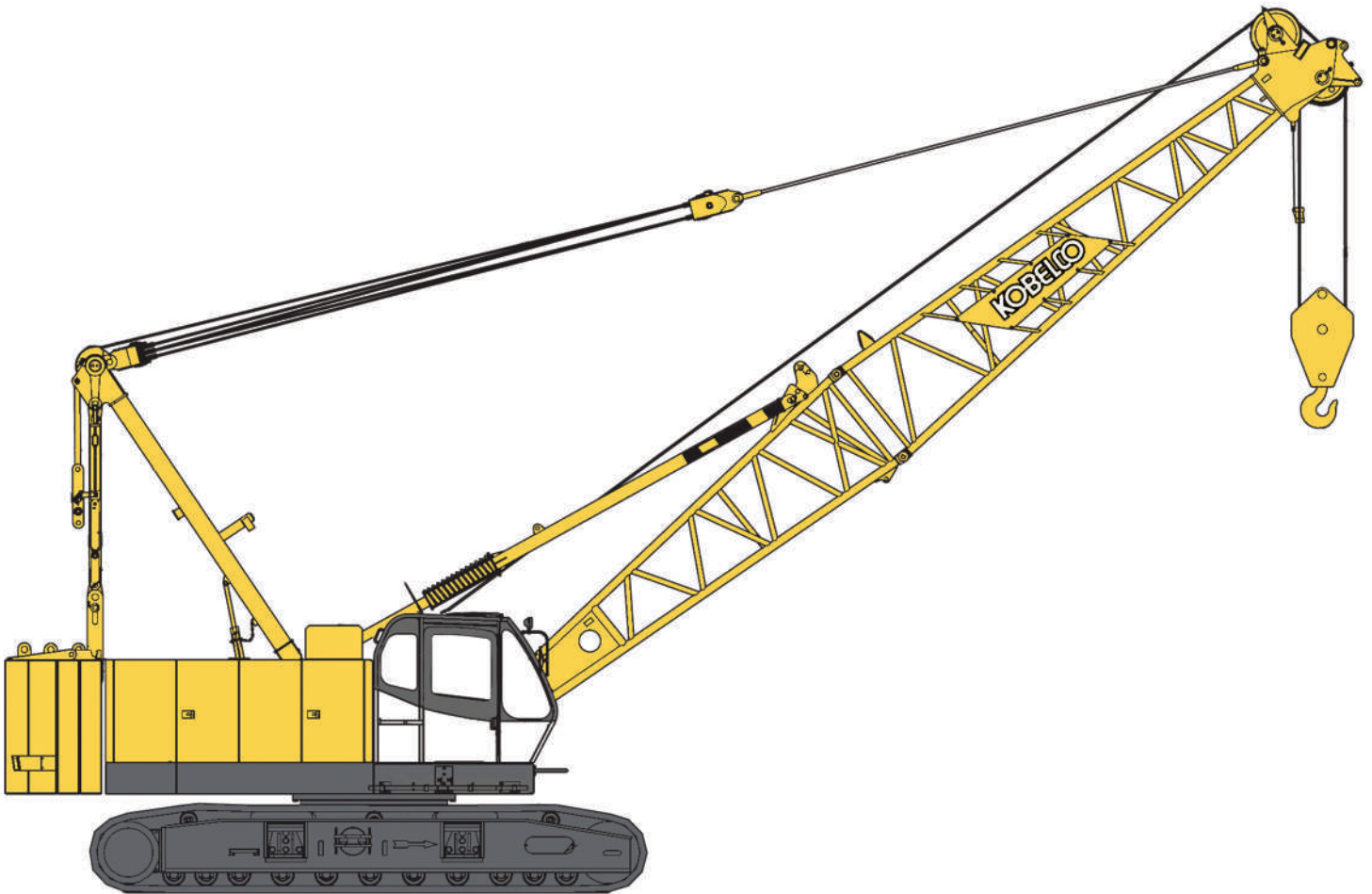


KOBELCO

CK1000-III

HYDRAULIC CRAWLER CRANE



Max. Lifting Capacity: 100 US Tons
Max. Boom Length: 200 ft
Max. Boom + Jib Length: 190 ft + 60 ft

SPECIFICATIONS FOR CK1000-III CRAWLER CRANE

The Kobelco CK1000-III Crawler Crane is designed from the ground up for reliable operation, convenient maintenance and easy transport. Please consult your Kobelco distributor for additional information regarding specifications, operating parameters and maintenance requirements.

1. GENERAL DESCRIPTION

Type	Crawler mounted, fully revolving
Maximum lifting capacity	200,000 lbs (90,700 kg) (at 11' operating radius, with 40' boom)
Basic boom length	40' (12.2 m)
Maximum boom length	200' (61.0 m)
Basic boom & jib length	80' + 30' (24.4 m + 9.1 m)
Maximum boom & jib length	190' + 60' (57.9 m + 18.3 m)
Working weight	Approx. 179,700 lbs (81,500 kg)
Ground bearing pressure	Approx. 11.0 psi (75.6 kPa)
Gradeability	40 %

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

2. GENERAL DIMENSIONS

Height to top of gantry (lowered)	10' 11" (3.32 m)
Width of upper machine with operator's cab	10' 6" (3.20 m)
Radius of rear end (counterweight)	14' 4" (4.38 m)
Counterweight ground clearance	3' 8" (1.12 m)
Center of rotation to boom foot pin	3' 7" (1.10 m)
Height from ground to boom foot pin	5' 10" (1.77 m)
Height over gantry (raised)	20' 4" (6.20 m)
Overall length of crawler	20' 8" (6.30 m)
Center to center of tumblers	17' 10" (5.44 m)
Overall width of crawlers	16' 10" (5.14 m)
Shoe width	36" (0.91 m)
Ground clearance of carbody	15" (0.39 m)

3. WORKING SPEED

Hoist line speed (front and rear drum)	390 ~ 10 ft/min (120 ~ 3 m/min)
Lowering line speed (front and rear drum)	390 ~ 10 ft/min (120 ~ 3 m/min)
Boom hoist line speed	230 ~ 7 ft/min (70 ~ 2 m/min)
Boom lowering line speed	230 ~ 7 ft/min (70 ~ 2 m/min)
Swing speed	4.0 rpm (4.0 min ⁻¹)
Travel speed (High / Low)	1.18 / 0.75 mph (1.9 / 1.2 km/hour)

Line speed based on single line, no load and first layer of rope on the drum. Line speed is controllable by Dial-type Speed Control System.

4. UPPER MACHINERY

4.1 Power plant

Diesel engine, make and model

Hino P11C-UN (Comply with EPA "Tier 3")

No. of cylinders	6
Bore X stroke	4-13/16" X 5-7/8" (122 mm X 150 mm)

Cycles	4
Total displacement	642 cu.in (10,520 cm ³)
Rated output SAE GROSS	331 HP / 2,000 rpm (247 kW / 2,000 min ⁻¹)

Maximum torque	959 lbs-ft / 1,500 rpm (1,300 Nm / 1,500 min ⁻¹)
-----------------------	--------------------------------------------------------------

Starter	24 Volts / 6.0 kW
----------------	-------------------

Alternator	24 Volts / 50 Amp
-------------------	-------------------

Batteries
Two 12 volt, 170 AH/20 HR capacity series connected.

Radiator
Corrugated type core, thermostatically controlled.

Throttle
Twist grip type hand throttle, electrically controlled.

Air cleaner Dry type with replaceable paper element.

Fuel tank capacity 106 US gal. (400 liters)

Lube oil filter
Full flow and by-pass type with element type.

Fuel filter Replaceable paper element.

Approximate fuel consumption
0.362 lb / HP-hr (220 g / kW-hr)
17.3 US gal. / hr at 100 % HP

4.2 Hydraulic pumps

All driven from heavy duty pump drive.

Load hoist, boom hoist, and propel

2 Piston pumps, max flow rate 68.1 US gal./min x 2
(258 ℓ/min x 2)

Swing

1 Piston pump, max flow rate 46.2 US gal./min
(175 ℓ/min)

Control system and auxiliary

2 Gear pumps, max flow rate
16.7 US gal./min x 10.6 US gal (61 ℓ/min x 40 ℓ/min)

Brake cooling system

2 Gear pumps, max flow rate 16.7 US gal./min x 2
(61 ℓ/min x 2)

4.3 Counterweight and carbody weight

Counterweight (A) 1 x 26,630 lbs (12,070 kg)

Counterweight (B) 1 x 16,250 lbs (7,370 kg)

Counterweight (B) 1 x 20,610 lbs (9,350 kg)

Total weight 63,490 lbs (28,790 kg)

Carbody weight	2 x 8,050 lbs (3,650 kg)
Total weight	16,100 lbs (7,300 kg)

4.4 Gantry

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

4.5 Operator's cab

Totally enclosed from weather, this full-vision cab has safety glass all around. The adjustable, high-backed seat with armrest is standard, allowing operators to customize the position. Auxiliary controls and instruments are on a side mounted console. A signal horn, windshield wipers, air conditioner are all standard features.

4.6 Controls

At operator's right are console-mounted adjustable short levers for the front and rear drum and the boom hoist control. Beside the operator's seat on the right are two short levers for propel control, individual speed shifts for front drum, rear drum and boom drum. At the operator's left are the console mounted swing lever, knobs for front and rear drum, boom drum pawls, engine start / stop key. A swing brake control switch and signal horn button are on the swing lever.

4.7 Electric system

All wiring corded for easy servicing, individual fused branch circuit.

4.8 Hydraulic system

Maximum pressure rating	4,620 psi (31.9 MPa)
Cooling	Oil to air heat exchanger
Filtration	Full flow filters with replaceable paper elements
Reservoir capacity	116 US gal. (440 liters)

4.9 Boom hoist

Powered by hydraulic motor through planetary reducer.

Drum	Single drum. Grooved for 5/8" (16.0 mm) dia. wire rope.
-------------	------------------------------------------------------------

Brake

A spring set, hydraulically-released, multiple-disc holding brake is mounted inside the boom hoist motor and is operated through a counter-balance valve. An external ratchet is fitted for locking the drum.

4.10 Front drum

Powered by hydraulic motor through planetary reducer.

Drum	24.1" (613 mm) P.C.D. X 24.5" (622 mm) LG. Grooved for 1" (26.0 mm) dia. wire rope.
-------------	----------------------------------------------------------------------------------------

Brake

A spring set, hydraulically-released, multiple-disc holding brake is mounted inside the hoist motor and is operated through a counter-balance valve. An external ratchet is fitted for locking the drum.

Free-Fall (Standard)

Wet-type disk brake free-fall is mounted inside the drum.

4.11 Rear drum

Powered by hydraulic motor through planetary reducer.

Drum	24.1" (613 mm) P.C.D. X 24.5" (622 mm) LG. Grooved for 1" (26.0 mm) dia. wire rope.
-------------	----------------------------------------------------------------------------------------

Brake

A spring set, hydraulically-released, multiple-disc holding brake is mounted inside the hoist motor and is operated through a counter-balance valve. An external ratchet is fitted for locking the drum.

Free-Fall (Standard)

Wet-type disk brake free-fall is mounted inside the drum.

4.12 Third drum (Optional)

Powered by hydraulic motor through planetary reducer.

Drum	24.1" (613 mm) P.C.D. X 24.5" (622 mm) LG. Grooved for 1" (26.0 mm) dia. wire rope.
-------------	----------------------------------------------------------------------------------------

Brake

A spring set, hydraulically-released, multiple-disc holding brake is mounted inside the hoist motor and is operated through a counter-balance valve. An external ratchet is fitted for locking the drum.

Free-Fall (Standard for third drum)

Wet-type disk brake free-fall is mounted inside the drum.

4.13 Swing

Swing unit

Hydraulic motor driving through planetary reducer to output swing pinion for 360 degree rotation.

Swing brake

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

Swing circle

Single row ball bearing with internal, integral swing gear.

Swing Lock	2 Position lock for transportation.
-------------------	-------------------------------------

5. LOWER MACHINERY

5.1 Carbody

The durable carbody features steel welded construction with extendible axles.

5.2 Crawler

Crawler assemblies can be hydraulically extended 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.

5.3 Crawler drive

The independent 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 gearbox are built into the crawler side frame within the shoe width.

5.4 Crawler brakes

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

5.5 Steering mechanism

The hydraulic propel system provides both skid steering (driving one track only) and counter-rotating steering (driving each track in opposite direction).

5.6 Crawler shoes

66 shoes, 36" (914 mm) wide each crawler.

5.7 Track rollers

The track rollers are sealed for maintenance-free operation.

6. CRANE ATTACHMENTS

6.1 Crane 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)

6.2 Boom insert (Optional)

An optional boom insert is available to provide extension capabilities. It also has welded lattice construction with tubular, high-tension steel chords and pin connections.

Boom insert 10' (3.1 m), 20' (6.1 m), 40' (12.2 m)

6.3 Jib (Optional)

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' (3.1 m), 20' (6.1 m)

Jib inserts are available to provide extension capabilities. They also have welded lattice construction with tubular, high-tension steel chords and pin connections.

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

6.4 Auxiliary sheave (Optional)

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

6.5 Boom hoist reeving

Twelve (12) parts of 5/8" (16.0 mm) dia. high strength wire rope.

6.6 Boom backstops

Telescopic type with spring bumper.

7. AUXILIARY EQUIPMENT

7.1 Lights

Two (2) Front flood lights
One (1) Cab inside light

7.2 Gauges and warning display

Gauges

One (1) Tachometer
One (1) Hour meter
One (1) Fuel gauge
One (1) Water temperature gauge for engine

Warning display

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

7.3 Others

Air conditioner
Drum turn indicator (front and rear drum)
Foot acceleration pedal
Electric fuel pump
Counterweight self-removal device
Catwalks

8. SAFETY SERVICE

Function lock lever
Boom over hoist limit switch
Signal horn
Front and rear hoist drum lock
Swing alarm (Buzzer and lamps)
Over load preventive device (Load Moment Indicator)
Hook over hoist shut off (Anti-two-block)

- Boom angle indicator
- Boom hoist drum lock
- Swing lock
- Boom backstops

9. TOOLS AND ACCESSORIES

A set of tools and accessories are furnished.

10. OPTIONAL EQUIPMENT

- Hydraulic tagline
- Travel kit
- Third drum
- Pillow plate for boom self-erection
- Custom color

All specifications are subject to change without notice.

Winch Performance Data

Note:

Line speed and line pull based on Hino P11C-0N at 2,000 rpm.

Line speed and line pull based on single line. Line pull is not based on wire rope strength.

Front & Rear Drum

Wire Rope Diameter = 1"

Rated Line Pull = 25,100 lbs (11,380 kg)

Maximum Line Pull = 44,100 lbs (20,000 kg)

Total Storage Capacity = 1,023 ft (312 m)

		Line speed (ft/min)						
		Layer	1	2	3	4	5	6
		0	394	420	449	476	505	
		5,000	394	420	449	476	505	
		10,000	390	420	446	476	502	
Line Pull (lbs)	15,000	381	381	381	381	381	381	storage only
	20,000	285	285	285	285	285	285	
	25,100	226	226	236	233	230		
	30,000	194	190	184	177	164		
	35,000	157	148	138	135			
	44,100	105						
	Storage Capacity (ft)		145	155	165	176	186	

Third Drum (for Load hoist)

Wire Rope Diameter = 1"

Rated Line Pull = 25,100 lbs (11,380 kg)

Maximum Line Pull = 44,100 lbs (20,000 kg)

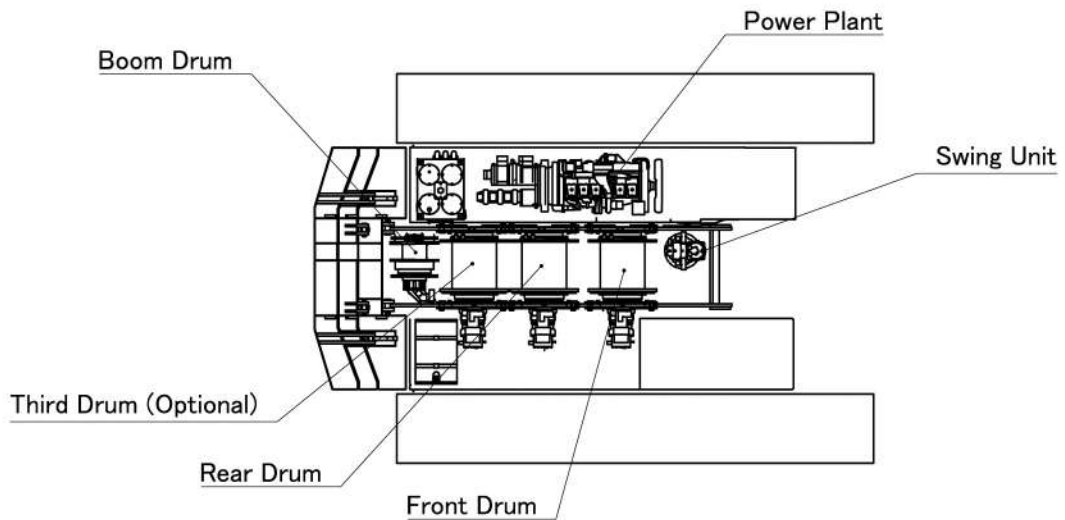
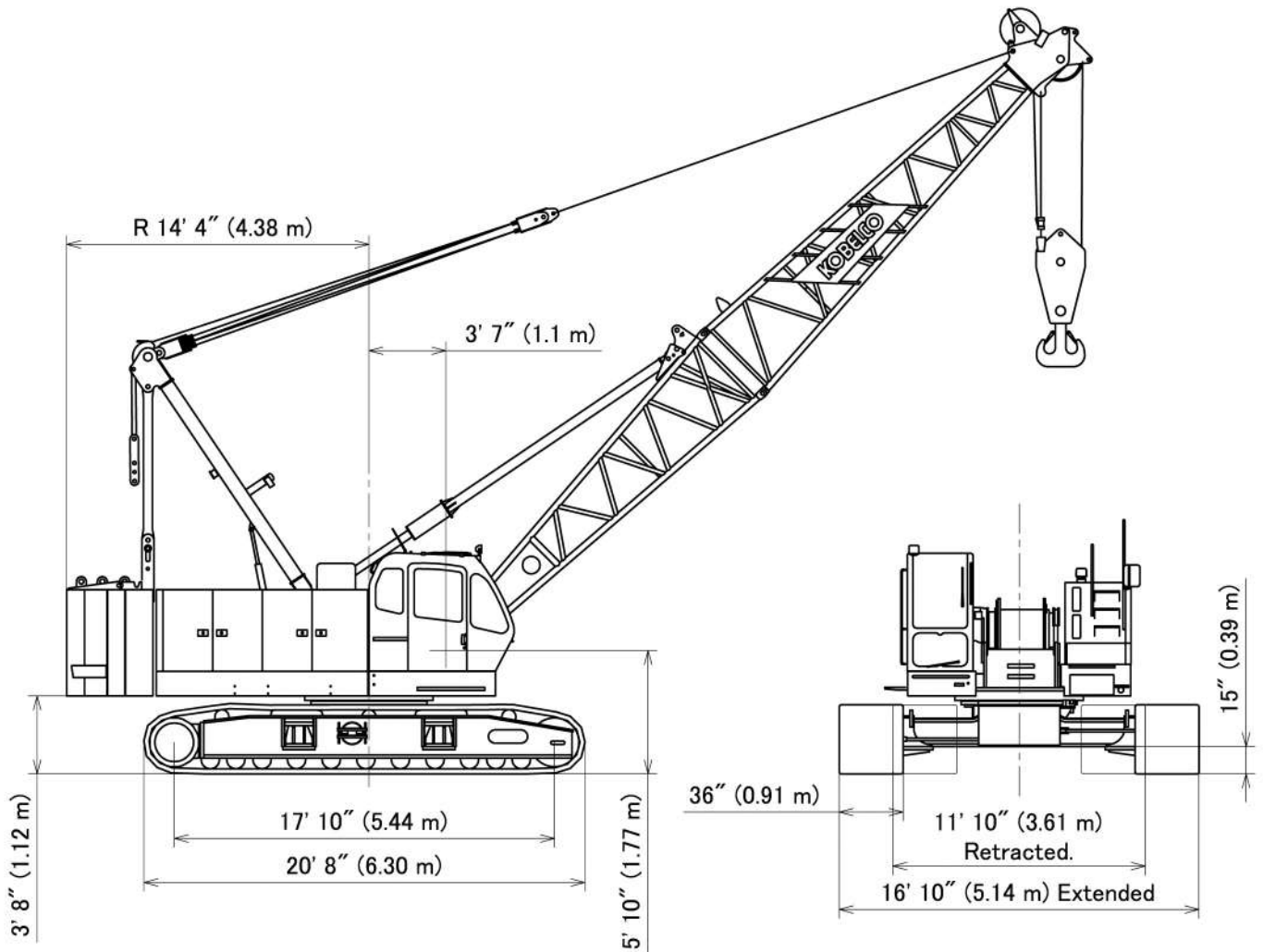
Total Storage Capacity = 1,023 ft (312 m)

		Line speed (ft/min)						
		Layer	1	2	3	4	5	6
		0	410	436	466	495	525	
		5,000	406	434	463	492	520	
		10,000	356	356	356	356	356	
Line Pull (lbs)	15,000	237	237	237	237	237	237	storage only
	20,000	178	178	178	178	178	178	
	25,100	142	142	142	142	142		
	30,000	119	119	119	127	134		
	35,000	105	112	118	125			
	44,100	103						
	Storage Capacity (ft)		145	155	165	176	186	

Wire Rope Specifications

Use	Construction	No load diameter	Length	Safety Factor	Required minimum breaking strength
Front drum	6 x 25 Filler IWRC Right hand lay, Regular lay	1.050" to 1.069" (26.65 mm to 27.17 mm)	771' (235 m)	3.5: 1	87,850 lbs (39,850 kg)
Rear drum	6 x 25 Filler IWRC Right hand lay, Regular lay	1.050" to 1.069" (26.65 mm to 27.17 mm)	525' (160 m)	3.5: 1	87,850 lbs (39,850 kg)
Third drum (Optional)	6 x 25 Filler IWRC Right hand lay, Regular lay	1.050" to 1.069" (26.65 mm to 27.17 mm)	623' (190 m)	3.5: 1	87,850 lbs (39,850 kg)
Boom drum	6 x 31 Warrington seal Right hand lay, Regular lay	0.639" to 0.653" (16.24 mm to 16.58 mm)	492' (150 m)	3.5: 1	47,180 lbs (21,400 kg)

CK1000-III General Dimensions



CK1000-III Dimensions and Weight **KOBELCO**

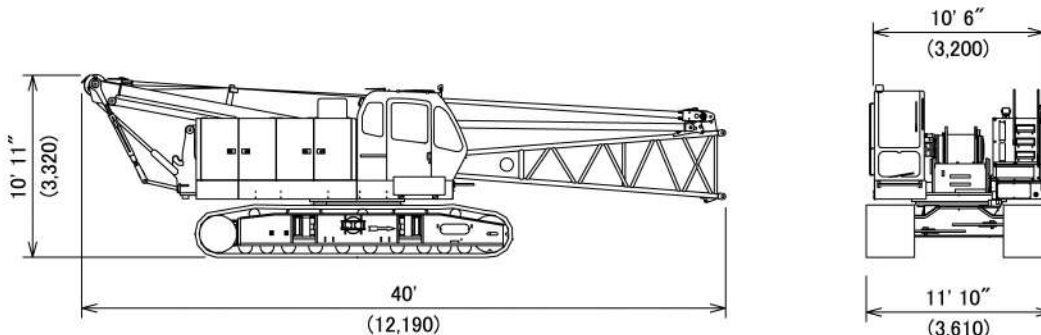
Dimensions: ft-in (mm) Weight: lbs (kg)

When installing optional third drum, add 5,850 lbs (2,650 kg)

Base Machine -1

Weight: 99,650 lbs (45,200 kg)

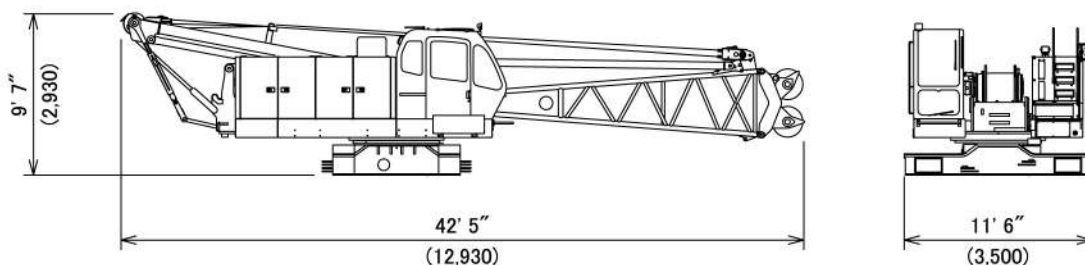
Boom base, Gantry, Crawler, Wire ropes (Front, Rear and Boom hoist drums)



Base Machine -2

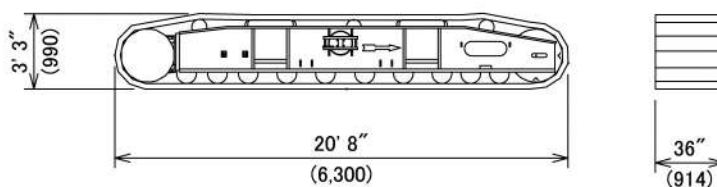
Weight: 71,100 lbs (32,250 kg)

Boom base, Auxiliary sheave for self-assembly, Wire ropes (Front, Rear and Boom hoist drums)



Crawler

Weight: 16,540 lbs (7,500 kg)

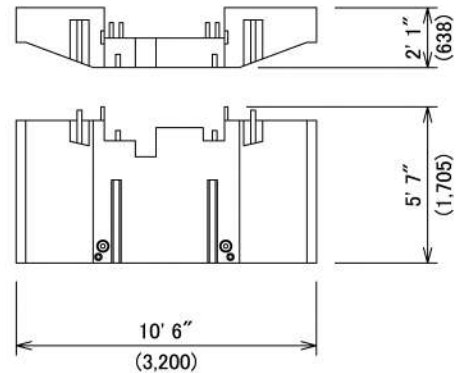


CK1000-III Dimensions and Weight **KOBELCO**

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

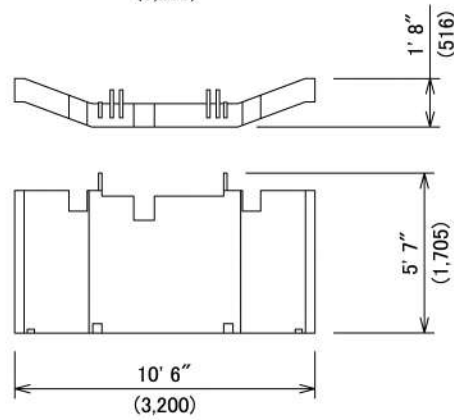
Counterweight (A)

Weight: 26,630 lbs (12,070 kg)



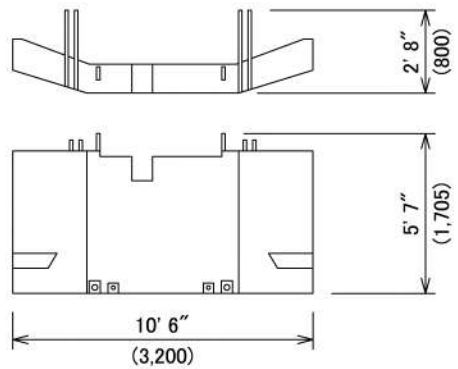
Counterweight (B)

Weight: 16,250 lbs (7,370 kg)



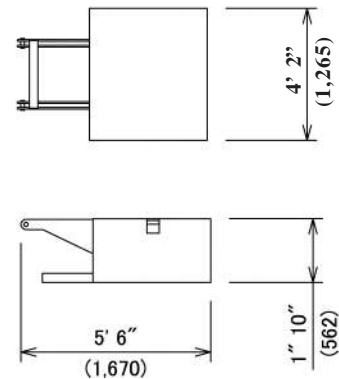
Counterweight (C)

Weight: 20,610 lbs (9,350 kg)



Carbody Weight

Weight: 8,050 lbs (3,650 kg)



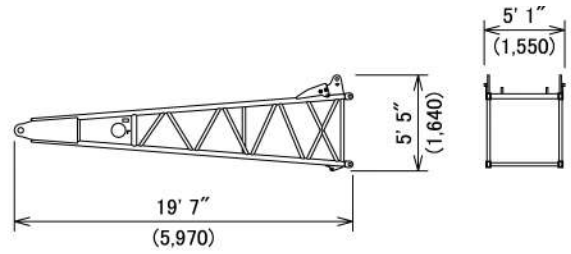
CK1000-III Dimensions and Weight



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

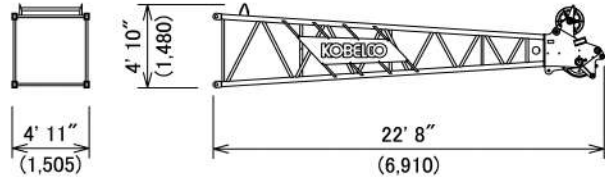
Boom Base

Weight: 3,250 lbs (1,475 kg)



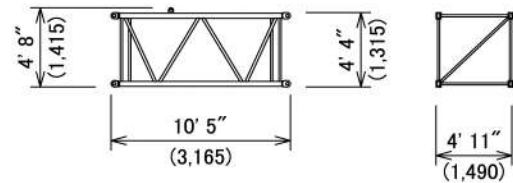
Boom Tip

Weight: 2,730 lbs (1,240 kg)
Includes cable roller and guy lines.



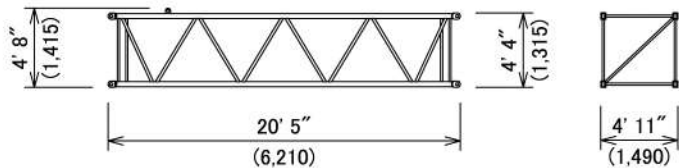
10 ft (3.0 m) Insert Boom

Weight: 830 lbs (380 kg)
Includes cable roller and guy lines.



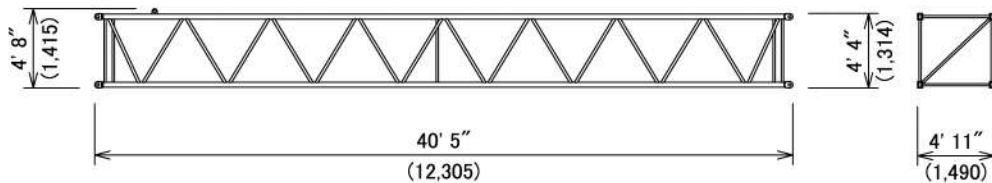
20 ft (6.1 m) Insert Boom

Weight: 1,350 lbs (610 kg)
Includes cable roller and guy lines.



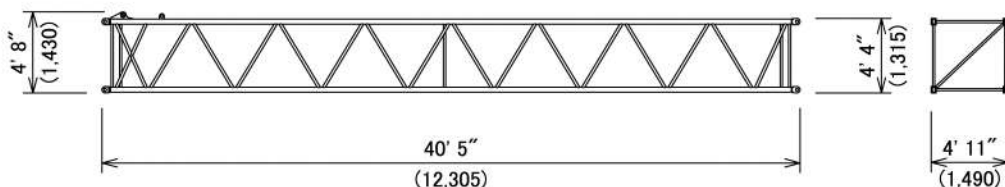
40 ft (12.2 m) Insert Boom

Weight: 2,410 lbs (1,090 kg)
Includes cable roller and guy lines.



40 ft (12.2 m) Insert Boom (with lug)

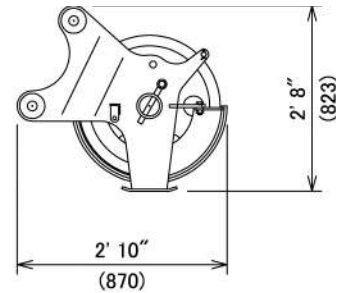
Weight: 2,440 lbs (1,110 kg)
Includes cable roller and guy lines.



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

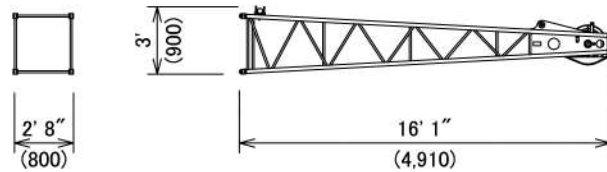
Auxiliary Sheave

Weight: 430 lbs (195 kg)



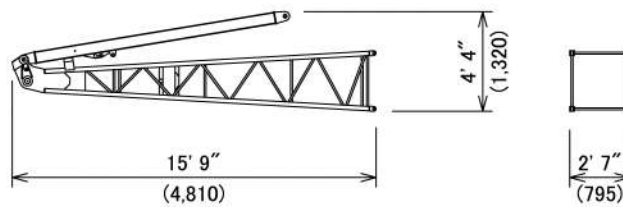
Jib Tip

Weight: 620 lbs (280 kg)
Includes cable roller.



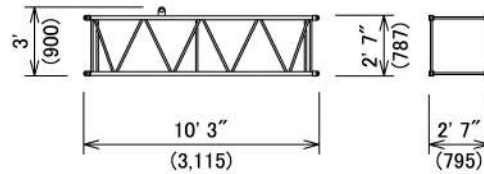
Jib Base and Strut

Weight: 1,310 lbs (590 kg)
Includes guy line.



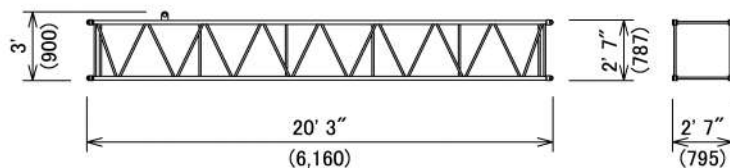
10 ft (3.0 m) Insert Jib

Weight: 290 lbs (130 kg)
Includes cable roller and guy line.



20 ft (6.1 m) Jib Insert

Weight: 490 lbs (220 kg)
Includes cable roller and guy line.



CK1000-III Transportation Plan



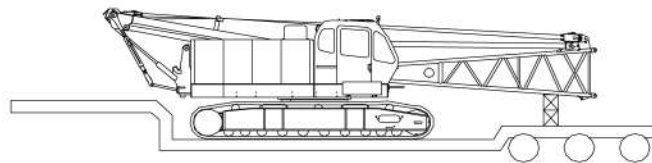
Shipping plan for 200 ft Boom and 60 ft Jib

Description of Item	Weight		Trailer Loads			
	lbs	(kg)	#1	#2	#3	#4
Base Machine with Boom Base and Crawlers*	99,970	(45,350)	1			
Counterweight (A)	26,630	(12,070)		1		
Counterweight (B)	16,250	(7,370)			1	
Counterweight (C)	20,610	(9,350)			1	
Carbody Weight	8,050	(3,650)		1		1
10 ft Insert Boom and Guy Line	830	(380)		1	1	
20 ft Inset Boom and Guy Line	1,350	(610)				1
40 ft Insert Boom and Guy Line	2,410	(1,090)		1	1	
40 ft Insert Boom (w/ Lug) and Guy Line	2,440	(1,110)				1
Boom Tip and Guy Line	2,730	(1,240)				1
Jib Base and Guy Line	1,310	(590)			1	
10 ft Inset Jib and Guy Line	290	(130)			1	
20 ft Inset Jib and Guy Line	490	(220)			1	
Jib Tip	620	(280)			1	
Approx. Total Shipping Weight		lbs (kg)	99,970 (45,350)	37,920 (17,190)	42,810 (19,410)	14,570 (6,610)

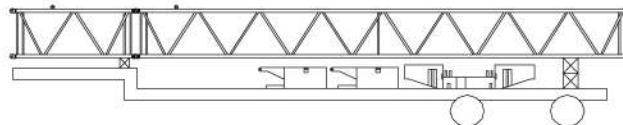
* Third drum is not included.

Loads for transportation were targeted at 45,000 lbs, 8' 6" wide, 48' long and 13' 6" high from ground. This may vary depending on truck/trailer weight, style of trailer and state low.

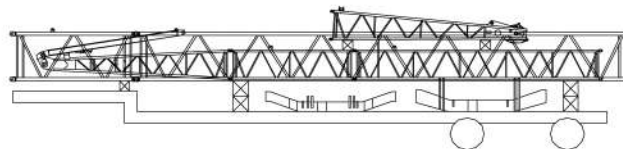
Trailer #1



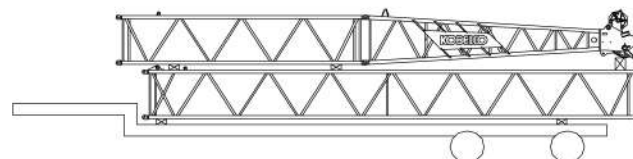
Trailer #2



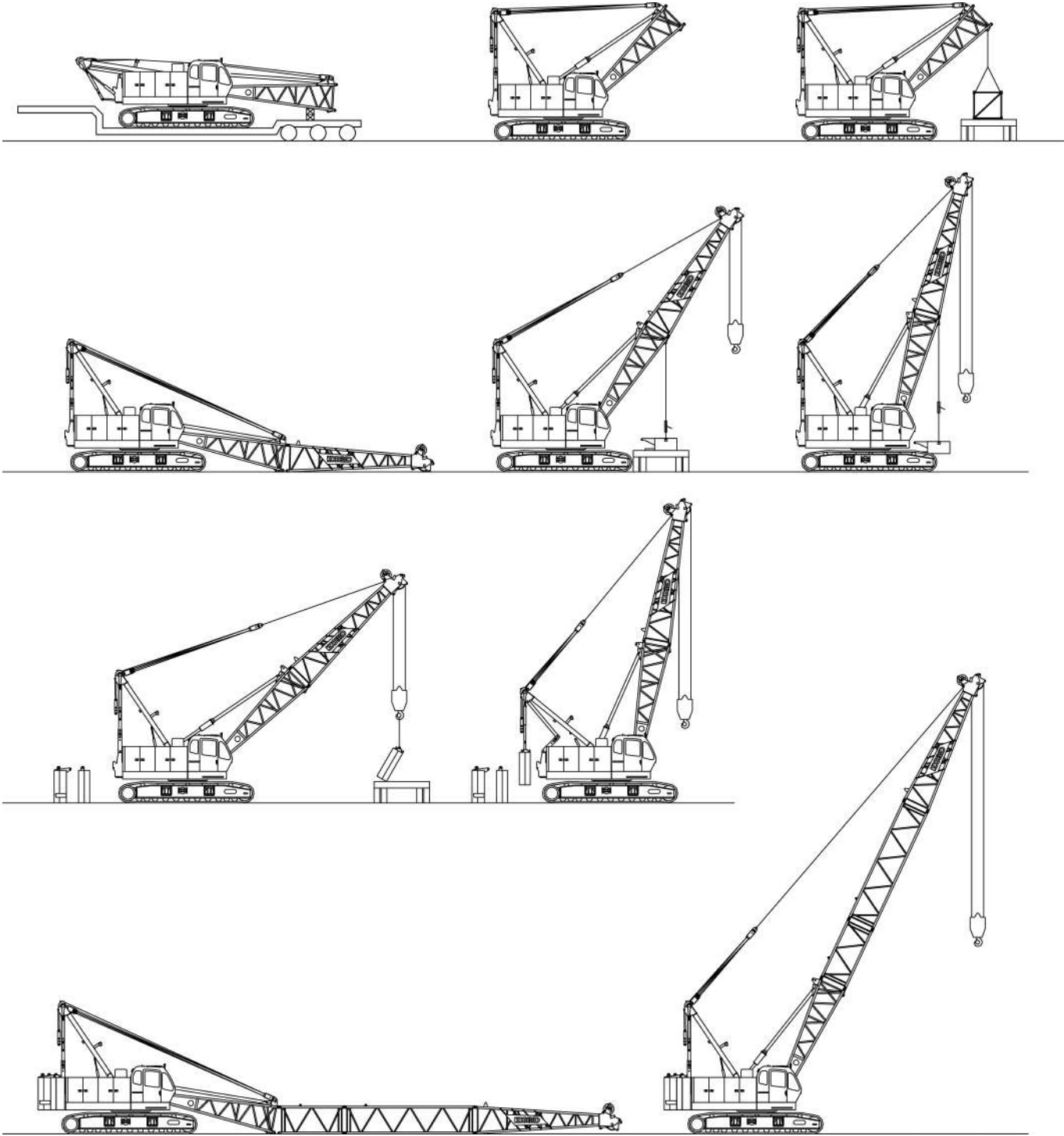
Trailer #3



Trailer #4

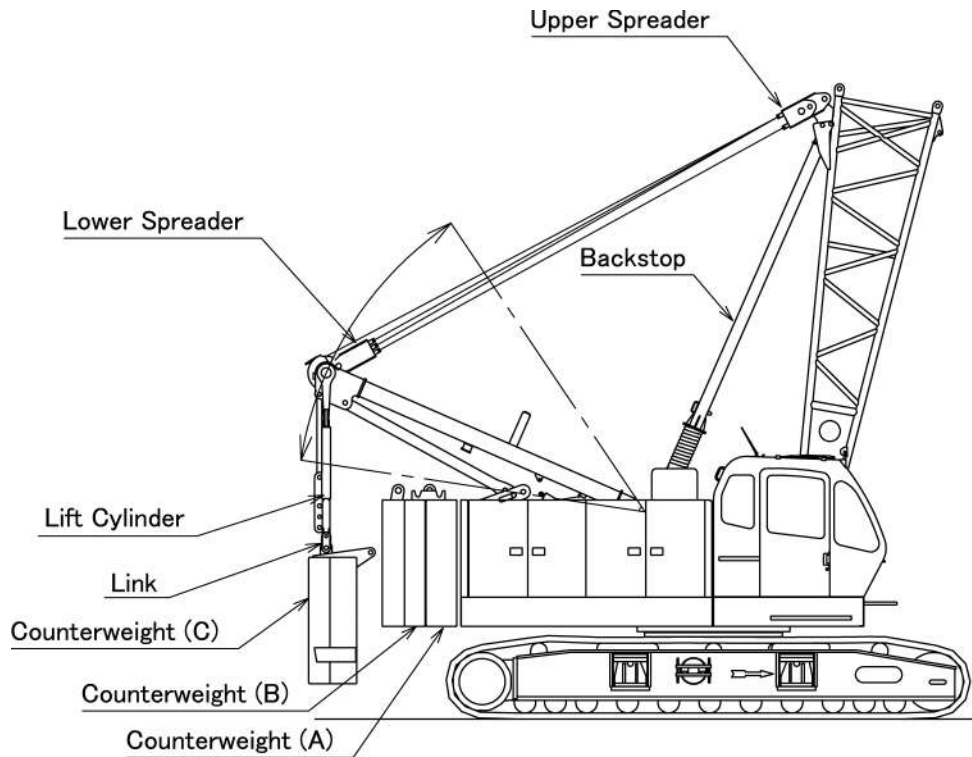


CK1000-III Self Assembly Procedure **KOBELCO**



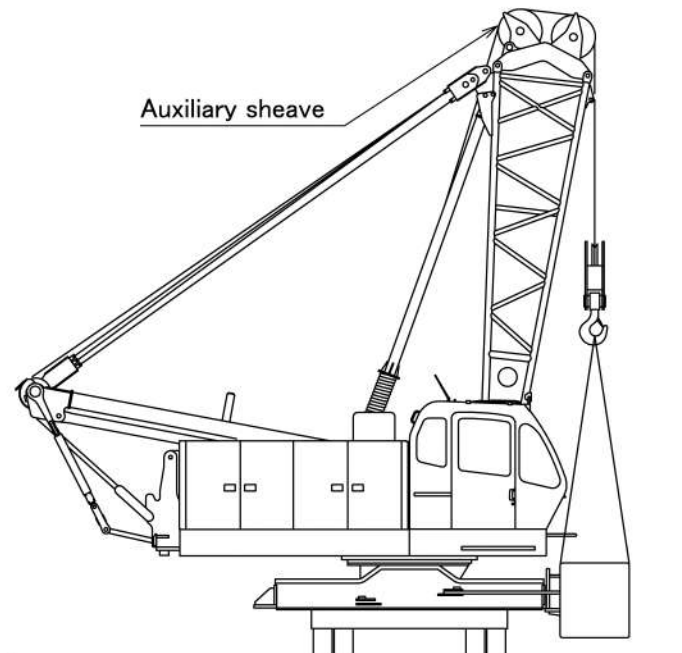
CK1000-III Counterweight Self-Removal Device **KOBELCO**

(Standard equipment)



Crawler Frame Self-Removal Device

(Optional equipment)



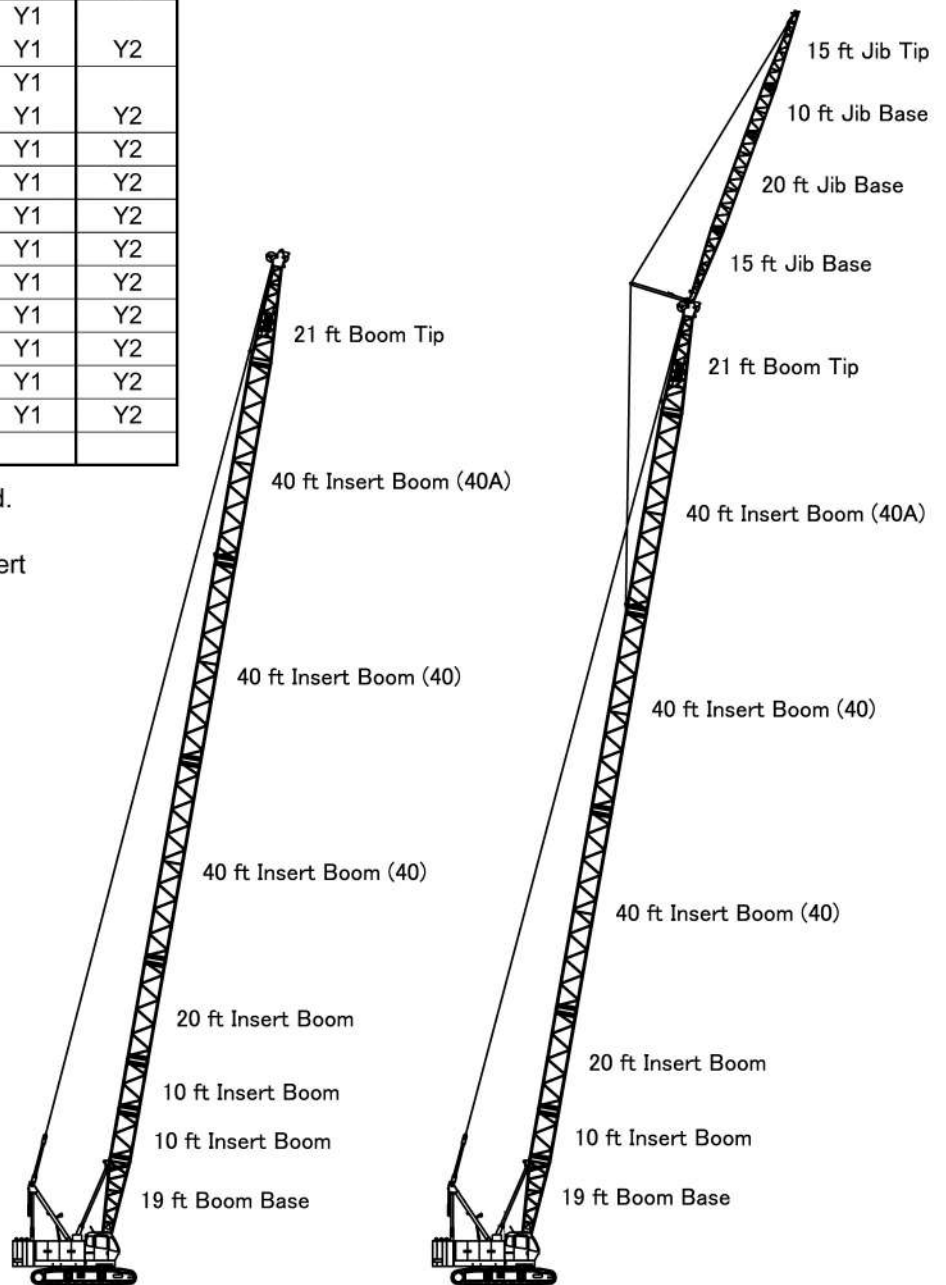
Boom Arrangement

Boom	Insert Boom				Aux. Sheave	Fixed Jib
	10 ft	20 ft	40ft (40)	40 ft (40A)		
40 ft	-	-	-	-	Y1	
50 ft	1	-	-	-	Y1	
60 ft	2	-	-	-	Y1	
70 ft	1	1	-	-	Y1	
80 ft	2	1	-	-	Y1	Y2
	-	-	-	1	Y1	
90 ft	1	2	-	-	Y1	Y2
	1	-	-	1	Y1	
100 ft	2	2	-	-	Y1	Y2
	2	-	-	1	Y1	
110 ft	1	1	-	1	Y1	Y2
120 ft	2	1	-	1	Y1	Y2
130 ft	1	2	-	1	Y1	Y2
140 ft	2	2	-	1	Y1	Y2
150 ft	1	1	1	1	Y1	Y2
160 ft	2	1	1	1	Y1	Y2
170 ft	1	2	1	1	Y1	Y2
180 ft	2	2	1	1	Y1	Y2
190 ft	1	1	2	1	Y1	Y2
200 ft	2	1	2	1		

Jib Arrangement

Jib	Insert Jib	
	10 ft	20 ft
30 ft	-	-
40 ft	1	-
50 ft	-	1
60 ft	1	1

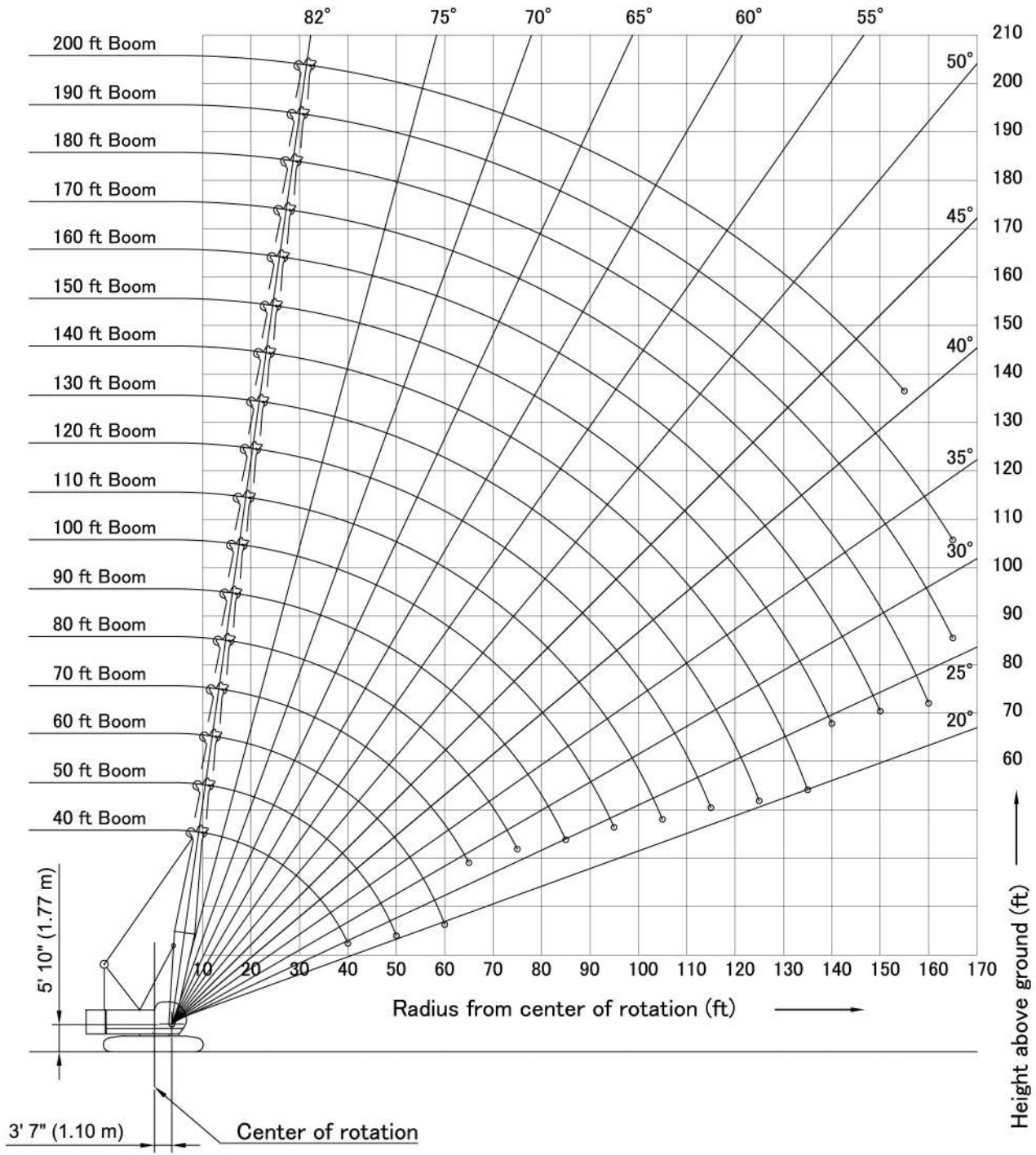
Y1: Auxiliary sheave can be attached.
 Y2: Fixed jib can be attached.
 To install fixed jib, one 40A (40 ft insert boom with lug) is required.



200 ft (61.0 m) Main Boom

190 ft (57.9 m) Main Boom
and 60 ft (18.3 m) Fixed Jib

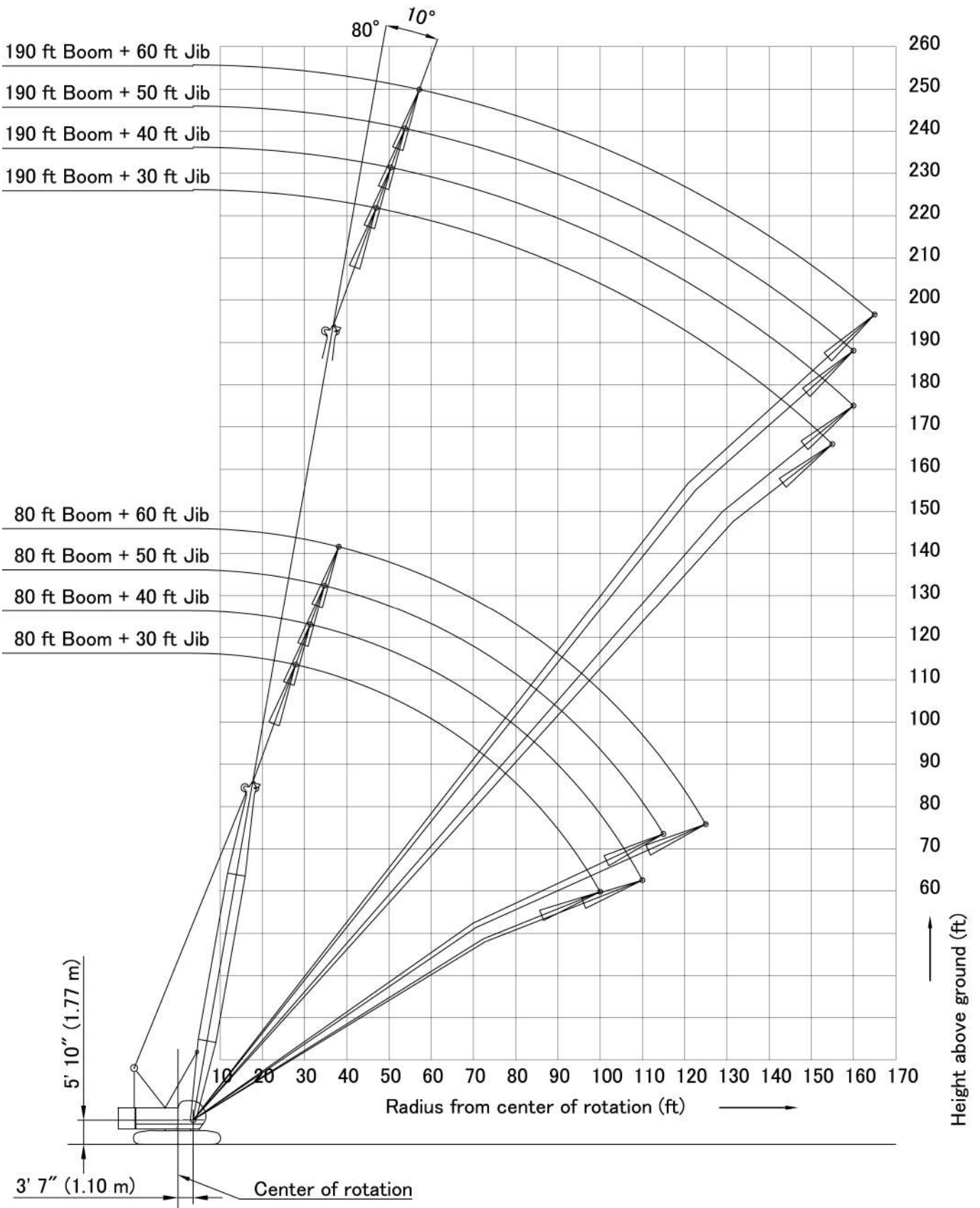
CK1000-III Main Boom Working Range **KOBELCO**



CK1000-III Jib Working Range



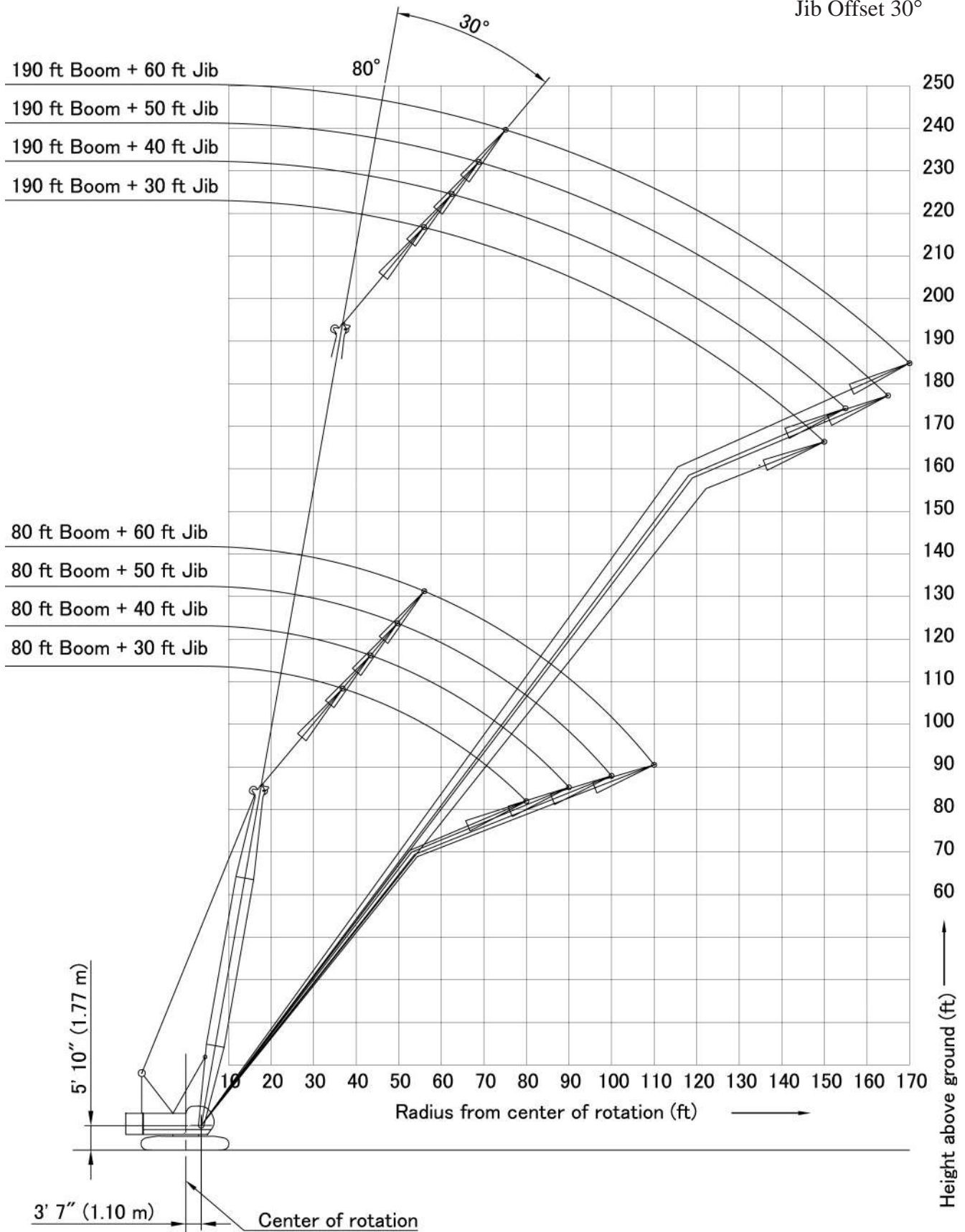
Jib Offset 10°



CK1000-III Jib Working Range



Jib Offset 30°



KOBELCO CK1000-III Main Boom Rated Loads in Pounds

Counterweight: 63,490 lbs (28,790 kg)

Carbody weight: 16,100 lbs (7,300 kg)

Supplemental Data

1. 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 de-rate 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).
2. 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.
3. 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.
 - 1) The crane must be leveled to within 1% on a firm supporting surface.
 - 2) Boom backstops are required for all boom lengths.
 - 3) Gantry must be fully raised position for all operations.
 - 4) Crawlers must be fully extended and be locked in position.
 - 5) Counterweight: 63,490 lbs.
 - 6) Carbody weight: 16,100 lbs
4. Do not attempt to lift where no radius on load is listed as crane may tip or collapse.
5. Attempting to lift more than rated loads may cause machine to tip or collapse. Do not tip machine to determine rated loads.
6. 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.
7. When lifting over boom point with jib or auxiliary sheave, rated loads for the boom must be deducted as shown below.
8. The total load that can be lifted by the jib is limited by rated jib loads.
9. Boom lengths for jib mounting are 80 ft (24.4 m) to 190 ft (57.9 m).
10. The total load that can be lifted by the auxiliary sheave is: the rated load for the boom (without auxiliary sheave installed) minus 420 lbs; however, the auxiliary sheave rated load should not exceed 24,000 lbs.
11. Permissible boom lengths for installing auxiliary sheave are from 40 ft (12.2 m) to 190 ft (57.9 m).
12. The boom should be erected over the front of the crawlers, not laterally.
13. Least stable position is over the side.
14. Maximum hoist load for number of reeving parts of line for hoist rope.
15. Rated loads listed apply only to the machine as originally manufactured and designed by KOBELCO CRANES CO.,LTD. Modifications to this machine or use of equipment other than that specified can reduce operating capacity.
16. Designed and rated to comply ANSI code B30.5.

Jib Length	Aux Sheave	30 ft	40 ft	50 ft	60 ft
Deduct (lbs)	420	2,400	3,200	4,200	5,200

Maximum Load for Main Boom

No. of Parts of line	1	2	3	4	5
Maximum Loads (lbs)	25,000	50,000	75,000	100,000	125,000

No. of Parts of line	6	7	8
Maximum Loads (lbs)	150,000	175,000	200,000

Maximum Load for Fixed Jib

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

Maximum Load Auxiliary Sheave

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

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

CK1000-III Main Boom Rated Loads in Pounds

3 Counterweights + 2 Low Weights - Crawlers fully extended

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)
10.0	81.9	200,000 *	12.0	81.2	185,180 *	13.0	81.7	171,730 *
11.0	80.5	200,000 *	13.0	80.1	171,950 *	14.0	80.8	159,830 *
12.0	79.0	185,400 *	14.0	78.9	160,050 *	15.0	79.8	149,910 *
13.0	77.5	172,170 *	15.0	77.7	150,130 *	16.0	78.8	140,650 *
14.0	76.1	160,270 *	16.0	76.5	140,870 *	17.0	77.8	132,930 *
15.0	74.6	150,350 *	17.0	75.4	133,150 *	18.0	76.9	124,330 *
16.0	73.1	141,090 *	18.0	74.2	125,880 *	19.0	75.9	116,180 *
17.0	71.5	133,370 *	19.0	73.0	119,040 *	20.0	74.9	109,120 *
18.0	70.0	126,100 *	20.0	71.7	111,330 *	22.0	72.9	97,000 *
19.0	68.5	119,040 *	22.0	69.3	98,760 *	24.0	70.9	87,300 *
20.0	66.9	111,110 *	24.0	66.8	87,520	26.0	68.8	77,600
22.0	63.7	97,440 *	26.0	64.3	77,820	28.0	66.8	69,880
24.0	60.5	86,420 *	28.0	61.7	70,100	30.0	64.6	63,490
26.0	57.1	76,940 *	30.0	59.0	63,710	32.0	62.5	58,200
28.0	53.5	69,000 *	32.0	56.3	58,420	34.0	60.3	53,570
30.0	49.8	62,160 *	34.0	53.5	53,790	36.0	58.1	49,600
32.0	45.9	55,990 *	36.0	50.5	50,040	38.0	55.8	46,070
34.0	41.7	50,260 *	38.0	47.4	46,510	40.0	53.4	43,210
36.0	37.0	45,190 *	40.0	44.2	43,430	45.0	47.1	37,030
38.0	31.8	40,120 *	45.0	35.0	35,270 *	50.0	40.1	32,400
40.0	25.7	35,270 *	50.0	22.8	27,110 *	55.0	31.8	27,330 *
						60.0	20.7	21,600 *

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)
15.0	81.3	149,690 *	16.0	81.6	138,660 *	17.0	81.9	125,660 *
16.0	80.4	140,430 *	17.0	80.9	128,300 *	18.0	81.3	117,720 *
17.0	79.6	131,830 *	18.0	80.2	119,260 *	19.0	80.6	109,780 *
18.0	78.8	122,570 *	19.0	79.5	111,550 *	20.0	80.0	103,170 *
19.0	77.9	114,630 *	20.0	78.7	104,710 *	22.0	78.7	91,710 *
20.0	77.1	107,580 *	22.0	77.3	93,250 *	24.0	77.4	82,670 *
22.0	75.4	95,900 *	24.0	75.8	84,210 *	26.0	76.1	75,390 *
24.0	73.7	86,420 *	26.0	74.3	76,720 *	28.0	74.8	69,220 *
26.0	72.0	77,600	28.0	72.8	69,440	30.0	73.4	63,050
28.0	70.2	69,880	30.0	71.3	63,050	32.0	72.1	57,540
30.0	68.5	63,490	32.0	69.8	57,760	34.0	70.8	52,910
32.0	66.7	57,980	34.0	68.2	53,130	36.0	69.4	49,160
34.0	64.9	53,350	36.0	66.7	49,160	38.0	68.0	45,630
36.0	63.1	49,600	38.0	65.1	45,850	40.0	66.6	42,540
38.0	61.2	46,070	40.0	63.5	42,760	45.0	63.1	36,370
40.0	59.3	42,980	45.0	59.4	36,590	50.0	59.5	31,740
45.0	54.4	37,030	50.0	55.1	31,960	55.0	55.7	27,990
50.0	49.1	32,180	55.0	50.6	28,210	60.0	51.7	25,130
55.0	43.4	28,650	60.0	45.7	25,130	65.0	47.5	22,480
60.0	37.0	25,570	65.0	40.4	22,700	70.0	43.0	20,500
65.0	29.4	22,040 *	70.0	34.5	20,720	75.0	38.0	18,730
			75.0	27.4	17,850 *	80.0	32.4	17,190 *
						85.0	25.8	14,770 *

CK1000-III Main Boom Rated Loads in Pounds

3 Counterweights + 2 Low Weights - Crawlers fully extended

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)
19.0	81.6	107,360 *	20.0	81.8	100,300 *	22.0	81.6	87,080 *
20.0	81.0	100,750 *	22.0	80.8	89,060 *	24.0	80.6	78,480 *
22.0	79.8	89,500 *	24.0	79.7	80,020 *	26.0	79.6	71,200 *
24.0	78.7	80,680 *	26.0	78.7	72,750 *	28.0	78.6	65,250 *
26.0	77.5	73,410 *	28.0	77.6	66,790 *	30.0	77.7	60,180 *
28.0	76.3	67,460 *	30.0	76.5	61,720 *	32.0	76.7	55,990 *
30.0	75.1	62,390 *	32.0	75.4	57,310 *	34.0	75.7	52,240 *
32.0	73.9	57,310	34.0	74.4	52,680	36.0	74.7	48,500
34.0	72.7	52,680	36.0	73.3	48,720	38.0	73.7	44,970
36.0	71.5	48,720	38.0	72.2	45,410	40.0	72.7	42,100
38.0	70.3	45,410	40.0	71.1	42,320	45.0	70.2	35,930
40.0	69.1	42,320	45.0	68.3	36,150	50.0	67.6	31,080
45.0	66.0	36,150	50.0	65.5	31,520	55.0	65.0	27,330
50.0	62.8	31,520	55.0	62.6	27,770	60.0	62.3	24,470
55.0	59.5	27,770	60.0	59.6	24,690	65.0	59.6	21,820
60.0	56.1	24,690	65.0	56.5	22,260	70.0	56.8	19,840
65.0	52.6	22,260	70.0	53.3	20,060	75.0	53.9	18,070
70.0	48.8	20,060	75.0	49.9	18,290	80.0	50.8	16,530
75.0	44.9	18,290	80.0	46.4	16,750	85.0	47.7	15,210
80.0	40.6	16,750	85.0	42.7	15,430	90.0	44.3	13,880
85.0	36.0	15,430	90.0	38.6	14,320	95.0	40.8	13,000
90.0	30.7	14,320 *	95.0	34.2	13,220	100.0	36.9	12,120
95.0	24.4	12,340 *	100.0	29.2	12,120 *	105.0	32.7	11,240
			105.0	23.2	10,360 *	110.0	27.9	10,140 *
						115.0	22.2	8,590 *
130' Boom			140' Boom			150' 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)
24.0	81.3	71,860 *	24.0	81.9	61,720 *	26.0	81.7	52,680 *
26.0	80.4	70,980 *	26.0	81.1	60,840 *	28.0	80.9	51,800 *
28.0	79.5	65,030 *	28.0	80.3	59,960 *	30.0	80.2	51,140 *
30.0	78.6	59,960 *	30.0	79.4	58,640 *	32.0	79.4	50,260 *
32.0	77.7	55,550 *	32.0	78.6	54,450 *	34.0	78.6	49,600 *
34.0	76.8	51,800 *	34.0	77.8	50,700 *	36.0	77.8	46,510 *
36.0	75.9	48,500 *	36.0	76.9	47,390 *	38.0	77.0	43,650 *
38.0	75.0	44,970	38.0	76.1	44,530 *	40.0	76.3	41,220 *
40.0	74.1	41,880	40.0	75.2	41,660	45.0	74.3	35,270
45.0	71.8	35,710	45.0	73.1	35,490	50.0	72.3	30,640
50.0	69.4	31,080	50.0	71.0	30,860	55.0	70.3	26,890
55.0	67.1	27,330	55.0	68.8	27,110	60.0	68.2	23,800
60.0	64.6	24,250	60.0	66.6	24,030	65.0	66.1	21,380
65.0	62.2	21,820	65.0	64.3	21,380	70.0	64.0	19,180
70.0	59.6	19,620	70.0	62.0	19,400	75.0	61.9	17,410
75.0	57.0	17,850	75.0	59.7	17,630	80.0	59.7	15,870
80.0	54.4	16,310	80.0	57.2	16,090	85.0	57.4	14,550
85.0	51.6	14,990	85.0	54.8	14,770	90.0	55.1	13,440
90.0	48.7	13,880	90.0	52.2	13,440	95.0	52.8	12,340
95.0	45.7	12,780	95.0	49.6	12,560	100.0	50.3	11,460
100.0	42.5	11,900	100.0	46.8	11,460	105.0	47.8	10,580
105.0	39.1	11,020	105.0	43.9	10,800	110.0	45.1	9,700
110.0	35.4	10,360	110.0	40.9	9,920	115.0	42.3	9,030
115.0	31.4	9,470 *	115.0	37.6	9,250	120.0	39.4	8,590
120.0	26.8	8,370 *	120.0	34.1	8,590	125.0	36.3	7,930
125.0	21.3	7,050 *	125.0	30.2	7,710 *	130.0	32.9	7,490 *
			130.0	25.8	6,830 *	135.0	29.1	6,610 *
			135.0	20.5	5,730 *	140.0	24.9	5,730 *

CK1000-III Main Boom Rated Loads in Pounds

3 Counterweights + 2 Low Weights - Crawlers fully extended

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)
28.0	81.5	44,090 *	28.0	82.0	38,800 *	30.0	81.8	33,730 *
30.0	80.8	43,430 *	30.0	81.3	38,130 *	32.0	81.2	33,060 *
32.0	80.1	42,760 *	32.0	80.6	37,470 *	34.0	80.5	32,620 *
34.0	79.3	42,100 *	34.0	80.0	37,030 *	36.0	79.9	31,960 *
36.0	78.6	41,440 *	36.0	79.3	36,370 *	38.0	79.2	31,520 *
38.0	77.9	40,780 *	38.0	78.6	35,710 *	40.0	78.6	31,080 *
40.0	77.1	40,340 *	40.0	77.9	35,270 *	45.0	77.0	29,760 *
45.0	75.3	35,270	45.0	76.2	33,950 *	50.0	75.3	28,650 *
50.0	73.4	30,640	50.0	74.4	30,420	55.0	73.7	26,230
55.0	71.5	26,890	55.0	72.7	26,670	60.0	72.0	23,360
60.0	69.6	23,800	60.0	70.9	23,580	65.0	70.3	20,720
65.0	67.7	21,160	65.0	69.1	20,940	70.0	68.6	18,730
70.0	65.8	19,180	70.0	67.3	18,950	75.0	66.9	16,750
75.0	63.8	17,410	75.0	65.4	17,190	80.0	65.1	15,210
80.0	61.8	15,870	80.0	63.6	15,650	85.0	63.4	13,880
85.0	59.7	14,320	85.0	61.7	14,100	90.0	61.6	12,780
90.0	57.6	13,220	90.0	59.7	13,000	95.0	59.7	11,680
95.0	55.4	12,120	95.0	57.7	11,900	100.0	57.9	10,800
100.0	53.2	11,240	100.0	55.7	11,020	105.0	56.0	9,920
105.0	51.0	10,360	105.0	53.6	10,140	110.0	54.0	9,030
110.0	48.6	9,700	110.0	51.5	9,470	115.0	52.0	8,370
115.0	46.2	9,030	115.0	49.3	8,810	120.0	50.0	7,710
120.0	43.6	8,370	120.0	47.1	8,150	125.0	47.8	7,270
125.0	40.9	7,710	125.0	44.7	7,490	130.0	45.6	6,830
130.0	38.1	7,270	130.0	42.2	7,050	135.0	43.4	6,170
135.0	35.1	6,830 *	135.0	39.6	6,610	140.0	41.0	5,730
140.0	31.8	5,950 *	140.0	36.9	6,170 *	145.0	38.5	5,290 *
145.0	28.2	5,290 *	145.0	34.0	5,510 *	150.0	35.8	4,850 *
150.0	24.1	4,400 *	150.0	30.8	4,850 *	155.0	33.0	4,180 *
			155.0	27.3	4,180 *	160.0	29.9	3,520 *
			160.0	23.3	3,520 *	165.0	26.5	3,080 *

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	29,540 *	155.0	37.4	4,180 *
34.0	81.0	28,880 *	160.0	34.8	3,740 *
36.0	80.4	28,430 *	165.0	32.1	3,300 *
38.0	79.8	27,990 *			
40.0	79.2	27,550 *			
45.0	77.6	26,450 *			
50.0	76.1	25,350 *			
55.0	74.5	24,250 *			
60.0	73.0	22,700 *			
65.0	71.4	20,500			
70.0	69.8	18,510			
75.0	68.2	16,750			
80.0	66.5	15,210			
85.0	64.9	13,660			
90.0	63.2	12,560			
95.0	61.5	11,460			
100.0	59.7	10,580			
105.0	58.0	9,700			
110.0	56.2	9,030			
115.0	54.3	8,370			
120.0	52.5	7,710			
125.0	50.5	7,050			
130.0	48.5	6,610			
135.0	46.5	6,170			
140.0	44.4	5,730			
145.0	42.1	5,290 *			
150.0	39.8	4,850 *			

CK1000-III Jib Rated Loads in Pounds

3 Counterweights + 2 Low Weights - Crawlers fully extended

80' Boom									90' Boom								
Load Radius (ft.)	30 ft Jib		40 ft Jib		50 ft Jib		60 ft Jib		Load Radius (ft.)	30 ft Jib		40 ft Jib		50 ft Jib		60 ft Jib	
	Offset Angle		Offset Angle		Offset Angle		Offset Angle			Offset Angle		Offset Angle		Offset Angle		Offset Angle	
	10°	30°	10°	30°	10°	30°	10°	30°		10°	30°	10°	30°	10°	30°	10°	30°
30	24,000 *								32	24,000 *							
32	24,000 *								34	24,000 *							
34	24,000 *		24,000 *						36	24,000 *	24,000 *						
36	24,000 *		24,000 *						38	24,000 *	24,000 *	20,000 *					
38	24,000 *	21,000 *	24,000 *		20,000 *				40	24,000 *	21,000 *	24,000 *	20,000 *				
40	24,000 *	21,000 *	24,000 *		20,000 *		18,000 *		45	24,000 *	21,000 *	24,000 *	20,000 *		18,000 *		
45	24,000 *	20,700 *	24,000 *	15,360 *	20,000 *		18,000 *		50	24,000 *	20,100 *	24,000 *	14,810 *	20,000 *		18,000 *	
50	24,000 *	19,510 *	24,000 *	14,480 *	20,000 *		17,850 *		55	24,000 *	19,020 *	23,890 *	14,020 *	19,550 *	11,300 *	16,970 *	
55	24,000 *	18,380 *	22,480 *	13,640 *	18,560 *	11,080 *	16,180 *		60	24,000 *	18,120 *	22,020 *	13,330 *	18,000 *	10,730 *	15,630 *	9,100 *
60	24,000 *	17,500 *	20,700 *	12,980 *	17,080 *	10,490 *	14,850 *	8,950 *	65	22,660 *	17,320 *	20,410 *	12,760 *	16,730 *	10,250 *	14,460 *	8,660 *
65	22,920 *	16,710 *	19,180 *	12,360 *	15,800 *	9,980 *	13,730 *	8,480 *	70	20,540 *	16,620 *	19,040 *	12,230 *	15,580 *	9,780 *	13,470 *	8,240 *
70	20,810 *	16,020 *	17,870 *	11,830 *	14,720 *	9,540 *	12,760 *	8,060 *	75	18,620 *	15,960 *	17,760 *	11,720 *	14,520 *	9,360 *	12,520 *	7,870 *
75	18,910 *	15,380 *	16,660 *	11,350 *	13,710 *	9,100 *	11,860 *	7,670 *	80	17,080 *	15,430 *	16,730 *	11,300 *	13,660 *	8,990 *	11,770 *	7,530 *
80	17,370 *	14,850 *	15,670 *	10,930 *	12,870 *	8,730 *	11,130 *	7,340 *	85	15,760 *	14,940 *	15,800 *	10,930 *	12,890 *	8,680 *	11,080 *	7,230 *
85	16,020 *		14,810 *	10,560 *	12,140 *	8,420 *	10,470 *	7,030 *	90	14,570 *		14,740 *	10,580 *	12,210 *	8,370 *	10,470 *	6,960 *
90	14,850 *		14,040 *	10,250 *	11,500 *	8,130 *	9,870 *	6,760 *	95	13,470 *		13,620 *	10,270 *	11,570 *	8,110 *	9,890 *	6,700 *
95	13,750 *		13,310 *		10,890 *	7,840 *	9,320 *	6,500 *	100	12,540 *		12,690 *		11,020 *	7,870 *	9,390 *	6,480 *
100	12,830 *		12,690 *		10,360 *	7,620 *	8,860 *	6,280 *	105	11,700 *		11,860 *		10,530 *	7,640 *	8,950 *	6,280 *
105			12,120 *		9,890 *		8,440 *	6,100 *	110			11,080 *		10,070 *		8,550 *	6,100 *
110			11,350 *		9,470 *		8,060 *	5,930 *	115			10,360 *		9,650 *		8,150 *	5,930 *
115					9,080 *		7,690 *		120					9,300 *		7,820 *	
120							7,380 *		125					8,970 *		7,530 *	
125							7,120 *		130							7,270 *	
									135							7,010 *	

100' Boom									110' Boom								
Load Radius (ft.)	30 ft Jib		40 ft Jib		50 ft Jib		60 ft Jib		Load Radius (ft.)	30 ft Jib		40 ft Jib		50 ft Jib		60 ft Jib	
	Offset Angle		Offset Angle		Offset Angle		Offset Angle			Offset Angle		Offset Angle		Offset Angle		Offset Angle	
	10°	30°	10°	30°	10°	30°	10°	30°		10°	30°	10°	30°	10°	30°	10°	30°
32	24,000 *								34	24,000 *							
34	24,000 *								36	24,000 *							
36	24,000 *		24,000 *						38	24,000 *	24,000 *						
38	24,000 *		24,000 *						40	24,000 *	24,000 *						
40	24,000 *		24,000 *		20,000 *				45	24,000 *	21,000 *	24,000 *		20,000 *		18,000 *	
45	24,000 *	21,000 *	24,000 *		20,000 *		18,000 *		50	24,000 *	21,000 *	24,000 *	15,360 *	20,000 *		18,000 *	
50	24,000 *	20,650 *	24,000 *	15,100 *	20,000 *		18,000 *		55	24,000 *	20,100 *	24,000 *	14,610 *	20,000 *		18,000 *	
55	24,000 *	19,570 *	24,000 *	14,320 *	20,000 *	11,500 *	17,720 *		60	24,000 *	19,220 *	24,000 *	13,970 *	19,810 *	11,150 *	17,040 *	
60	24,000 *	18,690 *	23,280 *	13,660 *	18,930 *	10,950 *	16,350 *		65	22,260 *	18,430 *	22,500 *	13,400 *	18,430 *	10,670 *	15,820 *	8,970 *
65	22,440 *	17,900 *	21,620 *	13,090 *	17,590 *	10,470 *	15,160 *	8,810 *	70	20,150 *	17,700 *	20,370 *	12,870 *	17,230 *	10,250 *	14,770 *	8,570 *
70	20,320 *	17,190 *	20,190 *	12,560 *	16,420 *	10,030 *	14,130 *	8,420 *	75	18,230 *	17,040 *	18,450 *	12,380 *	16,110 *	9,830 *	13,800 *	8,200 *
75	18,400 *	16,510 *	18,620 *	12,050 *	15,340 *	9,610 *	13,160 *	8,040 *	80	16,680 *	16,460 *	16,880 *	11,940 *	15,160 *	9,470 *	12,960 *	7,890 *
80	16,860 *	15,960 *	17,060 *	11,640 *	14,440 *	9,230 *	12,360 *	7,710 *	85	15,340 *	15,650 *	15,520 *	11,570 *	14,350 *	9,140 *	12,230 *	7,580 *
85	15,520 *	15,450 *	15,710 *	11,260 *	13,640 *	8,920 *	11,660 *	7,420 *	90	14,150 *	14,440 *	14,320 *	11,220 *	13,600 *	8,840 *	11,590 *	7,310 *
90	14,320 *	14,570 *	14,500 *	10,910 *	12,910 *	8,610 *	11,040 *	7,160 *	95	13,020 *	13,270 *	13,200 *	10,890 *	12,890 *	8,550 *	10,950 *	7,050 *
95	13,220 *	13,420 *	13,380 *	10,580 *	12,230 *	8,330 *	10,420 *	6,900 *	100	12,100 *	12,320 *	12,250 *	10,600 *	12,300 *	8,310 *	10,420 *	6,830 *
100	12,270 *		12,450 *	10,310 *	11,660 *	8,090 *	9,920 *	6,670 *	105	11,260 *		11,410 *	10,330 *	11,530 *	8,090 *	9,940 *	6,630 *
105	11,460 *		11,590 *		11,150 *	7,870 *	9,450 *	6,450 *	110	10,510 *		10,640 *	10,110 *	10,780 *	7,890 *	9,500 *	6,430 *
110	10,690 *		10,840 *		10,670 *	7,690 *	9,030 *	6,280 *	115	9,780 *		9,920 *		10,030 *	7,690 *	9,080 *	6,260 *
115	9,980 *		10,110 *		10,200 *		8,610 *	6,100 *	120	9,170 *		9,300 *		9,390 *		8,700 *	6,100 *
120			9,470 *		9,590 *		8,280 *	5,950 *	125	8,420 *		8,730 *		8,810 *		8,370 *	5,970 *
125			8,860 *		9,010 *		7,950 *		130			8,200 *		8,280 *		8,060 *	
130					8,480 *		7,670 *		135			7,420 *		7,800 *		7,780 *	
135					7,800 *		7,400 *		140					7,250 *		7,380 *	
140							7,140 *		145							6,960 *	
145							6,810 *		150							6,370 *	

CK1000-III Jib Rated Loads in Pounds

3 Counterweights + 2 Low Weights - Crawlers fully extended

120' Boom				130' Boom													
Load Radius (ft.)	30 ft Jib		40 ft Jib		50 ft Jib		60 ft Jib		Load Radius (ft.)	30 ft Jib		40 ft Jib		50 ft Jib		60 ft Jib	
	Offset Angle		Offset Angle		Offset Angle		Offset Angle			Offset Angle		Offset Angle		Offset Angle		Offset Angle	
	10°	30°	10°	30°	10°	30°	10°	30°		10°	30°	10°	30°	10°	30°	10°	30°
36	24,000 *								38	24,000 *							
38	24,000 *								40	24,000 *							
40	24,000 *		24,000 *						45	24,000 *	24,000 *		20,000 *				
45	24,000 *	21,000 *	24,000 *		20,000 *				50	24,000 *	21,000 *	24,000 *		20,000 *		18,000 *	
50	24,000 *	21,000 *	24,000 *		20,000 *		18,000 *		55	24,000 *	20,980 *	24,000 *	15,100 *	20,000 *		18,000 *	
55	24,000 *	20,560 *	24,000 *	14,880 *	20,000 *		18,000 *		60	24,000 *	20,120 *	24,000 *	14,500 *	20,000 *	11,480 *	18,000 *	
60	24,000 *	19,680 *	24,000 *	14,240 *	20,000 *	11,330 *	17,720 *		65	21,730	19,350 *	22,000	13,930 *	20,010 *	11,020 *	17,100 *	
65	21,970	18,910 *	22,240	13,690 *	19,240 *	10,860 *	16,460 *	9,080 *	70	19,620	18,650 *	19,860	13,420 *	18,760 *	10,620 *	16,000 *	8,840 *
70	19,860	18,180 *	20,100	13,160 *	18,010 *	10,420 *	15,380 *	8,700 *	75	17,680	17,960 *	17,920	12,940 *	17,570 *	10,200 *	14,960 *	8,480 *
75	17,940	17,500 *	18,160	12,670 *	16,840 *	10,030 *	14,390 *	8,350 *	80	16,130	16,600	16,350	12,520 *	16,530	9,850 *	14,100 *	8,170 *
80	16,400	16,790	16,620	12,250 *	15,890 *	9,670 *	13,550 *	8,040 *	85	14,790	15,180	14,990	12,140 *	15,160	9,540 *	13,330 *	7,890 *
85	15,050	15,410	15,250	11,860 *	15,030 *	9,340 *	12,780 *	7,730 *	90	13,600	13,950	13,800	11,770 *	13,950	9,230 *	12,630 *	7,620 *
90	13,860	14,170	14,040	11,500 *	14,190	9,060 *	12,120 *	7,470 *	95	12,470	12,780	12,650	11,440 *	12,800	8,950 *	11,970 *	7,360 *
95	12,740	13,020	12,910	11,170 *	13,050	8,770 *	11,480 *	7,230 *	100	11,530	11,810	11,700	11,130 *	11,860	8,700 *	11,410 *	7,140 *
100	11,790	12,050	11,970	10,860 *	12,100	8,500 *	10,930 *	7,010 *	105	10,690	10,950	10,860	10,860 *	11,000	8,480 *	10,890 *	6,940 *
105	10,950	11,170	11,130	10,600 *	11,260	8,280 *	10,420 *	6,790 *	110	9,940	10,160	10,090	10,420	10,220	8,260 *	10,310	6,740 *
110	10,200		10,360	10,360 *	10,490	8,060 *	9,960 *	6,610 *	115	9,210		9,360	9,650	9,470	8,040 *	9,560	6,560 *
115	9,470		9,630	9,870	9,740	7,870 *	9,520 *	6,410 *	120	8,570		8,730	8,990	8,840	7,870 *	8,920	6,390 *
120	8,860		8,990		9,100	7,690 *	9,140 *	6,260 *	125	8,020		8,150		8,260	7,710 *	8,350	6,230 *
125	8,280		8,420		8,530	7,530 *	8,610	6,100 *	130	7,490		7,620		7,730	7,560 *	7,820	6,100 *
130	7,690 *		7,890		8,000		8,060	5,970 *	135	6,940 *		7,140		7,250		7,310	5,970 *
135	6,830 *		7,420		7,510		7,580	5,860 *	140	6,150 *		6,670		6,760		6,830	5,860 *
140			6,700 *		7,030		7,090		145			6,040 *		6,340		6,410	
145					6,540 *		6,670		150			5,370 *		5,860 *		6,040	
150					5,880 *		6,300		155					5,260 *		5,620 *	
155							5,730 *		160					4,650 *		5,040 *	
160							5,090 *		165							4,540 *	
									170							4,010 *	

140' Boom				150' Boom													
Load Radius (ft.)	30 ft Jib		40 ft Jib		50 ft Jib		60 ft Jib		Load Radius (ft.)	30 ft Jib		40 ft Jib		50 ft Jib		60 ft Jib	
	Offset Angle		Offset Angle		Offset Angle		Offset Angle			Offset Angle		Offset Angle		Offset Angle		Offset Angle	
	10°	30°	10°	30°	10°	30°	10°	30°		10°	30°	10°	30°	10°	30°	10°	30°
40	24,000 *								45	24,000 *		24,000 *					
45	24,000 *		24,000 *						50	24,000 *	21,000 *	24,000 *		20,000 *			
50	24,000 *	21,000 *	24,000 *		20,000 *				55	24,000 *	21,000 *	24,000 *		20,000 *		18,000 *	
55	24,000 *	21,000 *	24,000 *	15,320 *	20,000 *		18,000 *		60	23,800	20,890 *	24,000 *	14,920 *	20,000 *		18,000 *	
60	23,980	20,540 *	24,000 *	14,720 *	20,000 *		18,000 *		65	21,270	20,150 *	21,580	14,390 *	20,000 *	11,330 *	18,000 *	
65	21,450	19,770 *	21,730	14,170 *	20,000 *	11,170 *	17,700 *		70	19,150	19,440 *	19,420	13,910 *	19,640	10,930 *	17,120 *	9,060 *
70	19,330	19,060 *	19,590	13,690 *	19,480 *	10,780 *	16,570 *	8,950 *	75	17,210	17,810	17,480	13,420 *	17,680	10,530 *	16,040 *	8,700 *
75	17,390	17,940	17,650	13,180 *	17,850	10,380 *	15,520 *	8,590 *	80	15,670	16,200	15,890	13,000 *	16,090	10,200 *	15,160 *	8,420 *
80	15,850	16,330	16,090	12,760 *	16,260	10,030 *	14,630 *	8,310 *	85	14,300	14,790	14,520	12,630 *	14,700	9,870 *	14,350 *	8,130 *
85	14,480	14,940	14,720	12,380 *	14,880	9,720 *	13,840 *	8,020 *	90	13,110	13,530	13,310	12,270 *	13,490	9,590 *	13,620	7,890 *
90	13,290	13,690	13,510	12,030 *	13,660	9,430 *	13,130 *	7,760 *	95	11,990	12,360	12,190	11,920 *	12,340	9,300 *	12,450	7,620 *
95	12,160	12,540	12,360	11,680 *	12,520	9,120 *	12,450 *	7,510 *	100	11,040	11,390	11,240	11,610 *	11,390	9,060 *	11,500	7,400 *
100	11,220	11,550	11,410	11,370 *	11,570	8,880 *	11,680	7,270 *	105	10,200	10,510	10,380	10,820	10,530	8,810 *	10,640	7,200 *
105	10,380	10,690	10,580	10,970	10,710	8,660 *	10,820	7,070 *	110	9,430	9,720	9,610	10,030	9,760	8,590 *	9,850	7,010 *
110	9,630	9,890	9,810	10,180	9,940	8,440 *	10,050	6,870 *	115	8,700	8,970	8,860	9,230	9,010	8,390 *	9,100	6,830 *
115	8,900	9,120	9,060	9,410	9,190	8,220 *	9,300	6,700 *	120	8,090	8,310	8,240	8,570	8,370	8,200 *	8,460	6,650 *
120	8,260	8,480	8,420	8,730	8,550	8,040 *	8,660	6,520 *	125	7,510	7,710	7,670	7,950	7,780	8,020 *	7,870	6,500 *
125	7,690		7,840	8,130	7,980	7,870 *	8,060	6,370 *	130	6,980		7,140	7,400	7,250	7,620	7,340	6,370 *
130	7,180		7,310		7,450	7,710 *	7,530	6,230 *	135	6,500		6,630		6,740	7,090	6,830	6,210 *
135	6,700		6,830		6,940	7,250	7,030	6,100 *	140	6,010 *		6,170		6,260	6,590	6,340	6,080 *
140	6,060 *		6,370		6,450		6,540	5,970 *	145	5,420 *		5,750		5,840		5,930	5,970 *
145	5,400 *		5,880 *		6,040		6,120	5,860 *	150	4,820 *		5,220 *		5,460		5,530	5,880
150	4,760 *		5,290 *		5,640 *		5,730		155	4,250 *		4,690 *		4,980 *		5,150 *	
155			4,690 *		5,090 *		5,350 *		160	3,650 *		4,140 *		4,450 *		4,670 *	
160			4,070 *		4,540 *		4,820 *		165			3,610 *		3,990 *		4,230 *	
165					4,010 *		4,340 *		170					3,520 *		3,790 *	
170					3,500 *		3,880 *		175					3,060 *		3,370 *	

CK1000-III Jib Rated Loads in Pounds

3 Counterweights + 2 Low Weights - Crawlers fully extended

160' Boom									170' Boom								
Load Radius (ft.)	30 ft Jib		40 ft Jib		50 ft Jib		60 ft Jib		Load Radius (ft.)	30 ft Jib		40 ft Jib		50 ft Jib		60 ft Jib	
	Offset Angle		Offset Angle		Offset Angle		Offset Angle			Offset Angle		Offset Angle		Offset Angle		Offset Angle	
	10°	30°	10°	30°	10°	30°	10°	30°		10°	30°	10°	30°	10°	30°	10°	30°
45	24,000 *								45	24,000 *							
50	24,000 *		24,000 *						50	24,000 *		24,000 *					
55	24,000 *	21,000 *	24,000 *		20,000 *		18,000 *		55	24,000 *	21,000 *	24,000 *		20,000 *		18,000 *	
60	23,720	21,000 *	24,000 *	15,120 *	20,000 *		18,000 *		60	23,500	21,000 *	23,800	15,290 *	20,000 *		18,000 *	
65	21,180	20,500 *	21,470	14,590 *	20,000 *	11,440 *	18,000 *		65	20,940	20,830 *	21,250	14,770 *	20,000 *		18,000 *	
70	19,040	19,730	19,310	14,100 *	19,530	11,060 *	17,650 *	9,140 *	70	18,820	19,530	19,090	14,300 *	19,310	11,170 *	18,000 *	
75	17,100	17,720	17,370	13,640 *	17,570	10,670 *	16,570 *	8,810 *	75	16,880	17,520	17,150	13,840 *	17,350	10,800 *	17,080 *	8,900 *
80	15,540	16,090	15,780	13,220 *	15,980	10,330 *	15,670 *	8,530 *	80	15,320	15,890	15,560	13,420 *	15,760	10,490 *	15,890	8,610 *
85	14,190	14,680	14,410	12,850 *	14,590	10,030 *	14,700	8,240 *	85	13,950	14,480	14,170	13,050 *	14,370	10,180 *	14,500	8,350 *
90	12,980	13,440	13,200	12,500 *	13,350	9,740 *	13,490	8,000 *	90	12,740	13,240	12,960	12,690 *	13,130	9,890 *	13,270	8,110 *
95	11,860	12,270	12,050	12,140 *	12,210	9,450 *	12,340	7,760 *	95	11,610	12,050	11,810	12,360 *	11,990	9,610 *	12,100	7,870 *
100	10,910	11,280	11,110	11,640 *	11,260	9,210 *	11,370	7,530 *	100	10,670	11,080	10,860	11,440	11,020	9,360 *	11,150	7,640 *
105	10,070	10,400	10,250	10,730	10,400	8,970 *	10,490	7,310 *	105	9,810	10,200	10,000	10,530	10,160	9,120 *	10,270	7,450 *
110	9,300	9,610	9,470	9,920	9,610	8,770 *	9,720	7,140 *	110	9,060	9,390	9,230	9,720	9,390	8,900 *	9,470	7,250 *
115	8,550	8,840	8,730	9,120	8,860	8,550 *	8,970	6,940 *	115	8,310	8,610	8,480	8,920	8,610	8,680 *	8,730	7,050 *
120	7,930	8,200	8,090	8,460	8,220	8,350 *	8,310	6,790 *	120	7,670	7,980	7,840	8,240	7,980	8,500	8,090	6,900 *
125	7,360	7,580	7,510	7,840	7,620	8,090	7,730	6,610 *	125	7,090	7,360	7,270	7,640	7,400	7,890	7,490	6,740 *
130	6,830	7,030	6,960	7,270	7,090	7,510	7,180	6,480 *	130	6,560	6,810	6,720	7,070	6,850	7,310	6,940	6,590 *
135	6,320		6,480	6,760	6,590	6,980	6,670	6,340 *	135	6,080	6,300	6,230	6,540	6,340	6,760	6,450	6,450 *
140	5,860		5,990	6,260	6,100	6,450	6,190	6,210 *	140	5,590		5,750	6,040	5,860	6,260	5,950	6,300 *
145	5,310 *		5,570		5,680	5,990	5,770	6,080 *	145	5,040 *		5,290 *	5,590	5,440	5,790	5,530	5,970
150	4,760 *		5,090 *		5,290	5,570	5,370	5,750	150	4,540 *		4,780 *		4,960 *	5,370	5,070 *	5,550
155	4,230 *		4,580 *		4,800 *		4,960 *	5,350	155	4,030 *		4,320 *		4,490 *	4,930 *	4,620 *	5,150 *
160	3,680 *		4,050 *		4,320 *		4,490 *	4,960	160	3,520 *		3,810 *		4,030 *		4,160 *	4,670 *
165	3,170 *		3,590 *		3,880 *		4,050 *		165	3,040 *		3,370 *		3,610 *		3,760 *	4,250 *
170			3,100 *		3,430 *		3,650 *		170					3,190 *		3,370 *	
175					3,020 *		3,240 *										

180' Boom									190' Boom								
Load Radius (ft.)	30 ft Jib		40 ft Jib		50 ft Jib		60 ft Jib		Load Radius (ft.)	30 ft Jib		40 ft Jib		50 ft Jib		60 ft Jib	
	Offset Angle		Offset Angle		Offset Angle		Offset Angle			Offset Angle		Offset Angle		Offset Angle		Offset Angle	
	10°	30°	10°	30°	10°	30°	10°	30°		10°	30°	10°	30°	10°	30°	10°	30°
50	22,200 *								50	22,200 *							
55	21,750 *	21,000 *	21,670 *		20,000 *				55	21,750 *	21,000 *	21,670 *		20,000 *			
60	21,360 *	20,870 *	21,270 *		20,000 *		18,000 *		60	21,360 *	20,870 *	21,270 *		20,000 *		18,000 *	
65	20,700	20,500 *	20,870 *	14,940 *	20,000 *		18,000 *		65	20,700	20,500 *	20,870 *	14,940 *	20,000 *		18,000 *	
70	18,560	19,310	18,840	14,480 *	19,060 *	11,300 *	18,000 *		70	18,560	19,310	18,840	14,480 *	19,060 *	11,300 *	18,000 *	
75	16,600	17,300	16,880	14,020 *	17,100	10,930 *	17,230	8,990 *	75	16,600	17,300	16,880	14,020 *	17,100	10,930 *	17,230	8,990 *
80	15,030	15,670	15,290	13,620 *	15,490	10,600 *	15,650	8,700 *	80	15,030	15,670	15,290	13,620 *	15,490	10,600 *	15,650	8,700 *
85	13,660	14,240	13,910	13,240 *	14,100	10,310 *	14,240	8,460 *	85	13,660	14,240	13,910	13,240 *	14,100	10,310 *	14,240	8,460 *
90	12,470	13,000	12,690	12,890 *	12,890	10,030 *	13,020	8,200 *	90	12,470	13,000	12,690	12,890 *	12,890	10,030 *	13,020	8,200 *
95	11,330	11,810	11,550	12,210 *	11,720	9,740 *	11,860	7,950 *	95	11,330	11,810	11,550	12,210 *	11,720	9,740 *	11,860	7,950 *
100	10,380	10,820	10,600	11,190	10,750	9,500 *	10,890	7,760 *	100	10,380	10,820	10,600	11,190	10,750	9,500 *	10,890	7,760 *
105	9,540	9,940	9,740	10,290	9,890	9,280 *	10,000	7,530 *	105	9,540	9,940	9,740	10,290	9,890	9,280 *	10,000	7,530 *
110	8,770	9,140	8,970	9,470	9,100	9,060 *	9,230	7,360 *	110	8,770	9,140	8,970	9,470	9,100	9,060 *	9,230	7,360 *
115	8,020	8,370	8,200	8,680	8,350	8,840 *	8,460	7,160 *	115	8,020	8,370	8,200	8,680	8,350	8,840 *	8,460	7,160 *
120	7,380	7,710	7,560	8,000	7,710	8,280	7,820	7,010 *	120	7,380	7,710	7,560	8,000	7,710	8,280	7,820	7,010 *
125	6,810	7,090	6,980	7,380	7,120	7,640	7,230	6,850 *	125	6,810	7,090	6,980	7,380	7,120	7,640	7,230	6,850 *
130	6,280	6,540	6,430	6,830	6,560	7,070	6,670	6,700 *	130	6,280	6,540	6,430	6,830	6,560	7,070	6,670	6,700 *
135	5,770 *	6,040	5,950	6,300	6,080	6,540	6,150 *	6,540 *	135	5,770 *	6,040	5,950	6,300	6,080	6,540	6,150 *	6,540 *
140	5,180 *	5,480 *	5,370 *	5,770	5,510 *	6,010	5,590 *	6,210	140	5,180 *	5,480 *	5,370 *	5,770	5,510 *	6,010	5,590 *	6,210
145	4,650 *	4,960 *	4,870 *	5,260 *	5,020 *	5,510 *	5,110 *	5,700 *	145	4,650 *	4,960 *	4,870 *	5,260 *	5,020 *	5,510 *	5,110 *	5,700 *
150	4,160 *		4,380 *	4,760 *	4,540 *	5,020 *	4,620 *	5,220 *	150	4,160 *		4,380 *	4,760 *	4,540 *	5,020 *	4,620 *	5,220 *
155	3,680 *		3,920 *		4,100 *	4,560 *	4,210 *	4,760 *	155	3,680 *		3,920 *		4,100 *	4,560 *	4,210 *	4,760 *
160	3,210 *		3,460 *		3,630 *	4,070 *	3,760 *	4,290 *	160	3,210 *		3,460 *		3,630 *	4,070 *	3,760 *	4,290 *
165			3,040 *		3,240 *		3,370 *	3,880 *	165			3,040 *		3,240 *		3,370 *	3,880 *
170							3,480 *		170								3,480 *

Boom:

Welded lattice construction using tubular, high-tensile steel
 Chords with pin connections between sections.
 Basic boom length: 40 ft (12.2 m)
 Max. boom length: 120 ft (36.6 m)
 Limit on clamshell bucket weight: 4,600 lb (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-B-B-Tip
90 (27.4)	Base-A-C-Tip
100 (30.5)	Base-A-A-B-B-Tip, Base-A-A-C-Tip
110 (33.5)	Base-A-B-C-Tip
120 (36.6)	Base-A-A-B-C-Tip, Base-B-B-C-Tip

Base = Boom Base

Insert: A = 10 ft (3.05 m)
 B = 20 ft (6.10 m)
 C = 40 ft (12.2 m)

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.
5. Boom length for clamshell operation should not exceed 120 ft (36.6 m).

CK1000-III Clamshell Capacity in Pounds

1 Counterweight only, No Low Weight - Crawlers fully extended

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 *

CK1000-III Clamshell Capacity in Pounds

1 Counterweight only, No Low Weight - Crawlers fully extended

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

KOBELCO

CK1600-II

HYDRAULIC CRAWLER CRANE



Max. Lifting Capacity: 160 US Tons
Max. Boom Length: 250 ft
Max. Boom + Jib Length: 200 ft + 100 ft

SPECIFICATIONS FOR CK1600-II CRAWLER CRANE

The Kobelco CK1600-II Crawler Crane is designed from the ground up for reliable operation, convenient maintenance and easy transport.

Please consult your Kobelco distributor for additional information regarding specifications, operating parameters and maintenance requirements.

1. GENERAL DESCRIPTION

Type Crawler mounted, fully revolving
Maximum lifting capacity 320,000 lbs (145,200 kg)
 (at 15' operating radius, with 50' boom)
Basic boom length 50' (15.2 m)
Maximum boom length 250' (76.2 m)
Maximum boom & jib length
 200' + 100' (61.0 m + 30.5 m)

2. GENERAL DIMENSIONS

Height to top of cab 11' 9" (3.58 m)
Width of upper machine with operator's cab
 10' 6" (3.20 m)
Radius of rear end (counterweight) 18' 1" (5.50 m)
Counterweight ground clearance 4' 5" (1.34 m)
Center of rotation to boom foot pin 4' 7" (1.40 m)
Height from ground to boom foot pin 8' 4" (2.53 m)
Height over gantry (raised) 25' 11" (7.89 m)
Overall length of crawler 25' 11" (7.90 m)
Center to center of tumblers 22' 8" (6.89 m)
Overall width of crawlers 21' 9" (6.62 m)
Shoe width 48" (1.22 m)
Ground clearance of carbody 19" (0.48 m)

3. WORKING WEIGHT

Type of Counterweight	Light	Standard
Working Weight	273,000 lbs (124,000 kg)	306,000 lbs (139,000 kg)
Ground Bearing Pressure	10.5 psi	11.7 psi
Gradeability	30%	30%

Calculations to determine working weight ground bearing pressure and gradeability include the weight of the base machine, 50' boom and hook block.

Type of Counterweight:
 Light = 105,820 lbs (48,000 kg) Counterweight without carbody weight.
 Standard = 116,840 lbs (53,000 kg) Counterweight with carbody weight.

4. WORKING SPEED

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

Hoist line speed (front and rear drum)
 390 ~ 10 ft/min (120 ~ 3 m/min)
Lowering line speed (front and rear drum)
 390 ~ 10 ft/min (120 ~ 3 m/min)
Boom hoist line speed
 157 ~ 7 ft/min (48 ~ 2 m/min)
 2 minutes: 250 ft (76.2 m) boom raise 0 to 80 degree
Boom lowering line speed
 157 ~ 7 ft/min (48 ~ 2 m/min)
Swing speed 2.1 rpm (2.1 min⁻¹)
Travel speed (High / Low) 0.81 / 0.56 mph
 (1.3 / 0.9 km/hour)

5. UPPER MACHINERY

5.1 Power plant

Diesel engine, make and model
 Hino P11C-UN (Comply with EPA "Tier 3")
No. of cylinders 6
Bore X stroke 4-13/16" X 5-7/8"
 (122 mm X 150 mm)
Cycles 4
Total displacement 642 cu.in (10,520 cm³)
Rated output SAE GROSS
 331 HP / 2,000 rpm (247 kW / 2,000 min⁻¹)
Maximum torque
 959 lbs-ft / 1,500 rpm (1,300 Nm / 1,500 min⁻¹)
Starter 24 Volts / 6.0 kW
Alternator 24 Volts / 50 Amp
Batteries
 Two 12 volt, 170 AH/20HR capacity series connected.
Radiator
 Corrugated type core, thermostatically controlled.
Throttle
 Twist grip type hand throttle, electrically controlled.
Air cleaner Dry type with replaceable paper element.
Fuel tank capacity 106 US gal. (400 liters)
Lube oil filter
 Full flow and by-pass type with element type.
Fuel filter Replaceable paper element.
Approximate fuel consumption
 0.362 lb / HP-hr (220 g / kW-hr)
 17.3 US gal. / hr at 100 % HP

5.2 Hydraulic pumps

All driven from heavy duty pump drive.

Load hoist and propel

2 Piston pumps, max flow rate 66.5 US gal./min x 2
(252 ℓ/min x 2)

Boom Hoist

1 Piston pump, max flow rate 66.5 US gal./min
(252 ℓ/min)

Swing

1 Piston pump, max flow rate 46.2 US gal./min
(175 ℓ/min)

Control system and auxiliary

2 Gear pumps, max flow rate
16.1 US gal./min x 10.6 US gal (61 l/min x 40 ℓ/min)

Brake cooling system

2 Gear pumps, max flow rate 19.3 US gal./min x 2
(73 ℓ/min x 2)

5.3 Counterweight

Light Weight

one (1) base counterweight (A) and eight (8) side
counterweights (B) 105,820 lbs(48,000 kg)

Standard Weight

one (1) base counterweight (A), eight (8) side coun-
terweight (B) and two side counterweights (C)
116,840 lbs (53,000 kg)

two (2) carbody weight 22,050 lbs (10,000 kg)

Additional weight consists of two (2) side
counterweights (C) and two (2) carbody weights.

Description		Light	Standard
Base Counterweight (A)		1	1
Side Counterweight (B)		8	8
Side Counterweight (C)		0	2
Carbody Counterweight		0	2
Total Weight	Upper	105,820 lbs (48,000 kg)	116,840 lbs (53,000 kg)
	Lower	None	22,050 lbs (10,000 kg)

5.4 Gantry

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

5.5 Operator's cab

Totally enclosed from weather, this full-vision cab has
safety glass all around. The adjustable, high-backed
seat with armrest is standard, allowing operators to
customize the position. Auxiliary controls and instru-
ments are on a side mounted console. A signal horn,
windshield wipers, air conditioner are all standard
features.

5.6 Controls

At operator's right are console-mounted adjustable
short levers for the front and rear drum and the boom
hoist control. Beside the operator's seat on the right
are two short levers for propel control, individual
speed shifts for front drum, rear drum and boom
drum. At the operator's left are the console mounted
swing lever, knobs for front and rear drum, boom
drum pawls, engine start / stop key. A swing brake
control switch and signal horn button are on the
swing lever.

5.7 Electric system

All wiring corded for easy serving, individual fused
branch circuit.

5.8 Hydraulic system

Maximum pressure rating 4,620 psi (31.9 Mpa)

Cooling Oil to air heat exchanger

Filtration

Full flow filters with replaceable paper elements

5.9 Boom hoist

Powered by hydraulic motor through planetary
reducer.

Drum

Single drum.

Grooved for 20.0 mm dia. wire rope.

Brake

A spring set, hydraulically-released, multiple-disc
holding brake is mounted inside the boom hoist
motor and is operated through a counter-balance
valve. An external ratchet is fitted for locking the
drum.

5.10 Front drum

Powered by hydraulic motor through planetary
reducer.

Drum

26.2" (666 mm) P.C.D. X 26.5" (672 mm) Lg.

Grooved for 26 mm dia. wire rope.

Brake

A spring set, hydraulically-released, multiple-disc
holding brake is mounted inside the hoist motor
and is operated through a counter-balance valve. An
external ratchet is fitted for locking the drum.

Free-Fall (Optional)

Wet-type disk brake free-fall is mounted inside the
drum.

5.11 Rear drum

Powered by hydraulic motor through planetary
reducer.

Drum

26.2" (666 mm) P.C.D. X 26.5" (672 mm) Lg.

Grooved for 26 mm dia. wire rope.

Brake

A spring set, hydraulically-released, multiple-disc holding brake is mounted inside the hoist motor and is operated through a counter-balance valve. An external ratchet is fitted for locking the drum.

Free-Fall (Optional)

Wet-type disk brake free-fall is mounted inside the drum.

5.12 Third winch (Optional)

Powered by hydraulic motor through planetary reducer. Installed in base machine. Free-fall is not applied

Drum

24.2" (614 mm) P.C.D. X 24.3" (617 mm) Lg.
Grooved for 26 mm dia. wire rope.

Brake

A spring set, hydraulically-released, multiple-disc holding brake is mounted inside the hoist motor and is operated through a counter-balance valve. An external ratchet is fitted for locking the drum.

5.13 Swing

Swing unit

Hydraulic motor driving through planetary reducer to output swing pinion for 360 degree rotation.

Swing brake

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

Swing circle

Single row ball bearing with internal, integral swing gear.

Swing Lock 4 Position lock for transportation.

6. LOWER MACHINERY

6.1 Carbody

The durable carbody features steel welded construction with axles.

6.2 Crawler

Crawler assemblies are designed with quick disconnect feature for individual removal as a unit from axles. Crawler belt tension adjusted with hydraulic jack and maintained by shims between the idler block and frame.

6.3 Crawler drive

The independent 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 gearbox are built into the crawler side frame within the shoe width.

6.4 Crawler brakes

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

6.5 Steering mechanism

The hydraulic propel system provides both skid steering (driving one track only) and counter-rotating steering (driving each track in opposite direction).

6.6 Crawler shoes

60 shoes, 48" (1,220 mm) wide each crawler.

6.7 Track rollers

The track rollers are sealed for maintenance-free operation.

7. CRANE ATTACHMENTS

7.1 Crane boom

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

Maximum boom length 250' (76.2 m)

Basic boom length 50' (15.2 m)

Boom base section 25' (7.6 m)

Boom tip section (with Taper insert boom)
25' (7.6 m)

7.2 Boom insert (Optional)

An optional boom inserts is available to provide extension capabilities. It also has welded lattice construction with tubular, high-tension steel chords and pin connections on each one of 10' (3.1 m), 20' (6.1 m), 40' (12.2 m) in length.

7.3 Jib (Optional)

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

Maximum jib length 100' (30.5 m)

Basic jib length 40' (12.2 m)

Jib base section 15' (4.6 m)

Jib tip section 15' (4.6 m)

Jib insert 10' (3.1 m), 20' (6.1 m)

Jib inserts are available to provide extension capabilities. They also have welded lattice construction with tubular, high-tension steel chords and pin connections.

Jib is extendible on booms of 90' (27.4 m) through 200' (61.0 m)

7.4 Auxiliary sheave (Optional)

Auxiliary sheave is extendible on booms of 50' (12.2 m) to 240' (73.2 m).

Maximum line: 2 parts of 26 mm wire rope

7.5 Diameter of wire rope

Hoist rope	26 mm
Boom hoist rope	20 mm
Boom pendant rope	30 mm
Jib pendant rope	26 mm

7.6 Boom hoist reeving

Twelve (12) parts of 20 mm dia. high strength wire rope.

7.7 Boom backstops

Telescopic type with spring bumper.

Swing alarm (Buzzer and lamps)
Hook over hoist shut off (Anti-two-block)
Boom angle indicator
Boom hoist drum lock
Swing lock
Boom backstops

8. AUXILIARY EQUIPMENT

8.1 Lights

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

8.2 Gauges and warning display

Gauges

One (1) Tachometer
One (1) Hour meter
One (1) Fuel gauge
One (1) Water temperature gauge for engine

Warning display

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

8.3 Others

Air conditioner
Drum turn indicator (front and rear drum)
Foot acceleration pedal
Electric fuel pump
Counterweight self-removal device

9. SAFETY SERVICE

Over load preventive device (Load Moment Indicator)
Function lock lever
Boom over hoist limit switch
Signal horn
Front and rear hoist drum lock

10. TOOLS AND ACCESSORIES

A set of tools and accessories are furnished.

11. OPTIONAL EQUIPMENT

Front and rear winch free-fall (Wet-type disc brake)
Third drum
Reeving winch
Hydraulic boom foot pin cylinder
Hydraulic tagline
Pillow plate for boom self-erection
Custom color

All specifications are subject to change without notice.

CK1600-II Winch Performance Data **KOBELCO**

Front and Rear drum

Wire rope diameter: 26 mm

Rated line pull: 29,500 lbs (13,380 kg)

Maximum pull: 50,250 lbs (22,800 kg)

Total storage capacity: 1,383 ft (422 m)

		Line Speed (ft/min)							
		Layer	1	2	3	4	5	6	7
Line Pull (lbs)	0	393	419	445	471	497	523		
	5,000	386	412	437	462	487	512		
	10,000	353	353	353	353	353	353		
	15,000	235	235	235	235	235	235		
	20,000	177	177	177	177	177	177	storage	
	29,500	120	120	120	120	120	120	only	
	35,000	101	101	101	101	101	101		
	40,000	90	90	90	90				
	50,250	73							
Storage Capacity (ft)		165	176	187	198	208	219	230	

Third drum (optional)

Wire rope diameter: 26 mm

Rated line pull: 29,500 lbs (13,380 kg)

Maximum pull: 54,510 lbs (24,730 kg)

Total storage capacity: 795 ft (243 m)

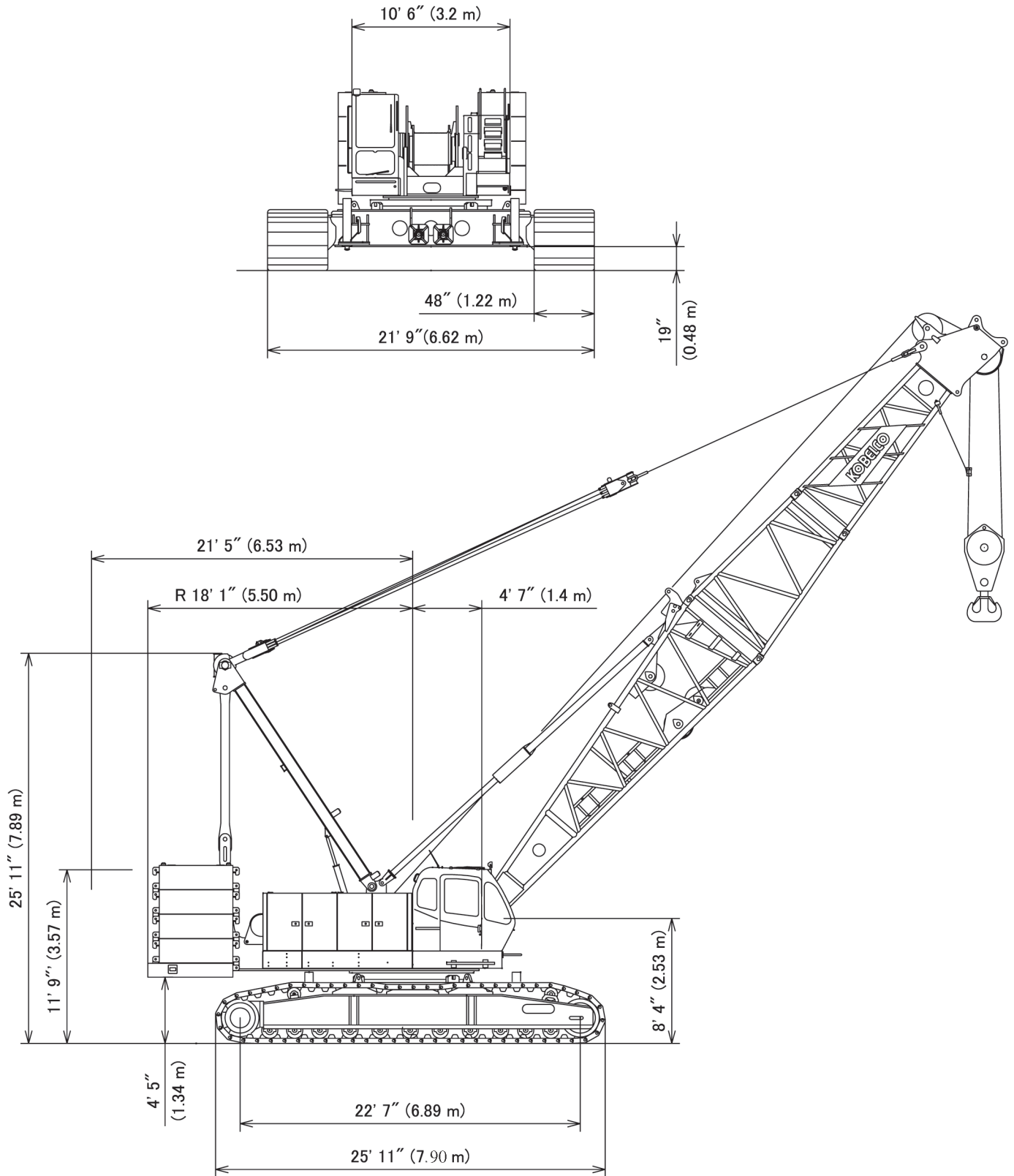
		Line Speed (ft/min)					
		Layer	1	2	3	4	5
Line Pull (lbs)	0	328	355	379	403	427	
	5,000	326	349	372	395	418	
	10,000	241	234	231	231	231	
	15,000	154	154	154	154	154	
	20,000	115	115	115	115	115	
	29,500	78	78	78	78	78	
	40,000	58	57	57	57	57	
	50,000	46	46				
	54,510	43					
Storage Capacity (ft)		139	149	159	169	179	

Wire Rope Specifications

Use	Construction	No load diameter	Length	Safety Factor	Required minimum breaking strength
Front drum	UNI rope (U3 x SeS48) Regular lay, Right hand lay	1.050" to 1.069" (26.65 mm to 27.17 mm)	902' (275 m)	3.5: 1	103,250 lbs (46,840 kg)
Rear drum	UNI rope (U3 x SeS48) Regular lay, Right hand lay	1.050" to 1.069" (26.65 mm to 27.17 mm)	836' (255 m)	3.5: 1	103,250 lbs (46,840 kg)
Boom Drum	6 x 31 Warrington seal Right hand lay, Regular lay	0.807" to 0.822" (20.50 mm to 20.90 mm)	623' (190 m)	3.5: 1	73,640 lbs (33,400 kg)
Third drum (Optional)	6 x 25 Filler IWRC Right hand lay, Regular lay	1.050" to 1.069" (26.65 mm to 27.17 mm)	787' (240 m)	3.5: 1	103,250 lbs (46,840 kg)

CK1600-II General Dimensions

KOBELCO



CK1600-II Dimension and Weight



Base Machine-1

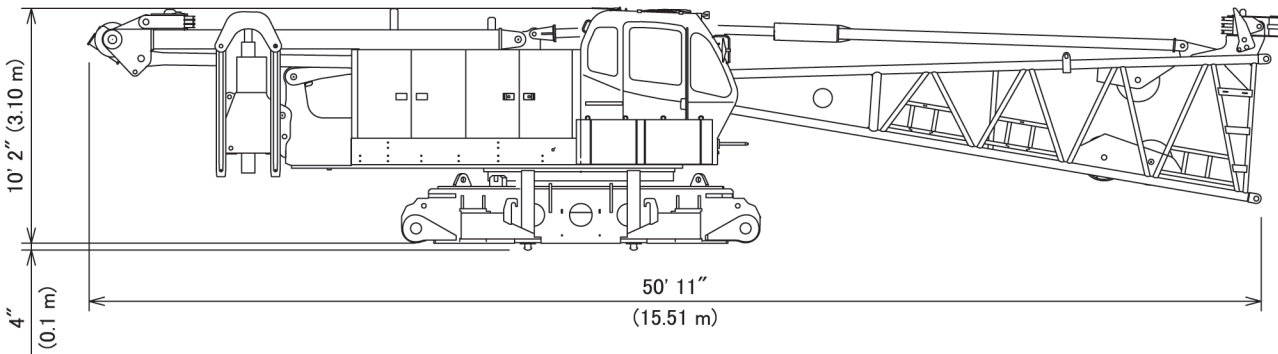
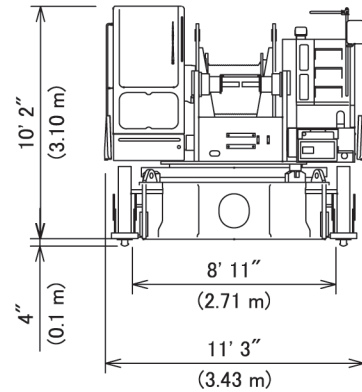
Boom base with self-assembly sheave, Counterweight Self-Removal Cylinder, Translifter and Front, Rear, Boom hoist wire rope
 Weight: 86,420 lbs (39,200 kg)

Base Machine-2

In addition Base Machine-1, optional Front/Rear Free-Fall Break equipped.
 Weight: 88,180 lbs (40,000 kg)

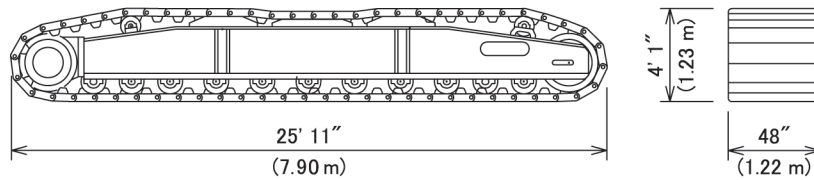
Base Machine-3

In addition Base Machine-2, optional Third drum and wire rope equipped.
 Weight: 92,480 lbs (41,950 kg)



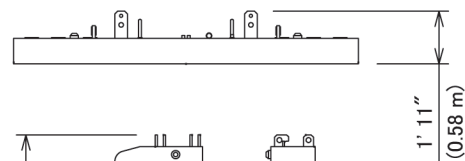
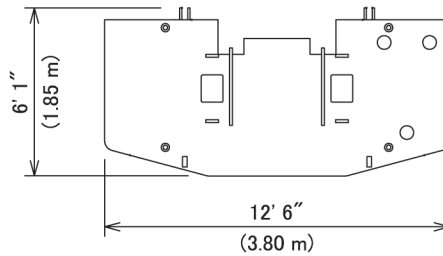
Crawler

Weight: 36,155 lbs (16,400 kg)



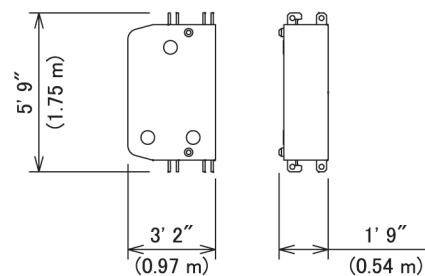
Counterweight (A)

Weight: 17,640 lbs (8,000 kg)



Counterweight (B)

Weight: 11,025 lbs (5,000 kg)

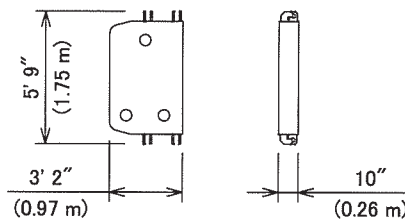


CK1600-II Dimension and Weight



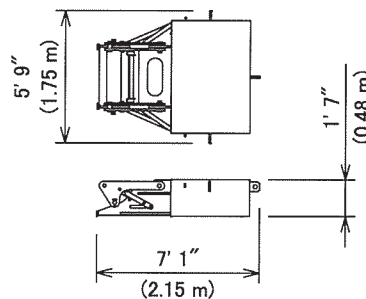
Counterweight (C) (optional)

Weight: 5,513 lbs (2,500 kg)



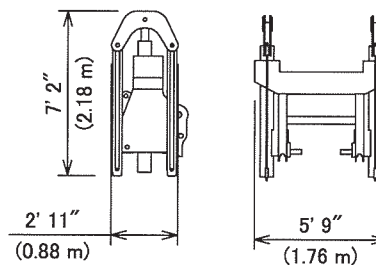
Carbody Weight (optional)

Weight: 11,025 lbs (5,000 kg)



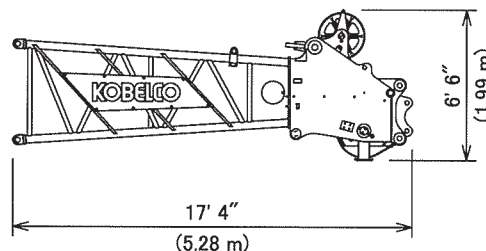
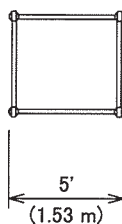
Counterweight Self-Removal Cylinder

Weight: 3,704 lbs (1,680 kg)



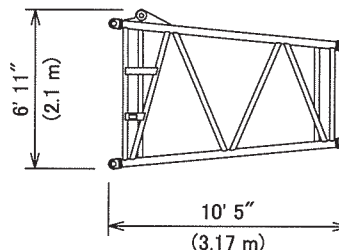
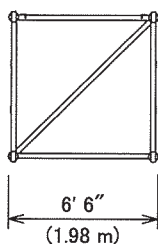
Boom Tip

Weight: 4,100 lbs (1,860 kg)
includes guy lines.



Taper Insert Boom

Weight: 1,190 lbs (540 kg)
includes cable roller.

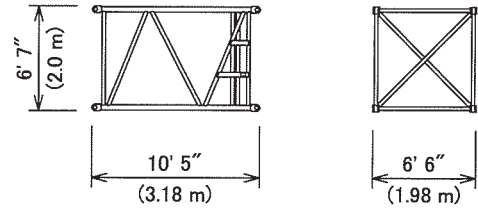


CK1600-II Dimension and Weight



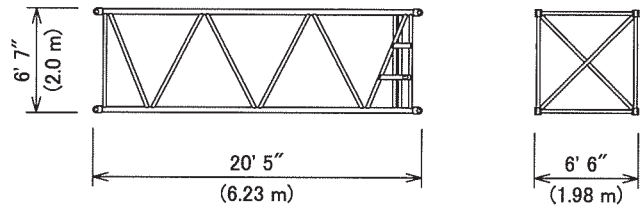
10 ft Insert Boom

Weight: 1,390 lbs (630 kg)
Includes cable roller and guy lines.



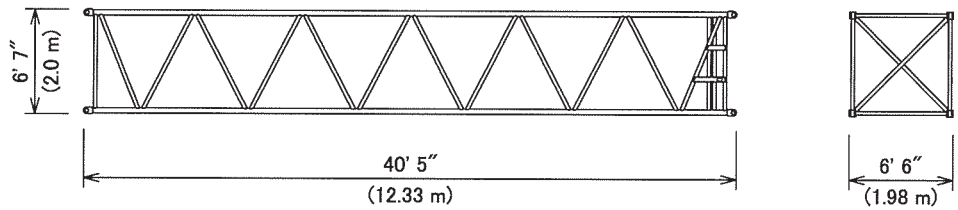
20 ft Insert Boom

Weight: 2,200 lbs (1,000 kg)
Includes cable roller and guy lines.



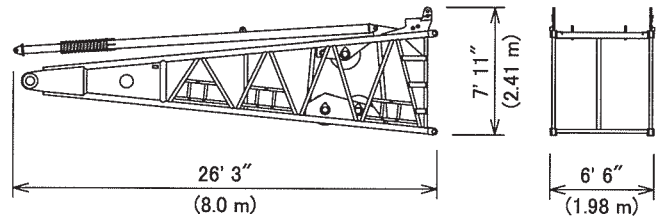
40 ft Insert Boom

Weight: 3,770 lbs (1,710 kg)
Includes cable roller and guy lines.



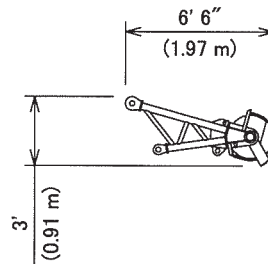
Boom Base with Backstop

Weight: 8,110 lbs (3,680 kg)



Auxiliary Sheave

Weight: 650 lbs (290 kg)

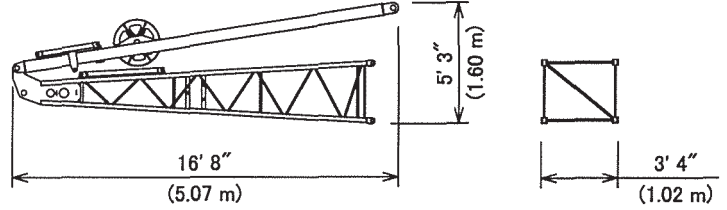


CK1600-II Dimension and Weight



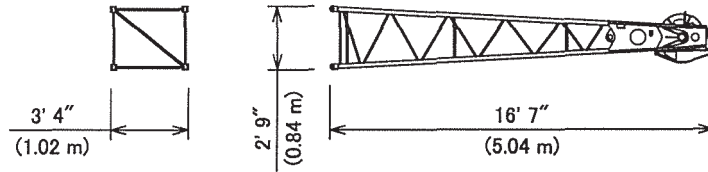
Jib Base with Strut

Weight: 2,270 lbs (1,030 kg)
Includes guy lines.



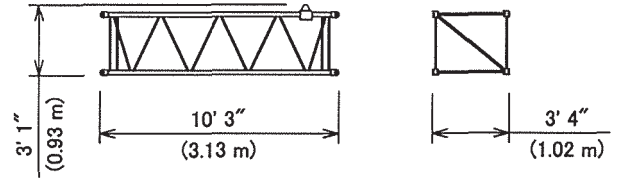
Jib Tip

Weight: 690 lbs (310 kg)
Includes cable roller



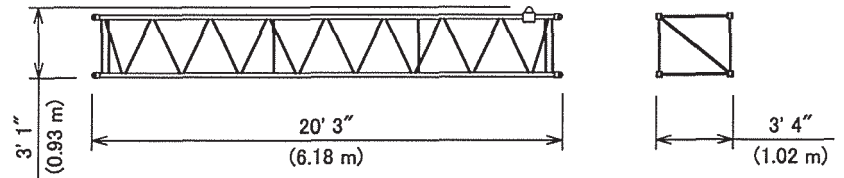
10 ft Insert Jib

Weight: 270 lbs (120 kg)
Includes cable roller



20 ft Insert Jib

Weight: 520 lbs (240 kg)
Includes cable roller and guy lines

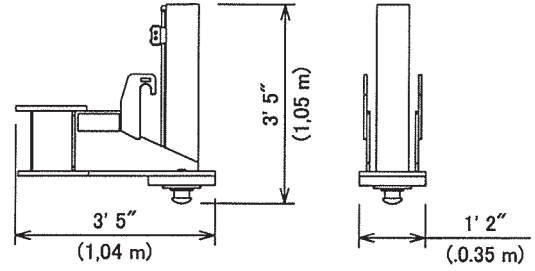


CK1600-II Dimension and Weight



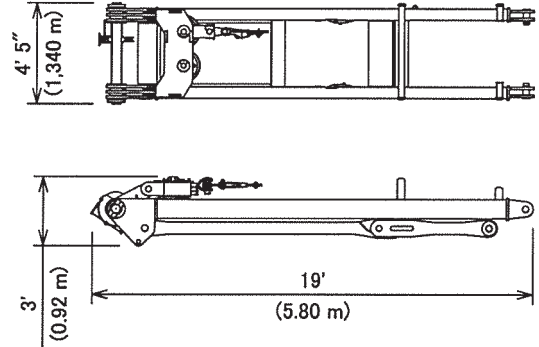
Translifter

Weight: 820 lbs (370 kg)



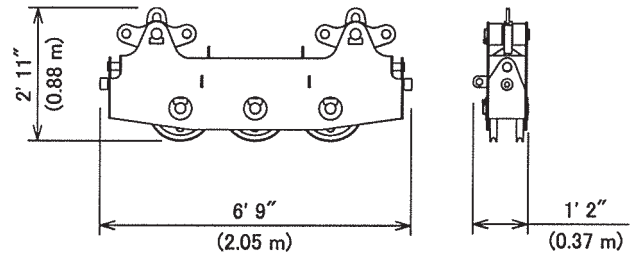
Gantry with Lower Spreader

Weight: 5,560 lbs (2,520 kg)



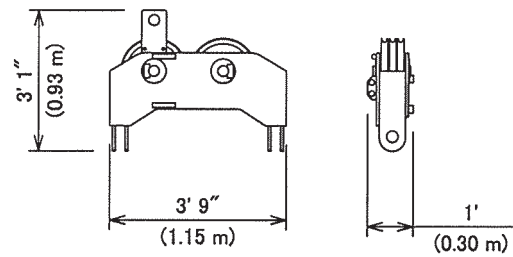
Upper Spreader

Weight: 1,070 lbs (485 kg)



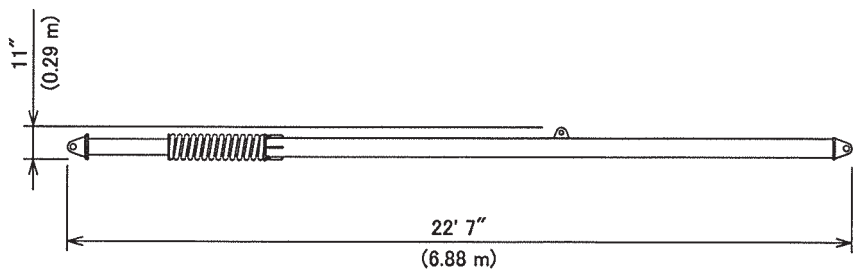
Lower Spreader

Weight: 700 lbs (320 kg)



Boom Backstop

Weight: 1,140 lbs (515 kg)



CK1600-II Transportation Plan

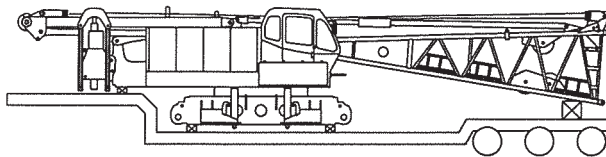


250 ft boom and 100 ft jib

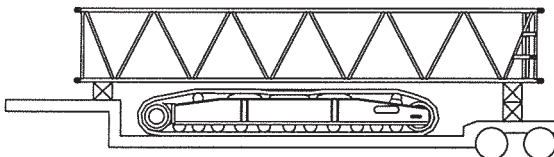
Description of item	Weight lbs (kg)	Trailer Loads						
		#1	#2	#3	#4	#5	#6	#7
Base Machine with Boom Base	86,420 (39,200)	1						
Crawler	36,155 (16,400)		1	1				
Counterweight (A)	17,640 (8,000)					1		
Counterweight (B)	11,025 (5,000)				3	2	3	
Counterweight (C)	5,513 (2,500)							2
Carbody Weight	11,025 (5,000)							2
10 ft Insert Boom and Guy Line	1,390 (630)				1	1		
20 ft Inset Boom and Guy Line	2,200 (1,000)						1	
40 ft Insert Boom and Guy Line	3,770 (1,710)		1	1	1	1		
Taper Insert Boom	1,190 (540)						1	
Boom Tip and Guy Line	4,100 (1,860)						1	
Jib Base and Guy Line	2,270 (1,030)							1
10 ft Inset Jib	270 (120)							1
20 ft Inset Jib and Guy Line	520 (240)							3
Jib Tip	690 (310)							1
Approx. Total Shipping Weight	lbs (kg)	86,420 (39,200)	39,925 (18,110)	39,925 (18,110)	38,235 (17,340)	44,850 (20,340)	40,565 (18,400)	37,866 (17,180)

Target of payload: 45,000 lbs weight, 48 ft long, 8 ft 6 inch width and 13 ft 6 inch height from ground
Above plan may vary by each state law or specification of trailers.

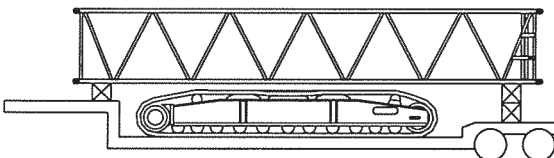
Trailer #1



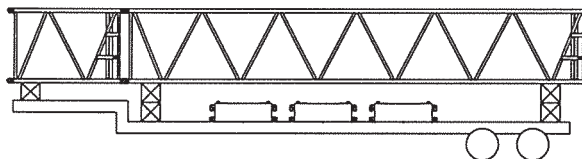
Trailer #2



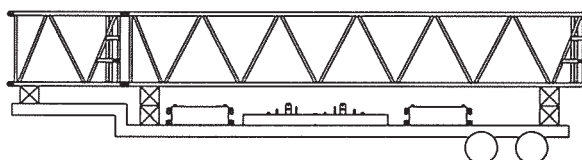
Trailer #3



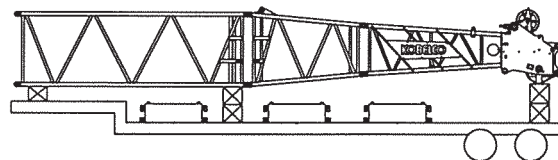
Trailer #4



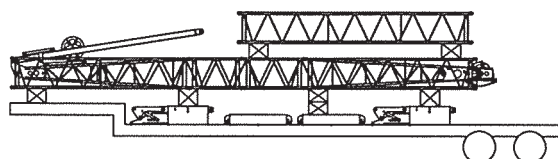
Trailer #5



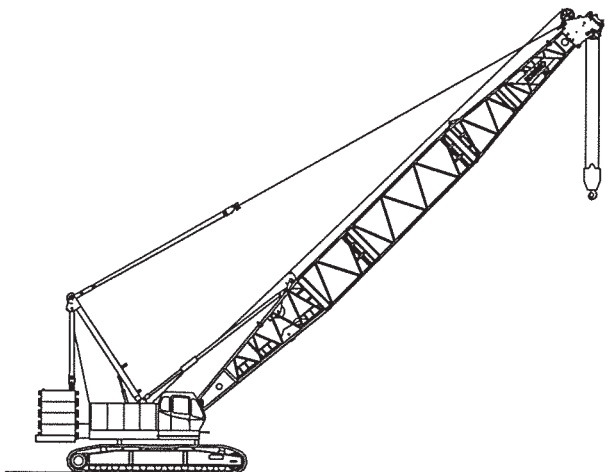
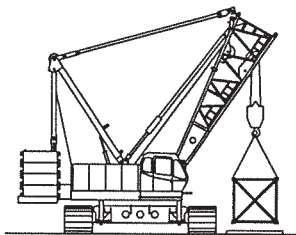
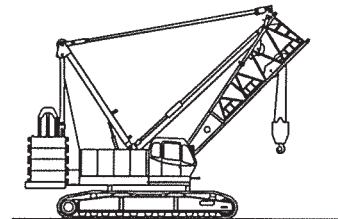
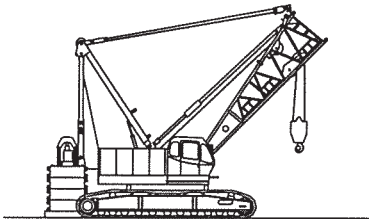
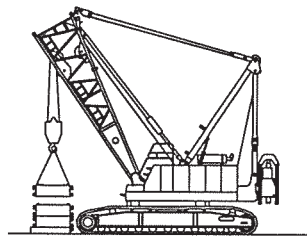
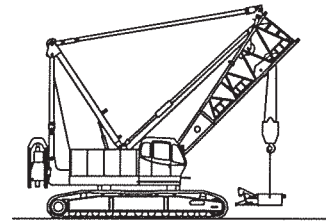
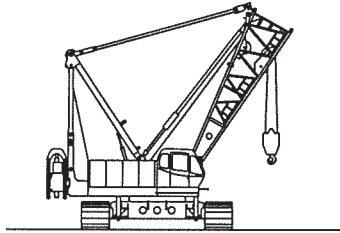
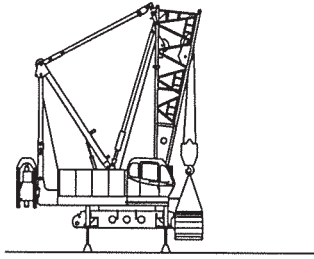
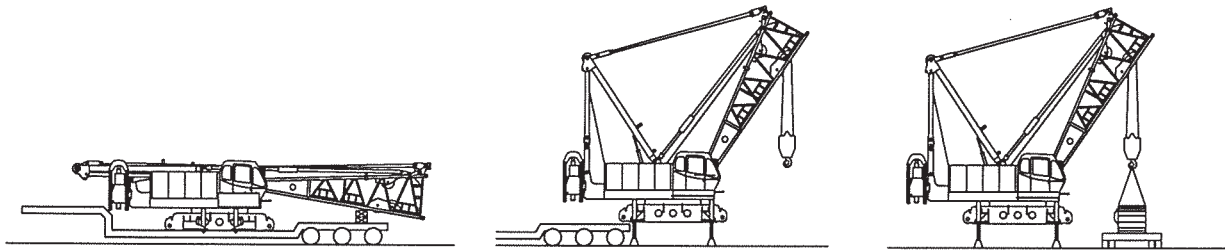
Trailer #6



Trailer #7



CK1600-II Self Assembly Procedure **KOBELCO**



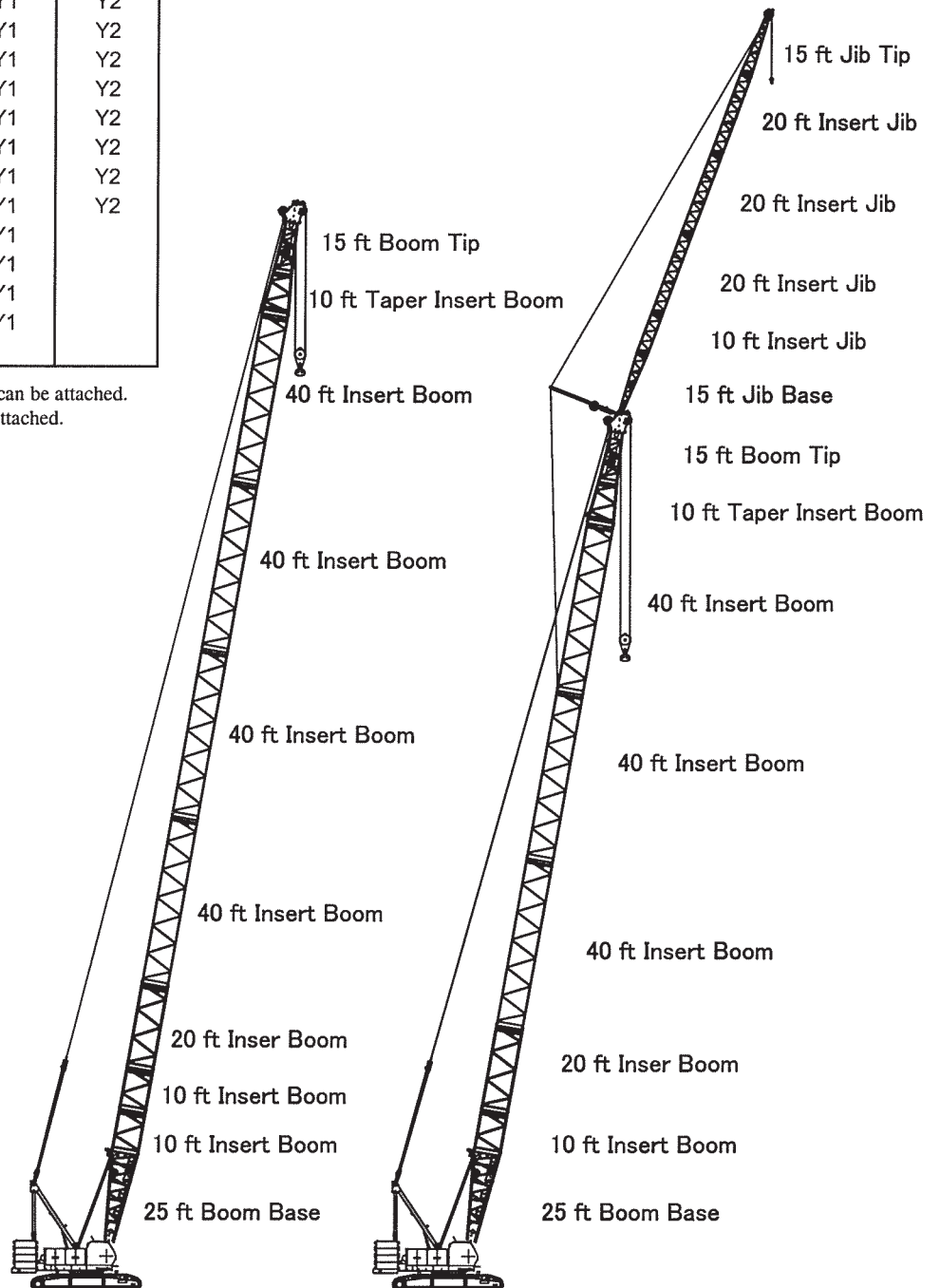
Boom Arrangement

Boom	Insert Boom			Aux. Sheave	Fixed Jib
	10 ft	20 ft	40 ft		
50 ft				Y1	
60 ft	1			Y1	
70 ft		1		Y1	
80 ft	1	1		Y1	
90 ft	2	1		Y1	Y2
100 ft	1	2		Y1	Y2
110 ft	2	2		Y1	Y2
120 ft	1	1	1	Y1	Y2
130 ft	2	1	1	Y1	Y2
140 ft	1	2	1	Y1	Y2
150 ft	2	2	1	Y1	Y2
160 ft	1	1	2	Y1	Y2
170 ft	2	1	2	Y1	Y2
180 ft	1	2	2	Y1	Y2
190 ft	2	2	2	Y1	Y2
200 ft	1	1	3	Y1	Y2
210 ft	2	1	3	Y1	
220 ft	1	2	3	Y1	
230 ft	2	2	3	Y1	
240 ft	1	1	4	Y1	
250 ft	2	1	4		

Y1: Auxiliary sheave can be attached.
Y2: Fixed jib can be attached.

Jib Arrangement

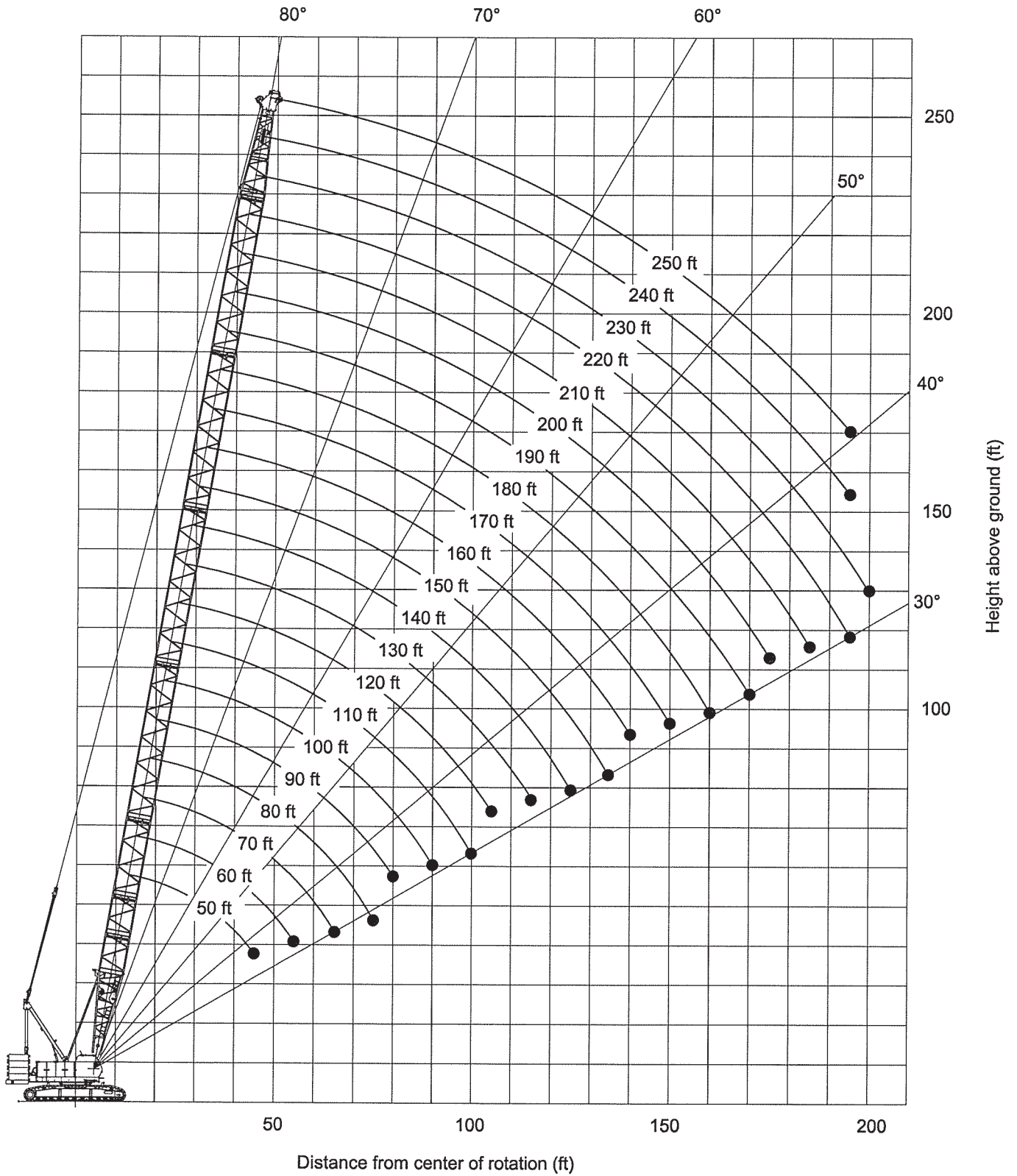
Jib	Insert Jib	
	10 ft	20 ft
40 ft	1	
60 ft	1	1
80 ft	1	2
100 ft	1	3



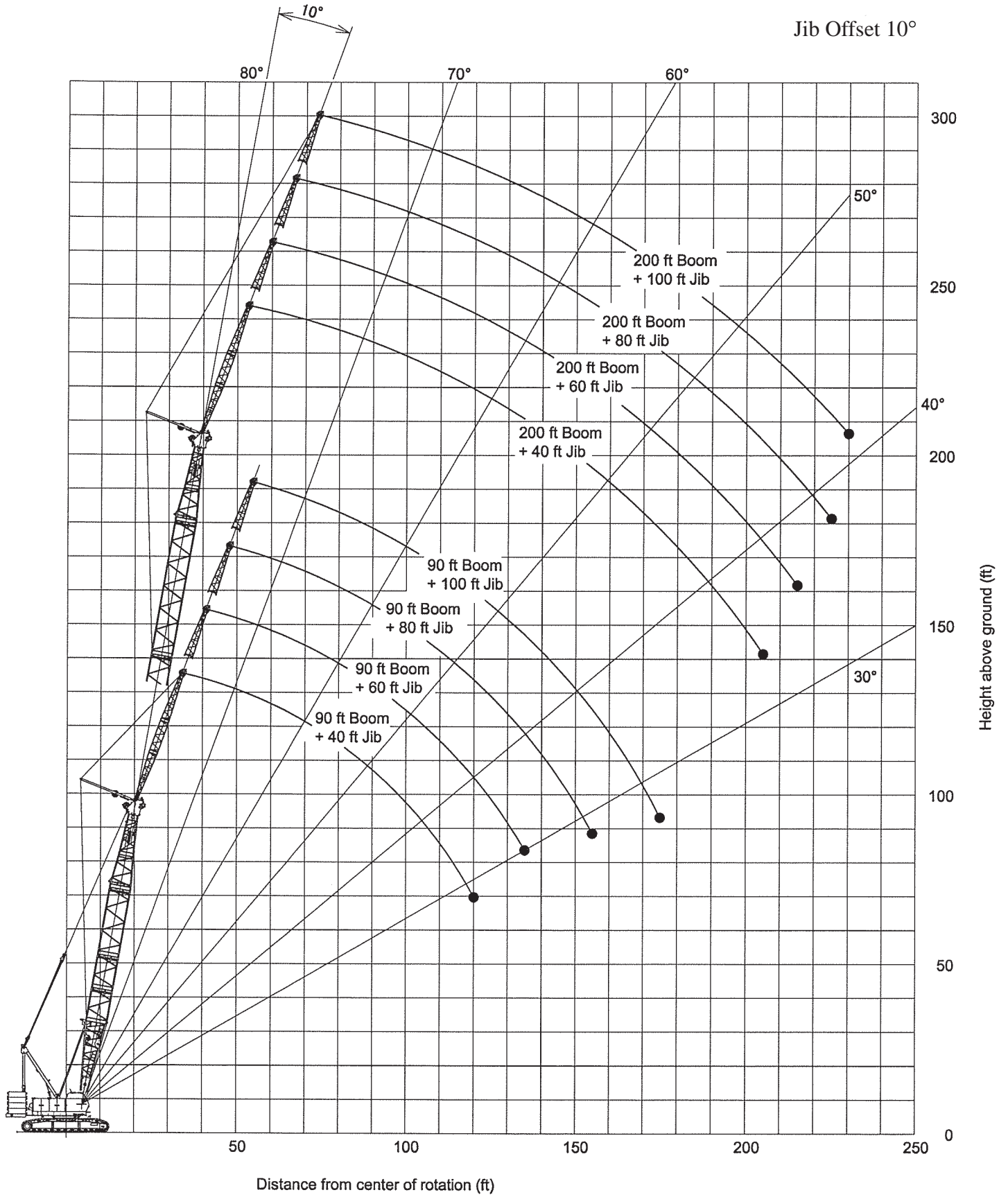
250 ft (76.2 m) Main Boom

200 ft (60.1 m) Main Boom and 100 ft (30.5 m) Jib

CK1600-II Main Boom Working Range



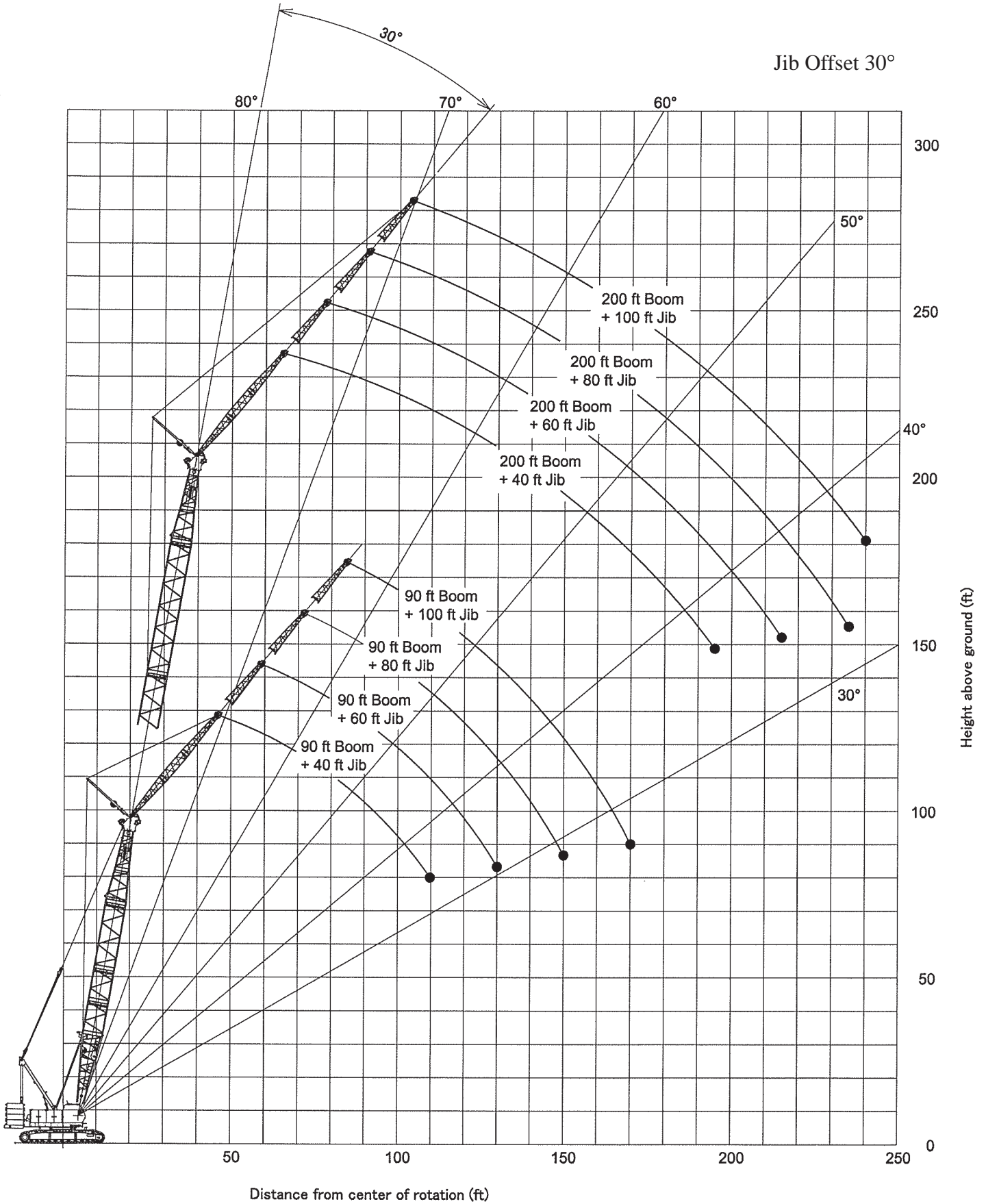
CK1600-II Jib Working Range



CK1600-II Jib Working Range



Jib Offset 30°



KOBELCO CK1600-II Main boom rated loads in pounds

Counterweight: 116,840 lbs (53,000 kg)

Carbody weight: 22,050 lbs (10,000 kg)

Supplemental Data

- 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 de-rate 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.

- The crane must be leveled to within 1% on a firm supporting surface.
- Boom backstops are required for all boom length.
- Gantry must be fully raised position for all operations.

- Do not attempt to lift where no radius on load is listed 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 rated loads.
- 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 (ft)	Aux	40	60	80	100
Deductions (lbs)	1,250	7,055	8,010	8,965	9,920

- The total load that can be lifted by jib is limited by rated jib loads.
- Boom lengths for jib mounting are 90 ft (27.4 m) to 200 ft (61.0 m)
- 40 ft (12.2m) jib length with offset angle of 10 degrees, and one part of line on the hook is not allowed.

- The total load that can be lifted by the auxiliary sheave is: the rated load for the boom (without auxiliary sheave installed) minus 1,250 lbs; however, the auxiliary sheave rated load should not exceed 59,000 lbs.
- Boom lengths that can attach auxiliary sheave are from 50 ft (15.2 m) to 240 ft (73.2 m).
- The boom should be erected over the front of the crawlers, not laterally.
When lifting from or lowering to the ground the boom at length of 240 ft (73.2 m) or over, the blocks must be placed at the end of crawlers.
- Least stable position is over the side.
- Maximum hoist load for number of reeving parts of line for hoist rope.

Main Load for Main Boom

No. of Parts of line	1	2	3	4	5
Maximum Loads (lbs)	29,500	59,000	88,500	118,000	147,500

No. of Parts of line	6	7	8	9	10
Maximum Loads (lbs)	177,000	206,500	236,000	265,500	295,000

No. of Parts of line	11
Maximum Loads (lbs)	320,000

Main Load For Jib Hoist

No. of Parts of line	1	2
Maximum Loads (lbs)	29,500	59,000

Main Load for Auxiliary Sheave

No. of Parts of line	1	2
Maximum Loads (lbs)	29,500	59,000

- Weight of the recommended hook block.

Hook Block	160 Ust	110 Ust	70 Ust	30 Ust	15 Ust ball hook
Weight (lbs)	5,275	3,960	2,775	2,200	1,315

- Rated loads listed apply only to the machine as originally manufactured and designed by KOBELCO CRANES CO., LTD. Modifications to this machine or use of equipment other than that specified can reduce operating capacity.
- Designed and rated to comply with ANSI Code B30.5.

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

CK1600-II Main Boom Rated Loads

with 11 counterweights (116,840 lbs) and 2 carbody weights (22,050 lbs)

Refer to notes page 19

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)
15.0	79.9	320,000 *	17.0	79.6	280,000 *	19.0	79.5	251,100 *	22.0	78.6	211,800 *
16.0	78.7	300,100 *	18.0	78.7	266,000 *	20.0	78.6	238,500 *	24.0	77.1	190,200 *
17.0	77.5	282,500 *	19.0	77.7	251,900 *	22.0	76.9	217,100 *	26.0	75.7	172,600 *
18.0	76.3	266,800 *	20.0	76.7	239,300 *	24.0	75.3	194,600 *	28.0	74.2	157,800 *
19.0	75.1	252,700 *	22.0	74.7	218,000 *	26.0	73.5	176,300 *	30.0	72.7	145,500 *
20.0	73.9	240,100 *	24.0	72.7	197,500 *	28.0	71.8	160,900 *	32.0	71.1	134,400 *
22.0	71.5	218,300 *	26.0	70.7	178,300 *	30.0	70.1	147,900 *	34.0	69.6	123,000 *
24.0	69.1	197,700 *	28.0	68.6	162,200 *	32.0	68.3	134,700 *	36.0	68.1	113,300 *
26.0	66.5	177,400 *	30.0	66.5	148,300 *	34.0	66.5	123,400 *	38.0	66.5	105,100 *
28.0	64.0	160,400 *	32.0	64.4	134,900 *	36.0	64.7	113,700 *	40.0	64.9	97,800 *
30.0	61.4	145,900 *	34.0	62.2	123,600 *	38.0	62.8	105,500 *	45.0	60.8	83,300 *
32.0	58.7	133,300 *	36.0	60.0	113,900 *	40.0	61.0	98,300 *	50.0	56.6	72,300 *
34.0	55.9	122,100 *	38.0	57.7	105,800 *	45.0	56.1	83,700 *	55.0	52.1	63,900 *
36.0	53.0	112,200 *	40.0	55.4	98,500 *	50.0	50.9	72,700 *	60.0	47.4	56,800 *
38.0	50.0	103,300 *	45.0	49.3	83,900 *	55.0	45.3	64,300 *	65.0	42.2	51,300 *
40.0	46.8	95,200 *	50.0	42.4	72,000 *	60.0	39.0	57,300 *	70.0	36.3	46,700 *
45.0	38.0	76,900 *	55.0	34.4	60,100 *	65.0	31.7	48,700 *	75.0	29.5	40,300 *
90 ' Boom			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)	Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)
22.0	79.9	207,600 *	24.0	79.8	183,400 *	26.0	79.6	164,200 *	28.0	79.5	147,000 *
24.0	78.6	186,500 *	26.0	78.6	166,400 *	28.0	78.6	150,100 *	30.0	78.6	135,500 *
26.0	77.3	169,000 *	28.0	77.4	152,300 *	30.0	77.5	138,200 *	32.0	77.6	125,600 *
28.0	76.0	154,700 *	30.0	76.2	140,400 *	32.0	76.4	128,300 *	34.0	76.6	117,000 *
30.0	74.6	142,600 *	32.0	75.0	130,200 *	34.0	75.4	119,400 *	36.0	75.6	109,500 *
32.0	73.3	132,200 *	34.0	73.8	121,400 *	36.0	74.3	111,900 *	38.0	74.6	102,900 *
34.0	72.0	122,700 *	36.0	72.6	112,800 *	38.0	73.2	104,400 *	40.0	73.6	96,700 *
36.0	70.6	113,000 *	38.0	71.4	104,700 *	40.0	72.1	97,200 *	45.0	71.1	82,200 *
38.0	69.3	104,700 *	40.0	70.2	97,400 *	45.0	69.3	82,600 *	50.0	68.6	71,200 *
40.0	67.9	97,400 *	45.0	67.1	82,800 *	50.0	66.5	71,600 *	55.0	65.9	62,600 *
45.0	64.4	82,800 *	50.0	63.9	71,800 *	55.0	63.6	63,000 *	60.0	63.3	55,500 *
50.0	60.8	72,000 *	55.0	60.7	63,200 *	60.0	60.6	56,200 *	65.0	60.6	50,000 *
55.0	57.0	63,400 *	60.0	57.3	56,400 *	65.0	57.5	50,400 *	70.0	57.8	45,100 *
60.0	53.1	56,400 *	65.0	53.8	50,700 *	70.0	54.4	45,600 *	75.0	54.9	41,200 *
65.0	48.9	50,900 *	70.0	50.1	46,000 *	75.0	51.1	41,600 *	80.0	51.9	37,600 *
70.0	44.4	46,200 *	75.0	46.2	41,800 *	80.0	47.6	38,300 *	85.0	48.7	34,800 *
75.0	39.6	42,300 *	80.0	42.0	38,500 *	85.0	43.9	35,200 *	90.0	45.4	32,100 *
80.0	34.1	38,800 *	85.0	37.4	35,700 *	90.0	39.9	32,800 *	95.0	41.9	29,900 *
			90.0	32.3	32,800 *	95.0	35.6	30,400 *	100.0	38.1	27,900 *
						100.0	30.7	27,900 *	105.0	34.0	26,000 *

CK1600-II Main Boom Rated Loads

with 11 counterweights (116,840 lbs) and 2 carbody weights (22,050 lbs)

Refer to notes page 19

130' Boom			140' Boom			150' Boom			160' 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)
30.0	79.5	134,000 *	32.0	79.4	122,100 *	34.0	79.3	112,600 *	34.0	80.0	110,800 *
32.0	78.6	124,100 *	34.0	78.5	113,500 *	36.0	78.5	105,100 *	36.0	79.3	103,600 *
34.0	77.7	115,500 *	36.0	77.7	106,200 *	38.0	77.8	98,700 *	38.0	78.5	97,000 *
36.0	76.7	108,200 *	38.0	76.9	99,800 *	40.0	77.0	93,000 *	40.0	77.8	91,200 *
38.0	75.8	101,600 *	40.0	76.0	94,100 *	45.0	75.0	81,100 *	45.0	76.0	79,500 *
40.0	74.9	95,600 *	45.0	73.9	81,700	50.0	73.0	70,500	50.0	74.1	70,100
45.0	72.6	82,000	50.0	71.7	70,700	55.0	71.0	61,900	55.0	72.2	61,500
50.0	70.3	70,900	55.0	69.6	62,100	60.0	69.0	54,800	60.0	70.3	54,600
55.0	67.9	62,300	60.0	67.4	55,100	65.0	66.9	49,100	65.0	68.4	48,900
60.0	65.5	55,500	65.0	65.1	49,300	70.0	64.8	44,500	70.0	66.5	44,000
65.0	63.0	49,800	70.0	62.8	44,700	75.0	62.6	40,300	75.0	64.5	40,100
70.0	60.5	44,900	75.0	60.5	40,700	80.0	60.4	37,000	80.0	62.5	36,500
75.0	57.9	41,000	80.0	58.1	37,200	85.0	58.2	33,900	85.0	60.4	33,500
80.0	55.3	37,400	85.0	55.6	34,100	90.0	55.9	31,300	90.0	58.3	30,800
85.0	52.5	34,600	90.0	53.1	31,700	95.0	53.6	29,100	95.0	56.2	28,600
90.0	49.7	31,900	95.0	50.5	29,300	100.0	51.1	26,800	100.0	54.0	26,600
95.0	46.7	29,700	100.0	47.7	27,300	105.0	48.6	25,100	105.0	51.7	24,600
100.0	43.5	27,500	105.0	44.9	25,300	110.0	46.0	23,300	110.0	49.4	23,100
105.0	40.2	25,700	110.0	41.8	23,800	115.0	43.2	22,000	115.0	47.0	21,600
110.0	36.6	24,200	115.0	38.6	22,200	120.0	40.3	20,700	120.0	44.4	20,200
115.0	32.6	22,700 *	120.0	35.2	20,900	125.0	37.2	19,400	125.0	41.8	18,900
			125.0	31.4	19,600 *	130.0	33.9	18,200 *	130.0	39.0	17,800
						135.0	30.2	16,500 *	135.0	36.0	16,700
									140.0	32.8	15,600 *

170' Boom			180' Boom			190' Boom			200' 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)
36.0	79.9	102,000 *	38.0	79.8	88,400 *	40.0	79.8	88,100 *	45.0	78.8	75,100 *
38.0	79.2	95,600 *	40.0	79.2	88,400 *	45.0	78.2	76,400 *	50.0	77.3	66,100 *
40.0	78.5	89,900 *	45.0	77.6	77,600 *	50.0	76.7	67,200 *	55.0	75.9	58,800 *
45.0	76.8	78,200 *	50.0	75.9	68,500 *	55.0	75.1	59,900 *	60.0	74.4	52,900 *
50.0	75.1	69,200 *	55.0	74.3	61,000 *	60.0	73.5	53,700	65.0	72.9	47,600
55.0	73.3	61,200	60.0	72.6	54,000	65.0	72.0	48,000	70.0	71.4	42,900
60.0	71.5	54,200	65.0	70.9	48,200	70.0	70.4	43,200	75.0	69.9	38,800
65.0	69.7	48,500	70.0	69.2	43,600	75.0	68.7	39,200	80.0	68.3	35,200
70.0	67.9	43,800	75.0	67.5	39,400	80.0	67.1	35,700	85.0	66.8	32,400
75.0	66.1	39,600	80.0	65.8	36,100	85.0	65.5	32,600	90.0	65.2	29,700
80.0	64.2	36,300	85.0	64.0	33,000	90.0	63.8	29,900	95.0	63.6	27,300
85.0	62.3	33,200	90.0	62.2	30,400	95.0	62.1	27,700	100.0	62.0	25,300
90.0	60.4	30,600	95.0	60.4	27,900	100.0	60.4	25,500	105.0	60.3	23,300
95.0	58.4	28,200	100.0	58.5	26,000	105.0	58.6	23,800	110.0	58.7	21,800
100.0	56.4	26,200	105.0	56.6	24,000	110.0	56.8	22,000	115.0	57.0	20,200
105.0	54.4	24,400	110.0	54.7	22,400	115.0	55.0	20,500	120.0	55.2	18,700
110.0	52.2	22,700	115.0	52.7	20,900	120.0	53.1	19,100	125.0	53.5	17,600
115.0	50.1	21,100	120.0	50.6	19,600	125.0	51.2	18,000	130.0	51.6	16,500
120.0	47.8	19,800	125.0	48.5	18,200	130.0	49.2	16,700	135.0	49.8	15,400
125.0	45.5	18,700	130.0	46.4	17,100	135.0	47.2	15,800	140.0	47.9	14,300
130.0	43.0	17,400	135.0	44.1	16,000	140.0	45.0	14,700	145.0	45.9	13,400
135.0	40.5	16,500	140.0	41.7	15,200	145.0	42.9	13,800	150.0	43.8	12,700
140.0	37.8	15,400	145.0	39.3	14,300	150.0	40.6	13,000	155.0	41.7	11,900
145.0	34.9	14,500	150.0	36.6	13,400 *	155.0	38.2	12,300 *	160.0	39.5	11,200 *
150.0	31.8	13,200 *	155.0	33.8	12,300 *	160.0	35.6	11,200 *	165.0	37.1	10,300 *
			160.0	30.8	11,000 *	165.0	32.9	10,100 *	170.0	34.7	9,200 *
						170.0	30.0	9,000 *	175.0	32.0	8,300 *

CK1600-II Main Boom Rated Loads

with 11 counterweights (116,840 lbs) and 2 carbody weights (22,050 lbs)

Refer to notes page 19

210 ' Boom			220 ' Boom			230 ' Boom			240 ' 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)
45.0	79.4	73,800 *	45.0	79.8	58,800 *	50.0	79.0	58,800 *	50.0	79.5	54,400 *
50.0	78.0	65,000 *	50.0	78.5	58,800 *	55.0	77.7	55,700 *	55.0	78.3	51,300 *
55.0	76.6	57,700 *	55.0	77.2	57,700 *	60.0	76.5	50,700 *	60.0	77.0	48,200 *
60.0	75.1	51,800 *	60.0	75.8	51,800 *	65.0	75.2	45,800 *	65.0	75.8	44,700 *
65.0	73.7	46,900 *	65.0	74.5	46,700 *	70.0	73.9	41,400 *	70.0	74.6	40,500 *
70.0	72.3	42,500	70.0	73.1	42,300 *	75.0	72.6	37,900 *	75.0	73.3	37,000 *
75.0	70.9	38,300	75.0	71.8	38,300	80.0	71.3	34,600	80.0	72.1	33,700 *
80.0	69.4	34,800	80.0	70.4	34,800	85.0	69.9	31,500	85.0	70.8	31,000 *
85.0	67.9	31,900	85.0	69.0	31,700	90.0	68.6	28,800	90.0	69.5	28,400
90.0	66.5	29,300	90.0	67.6	29,100	95.0	67.3	26,400	95.0	68.3	26,000
95.0	64.9	26,800	95.0	66.2	26,800	100.0	65.9	24,400	100.0	67.0	24,000
100.0	63.4	24,900	100.0	64.7	24,600	105.0	64.5	22,400	105.0	65.7	22,000
105.0	61.9	22,900	105.0	63.3	22,900	110.0	63.1	20,900	110.0	64.3	20,500
110.0	60.3	21,300	110.0	61.8	21,100	115.0	61.7	19,400	115.0	63.0	18,900
115.0	58.7	19,800	115.0	60.3	19,600	120.0	60.3	17,800	120.0	61.7	17,600
120.0	57.1	18,500	120.0	58.8	18,200	125.0	58.8	16,700	125.0	60.3	16,300
125.0	55.5	17,100	125.0	57.2	16,900	130.0	57.4	15,400	130.0	58.9	15,200
130.0	53.8	16,000	130.0	55.7	15,800	135.0	55.9	14,500	135.0	57.5	14,100
135.0	52.1	14,900	135.0	54.1	14,700	140.0	54.3	13,400	140.0	56.0	13,000
140.0	50.3	13,800	140.0	52.4	13,800	145.0	52.8	12,500	145.0	54.6	12,100
145.0	48.5	13,000	145.0	50.8	13,000	150.0	51.2	11,600	150.0	53.1	11,000
150.0	46.6	12,300	150.0	49.1	12,100	155.0	49.6	10,800	155.0	51.6	10,300
155.0	44.7	11,400	155.0	47.3	11,200	160.0	47.9	9,900	160.0	50.0	9,400
160.0	42.7	10,500	160.0	45.5	10,300	165.0	46.2	9,200	165.0	48.5	8,800
165.0	40.6	9,900	165.0	43.6	9,700	170.0	44.4	8,500	170.0	46.8	7,900
170.0	38.5	9,200 *	170.0	41.7	9,000 *	175.0	42.6	7,900 *	175.0	45.2	7,200
175.0	36.2	8,100 *	175.0	39.7	8,100 *	180.0	40.7	7,000 *	180.0	43.4	6,800 *
180.0	33.8	7,200 *	180.0	37.6	7,200 *	185.0	38.7	6,300 *	185.0	41.7	6,100 *
185.0	31.2	6,300 *	185.0	35.3	6,600 *	190.0	36.7	5,700 *	190.0	39.8	5,200 *
			190.0	33.0	5,700 *	195.0	34.5	4,800 *	195.0	37.9	4,600 *
			195.0	30.5	4,800 *	200.0	32.2	4,100 *			
250 ' Boom			250 ' Boom								
Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)	Load Radius (ft)	Boom Angle (deg.)	360° Rated Load (lbs)						
50.0	79.9	50,200 *	145.0	56.2	11,600						
55.0	78.7	47,300 *	150.0	54.8	10,800						
60.0	77.6	44,500 *	155.0	53.4	9,900						
65.0	76.4	42,100 *	160.0	51.9	9,000						
70.0	75.2	39,600 *	165.0	50.5	8,300						
75.0	74.0	36,100 *	170.0	49.0	7,400						
80.0	72.8	33,000 *	175.0	47.4	6,800						
85.0	71.6	30,200 *	180.0	45.8	6,300 *						
90.0	70.4	27,900 *	185.0	44.2	5,700 *						
95.0	69.2	25,700 *	190.0	42.5	5,000 *						
100.0	67.9	23,500	195.0	40.8	4,400 *						
105.0	66.7	21,800									
110.0	65.4	20,000									
115.0	64.2	18,500									
120.0	62.9	17,100									
125.0	61.6	15,800									
130.0	60.3	14,700									
135.0	58.9	13,600									
140.0	57.6	12,500									

CK1600-II Jib Rated Loads

with 11 counterweights (116,840 lbs) and 2 carbody weights (22,050 lbs)

Refer to notes page 19

90 ft Boom									90 ft Boom								
Load Radius (ft.)	40' Jib				60' Jib				Load Radius (ft.)	80' Jib				100' Jib			
	10° Offset		30° Offset		10° Offset		30° Offset			10° Offset		30° Offset		10° Offset		30° Offset	
	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)		Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)
34	79.5	59,000 *							46	79.7	22,000 *						
36	78.6	59,000 *							48	79.0	21,800 *						
38	77.7	59,000 *							50	78.3	21,600 *						
40	76.8	59,000 *							55	76.6	21,300 *			79.6	13,200 *		
42	75.8	58,800 *					79.6	42,500 *	60	74.8	20,900 *			78.1	13,000 *		
44	74.9	58,200 *					78.8	42,200 *	65	73.0	20,600 *			76.5	12,700 *		
46	74.0	57,600 *	79.5	40,100 *	77.2	41,700 *			70	71.2	20,000 *	79.7	16,700 *	73.4	12,100 *		
48	73.1	57,000 *	78.5	39,200 *	76.5	41,500 *			75	69.4	19,400 *	77.8	16,300 *	71.8	11,600 *		
50	72.2	56,400 *	77.5	38,200 *	75.7	41,300 *			80	67.5	18,700 *	75.9	15,900 *	70.1	11,200 *	79.8	9,100 *
55	69.8	55,100 *	75.1	36,100 *	73.7	40,300 *			85	65.7	18,100 *	74.0	15,500 *	68.5	10,800 *	78.1	8,900 *
60	67.4	53,900 *	72.7	34,300 *	71.6	39,300 *	78.8	27,000 *	90	63.7	17,600 *	72.0	15,200 *	66.8	10,400 *	76.4	8,600 *
65	65.0	51,000 *	70.2	32,600 *	69.6	38,400 *	76.6	25,500 *	95	61.8	17,100 *	69.9	14,900 *	65.1	10,000 *	74.6	8,400 *
70	62.5	47,200 *	67.6	31,200 *	67.5	36,100 *	74.5	24,200 *	100	59.8	16,600 *	67.9	14,500 *	63.4	9,700 *	72.8	8,200 *
75	59.9	43,100 *	64.9	29,800 *	65.4	33,600 *	72.3	23,100 *	105	57.7	16,200 *	65.7	13,900 *	61.7	9,400 *	71.0	8,000 *
80	57.3	39,600 *	62.2	28,700 *	63.2	31,500 *	70.0	22,000 *	110	55.6	15,800 *	63.5	13,500 *	59.9	9,100 *	69.2	7,800 *
85	54.5	36,600 *	59.4	27,600 *	61.0	29,600 *	67.7	21,100 *	115	53.5	15,400 *	61.3	13,000 *	58.1	8,800 *	67.3	7,600 *
90	51.7	33,900 *	56.5	26,700 *	58.7	27,900 *	65.4	20,200 *	120	51.2	15,000 *	58.9	12,600 *	56.2	8,500 *	65.4	7,400 *
95	48.8	31,600 *	53.4	25,900 *	56.3	26,400 *	62.9	19,400 *	125	48.9	14,700 *	56.5	12,200 *	54.3	8,300 *	63.4	7,300 *
100	45.6	29,500 *	50.1	25,100 *	53.9	25,100 *	60.4	18,700 *	130	46.5	14,400 *	53.9	11,900 *	52.3	8,100 *	61.3	7,100 *
105	42.3	27,700 *	46.6	24,500 *	51.4	23,900 *	57.8	18,100 *	135	43.9	14,100 *	51.2	11,500 *	50.3	7,900 *	59.2	7,000 *
110	38.8	26,000 *	42.9	23,900 *	48.8	22,800 *	55.1	17,500 *	140	41.3	13,900 *	48.3	11,200 *	48.2	7,700 *	57.0	6,900 *
115	34.9	24,400 *			46.1	21,800 *	52.2	17,000 *	145	38.4	13,600 *	45.2	11,000 *	46.0	7,500 *	54.7	6,800 *
120	30.6	21,900 *			43.2	20,900 *	49.2	16,600 *	150	35.4	13,400 *	41.9	10,800 *	43.8	7,300 *	52.3	6,700 *
125					40.2	20,100 *	45.9	16,100 *	155	32.0	13,200 *			41.4	7,100 *	49.8	6,600 *
130					36.9	19,400 *	42.3	15,800 *	160					38.9	7,000 *	47.1	6,500 *
135					33.3	18,700 *			165					36.2	6,900 *	44.2	6,500 *
									170					33.3	6,700 *	41.0	6,400 *
									175					30.2	6,600 *		

100 ft Boom									100 ft Boom								
Load Radius (ft.)	40' Jib				60' Jib				Load Radius (ft.)	80' Jib				100' Jib			
	10° Offset		30° Offset		10° Offset		30° Offset			10° Offset		30° Offset		10° Offset		30° Offset	
	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)		Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)
36	79.4	59,000 *							48	79.6	21,900 *						
38	78.6	59,000 *							50	79.0	21,800 *						
40	77.7	59,000 *							55	77.3	21,400 *			78.7	13,100 *		
42	76.9	59,000 *					79.5	42,400 *	60	75.7	21,100 *			77.2	12,800 *		
44	76.0	58,900 *					78.8	42,200 *	65	74.0	20,800 *			75.7	12,500 *		
46	75.2	58,300 *					78.1	41,900 *	70	72.3	20,500 *			74.2	12,300 *		
48	74.3	57,700 *	79.4	40,000 *	77.3	41,700 *			75	70.6	19,800 *	78.6	16,400 *	72.7	11,900 *		
50	73.5	57,200 *	78.5	39,100 *	76.6	41,500 *			80	68.9	19,200 *	76.8	16,000 *	71.2	11,500 *		
55	71.3	55,900 *	76.3	37,100 *	74.7	40,800 *			85	67.1	18,600 *	75.0	15,700 *	69.6	11,000 *	78.7	8,900 *
60	69.1	54,700 *	74.0	35,200 *	72.8	39,900 *	79.5	27,600 *	90	65.3	18,000 *	73.1	15,400 *	68.1	10,700 *	77.1	8,700 *
65	66.9	51,600 *	71.7	33,600 *	70.9	39,000 *	77.6	26,100 *	95	63.5	17,500 *	71.2	15,100 *	66.5	10,300 *	75.5	8,500 *
70	64.6	46,900 *	69.4	32,100 *	69.0	38,000 *	75.6	24,900 *	100	61.7	17,100 *	69.3	14,800 *	64.9	10,000 *	73.8	8,300 *
75	62.3	42,800 *	67.0	30,800 *	67.0	35,500 *	73.5	23,700 *	105	59.8	16,600 *	67.4	14,300 *	63.2	9,700 *	72.1	8,100 *
80	59.9	39,300 *	64.6	29,600 *	65.0	33,200 *	71.5	22,700 *	110	57.9	16,200 *	65.4	13,800 *	61.6	9,300 *	70.4	7,900 *
85	57.5	36,300 *	62.0	28,600 *	63.0	31,300 *	69.4	21,700 *	115	55.9	15,800 *	63.3	13,400 *	59.9	9,100 *	68.7	7,700 *
90	55.0	33,600 *	59.4	27,600 *	60.9	29,500 *	67.2	20,800 *	120	53.9	15,400 *	61.2	13,000 *	58.2	8,800 *	66.9	7,500 *
95	52.4	31,300 *	56.7	26,800 *	58.8	27,900 *	65.0	20,100 *	125	51.8	15,100 *	59.0	12,600 *	56.4	8,500 *	65.1	7,400 *
100	49.6	29,200 *	53.9	26,000 *	56.6	26,600 *	62.7	19,400 *	130	49.6	14,800 *	56.7	12,200 *	54.6	8,300 *	63.2	7,200 *
105	46.8	27,300 *	51.0	25,300 *	54.3	25,300 *	60.4	18,700 *	135	47.4	14,500 *	54.3	11,900 *	52.7	8,100 *	61.3	7,100 *
110	43.8	25,600 *	47.9	24,700 *	52.0	24,100 *	58.0	18,100 *	140	45.0	14,200 *	51.9	11,600 *	50.8	7,900 *	59.3	7,000 *
115	40.7	24,100 *	44.5	24,100 *	49.6	23,100 *	55.5	17,600 *	145	42.6	14,000 *	49.2	11,300 *	48.9	7,700 *	57.2	6,900 *
120	37.3	22,700 *	40.9	23,000 *	47.1	22,100 *	52.8	17,100 *	150	40.0	13,700 *	46.4	11,100 *	46.8	7,500 *	55.1	6,800 *
125	33.5	21,100 *			44.5	21,300 *	50.1	16,700 *	155	37.2	13,500 *	43.4	10,800 *	44.7	7,400 *	52.8	6,700 *
130					41.7	20,500 *	47.1	16,300 *	160	34.2	13,300 *	40.2	10,600 *	42.5	7,200 *	50.5	6,600 *
135					38.8	19,700 *	43.9	15,900 *	165	31.0	13,200 *			40.2	7,000 *	48.0	6,500 *
140					35.6	18,600 *	40.5	15,600 *	170					37.8	6,900 *	45.4	6,500 *
145					32.1	17,000 *			175					35.2	6,800 *	42.6	6,400 *
									180					32.4	6,700 *		

CK1600-II Jib Rated Loads

with 11 counterweights (116,840 lbs) and 2 carbody weights (22,050 lbs)

Refer to notes page 19

110 ft Boom									110 ft Boom								
Load Radius (ft.)	40' Jib				60' Jib				Load Radius (ft.)	80' Jib				100' Jib			
	10° Offset		30° Offset		10° Offset		30° Offset			10° Offset		30° Offset		10° Offset		30° Offset	
	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)		Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)
38	79.3	59,000 *							50	79.6	21,900 *						
40	78.6	59,000 *							55	78.0	21,600 *			79.3	13,100 *		
42	77.8	59,000 *							60	76.5	21,200 *			77.8	12,900 *		
44	77.0	59,000 *							65	74.9	20,900 *			76.4	12,600 *		
46	76.2	58,900 *							70	73.3	20,600 *			75.0	12,400 *		
48	75.4	58,400 *							75	71.7	20,200 *	79.2	16,600 *	73.6	12,200 *		
50	74.6	57,800 *	79.3	39,900 *	77.4	41,700 *			80	70.1	19,600 *	77.6	16,200 *	72.1	11,700 *		
55	72.6	56,600 *	77.3	37,900 *	75.6	41,200 *			85	68.4	19,000 *	75.9	15,800 *	70.7	11,300 *	79.3	9,000 *
60	70.6	55,400 *	75.2	36,100 *	73.9	40,300 *			90	66.8	18,400 *	74.1	15,500 *	69.2	10,900 *	77.8	8,800 *
65	68.5	51,300 *	73.1	34,500 *	72.1	39,500 *	78.4	26,700 *	95	65.1	17,900 *	72.4	15,200 *	67.7	10,600 *	76.3	8,500 *
70	66.4	46,500 *	70.9	33,000 *	70.3	38,600 *	76.5	25,400 *	100	63.3	17,500 *	70.6	14,900 *	66.2	10,200 *	74.7	8,300 *
75	64.3	42,500 *	68.8	31,700 *	68.5	37,300 *	74.6	24,300 *	105	61.6	17,000 *	68.8	14,700 *	64.6	9,900 *	73.1	8,200 *
80	62.1	38,900 *	66.5	30,500 *	66.6	35,000 *	72.7	23,300 *	110	59.8	16,600 *	66.9	14,200 *	63.1	9,600 *	71.5	8,000 *
85	59.9	35,900 *	64.2	29,500 *	64.7	32,900 *	70.8	22,300 *	115	58.0	16,200 *	65.0	13,800 *	61.5	9,300 *	69.9	7,800 *
90	57.6	33,300 *	61.9	28,500 *	62.8	31,100 *	68.8	21,400 *	120	56.1	15,800 *	63.1	13,300 *	59.9	9,100 *	68.2	7,600 *
95	55.3	30,900 *	59.5	27,600 *	60.8	29,400 *	66.8	20,700 *	125	54.2	15,500 *	61.1	12,900 *	58.3	8,800 *	66.5	7,500 *
100	52.9	28,800 *	57.0	26,800 *	58.8	28,000 *	64.7	19,900 *	130	52.2	15,200 *	59.1	12,600 *	56.6	8,600 *	64.8	7,300 *
105	50.4	27,000 *	54.4	26,100 *	56.8	26,600 *	62.6	19,300 *	135	50.2	14,900 *	56.9	12,200 *	54.9	8,300 *	63.0	7,200 *
110	47.8	25,300 *	51.7	25,400 *	54.7	25,400 *	60.4	18,700 *	140	48.1	14,600 *	54.7	11,900 *	53.1	8,100 *	61.2	7,100 *
115	45.1	23,800 *	48.9	24,100 *	52.5	24,200 *	58.1	18,100 *	145	45.9	14,300 *	52.4	11,600 *	51.3	7,900 *	59.3	7,000 *
120	42.2	22,400 *	45.9	22,700 *	50.3	22,800 *	55.8	17,600 *	150	43.7	14,100 *	50.0	11,400 *	49.5	7,800 *	57.4	6,900 *
125	39.2	21,100 *	42.6	21,400 *	48.0	21,500 *	53.3	17,200 *	155	41.3	13,800 *	47.5	11,100 *	47.6	7,600 *	55.4	6,800 *
130	35.9	20,000 *			45.6	20,400 *	50.8	16,700 *	160	38.8	13,600 *	44.7	10,900 *	45.6	7,400 *	53.3	6,700 *
135	32.3	18,200 *			43.0	19,300 *	48.1	16,400 *	165	36.1	13,400 *	41.8	10,700 *	43.5	7,200 *	51.1	6,600 *
140					40.4	18,300 *	45.3	16,000 *	170	33.2	13,300 *			41.4	7,100 *	48.8	6,500 *
145					37.5	17,400 *	42.2	15,700 *	175	30.0	12,500 *			39.2	7,000 *	46.4	6,500 *
150					34.4	16,200 *			180					36.8	6,900 *	43.8	6,400 *
155					31.1	14,800 *			185					34.2	6,700 *	41.1	6,400 *
									190					31.5	6,700 *		

120 ft Boom									120 ft Boom								
Load Radius (ft.)	40' Jib				60' Jib				Load Radius (ft.)	80' Jib				100' Jib			
	10° Offset		30° Offset		10° Offset		30° Offset			10° Offset		30° Offset		10° Offset		30° Offset	
	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)		Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)
38	80.0	59,000 *							55	78.6	21,700 *			79.7	13,200 *		
40	79.3	59,000 *							60	77.2	21,400 *			78.4	13,000 *		
42	78.5	59,000 *							65	75.7	21,000 *			77.1	12,700 *		
44	77.8	59,000 *							70	74.2	20,800 *			75.7	12,500 *		
46	77.1	59,000 *							75	72.7	20,500 *	79.8	16,700 *	74.4	12,300 *		
48	76.3	59,000 *							80	71.1	19,900 *	78.2	16,300 *	73.0	12,000 *		
50	75.6	58,500 *	80.0	40,600 *	78.1	41,900 *			85	69.6	19,400 *	76.6	16,000 *	71.6	11,500 *		9,100 *
55	73.7	57,200 *	78.1	38,700 *	76.5	41,400 *			90	68.0	18,800 *	75.0	15,700 *	70.2	11,100 *	78.4	8,900 *
60	71.8	56,100 *	76.2	36,900 *	74.8	40,700 *			95	66.4	18,300 *	73.4	15,400 *	68.8	10,800 *	77.0	8,600 *
65	69.9	50,900 *	74.2	35,300 *	73.1	39,900 *	79.1	27,200 *	100	64.8	17,900 *	71.7	15,100 *	67.3	10,500 *	75.5	8,400 *
70	68.0	46,100 *	72.2	33,900 *	71.4	39,100 *	77.3	25,900 *	105	63.2	17,400 *	70.0	14,900 *	65.9	10,100 *	74.0	8,200 *
75	66.0	42,000 *	70.2	32,600 *	69.7	38,400 *	75.6	24,800 *	110	61.5	17,000 *	68.3	14,600 *	64.4	9,800 *	72.5	8,100 *
80	64.0	38,500 *	68.2	31,400 *	68.0	36,600 *	73.8	23,800 *	115	59.8	16,600 *	66.6	14,100 *	62.9	9,600 *	71.0	7,900 *
85	62.0	35,400 *	66.1	30,300 *	66.2	34,500 *	72.0	22,900 *	120	58.1	16,200 *	64.8	13,700 *	61.4	9,300 *	69.4	7,700 *
90	59.9	32,800 *	64.0	29,300 *	64.5	32,600 *	70.1	22,000 *	125	56.3	15,900 *	62.9	13,300 *	59.9	9,000 *	67.8	7,600 *
95	57.8	30,400 *	61.8	28,400 *	62.6	30,900 *	68.3	21,200 *	130	54.5	15,500 *	61.0	12,900 *	58.3	8,800 *	66.2	7,400 *
100	55.6	28,300 *	59.5	27,600 *	60.8	28,800 *	66.3	20,500 *	135	52.7	15,200 *	59.1	12,600 *	56.7	8,600 *	64.5	7,300 *
105	53.4	26,500 *	57.2	26,800 *	58.9	26,900 *	64.4	19,800 *	140	50.8	14,900 *	57.1	12,300 *	55.1	8,300 *	62.8	7,200 *
110	51.1	24,800 *	54.8	25,300 *	57.0	25,200 *	62.4	19,200 *	145	48.8	14,700 *	55.0	11,900 *	53.5	8,200 *	61.1	7,100 *
115	48.7	23,300 *	52.3	23,700 *	55.0	23,700 *	60.3	18,700 *	150	46.8	14,400 *	52.9	11,700 *	51.8	8,000 *	59.3	7,000 *
120	46.2	21,900 *	49.7	22,300 *	53.0	22,300 *	58.2	18,200 *	155	44.6	14,100 *	50.7	11,400 *	50.0	7,800 *	57.5	6,900 *
125	43.5	20,600 *	47.0	21,000 *	50.9	21,000 *	56.1	17,700 *	160	42.4	13,900 *	48.3	11,200 *	48.2	7,600 *	55.6	6,800 *
130	40.8	19,500 *	44.1	19,800 *	48.7	19,900 *	53.8	17,200 *	165	40.1	13,700 *	45.8	11,000 *	46.4	7,500 *	53.7	6,700 *
135	37.8	18,400 *	41.0	18,700 *	46.5	18,800 *	51.4	16,800 *	170	37.7	13,500 *	43.2	10,800 *	44.4	7,300 *	51.6	6,600 *
140	34.7	17,100 *			44.1	17,800 *	49.0	16,500 *	175	35.1	12,700 *	40.3	10,600 *	42.4	7,200 *	49.5	6,500 *
145	31.2	15,500 *			41.7	16,900 *	46.4	16,200 *	180	32.3	11,700 *			40.3	7,000 *	47.3	6,500 *
150					39.1	16,100 *	43.6	15,800 *	185					38.2	6,900 *	44.9	6,400 *
155					36.4	15,100 *	40.6	15,600 *	190					35.8	6,800 *	42.4	6,400 *
160					33.4	13,800 *			195					33.4	6,700 *		
165					30.1	12,600 *			200					30.7	6,600 *		

CK1600-II Jib Rated Loads

with 11 counterweights (116,840 lbs) and 2 carbody weights (22,050 lbs)

Refer to notes page 19

130 ft Boom									130 ft Boom								
Load Radius (ft.)	40' Jib				60' Jib				Load Radius (ft.)	80' Jib				100' Jib			
	10° Offset		30° Offset		10° Offset		30° Offset			10° Offset		30° Offset		10° Offset		30° Offset	
	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)		Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)
40	79.9	59,000 *							55	79.2	21,800 *						
42	79.2	59,000 *							60	77.8	21,500 *			78.9	13,000 *		
44	78.5	59,000 *							65	76.4	21,200 *			77.6	12,800 *		
46	77.9	59,000 *							70	74.9	20,900 *			76.4	12,600 *		
48	77.2	59,000 *			80.0	42,400 *			75	73.5	20,600 *			75.1	12,400 *		
50	76.5	59,000 *			79.4	42,200 *			80	72.1	20,300 *	78.9	16,400 *	73.7	12,200 *		
55	74.7	57,800 *	78.8	39,400 *	77.2	41,600 *			85	70.6	19,700 *	77.3	16,100 *	72.4	11,800 *		
60	73.0	56,400 *	77.0	37,600 *	75.6	41,100 *			90	69.1	19,200 *	75.8	15,800 *	71.1	11,400 *	79.0	8,900 *
65	71.2	50,600 *	75.2	36,100 *	74.1	40,300 *	79.7	27,700 *	95	67.6	18,700 *	74.3	15,500 *	69.8	11,000 *	77.6	8,700 *
70	69.4	45,800 *	73.4	34,600 *	72.5	39,500 *	78.0	26,400 *	100	66.1	18,200 *	72.7	15,200 *	68.4	10,700 *	76.2	8,500 *
75	67.5	41,700 *	71.5	33,300 *	70.9	38,800 *	76.4	25,300 *	105	64.6	17,800 *	71.1	15,000 *	67.0	10,400 *	74.8	8,300 *
80	65.7	38,200 *	69.6	32,200 *	69.2	38,100 *	74.7	24,300 *	110	63.0	17,300 *	69.5	14,800 *	65.6	10,100 *	73.4	8,200 *
85	63.8	35,100 *	67.7	31,100 *	67.6	35,700 *	73.0	23,400 *	115	61.4	16,900 *	67.9	14,400 *	64.2	9,800 *	71.9	8,000 *
90	61.9	32,500 *	65.7	30,100 *	65.9	33,000 *	71.3	22,500 *	120	59.8	16,600 *	66.2	14,000 *	62.8	9,500 *	70.4	7,800 *
95	59.9	30,100 *	63.7	29,200 *	64.2	30,600 *	69.6	21,800 *	125	58.2	16,200 *	64.5	13,600 *	61.4	9,300 *	68.9	7,700 *
100	57.9	28,000 *	61.7	28,300 *	62.5	28,500 *	67.8	21,000 *	130	56.5	15,900 *	62.8	13,200 *	59.9	9,000 *	67.4	7,500 *
105	55.9	26,100 *	59.6	26,800 *	60.8	26,600 *	66.0	20,400 *	135	54.8	15,600 *	61.0	12,900 *	58.4	8,800 *	65.9	7,400 *
110	53.8	24,500 *	57.4	25,000 *	59.0	24,900 *	64.1	19,700 *	140	53.0	15,300 *	59.2	12,600 *	56.9	8,600 *	64.3	7,300 *
115	51.6	22,900 *	55.2	23,400 *	57.1	23,400 *	62.3	19,200 *	145	51.2	15,000 *	57.3	12,300 *	55.3	8,400 *	62.7	7,200 *
120	49.4	21,600 *	52.8	22,000 *	55.3	22,000 *	60.3	18,600 *	150	49.4	14,700 *	55.3	12,000 *	53.8	8,200 *	61.1	7,000 *
125	47.1	20,300 *	50.4	20,700 *	53.4	20,700 *	58.3	18,200 *	155	47.5	14,500 *	53.3	11,700 *	52.1	8,000 *	59.4	6,900 *
130	44.7	19,100 *	47.9	19,500 *	51.4	19,500 *	56.3	17,700 *	160	45.5	14,200 *	51.2	11,500 *	50.5	7,800 *	57.6	6,900 *
135	42.1	18,100 *	45.3	18,400 *	49.4	18,500 *	54.2	17,300 *	165	43.4	13,900 *	49.1	11,200 *	48.8	7,700 *	55.9	6,800 *
140	39.4	17,100 *	42.5	17,300 *	47.3	17,500 *	52.0	16,900 *	170	41.3	13,300 *	46.8	11,000 *	47.0	7,500 *	54.0	6,700 *
145	36.6	16,000 *			45.1	16,600 *	49.7	16,600 *	175	39.0	12,700 *	44.3	10,900 *	45.2	7,400 *	52.1	6,600 *
150	33.5	14,600 *			42.8	15,700 *	47.3	16,200 *	180	36.7	11,900 *	41.8	10,700 *	43.3	7,200 *	50.1	6,500 *
155	30.2	13,200 *			40.5	14,900 *	44.8	15,500 *	185	34.1	11,000 *			41.4	7,100 *	48.1	6,500 *
160					38.0	14,100 *	42.1	14,700 *	190	31.4	10,000 *			39.4	7,000 *	45.9	6,400 *
165					35.3	13,000 *			195					37.2	6,900 *	43.6	6,400 *
170					32.4	11,900 *			200					35.0	6,800 *	41.1	6,400 *
									205					32.5	6,700 *		

140 ft Boom									140 ft Boom								
Load Radius (ft.)	40' Jib				60' Jib				Load Radius (ft.)	80' Jib				100' Jib			
	10° Offset		30° Offset		10° Offset		30° Offset			10° Offset		30° Offset		10° Offset		30° Offset	
	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)		Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)
42	79.8	59,000 *							55	79.7	21,900 *						
44	79.2	59,000 *							60	78.4	21,600 *			79.4	13,100 *		
46	78.5	59,000 *							65	77.0	21,300 *			78.2	12,900 *		
48	77.9	59,000 *							70	75.7	21,000 *			76.9	12,700 *		
50	77.2	59,000 *			79.9	42,400 *			75	74.3	20,800 *			75.7	12,500 *		
55	75.6	58,400 *	79.5	40,000 *	77.8	41,700 *			80	72.9	20,500 *	79.4	16,500 *	74.4	12,300 *		
60	73.9	56,100 *	77.8	38,300 *	76.4	41,300 *			85	71.5	20,100 *	78.0	16,200 *	73.2	12,000 *		
65	72.3	50,300 *	76.1	36,700 *	74.9	40,700 *			90	70.1	19,500 *	76.5	15,900 *	71.9	11,600 *	79.5	9,000 *
70	70.6	45,500 *	74.4	35,400 *	73.4	39,900 *	78.7	26,900 *	95	68.7	19,000 *	75.1	15,600 *	70.6	11,300 *	78.2	8,800 *
75	68.9	41,400 *	72.6	34,100 *	71.9	39,200 *	77.1	25,800 *	100	67.3	18,600 *	73.6	15,400 *	69.4	10,900 *	76.8	8,600 *
80	67.1	37,800 *	70.9	32,900 *	70.3	38,400 *	75.6	24,800 *	105	65.8	18,100 *	72.1	15,100 *	68.1	10,600 *	75.5	8,400 *
85	65.4	34,800 *	69.1	31,800 *	68.8	35,300 *	74.0	23,900 *	110	64.4	17,700 *	70.6	14,900 *	66.7	10,300 *	74.1	8,200 *
90	63.6	32,100 *	67.2	30,800 *	67.2	32,600 *	72.4	23,000 *	115	62.9	17,300 *	69.1	14,700 *	65.4	10,000 *	72.8	8,100 *
95	61.8	29,800 *	65.4	29,900 *	65.6	30,300 *	70.7	22,200 *	120	61.4	16,900 *	67.5	14,300 *	64.1	9,700 *	71.4	7,900 *
100	59.9	27,700 *	63.5	28,400 *	64.0	28,200 *	69.1	21,500 *	125	59.8	16,600 *	65.9	13,900 *	62.7	9,500 *	70.0	7,800 *
105	58.0	25,800 *	61.6	26,500 *	62.4	26,300 *	67.4	20,800 *	130	58.3	16,200 *	64.3	13,500 *	61.3	9,200 *	68.5	7,600 *
110	56.1	24,100 *	59.6	24,700 *	60.7	24,600 *	65.7	20,200 *	135	56.7	15,900 *	62.6	13,200 *	59.9	9,000 *	67.1	7,500 *
115	54.1	22,600 *	57.5	23,100 *	59.0	23,000 *	63.9	19,700 *	140	55.0	15,600 *	60.9	12,800 *	58.5	8,800 *	65.6	7,400 *
120	52.1	21,200 *	55.5	21,700 *	57.3	21,600 *	62.1	19,100 *	145	53.4	15,300 *	59.2	12,500 *	57.0	8,600 *	64.1	7,200 *
125	50.0	19,900 *	53.3	20,400 *	55.5	20,300 *	60.3	18,600 *	150	51.7	15,000 *	57.4	12,300 *	55.5	8,400 *	62.6	7,100 *
130	47.9	18,800 *	51.1	19,200 *	53.7	19,200 *	58.4	18,200 *	155	49.9	14,800 *	55.6	12,000 *	54.0	8,200 *	61.0	7,000 *
135	45.6	17,700 *	48.7	18,000 *	51.9	18,100 *	56.5	17,700 *	160	48.1	14,300 *	53.7	11,700 *	52.5	8,000 *	59.4	6,900 *
140	43.3	16,700 *	46.3	17,000 *	50.0	17,100 *	54.5	17,300 *	165	46.3	13,600 *	51.7	11,500 *	50.9	7,900 *	57.8	6,900 *
145	40.8	15,800 *	43.7	16,100 *	48.0	16,200 *	52.5	16,900 *	170	44.3	13,000 *	49.7	11,300 *	49.3	7,700 *	56.1	6,800 *
150	38.3	14,900 *			46.0	15,300 *	50.3	16,000 *	175	42.3	12,300 *	47.6	11,100 *	47.6	7,600 *	54.3	6,700 *
155	35.5	13,600 *			43.9	14,600 *	48.1	15,200 *	180	40.2	11,800 *	45.3	10,900 *	45.9	7,400 *	52.5	6,600 *
160	32.5	12,400 *			41.7	13,800 *	45.8	14,400 *	185	38.1	11,000 *	43.0	10,800 *	44.2	7,300 *	50.7	6,500 *
165					39.3	13,000 *	43.3	13,700 *	190	35.7	10,200 *	40.5	10,600 *	42.3	7,100 *	48.7	6,500 *
170					36.9	12,100 *	40.7	13,000 *	195	33.3	9,300 *			40.4	7,000 *	46.7	6,400 *
175					34.3	11,100 *			200	30.6	8,500 *			38.4	6,900 *	44.6	6,400 *
180					31.5	10,100 *			205					36.4	6,800 *	42.3	6,400 *
									210					34.1	6,700 *		
									215					31.8	6,600 *		

CK1600-II Jib Rated Loads

with 11 counterweights (116,840 lbs) and 2 carbody weights (22,050 lbs)

Refer to notes page 19

150 ft Boom									150 ft Boom								
Load Radius (ft.)	40' Jib				60' Jib				Load Radius (ft.)	80' Jib				100' Jib			
	10° Offset		30° Offset		10° Offset		30° Offset			10° Offset		30° Offset		10° Offset		30° Offset	
	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)		Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)
44	79.8	59,000 *							60	78.9	21,700 *			79.8	13,200 *		
46	79.1	59,000 *							65	77.6	21,400 *			78.7	13,000 *		
48	78.5	59,000 *							70	76.3	21,100 *			77.5	12,800 *		
50	77.9	59,000 *							75	75.0	20,900 *			76.3	12,600 *		
55	76.4	58,900 *			79.8	42,300 *			80	73.7	20,600 *	79.9	16,600 *	75.1	12,400 *		
60	74.8	55,700	78.5	38,900 *	77.0	41,500 *			85	72.4	20,400 *	78.5	16,300 *	73.9	12,200 *		
65	73.2	49,900	76.9	37,400 *	75.6	41,000 *			90	71.0	19,900 *	77.2	16,000 *	72.7	11,800 *	79.9	9,000 *
70	71.6	45,000	75.3	36,000 *	74.2	40,300 *	79.3	27,300 *	95	69.7	19,400 *	75.8	15,800 *	71.5	11,500 *	78.7	8,800 *
75	70.0	40,900	73.6	34,700 *	72.8	39,600 *	77.8	26,200 *	100	68.3	18,900 *	74.4	15,500 *	70.2	11,100 *	77.4	8,700 *
80	68.4	37,400	72.0	33,600 *	71.3	38,000	76.3	25,200 *	105	67.0	18,400 *	73.0	15,300 *	69.0	10,800 *	76.1	8,500 *
85	66.8	34,300	70.3	32,500 *	69.8	34,900	74.8	24,300 *	110	65.6	18,000 *	71.6	15,000 *	67.7	10,500 *	74.9	8,300 *
90	65.1	31,700	68.6	31,500 *	68.4	32,200	73.3	23,500 *	115	64.2	17,600 *	70.1	14,800 *	66.5	10,200 *	73.6	8,200 *
95	63.4	29,300	66.9	30,200	66.9	29,800	71.7	22,700 *	120	62.7	17,300 *	68.6	14,600 *	65.2	9,900 *	72.2	8,000 *
100	61.7	27,200	65.1	28,000	65.4	27,700	70.2	22,000 *	125	61.3	16,900 *	67.1	14,200 *	63.9	9,700 *	70.9	7,800 *
105	59.9	25,300	63.3	26,100	63.8	25,800	68.6	21,300 *	130	59.8	16,600 *	65.6	13,800 *	62.6	9,500 *	69.5	7,700 *
110	58.2	23,600	61.5	24,300	62.3	24,100	67.0	20,700 *	135	58.3	16,200 *	64.1	13,500 *	61.3	9,200 *	68.2	7,600 *
115	56.3	22,100	59.6	22,700	60.7	22,600	65.4	20,100 *	140	56.8	15,900 *	62.5	13,100 *	59.9	9,000 *	66.8	7,400 *
120	54.5	20,700	57.7	21,300	59.1	21,200	63.7	19,600 *	145	55.3	15,600 *	60.9	12,800 *	58.5	8,800 *	65.4	7,300 *
125	52.6	19,400	55.7	20,000	57.4	19,900	62.0	19,100 *	150	53.7	15,300 *	59.2	12,500 *	57.2	8,600 *	63.9	7,200 *
130	50.6	18,300	53.7	18,800	55.8	18,700	60.3	18,600 *	155	52.1	14,600	57.6	12,300 *	55.7	8,400 *	62.5	7,100 *
135	48.6	17,200	51.6	17,600	54.0	17,600	58.5	18,200 *	160	50.4	13,900	55.8	12,000 *	54.3	8,200 *	61.0	7,000 *
140	46.5	16,200	49.4	16,600	52.3	16,600	56.7	17,500	165	48.7	13,200	54.0	11,800 *	52.8	8,000 *	59.4	6,900 *
145	44.3	15,300	47.2	15,600	50.5	15,700	54.8	16,600	170	47.0	12,500	52.2	11,500 *	51.3	7,900 *	57.9	6,800 *
150	42.0	14,500	44.8	14,800	48.6	14,900	52.9	15,600	175	45.1	11,900	50.3	11,300 *	49.8	7,700 *	56.3	6,700 *
155	39.7	13,500 *	42.3	13,900	46.7	14,100	50.9	14,800	180	43.3	11,300	48.3	11,100 *	48.2	7,600 *	54.6	6,700 *
160	37.2	12,400 *			44.8	13,400	48.8	14,000	185	41.3	10,800 *	46.2	11,000 *	46.6	7,400 *	52.9	6,600 *
165	34.5	11,300 *			42.7	12,600	46.7	13,300	190	39.3	10,000 *	44.0	10,700	44.9	7,300 *	51.1	6,500 *
170	31.6	10,200 *			40.6	11,800 *	44.4	12,600	195	37.1	9,200 *	41.7	10,100 *	43.2	7,200 *	49.3	6,500 *
175					38.3	10,900 *	42.0	11,900	200	34.9	8,400 *			41.4	7,100 *	47.4	6,400 *
180					35.9	10,000 *			205	32.4	7,700 *			39.5	7,000 *	45.4	6,400 *
185					33.4	9,100 *			210					37.6	6,900 *	43.4	6,400 *
190					30.7	8,200 *			215					35.6	6,800 *	41.1	6,300 *
									220					33.4	6,700 *		
									225					31.1	6,000 *		

160 ft Boom									160 ft Boom								
Load Radius (ft.)	40' Jib				60' Jib				Load Radius (ft.)	80' Jib				100' Jib			
	10° Offset		30° Offset		10° Offset		30° Offset			10° Offset		30° Offset		10° Offset		30° Offset	
	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)		Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)
46	79.7	59,000 *							60	79.3	21,800 *						
48	79.1	59,000 *							65	78.1	21,500 *			79.1	13,000 *		
50	78.5	59,000 *							70	76.9	21,200 *			78.0	12,800 *		
55	77.1	59,000 *			79.0	42,000 *			75	75.6	21,000 *			76.8	12,600 *		
60	75.6	55,400	79.1	39,500 *	77.6	41,600 *			80	74.4	20,700 *			75.7	12,400 *		
65	74.1	49,600	77.6	38,000 *	76.3	41,200 *			85	73.1	20,500 *	79.1	16,400 *	74.5	12,300 *		
70	72.6	44,700	76.0	36,600 *	74.9	40,600 *	79.8	27,700 *	90	71.9	20,200 *	77.8	16,200 *	73.4	12,000 *		
75	71.1	40,600	74.5	35,400 *	73.6	39,900 *	78.4	26,600 *	95	70.6	19,700 *	76.4	15,900 *	72.2	11,700 *	79.2	8,900 *
80	69.5	37,100	72.9	34,200 *	72.2	37,700	77.0	25,600 *	100	69.3	19,200 *	75.1	15,600 *	71.0	11,300 *	77.9	8,700 *
85	68.0	34,100	71.4	33,100 *	70.8	34,600	75.5	24,800 *	105	68.0	18,800 *	73.8	15,400 *	69.8	11,000 *	76.7	8,500 *
90	66.4	31,400	69.8	32,100 *	69.4	31,900	74.1	23,900 *	110	66.7	18,400 *	72.4	15,200 *	68.7	10,700 *	75.5	8,400 *
95	64.8	29,000	68.1	30,000	68.0	29,500	72.7	23,100 *	115	65.3	17,900 *	71.1	14,900 *	67.4	10,400 *	74.3	8,200 *
100	63.2	26,900	66.5	27,800	66.6	27,400	71.2	22,400 *	120	64.0	17,600 *	69.7	14,700 *	66.2	10,100 *	73.0	8,100 *
105	61.6	25,000	64.8	25,800	65.1	25,500	69.7	21,800 *	125	62.6	17,200 *	68.3	14,500 *	65.0	9,900 *	71.7	7,900 *
110	59.9	23,300	63.1	24,000	63.7	23,800	68.2	21,100 *	130	61.2	16,900 *	66.8	14,100 *	63.7	9,700 *	70.5	7,800 *
115	58.3	21,800	61.4	22,500	62.2	22,300	66.7	20,500 *	135	59.8	16,500 *	65.4	13,800 *	62.5	9,400 *	69.2	7,600 *
120	56.5	20,400	59.6	21,000	60.7	20,900	65.1	20,000 *	140	58.4	16,200 *	63.9	13,400 *	61.2	9,200 *	67.8	7,500 *
125	54.8	19,100	57.8	19,700	59.1	19,600	63.5	19,500 *	145	57.0	15,900 *	62.4	13,100 *	59.9	9,000 *	66.5	7,400 *
130	53.0	17,900	56.0	18,500	57.6	18,400	61.9	19,000 *	150	55.5	15,100	60.8	12,800 *	58.6	8,800 *	65.1	7,300 *
135	51.1	16,900	54.1	17,400	56.0	17,300	60.3	18,400	155	54.0	14,300	59.3	12,500 *	57.3	8,600 *	63.8	7,200 *
140	49.2	15,900	52.1	16,300	54.3	16,300	58.6	17,300	160	52.4	13,600	57.7	12,300 *	55.9	8,400 *	62.4	7,100 *
145	47.2	15,000	50.1	15,400	52.7	15,400	56.9	16,300	165	50.9	12,900	56.0	12,000 *	54.5	8,200 *	60.9	7,000 *
150	45.2	14,100	48.0	14,500	51.0	14,500	55.1	15,400	170	49.2	12,200	54.3	11,800 *	53.1	8,100 *	59.5	6,900 *
155	43.1	13,400	45.8	13,700	49.2	13,800	53.3	14,600	175	47.6	11,600	52.6	11,600 *	51.7	7,900 *	58.0	6,800 *
160	40.9	12,400 *	43.5	12,900	47.4	13,000	51.4	13,800	180	45.9	11,000	50.8	11,400 *	50.2	7,800 *	56.4	6,700 *
165	38.6	11,400 *	41.1	12,000 *	45.6	12,300	49.5	13,000	185	44.1	10,400	48.9	11,000	48.7	7,600 *	54.9	6,700 *
170	36.2	10,400 *			43.6	11,600 *	47.5	12,300	190	42.3	9,800 *	47.0	10,400	47.2	7,500 *	53.2	6,600 *
175	33.6	9,400 *			41.6	10,800 *	45.4	11,700	195	40.4	9,100 *	45.0	9,900	45.6	7,400 *	51.6	6,500 *
180	30.7	8,500 *			39.6	9,900 *	43.1	11,000	200	38.4	8,400 *	42.8	9,300 *	44.0	7,200 *	49.9	6,500 *
185					37.4	9,100 *	40.8	10,300 *	205	36.3	7,700 *	40.6	8,500 *	42.3	7,100 *	48.1	6,400 *
190					35.0	8,300 *			210	34.1	7,000 *			40.5	7,000 *	46.2	6,400 *
195					32.6	7,500 *			215	31.7	6,300 *			38.7	6,900 *	44.3	6,400 *
									220					36.8	6,600 *	42.2	6,300 *
									225					34.8	6,000 *	40.1	6,300 *
									230					32.7	5,400 *		
									235					30.4	4,800 *		

CK1600-II Jib Rated Loads

with 11 counterweights (116,840 lbs) and 2 carbody weights (22,050 lbs)

Refer to notes page 19

170 ft Boom									170 ft Boom								
Load Radius (ft.)	40' Jib				60' Jib				Load Radius (ft.)	80' Jib				100' Jib			
	10° Offset		30° Offset		10° Offset		30° Offset			10° Offset		30° Offset		10° Offset		30° Offset	
	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)		Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)
48	79.6	59,000 *							60	79.8	21,800 *						
50	79.1	59,000 *							65	78.6	21,600 *			79.5	13,100 *		
55	77.7	59,000 *			79.5	42,100 *			70	77.4	21,300 *			78.4	12,900 *		
60	76.3	55,100	79.6	40,000 *	78.2	41,700 *			75	76.2	21,100 *			77.3	12,700 *		
65	74.9	49,300	78.2	38,600 *	76.9	41,400 *			80	75.0	20,800 *			76.2	12,500 *		
70	73.4	44,400	76.7	37,200 *	75.6	40,900 *			85	73.8	20,600 *	79.5	16,500 *	75.1	12,300 *		
75	72.0	40,300	75.3	36,000 *	74.3	40,200 *	78.9	27,000 *	90	72.6	20,400 *	78.3	16,200 *	74.0	12,200 *		
80	70.6	36,800	73.8	34,800 *	73.0	37,400	77.6	26,000 *	95	71.4	20,000 *	77.0	16,000 *	72.9	11,900 *	79.6	8,900 *
85	69.1	33,700	72.3	33,700 *	71.7	34,300	76.2	25,100 *	100	70.2	19,500 *	75.8	15,700 *	71.8	11,500 *	78.4	8,800 *
90	67.6	31,000	70.8	32,100	70.4	31,600	74.9	24,300 *	105	68.9	19,100 *	74.5	15,500 *	70.6	11,200 *	77.3	8,600 *
95	66.1	28,700	69.3	29,700	69.0	29,200	73.5	23,500 *	110	67.7	18,600 *	73.2	15,300 *	69.5	10,900 *	76.1	8,400 *
100	64.6	26,500	67.7	27,500	67.7	27,100	72.1	22,800 *	115	66.4	18,200 *	71.9	15,100 *	68.3	10,600 *	74.9	8,300 *
105	63.1	24,700	66.2	25,500	66.3	25,200	70.7	22,200 *	120	65.1	17,900 *	70.6	14,900 *	67.2	10,300 *	73.7	8,100 *
110	61.5	23,000	64.6	23,800	64.9	23,500	69.3	21,600 *	125	63.8	17,500 *	69.3	14,700 *	66.0	10,100 *	72.5	8,000 *
115	59.9	21,400	63.0	22,200	63.5	21,900	67.8	21,000 *	130	62.5	17,200 *	67.9	14,400 *	64.8	9,800 *	71.3	7,800 *
120	58.3	20,000	61.3	20,700	62.1	20,500	66.4	20,400 *	135	61.2	16,800 *	66.5	14,000 *	63.6	9,600 *	70.0	7,700 *
125	56.7	18,800	59.6	19,400	60.6	19,200	64.9	19,900 *	140	59.9	16,500 *	65.1	13,700 *	62.4	9,400 *	68.8	7,600 *
130	55.0	17,600	57.9	18,200	59.2	18,000	63.4	19,200	145	58.5	15,700	63.7	13,400 *	61.2	9,200 *	67.5	7,500 *
135	53.3	16,500	56.2	17,000	57.7	17,000	61.8	18,100	150	57.1	14,800	62.3	13,100 *	59.9	9,000 *	66.2	7,400 *
140	51.6	15,500	54.4	16,000	56.1	16,000	60.3	17,000	155	55.7	14,000	60.8	12,800 *	58.7	8,800 *	64.9	7,300 *
145	49.8	14,600	52.5	15,100	54.6	15,000	58.7	16,000	160	54.2	13,200	59.3	12,500 *	57.4	8,600 *	63.6	7,200 *
150	47.9	13,800	50.6	14,200	53.0	14,200	57.0	15,100	165	52.8	12,500	57.8	12,300 *	56.1	8,400 *	62.3	7,100 *
155	46.0	13,000	48.7	13,300	51.4	13,400	55.4	14,300	170	51.3	11,900	56.2	12,000 *	54.7	8,200 *	60.9	7,000 *
160	44.0	12,200 *	46.6	12,600	49.7	12,600	53.6	13,500	175	49.7	11,200	54.6	11,800 *	53.4	8,100 *	59.5	6,900 *
165	42.0	11,200 *	44.5	11,800 *	48.0	11,900	51.9	12,700	180	48.1	10,700	53.0	11,300	52.0	7,900 *	58.1	6,800 *
170	39.8	10,300 *	42.3	10,900 *	46.3	11,300 *	50.0	12,000	185	46.5	10,100	51.3	10,700	50.6	7,800 *	56.6	6,700 *
175	37.6	9,400 *			44.5	10,500 *	48.1	11,400	190	44.8	9,500 *	49.5	10,200	49.2	7,600 *	55.1	6,700 *
180	35.2	8,500 *			42.6	9,700 *	46.2	10,800	195	43.1	8,800 *	47.7	9,600	47.7	7,500 *	53.6	6,600 *
185	32.7	7,700 *			40.6	8,900 *	44.1	10,200	200	41.3	8,200 *	45.8	9,100 *	46.2	7,400 *	52.0	6,500 *
190	30.0	6,800 *			38.6	8,200 *	42.0	9,300 *	205	39.5	7,500 *	43.8	8,400 *	44.7	7,300 *	50.3	6,500 *
195					36.5	7,500 *			210	37.5	6,900 *	41.7	7,700 *	43.1	7,200 *	48.7	6,400 *
200					34.2	6,800 *			215	35.5	6,200 *			41.4	6,900 *	46.9	6,400 *
205					31.8	6,000 *			220	33.3	5,600 *			39.7	6,400 *	45.1	6,400 *
									225	31.0	4,900 *			37.9	5,800 *	43.2	6,300 *
									230					36.0	5,300 *	41.2	6,300 *
									235					34.1	4,700 *		
									240					32.0	4,200 *		

180 ft Boom									180 ft Boom								
Load Radius (ft.)	40' Jib				60' Jib				Load Radius (ft.)	80' Jib				100' Jib			
	10° Offset		30° Offset		10° Offset		30° Offset			10° Offset		30° Offset		10° Offset		30° Offset	
	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)		Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)
50	79.6	59,000 *			79.9	42,300 *			65	79.1	21,600 *			79.9	13,200 *		
55	78.3	59,000 *			78.7	41,900 *			70	77.9	21,400 *			78.8	13,000 *		
60	76.9	54,700			77.5	41,500 *			75	76.8	21,200 *			77.8	12,800 *		
65	75.6	48,800	78.8	39,100 *	76.2	41,200 *			80	75.6	20,900 *			76.7	12,600 *		
70	74.2	44,000	77.4	37,700 *	75.0	40,500 *	79.4	27,400 *	85	74.5	20,700 *	80.0	16,600 *	75.7	12,400 *		
75	72.9	39,900	76.0	36,500 *	73.7	37,000	78.1	26,400 *	90	73.3	20,500 *	78.8	16,300 *	74.6	12,200 *		
80	71.5	36,300	74.6	35,400 *	72.5	33,900	76.8	25,500 *	95	72.2	20,300 *	77.6	16,100 *	73.5	12,000 *	80.0	9,000 *
85	70.1	33,300	73.2	34,300 *	71.2	31,200	75.5	24,700 *	100	71.0	19,800 *	76.4	15,800 *	72.4	11,700 *	78.9	8,800 *
90	68.7	30,600	71.8	31,800	70.0	28,800	74.2	23,900 *	105	69.8	19,400 *	75.2	15,600 *	71.4	11,400 *	77.8	8,700 *
95	67.3	28,200	70.3	29,300	68.9	28,800	72.9	23,200 *	110	68.6	18,900 *	73.9	15,400 *	70.3	11,100 *	76.6	8,500 *
100	65.9	26,100	68.9	27,100	68.6	26,600	71.6	22,600 *	115	67.4	18,500 *	72.7	15,200 *	69.2	10,800 *	75.5	8,300 *
105	64.4	24,200	67.4	25,100	67.3	24,800	70.2	22,000 *	120	66.2	18,200 *	71.4	15,000 *	68.0	10,500 *	74.4	8,200 *
110	62.9	22,500	65.9	23,400	66.0	23,000	68.9	21,400 *	125	64.9	17,800 *	70.2	14,800 *	66.9	10,300 *	73.2	8,000 *
115	61.5	21,000	64.4	21,800	64.7	21,500	67.6	20,800 *	130	63.7	17,500 *	68.9	14,600 *	65.8	10,000 *	72.0	7,900 *
120	59.9	19,600	62.8	20,300	63.3	20,100	66.3	20,200 *	135	62.4	17,100 *	67.6	14,300 *	64.6	9,800 *	70.9	7,800 *
125	58.4	18,300	61.3	19,000	62.0	18,800	65.1	20,100	140	61.1	16,200	66.3	13,900 *	63.5	9,600 *	69.7	7,700 *
130	56.8	17,100	59.7	17,800	60.6	17,600	64.7	18,900	145	59.9	15,200	64.9	13,600 *	62.3	9,300 *	68.5	7,600 *
135	55.3	16,000	58.0	16,600	59.2	16,500	63.2	17,700	150	58.5	14,400	63.6	13,300 *	61.1	9,100 *	67.2	7,400 *
140	53.6	15,100	56.4	15,600	57.8	15,500	61.7	16,700	155	57.2	13,600	62.2	13,000 *	59.9	8,900 *	66.0	7,300 *
145	52.0	14,100	54.7	14,600	56.3	14,600	60.2	15,700	160	55.8	12,800	60.8	12,800 *	58.7	8,800 *	64.7	7,200 *
150	50.3	13,300	52.9	13,800	54.8	13,700	58.7	14,800	165	54.5	12,100	59.3	12,500 *	57.5	8,600 *	63.5	7,100 *
155	48.5	12,500	51.1	12,900	53.3	12,900	57.2	13,900	170	53.1	11,400	57.9	12,300	56.2	8,400 *	62.2	7,000 *
160	46.7	11,600 *	49.3	12,100	51.8	12,200	55.6	13,100	175	51.6	10,800	56.4	11,600	54.9	8,300 *	60.8	7,000 *
165	44.9	10,800 *	47.3	11,300 *	50.2	11,500	53.9	12,300	180	50.1	10,200	54.9	11,000	53.6	8,100 *	59.5	6,900 *
170	42.9	9,900 *	45.3	10,500 *	48.6	10,700 *	52.3	11,700	185	48.6	9,700	53.3	10,400	52.3	8,000 *	58.1	6,800 *
175	40.9	9,100 *	43.3	9,600 *	46.9	9,900 *	50.5	11,000	190	47.1	9,000 *	51.7	9,800	51.0	7,800 *	56.7	6,700 *
180	38.9	8,200 *	41.1	8,800 *	45.2	9,200 *	48.7	10,400	195	45.5	8,300 *	50.0	9,300	49.6	7,700 *	55.3	6,700 *
185	36.7	7,400 *			43.4	8,500 *	46.9	9,700 *	200	43.9	7,700 *	48.3	8,600 *	48.2	7,500 *	53.8	6,600 *
190	34.4	6,700 *			41.6	7,800 *	45.0	9,000 *	205	42.2	7,100 *	46.5	8,000 *	46.8	7,400 *	52.3	6,500 *
195	31.9	5,900 *			39.7	7,100 *	43.0	8,200 *	210	40.4	6,500 *	44.6	7,400 *	45.3	7,000 *	50.8	6,500 *
200					37.7	6,400 *	40.9	7,500 *	215	38.6	5,900 *	42.7	6,700 *	43.8	6,500 *	49.2	6,500 *
205					35.6	5,800 *			220	36.7	5,300 *	40.6	6,100 *	42.2	5,900 *	47.5	6,400 *
210					33.4	5,100 *			225	34.7	4,700 *			40.6			

CK1600-II Jib Rated Loads

with 11 counterweights (116,840 lbs) and 2 carbody weights (22,050 lbs)

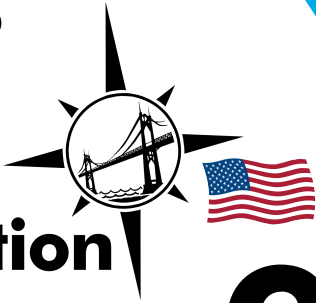
Refer to notes page 19

190 ft Boom									190 ft Boom								
Load Radius (ft.)	40' Jib				60' Jib				Load Radius (ft.)	80' Jib				100' Jib			
	10° Offset		30° Offset		10° Offset		30° Offset			10° Offset		30° Offset		10° Offset		30° Offset	
	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)		Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)
50	80.0	53,100 *							65	79.5	21,700 *						
55	78.8	52,400 *							70	78.4	21,500 *			79.2	13,000 *		
60	77.5	51,600 *							75	77.3	21,200 *			78.2	12,800 *		
65	76.2	48,300 *	79.3	39,600 *	78.0	41,600 *			80	76.2	21,000 *			77.2	12,600 *		
70	74.9	43,600 *	78.0	38,200 *	76.8	41,300 *			85	75.1	20,800 *			76.2	12,500 *		
75	73.6	39,500 *	76.6	37,000 *	75.6	40,000 *	79.9	27,700 *	90	74.0	20,600 *	79.2	16,400 *	75.2	12,300 *		
80	72.3	36,000 *	75.3	35,900 *	74.4	36,600 *	78.6	26,800 *	95	72.8	20,400 *	78.1	16,200 *	74.1	12,100 *		
85	71.0	32,900 *	74.0	34,300 *	73.2	33,500 *	77.4	25,900 *	100	71.7	20,100 *	76.9	15,900 *	73.1	11,900 *	79.3	8,900 *
90	69.7	30,200 *	72.6	31,500 *	72.0	30,800 *	76.2	25,100 *	105	70.6	19,600 *	75.8	15,700 *	72.0	11,600 *	78.2	8,700 *
95	68.3	27,800 *	71.2	29,000 *	70.8	28,400 *	74.9	24,300 *	110	69.4	19,200 *	74.6	15,500 *	71.0	11,300 *	77.1	8,500 *
100	67.0	25,700 *	69.9	26,800 *	69.5	26,300 *	73.7	23,600 *	115	68.3	18,800 *	73.4	15,300 *	69.9	11,000 *	76.1	8,400 *
105	65.6	23,800 *	68.5	24,800 *	68.3	24,400 *	72.4	22,900 *	120	67.1	18,400 *	72.2	15,100 *	68.8	10,700 *	75.0	8,200 *
110	64.2	22,100 *	67.1	23,100 *	67.1	22,700 *	71.1	22,300 *	125	65.9	18,100 *	71.0	14,900 *	67.8	10,400 *	73.8	8,100 *
115	62.8	20,600 *	65.6	21,400 *	65.8	21,100 *	69.8	21,700 *	130	64.8	17,700 *	69.8	14,700 *	66.7	10,200 *	72.7	8,000 *
120	61.4	19,200 *	64.2	20,000 *	64.5	19,700 *	68.5	21,200 *	135	63.6	16,900 *	68.5	14,500 *	65.6	10,000 *	71.6	7,800 *
125	59.9	17,900 *	62.7	18,600 *	63.2	18,400 *	67.2	19,900 *	140	62.3	15,800 *	67.3	14,200 *	64.5	9,700 *	70.5	7,700 *
130	58.5	16,700 *	61.2	17,400 *	61.9	17,200 *	65.8	18,600 *	145	61.1	14,900 *	66.0	13,800 *	63.4	9,500 *	69.3	7,600 *
135	57.0	15,700 *	59.7	16,300 *	60.6	16,100 *	64.5	17,400 *	150	59.9	14,000 *	64.7	13,600 *	62.2	9,300 *	68.1	7,500 *
140	55.5	14,700 *	58.1	15,200 *	59.2	15,100 *	63.1	16,400 *	155	58.6	13,200 *	63.4	13,300 *	61.1	9,100 *	67.0	7,400 *
145	53.9	13,800 *	56.5	14,300 *	57.9	14,200 *	61.7	15,400 *	160	57.3	12,500 *	62.1	13,000 *	59.9	8,900 *	65.8	7,300 *
150	52.3	12,900 *	54.9	13,400 *	56.5	13,300 *	60.2	14,500 *	165	56.0	11,700 *	60.7	12,700 *	58.7	8,700 *	64.6	7,200 *
155	50.7	12,100 *	53.3	12,600 *	55.0	12,500 *	58.8	13,600 *	170	54.7	11,100 *	59.4	12,000 *	57.6	8,600 *	63.3	7,100 *
160	49.1	11,200 *	51.6	11,800 *	53.6	11,800 *	57.3	12,800 *	175	53.3	10,400 *	58.0	11,300 *	56.4	8,400 *	62.1	7,000 *
165	47.4	10,300 *	49.8	10,900 *	52.1	11,000 *	55.8	12,000 *	180	52.0	9,800 *	56.5	10,700 *	55.1	8,300 *	60.8	6,900 *
170	45.6	9,500 *	48.0	10,100 *	50.6	10,200 *	54.2	11,300 *	185	50.6	9,200 *	55.1	10,100 *	53.9	8,100 *	59.5	6,900 *
175	43.8	8,700 *	46.1	9,300 *	49.1	9,500 *	52.6	10,700 *	190	49.1	8,500 *	53.6	9,500 *	52.6	8,000 *	58.2	6,800 *
180	41.9	8,000 *	44.2	8,500 *	47.5	8,800 *	51.0	10,000 *	195	47.6	7,900 *	52.0	8,900 *	51.3	7,800 *	56.9	6,700 *
185	40.0	7,200 *	42.2	7,700 *	45.9	8,100 *	49.3	9,400 *	200	46.1	7,300 *	50.5	8,300 *	50.0	7,700 *	55.5	6,700 *
190	37.9	6,500 *	40.0	7,000 *	44.2	7,400 *	47.6	8,700 *	205	44.6	6,700 *	48.8	7,600 *	48.7	7,100 *	54.1	6,600 *
195	35.8	5,700 *			42.5	6,800 *	45.7	8,000 *	210	43.0	6,100 *	47.1	7,000 *	47.3	6,600 *	52.7	6,500 *
200	33.6	5,000 *			40.7	6,100 *	43.9	7,300 *	215	41.3	5,600 *	45.4	6,400 *	45.9	6,100 *	51.2	6,500 *
205	31.1	4,300 *			38.8	5,500 *	41.9	6,600 *	220	39.6	5,000 *	43.6	5,900 *	44.4	5,500 *	49.7	6,500 *
210					36.9	4,900 *			225	37.8	4,500 *	41.7	5,300 *	42.9	5,000 *	48.1	6,100 *
215					34.9	4,300 *			230					41.4	4,600 *	46.5	5,600 *
									235					39.8	4,100 *	44.8	5,100 *
									240							43.0	4,600 *
									245							41.2	4,100 *

200 ft Boom									200 ft Boom								
Load Radius (ft.)	40' Jib				60' Jib				Load Radius (ft.)	80' Jib				100' Jib			
	10° Offset		30° Offset		10° Offset		30° Offset			10° Offset		30° Offset		10° Offset		30° Offset	
	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)		Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)	Boom Angle (deg.)	Rated Load (lbs.)
55	79.2	46,200 *							65	79.8	21,800 *						
60	78.0	45,500 *							70	78.8	21,600 *			79.6	13,100 *		
65	76.8	44,700 *	79.7	40,000 *	78.4	41,700 *			75	77.7	21,300 *			78.6	12,900 *		
70	75.6	42,900 *	78.5	38,700 *	77.3	41,400 *			80	76.7	21,100 *			77.6	12,700 *		
75	74.3	39,100 *	77.2	37,500 *	76.2	39,200 *			85	75.6	20,900 *			76.7	12,500 *		
80	73.1	35,700 *	76.0	36,400 *	75.0	35,900 *	79.1	27,100 *	90	74.6	20,700 *	79.6	16,500 *	75.7	12,400 *		
85	71.8	32,600 *	74.7	33,800 *	73.9	33,000 *	77.9	26,200 *	95	73.5	20,500 *	78.5	16,200 *	74.7	12,200 *		
90	70.6	30,000 *	73.4	31,100 *	72.7	30,400 *	76.7	25,400 *	100	72.4	20,300 *	77.4	16,000 *	73.7	12,100 *	79.7	8,900 *
95	69.3	27,600 *	72.1	28,800 *	71.6	28,100 *	75.5	24,700 *	105	71.3	19,900 *	76.3	15,800 *	72.7	11,700 *	78.6	8,700 *
100	68.0	25,500 *	70.8	26,600 *	70.4	26,000 *	74.3	24,000 *	110	70.2	19,500 *	75.2	15,600 *	71.6	11,400 *	77.6	8,600 *
105	66.7	23,600 *	69.5	24,600 *	69.2	24,100 *	73.1	23,300 *	115	69.1	19,100 *	74.0	15,400 *	70.6	11,100 *	76.6	8,400 *
110	65.4	21,800 *	68.1	22,800 *	68.0	22,400 *	71.9	22,700 *	120	68.0	18,700 *	72.9	15,200 *	69.6	10,900 *	75.5	8,300 *
115	64.0	20,300 *	66.8	21,200 *	66.8	20,800 *	70.7	22,100 *	125	66.9	18,300 *	71.7	15,000 *	68.6	10,600 *	74.4	8,200 *
120	62.7	18,900 *	65.4	19,700 *	65.6	19,400 *	69.4	21,000 *	130	65.7	17,700 *	70.6	14,800 *	67.5	10,400 *	73.4	8,000 *
125	61.3	17,600 *	64.0	18,400 *	64.3	18,100 *	68.2	19,600 *	135	64.6	16,600 *	69.4	14,600 *	66.5	10,100 *	72.3	7,900 *
130	60.0	16,400 *	62.6	17,200 *	63.1	16,900 *	66.9	18,400 *	140	63.4	15,600 *	68.2	14,400 *	65.4	9,900 *	71.2	7,800 *
135	58.5	15,400 *	61.1	16,000 *	61.8	15,800 *	65.6	17,200 *	145	62.3	14,600 *	67.0	14,100 *	64.3	9,700 *	70.1	7,700 *
140	57.1	14,400 *	59.7	15,000 *	60.5	14,800 *	64.3	16,100 *	150	61.1	13,800 *	65.8	13,800 *	63.2	9,500 *	69.0	7,600 *
145	55.7	13,400 *	58.2	14,000 *	59.3	13,900 *	63.0	15,100 *	155	59.9	12,900 *	64.5	13,500 *	62.2	9,300 *	67.9	7,500 *
150	54.2	12,500 *	56.7	13,100 *	57.9	13,000 *	61.6	14,200 *	160	58.6	12,200 *	63.3	13,200 *	61.0	9,100 *	66.7	7,400 *
155	52.7	11,600 *	55.2	12,300 *	56.6	12,100 *	60.2	13,400 *	165	57.4	11,500 *	62.0	12,500 *	59.9	8,900 *	65.6	7,300 *
160	51.1	10,800 *	53.6	11,400 *	55.2	11,300 *	58.8	12,600 *	170	56.2	10,800 *	60.7	11,700 *	58.8	8,700 *	64.4	7,200 *
165	49.6	9,900 *	52.0	10,600 *	53.9	10,500 *	57.4	11,800 *	175	54.9	10,100 *	59.4	11,100 *	57.6	8,600 *	63.2	7,100 *
170	48.0	9,100 *	50.3	9,700 *	52.5	9,800 *	56.0	11,100 *	180	53.6	9,400 *	58.1	10,400 *	56.5	8,400 *	62.0	7,000 *
175	46.3	8,400 *	48.6	9,000 *	51.0	9,100 *	54.5	10,400 *	185	52.3	8,800 *	56.7	9,800 *	55.3	8,300 *	60.8	6,900 *
180	44.6	7,700 *	46.8	8,200 *	49.6	8,400 *	53.0	9,700 *	190	50.9	8,100 *	55.3	9,200 *	54.1	8,100 *	59.5	6,900 *
185	42.8	6,900 *	45.0	7,500 *	48.1	7,700 *	51.4	9,000 *	195	49.5	7,500 *	53.9	8,500 *	52.9	7,800 *	58.3	6,800 *
190	41.0	6,300 *	43.1	6,800 *	46.5	7,000 *	49.8	8,300 *	200	48.1	6,900 *	52.4	7,900 *	51.6	7,200 *	57.0	6,700 *
195	39.1	5,600 *	41.1	6,100 *	44.9	6,400 *	48.1	7,700 *	205	46.7	6,400 *	50.9	7,300 *	50.4	6,700 *	55.7	6,700 *
200	37.1	4,900 *			43.3	5,800 *	46.4	7,000 *	210	45.2	5,800 *	49.3	6,700 *	49.1	6,200 *	54.3	6,600 *
205	35.0	4,200 *			41.6	5,200 *	44.7	6,400 *	215	43.7	5,300 *	47.7	6,200 *	47.8	5,700 *	53.0	6,500 *
210					39.9	4,700 *	42.8	5,700 *	220	42.1	4,700 *	46.1	5,600 *	46.4	5,200 *	51.5	6,300 *

 TADANO

Advanced
American
Construction



TELESCOPIC BOOM CRAWLER CRANE

GTC-700EX

70 METRIC TON CAPACITY

TELESCOPIC
BOOM
CRAWLER
CRANE



 TADANO

MANTIS[®]
CRANES



MANTIS[®] CRANES

The GTC-700EX from TADANO MANTIS sets the global standard for telescopic boom crawler cranes and is built on the field proven MANTIS crane platform. TADANO MANTIS cranes are engineered like no other. Massive steel fabrications and powerful diesel engines matched to state of the art hydraulics and controls make this crane ideal for both lift applications as well as heavy duty work. TADANO MANTIS Corporation remains one of the few crane manufacturers ready to work with contractors and project engineers to develop customized lifting solutions that meet the most unusual of project challenges.



Pictures may contain optional equipment.

FEATURES



NO OTHER CRANE COMBINES SO MANY VALUABLE FEATURES:

- Pick-and-carry the full crane load chart through 360°.
- Lift and walk...even with tracks retracted.
- Climb steeper grades, thanks to minimized counterweight and low center of gravity.
- Pull through deep mud without bogging down.
- Telescope or lift the boom with a full load on the hook.
- Save time and money on the job due to low clearance height, retract on-the-fly tracks and telescopic boom.
- Independent hydrostatic track drives allow pivot turns and counter rotation
- Hydraulic tool circuit option powers wide choice of Mantis-approved tools.



Standard operators cab tilts up for improved operator comfort. Improved design walkways allow easy access into the cab.



Spacious cab, adjustable seat, and conveniently located controls are common in all Tadano Mantis Cranes.



Cameras display the winch as well as the blind area directly behind the crane. Full color video display in operator cab is standard equipment.



Large access doors, spacious machinery compartments simplify preventative maintenance and service of the crane.



Tadano AML-C rated capacity indicator provides continuous feedback of crane lift position and data

SPECIFICATIONS



CAPACITY

70t at 3.0m

BOOM

4-section full power synchronized telescoping boom. Synchronized telescoping system consists of two double acting hydraulic cylinders with load holding valves and extension and retraction cables.

- Retracted Length: 11.4 m
- Extended Length: 34.0 m
- Extension Time: 102 s
- Elevating Time: 64 s
- Elevating Angles: -1° to 78°
- Boom Head: Seven, 483 mm diameter cast nylon sheaves on heavy-duty roller bearings
- Auxiliary Boom Head: Quick reeve, single 483 mm diameter high-strength, cast nylon sheave mounted on a heavy-duty roller bearing.
- Hook Block: 70t hook block - Five 483 mm diameter sheaves mounted on heavy duty roller bearings with swivel hook and safety latch.
- Headache Ball: 11t ball includes a swivel hook with a safety latch.

WINCHES

Planetary geared two-speed winch includes a bent axis hydraulic motor, multi-disc internal brake, counterbalance valve, grooved drum and cable follower. Drum rotation indicator is included.

- Main Winch
 - Rope Diameter and Length: 19mm x 213m
 - Single line pull: 78.2 kN (first layer)
 - Single line speed: 68.6 m/min (at the 4th layer)
- Auxiliary Winch
 - Rope Diameter and Length: 19mm x 107m
 - Single line pull: 78.2 kN (first layer)
 - Single line speed: 68.6 m/min (at the 4th layer)

TRAVEL

Each side frame contains a pilot controlled, two-speed track drive with hydraulic axial piston motor and parking brake. Travel system provides skid steering and counter rotation.

- Travel Speed (Low/High) 1.0 km/h / 2.8 km/h
- Gradeability (unladen): 68%

LOAD MOMENT INDICATOR & ANTI-TWO BLOCK

TADANO AML-C Rated Capacity Limiter and Anti-Two Block system

- Control function shutdown. Audible and visual warnings
- LCD screen provides a continuous display of working boom length, boom angle, working load radius, tip height, parts-of-line (operator set), machine track configuration (operator set), relative load moment, maximum permissible load and actual load.
- Optional 3-color light bar for external indication of load state.

OPERATOR'S CAB

Fully-enclosed, air conditioned all-steel modular cab with lockable swinging door, acoustical lining, anti-slip floor and tinted safety glass.

- Cab tilts 20° .
- Rear view cameras are appropriately located as are three remote control work lights.
- Six-way adjustable fabric seat with headrest, seat belt
- Four-way electronic armrest mounted joysticks control swing, boom extend, main winch, auxiliary winch and boom hoist. Electronic foot pedals control the travel and swing service brake functions.

Dash instrumentation: tachometer, voltmeter, oil pressure gauge, temperature gauge, hour meter and fuel gauge. Indicators are provided for crane level, load moment, drum rotation, air filter restriction, hydraulic oil temperature and filter restriction, engine oil pressure and temperature.

ENGINE

- Make/ Model: Cummins QSB 6.7
- Rating: 194 kW (260 hp) @ 2200 RPM

ELECTRICAL SYSTEM

12 VDC

COUNTERWEIGHT

Total 15,875 kg rear counterweight (Two pieces - 7,938 kg each)

SWING

Gear motor driving a planetary gear reducer with a shaft mounted pinion, external gear shear ball slew bearing bolted to the superstructure and the carbody allows the superstructure to rotate 360° . Dual mode swing, free/lock selectable.

- Swing Speed: 0 - 2.2 rpm
- Swing Parking Brake: Spring applied failsafe brake with hydraulic release that is controlled from the operators cab
- Swing Service Brake: Hydraulically applied, controlled through foot actuated pedal
- House Lock System: 2-position, manually pinned

HYDRAULIC SYSTEM

- Hydraulic Pumps: Two high pressure, variable axial piston pumps with load sense and power limiting control for crane functions. One variable axial piston pump for cooling loop
- Directional Valves: Multiple pressure and flow compensated valves with integrated relief valves
- Pump output: 583 liter/min @ 2100 RPM engine speed. 330 bar maximum pressure
- Filtration: 5 micron

SIDE FRAMES

Two welded steel side frames are paired with a track group. The side frames extend and retract hydraulically and are controlled from the cab.

- Track Rollers: Two top and twelve bottom sealed rollers on each track frame Idler: Oil filled, self lubricating with spring type tensioner
- Track Shoes: 900mm 3-bar semi grouser

OPTIONAL EQUIPMENT

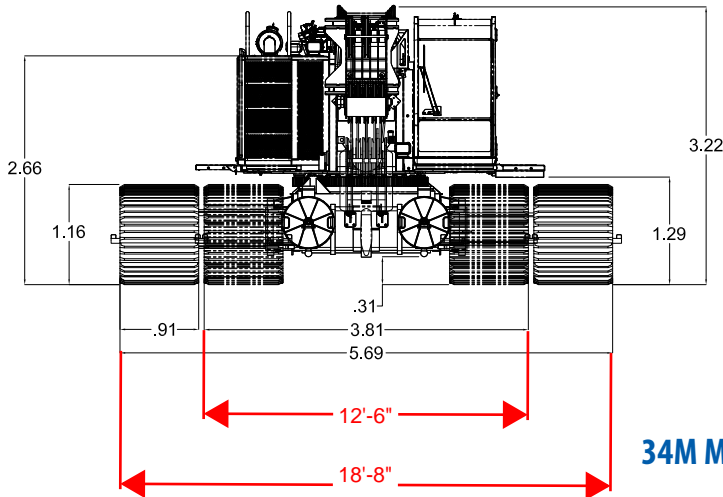
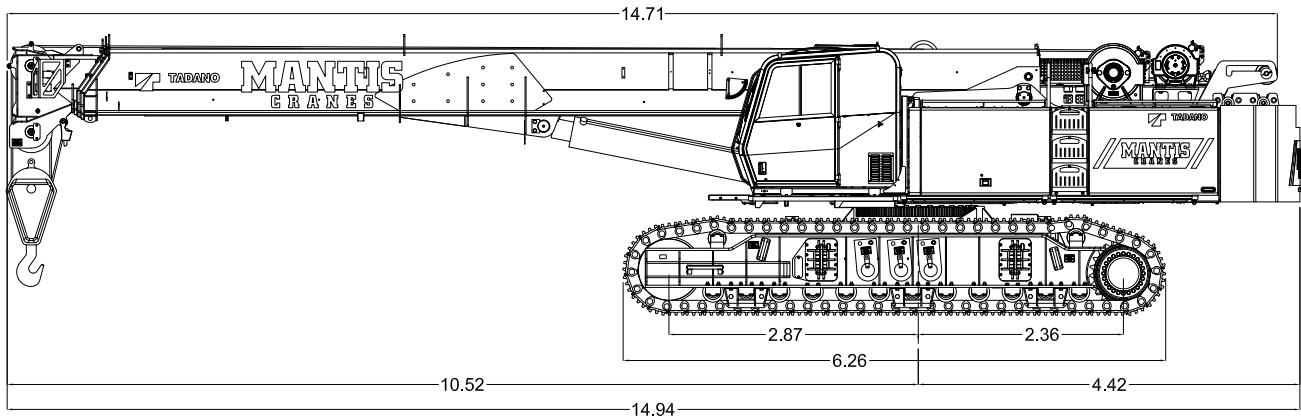
- Boom Extension: Lattice type, swing away
 - Length: 9,1m
 - Head: Two, 483 mm diameter cast nylon sheaves on heavy-duty roller bearings
 - Max. Lifting Height: 43,3m
- Boom Jib: Lattice type, swing away, stores along boom extension
 - Length: 6,1m
 - Max. Lifting Height: 49,4m
 - Offset Angles: 15° & 30°
- 45t hook block - Three 457 mm steel sheaves, swivel hook & safety latch
- Auger Ready Package: Includes hoses, fasteners and stowage bracket assembly mounted to the base section of the boom with a flow capability of 130 liter/min
- Complete Auger Package: Adds a two speed auger motor/gear box and one 1,52m kelly bar to the Auger Ready Package.
- Tool Circuit: Provides 23 liter/min and 45 liter/min at 176 bar through a 15,24m twin hose reel with quick disconnect fittings to operate open center tools.
- Free Fall Hoists: All winches are available in controlled free fall configurations.
- Clip on flat track shoes

Specifications are subject to change without prior notice.

DIMENSIONS

GTC-700EX

70 METRIC TON CAPACITY

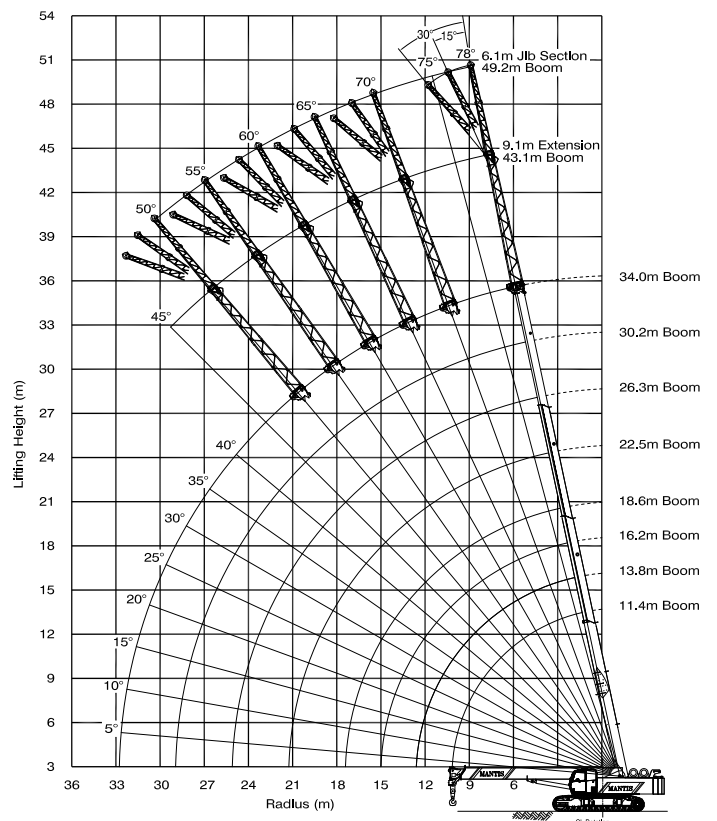


34M MAIN BOOM, 9.1M EXTENSION & 6.1M JIB



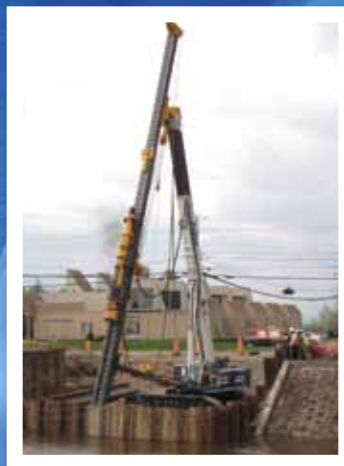
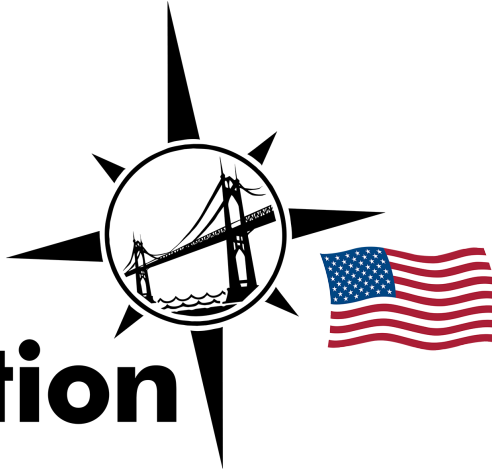
WIDTHS, WEIGHTS, AND GROUND PRESSURES*

Shoe Width	Overall Width		Area	Ground Pressure	Working Weight
	Retracted	Extended			
762 mm	3.66 m	5.54 m	7.97 m ²	0.77 kg/cm ²	61,419 kg
900 mm	3.81 m	5.69 m	9.57 m ²	0.65 kg/cm ²	62,241 kg



*Crane equipped with: 34m boom, extension, jib, 70t hook block, and 11t headache ball

Advanced American Construction



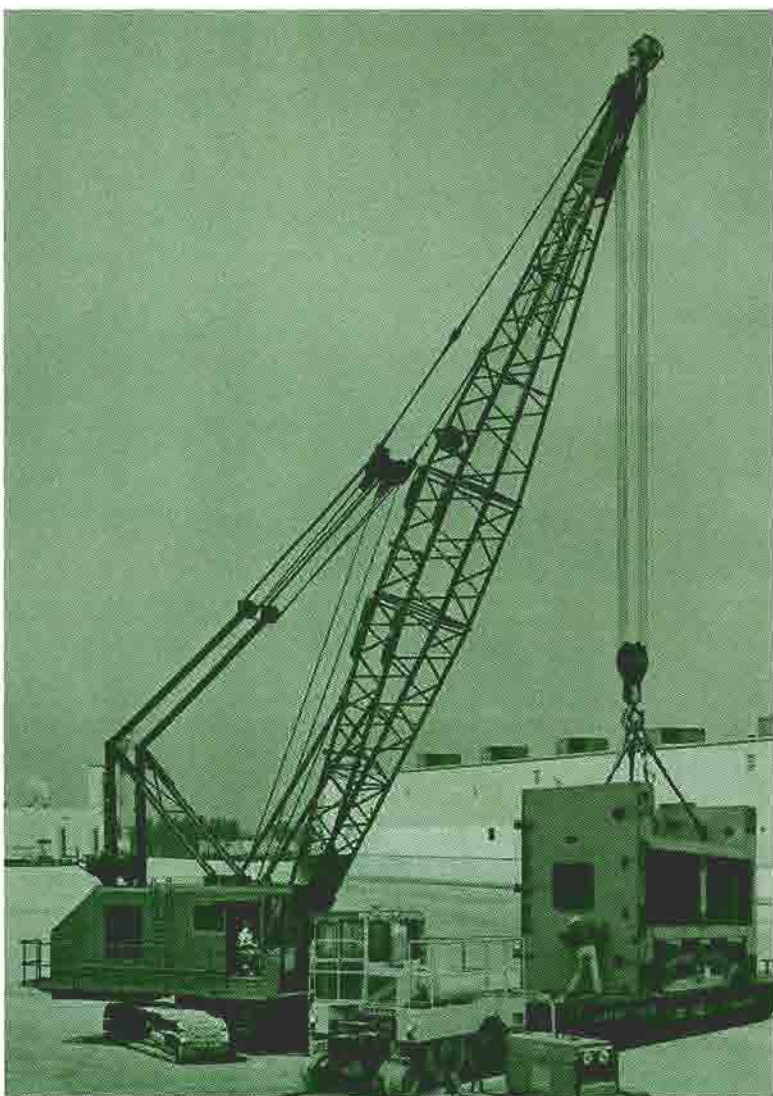
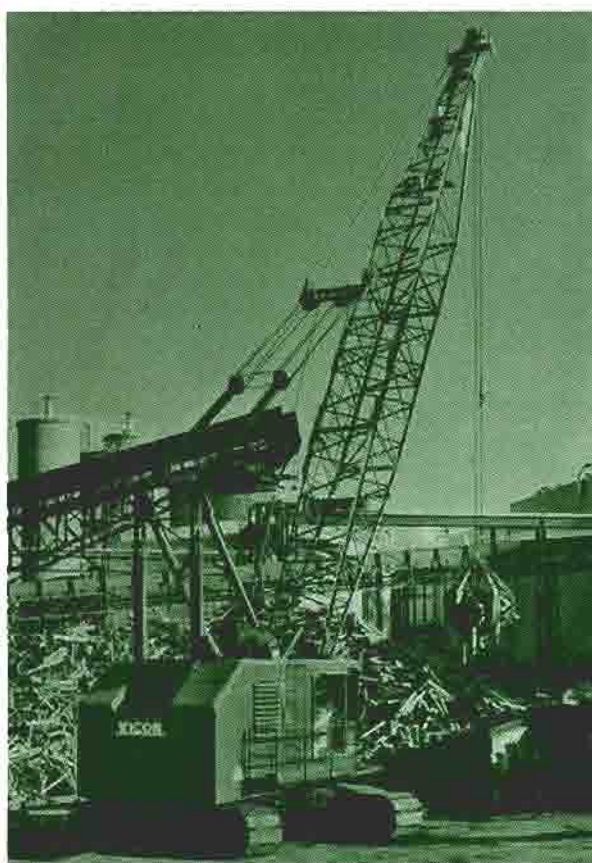
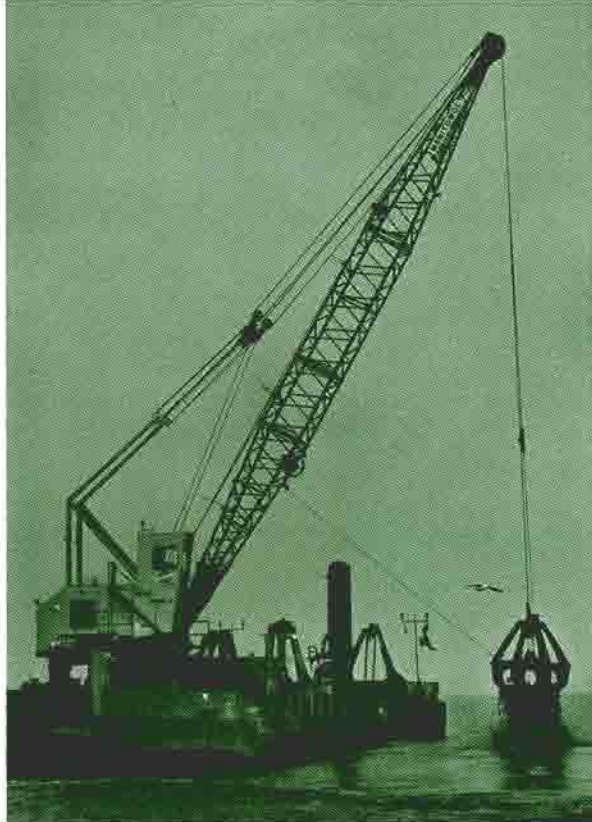
 **Lifting your dreams**

TADANO MANTIS Corporation

1705 Columbia Avenue Franklin, Tennessee 37064, U.S.A.
Phone: +1-800-272-3325 Fax: +1-615-790-6803
<http://www.mantiscranes.com/> E-mail: sales@mantiscranes.com

TADANO LTD. (International Division)

4-12, Kamezawa 2-chome, Sumida-ku Tokyo 130-0014, Japan
Phone: 81-3-3621-7750 Fax: 81-3-3621-7785
<http://www.tadano-global.com> E-mail: tdnihq@tadano.co.jp



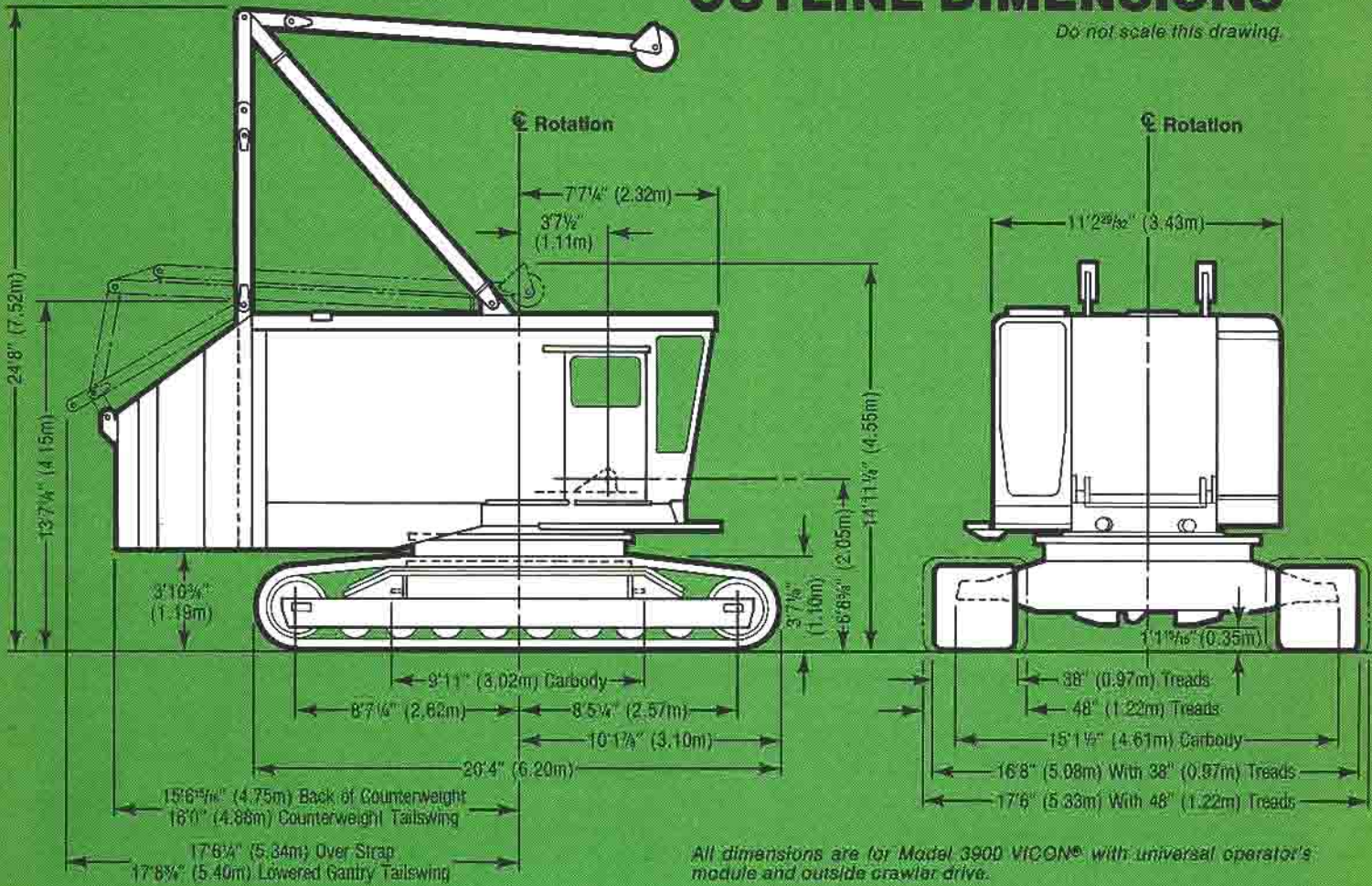
Manitowoc

3900 **VICON®**

LIFT • CLAM • DRAG • GRAPPLE • MAGNET

OUTLINE DIMENSIONS

Do not scale this drawing.



POWER PLANTS

	Model	Cylinder	Bore	Stroke	Cubic Inch Displacement	Net HP @ RPM (at flywheel)
BASIC	Cummins NT-855-C310	6	5.500" (140mm)	6.000" (152mm)	855 (14,011cc)	287 @ 2,000
OPTIONAL	Cummins NTA-855-C360*	6	5.500" (140mm)	6.000" (152mm)	855 (14,011cc)	334 @ 2,000
	Caterpillar 3406B DIT	6	5.400" (137mm)	6.500" (165mm)	893 (14,634cc)	300 @ 2,000
	Caterpillar 3406B DITA*	6	5.400" (137mm)	6.500" (165mm)	893 (14,634cc)	345 @ 2,000
	Detroit Diesel 12V-71N*	12	4.250" (108mm)	5.000" (127mm)	852 (13,962cc)	363 @ 2,000

Air Compressor: 37.5 CFM (1,062 Liters). *Recommended for Duty Cycle. Fuel Tank Capacity: 225 Gallons (852 Liters).

For other power plants, consult factory.

DRUMS AND LAGGINGS

Application	Drum	Diameter	Drum Width	Type of Laggings	Wire Rope Size	Spooling Capacity			
						First Layer	Layers	Maximum Capacity	
LIFTCRANE	Hoist	Right	17½" (445mm)	17¾" (441mm)	None	1" (25mm)	77' (23.49m)	7	710' (216.55m)
	Whip	Left	27" (686mm)	17¾" (441mm)	Grooved	1" (25mm)	116' (35.38m)	2	240' (73.20m)
	Third Drum	Rear Aux.	17" (432mm)	32 ⁹ / ₁₆ " (827mm)	None	1" (25mm)	140' (42.70m)	3	467' (142.44m)
							150' (45.75m)*	3	501' (152.81m)*
CLAMSHELL	Closing	Right	27" (686mm)	17¾" (441mm)	Grooved	1½" (29mm)	105' (32.03m)	3	340' (103.70m)
	Holding	Left	27" (686mm)	17¾" (441mm)	Grooved	1½" (29mm)	105' (32.03m)	3	340' (103.70m)
DRAGLINE	Drag	Right	24" (610mm)	17¾" (441mm)	Grooved	1¼" (32mm)	83' (25.32m)	1	83' (25.32m)
	Hoist	Left	27" (686mm)	17¾" (441mm)	Grooved	1" (25mm)	116' (35.38m)	1	116' (35.38m)

*Without ratchet ring.

For other options, consult factory.

WEIGHTS

	Pounds*	Kilograms*
LIFTCRANE (complete): lowerworks, upperworks, and 60' (18.30m) basic boom	229,485	104,186
CARBODY AND UPPERWORKS (combined): complete with basic machinery, drums, gantry, backhitch, equalizer, and boom hoist wire rope	94,550	42,926
LOWERWORKS:		
Carbody , with travel mechanism, king pin, and roller path	29,000	13,166
Crawler Assemblies (2) , with 38" (0.97m) wide treads and outside drive chains, each assembly 20,830 lbs. (9,457 kgs.)	41,660	18,914
For 48" (1.22m) treads, add 4,170 lbs. (1,893 kgs.) to each crawler assembly	50,000	22,700
UPPERWORKS:		
Rotating Bed , complete with basic machinery, including drums, but not gantry and backhitch, front end attachments, or counterweight	59,640	27,077
Gantry and Backhitch	4,200	1,907
Equalizer	1,050	477
Telescopic Boom Stop	650	295
Removable Counterweight (3-piece):		
Inner	32,000	14,528
Middle	26,500	12,031
Outer	15,500	7,037
Total	74,000	33,596
Dragline Fairlead:		
Revolving Type	1,910	867
Hinged Type	3,340	1,516
BOOM NO. 8:		
Butt , 30' (9.15m) less wire rope and pendants	3,250	1,476
Open Throat Top , 30' (9.15m) equipped with 4-sheave lower point, 2-sheave upper point, and basic pendants	4,925	2,236

	Pounds*	Kilograms*
Regular Top , 30' (9.15m) equipped with 2-sheave point and basic bridle set	4,202	1,908
Inserts:		
10' (3.05m) with pendants and wire rope roller guide	1,160	527
20' (6.10m) with pendants and wire rope roller guide	1,930	876
30' (9.15m) with pendants and wire rope roller guides	2,610	1,185
30' (9.15m) with pendants, wire rope roller guides, and jib backstay lugs	2,660	1,208
Pendant Spreader Bar	280	127
Wire Rope Guide	270	123
JIB NO. 123:		
Butt , 15' (4.58m)	690	313
Insert , 10' (3.05m)	340	154
Top , 15' (4.58m) with point assembly	695	316
Basic Pendant , 2 required, each 115 lbs. (52.21 kgs.)	230	104
Pendant , 2 per insert, each 65 lbs. (29.51 kgs.)	130	59
Backstay Pendant , 2 required, each 155 lbs. (70.37 kgs.)	310	141
Strut , 12'6" (3.81m)	365	166
JIB NO. 124:		
Butt , 15' (4.58m)	410	186
Insert , 10' (3.05m)	175	80
Top , 15' (4.58m) with point assembly	480	218
Basic Pendant	100	45
Pendant , 2 per insert, each 20 lbs. (9.08 kgs.)	40	18
Backstay Pendant , 2 required, each 140 lbs. (63.56 kgs.)	280	127
Strut , 18' (5.49m)	380	173

*Weights are approximate and may vary between machines as a result of design changes and component variations.

GENERAL

SWING SPEED: Independent Swing, variable, 4.50 RPM maximum. Standard Swing, variable, 4.95 RPM maximum.

MACHINERY HOUSE: Steel house fully encloses upperworks machinery. Service doors left side rear, left front, and in roof, plus roof ladder provide easy access. Catwalks and railings optional.

UNIVERSAL OPERATOR'S MODULE: Fully-enclosed and insulated module isolates operator from machinery noise. Large, rubber-mounted safety glass windows provide wide-angle view. Sliding door right side; sliding window left side; overhead window for high-boom vision. Signal horn standard; windshield wiper, fan, heater, and air conditioner optional. Optional elevated modules provide operator eye level 14' (4.27m) or 18' (5.49m) above ground.

TRAVEL SPEED: Variable, 1.45 MPH (2.33 KPH) maximum.

GRADEABILITY: 30%.

CONTROLS: Modulating air controls engage clutches for main drive shaft, boom hoist, and drums. With VICON, control levers for drums, travel, and swing operate both clutch and converter. First movement engages clutch; further movement increases converter output, permitting variable speed. Drum brakes are pedal-operated, mechanically applied on liftcrane and air-applied on duty cycle machines. Travel locks, steering, and swing lock are air controlled. Slide pinion is manually controlled.





CARBODY: Single-piece steel weldment provides high strength-to-weight ratio. Fabricated construction provides maximum strength where it's needed most. Webbed design transmits loads efficiently from area beneath roller path to four integral wings at sides.

The wings, clearly visible on finished carbody (below), fit into pockets in crawler assemblies, providing fast setup and a low center of gravity. Machined surfaces on wing bottoms distribute loadings over large area of crawlers to minimize bearing pressure and increase stability. Steering mechanism, visible at center of carbody bottom, is normally enclosed by steel covers.



LOWERWORKS

KING PIN: Machined steel fabrication bolted to carbody. Supports vertical travel shaft and provides pivot for rotating bed. King pin remains in place during shipment, reducing setup time. Mates with pressure-lubricated bronze bushing in rotating bed. Takes horizontal loadings only, no uplift.



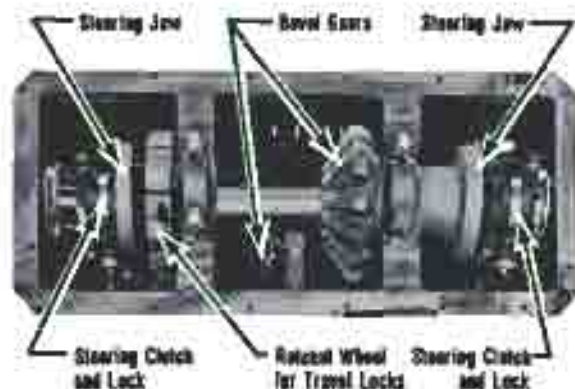
ROLLER PATH AND RING GEAR: Large-diameter roller path forms stable support for rotating upperworks. Machined, heat-treated, alloy steel casting has 105 1/2" (2.69m) outside diameter, 4 1/2" (124mm) wide top face, and 3" (76mm) thick hook roller flange. Roller path secured to carbody with single row of high strength bolts, remains in place for shipment, reducing setup time. Internal ring gear teeth are precision-cut by machine.

FRONT IDLER ROLLER: Double-flanged, 29 1/2" (749mm) diameter, fabricated steel roller mounted at front of crawler assembly keeps tread properly aligned. Roller mounted on stationary shaft supported at both ends for maximum strength. Roller revolves on two bronze bushings lubricated by center grease pocket.

CRAWLER TREADS: Provide large surface area to distribute loads for maximum stability with low ground-bearing pressures. Consist of 44 pads per crawler assembly. Adjacent pads connected by two wear-resistant steel pins. Closed pad design prevents dirt from being carried onto crawler frames. 38" (0.97m) and 48" (1.22m) pad widths available.

CRAWLER ASSEMBLIES: Two self-contained assemblies mount quickly on carbody wings, enabling fast setup. Each assembly consists of a fabricated frame supporting a drive sprocket, a crawler sprocket and chain, eight intermediate rollers, a front idler roller, and crawler tread. Abrasion-resistant slide rails along crawler frame top provide smooth, continuous support for tread, eliminating tread flexing and need for upper idler rollers.

CRAWLER DRIVE: Optional outside drive chains (shown) permit crawler assemblies to be removed or installed as units for fast setup and takedown. Self-contained drive sprocket is mounted within crawler assembly and joined to horizontal travel shaft by jaw clutch coupling. Inside drive chains are standard.



CRAWLER SPROCKET AND TUMBLER: Steel casting with flame-hardened teeth and rim constructed for durability. Mounted on stationary shaft supported at both ends by crawler frame for maximum strength and proper alignment. Sprocket and tumbler revolve on two bronze bushings lubricated by center grease pocket for efficient operation. Self-cleaning tumbler has alternate sides open.



CRAWLER PADS: Constructed of alloy steel cast in a closed box-section design for high strength-to-weight ratio. Heavy internal ribbing provides maximum strength, especially where rollers bear. Tapered outer edges maximize maneuverability.



INTERMEDIATE ROLLERS: Eight 18" (457mm) diameter rollers recessed in crawler frame bottom distribute loadings properly to tread. Double-flanged roller design keeps tread properly aligned. Rollers mounted individually on stationary shafts supported at both ends by welded frames and held in place by keeper bars. Each roller revolves on two bronze bushings lubricated by a center grease pocket.



TRAVEL AND STEERING MECHANISM: Simple mechanical system provides reliable steering control. Travel power transmitted from upperworks to mechanism through vertical shaft in king pin. Mechanism is mounted on center section of three-piece horizontal travel shaft in carbody. Bevel gears that transmit power from vertical shaft to horizontal shaft run in oil for long life. Air-controlled jaw clutches at each side of bevel gears provide steering. Each clutch can be placed into engaged, neutral, or locked position. Operator steers by choosing combinations of clutch positions. Both clutches engaged for straight travel; one clutch placed in neutral for gradual turns or locked position for sharp turns. Clutch interlock keeps at least one clutch engaged at all times.

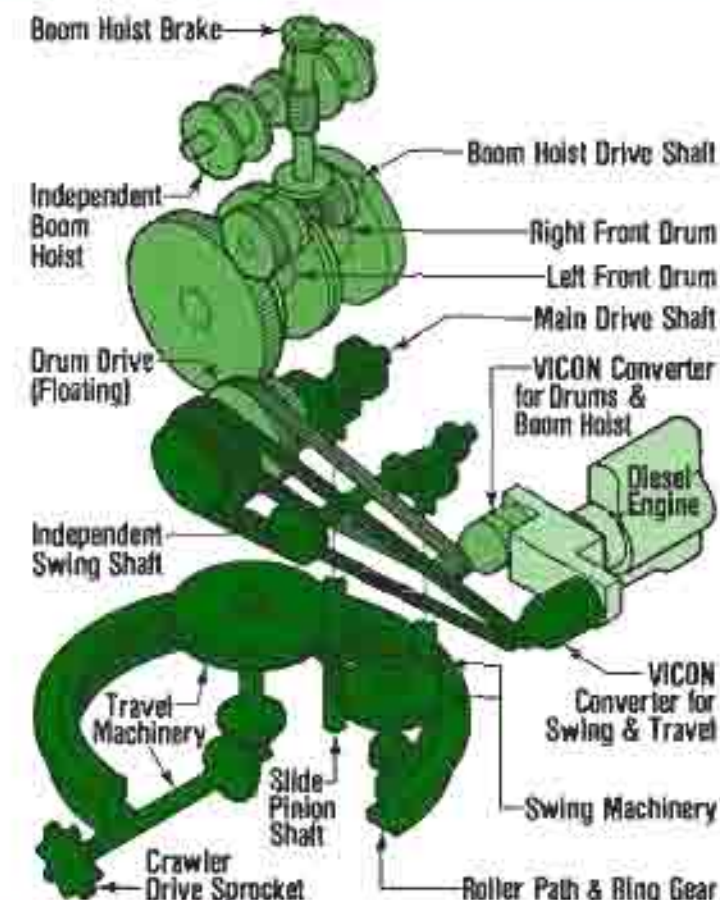
Ratchet wheel at left of bevel gears is engaged by two gravity-applied, air-released travel locks. Engaging a single lock prevents travel in one direction while permitting movement in opposite direction. Engaging both locks prevents all travel.

POWER TRAIN

POWER TRANSMISSION, VICON®: Manitowoc's patented VICON (Variable Independent CONTROL) system provides precision control and independent operation of major functions. Engine power is divided by transmission case to two controlled torque converters. Front converter powers hoisting drums and boom hoist. Rear converter powers swing and travel machinery. With VICON, clutches engage when no torque is transmitted from power source, eliminating clutch slippage and wear. After clutch is fully engaged, converter output is increased to provide infinitely-variable speed and torque for smooth, precise control.

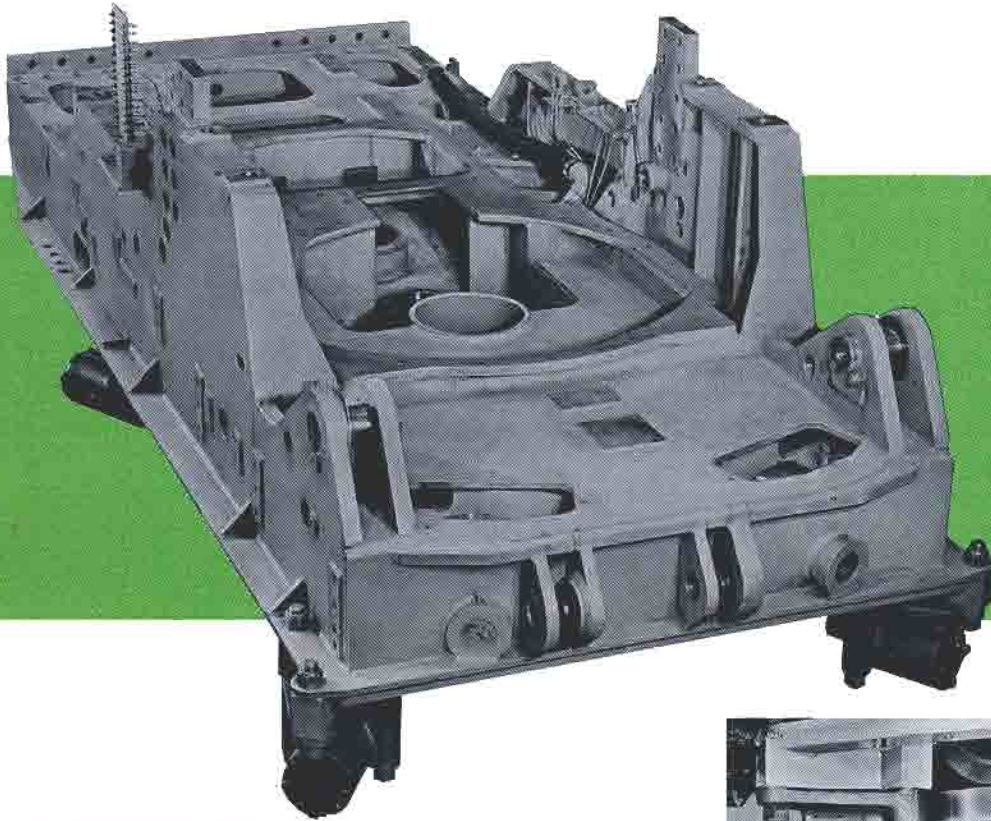
VICON POWER LOWERING: VICON provides controlled power load lowering for line pulls exceeding 6,000 pounds (2,724 kgs). Load can be held or lowered using hoist converter's stepless variable output.

FULL-RANGE VICON POWER LOWERING: Optional hydraulic motor drives output shaft of VICON hoist converter in reverse to provide power lowering for line pulls less than 6,000 pounds (2,724 kgs). Permits full range of lowering speeds with any load from empty hook through maximum capacity.



UPPERWORKS

REAR HOOK ROLLERS: Four rollers supported in pairs by steel frames secure rotating bed to roller path. Widely-spaced hangers distribute loadings over large area of roller path. Rollers are mounted individually on eccentric shafts for easy adjustment. Each roller revolves on a durable bronze bushing for easy maintenance.

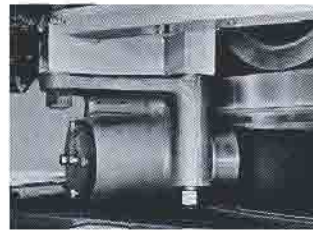


ROTATING BED: Single-piece steel fabrication with integral machinery side frames forms rigid deck for mounting all upperworks components. Fabricated construction provides high strength-to-weight ratio. Precision boring assures proper alignment of machinery components. Bed rotates on four bushing-mounted house rollers: two front and two rear.

MAIN DRIVE SHAFT: Precision-machined alloy-steel shaft, antifriction-bearing mounted for efficient operation. Shaft chain-driven by rear VICON® converter transmits power to travel and standard swing functions through two single-disc reversing clutches. (See "Power Train", page 5.)

Operator selects travel or standard swing by positioning manually-controlled slide pinion to engage either travel or swing machinery. Left clutch is then applied to travel forward or swing left. Right clutch is applied to travel backward or swing right. Clutch hubs are splined to shaft. Clutch spiders with bevel pinions revolve on antifriction bearings. Clutches are air applied and spring released for smooth operation. Bevel pinions on clutches engage bevel gear on top of slide pinion shaft. Pinions and gear are fully enclosed and operate in oil for long life.

Main drive shaft also supports sprocket and pinion that drive drum shaft. Mounted on antifriction bearings, sprocket and pinion revolve independently of main drive shaft and are driven by front VICON converter.

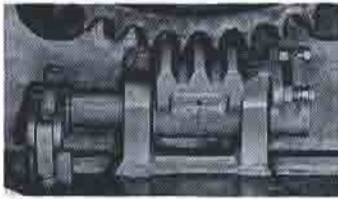


FRONT HOOK ROLLERS: Two rollers supported individually by steel frames bolted to rotating bed. Wide spacing of frames holds rotating bed securely on roller path. Rollers mounted on eccentric shafts for easy adjustment. Each roller revolves on a durable bronze bushing for easy maintenance.

INDEPENDENT SWING SHAFT: Optional. Heat-treated alloy steel shaft, antifriction-bearing mounted on rotating bed behind main drive shaft permits independent operation of swing and travel functions. Chain-driven from main drive shaft. Independent swing is controlled smoothly by two single-disc clutches mounted on shaft; one clutch engaged for swing left; the other for swing right. Clutch hubs splined to shaft. Clutch spiders antifriction-bearing mounted.

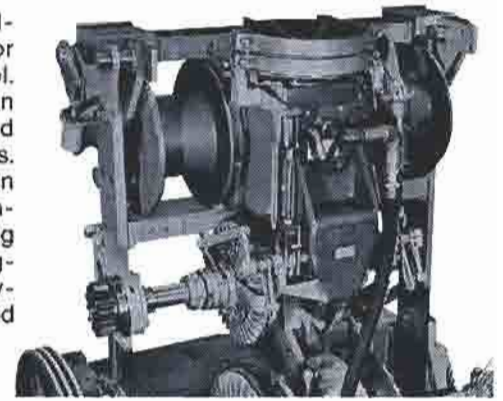
Clutches applied by manually-actuated cam levers and released by springs. Linings remove easily for quick replacement. Bevel pinions on clutches drive through gear train to ring gear on roller path. Pinions enclosed and lubricated by circulating oil for long life. Spring-applied, air-released swing brake provided.



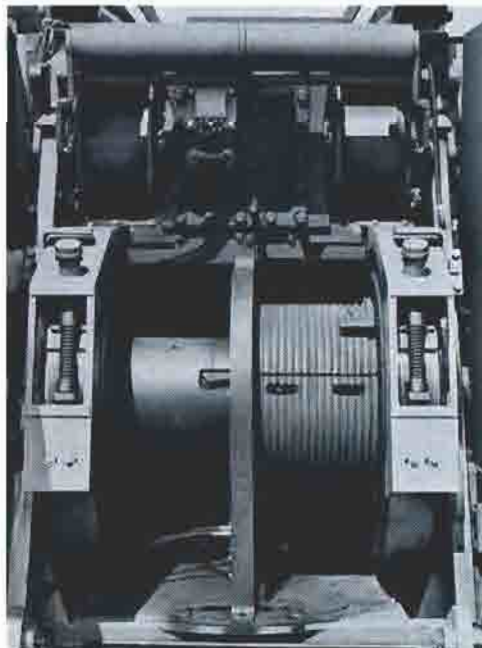
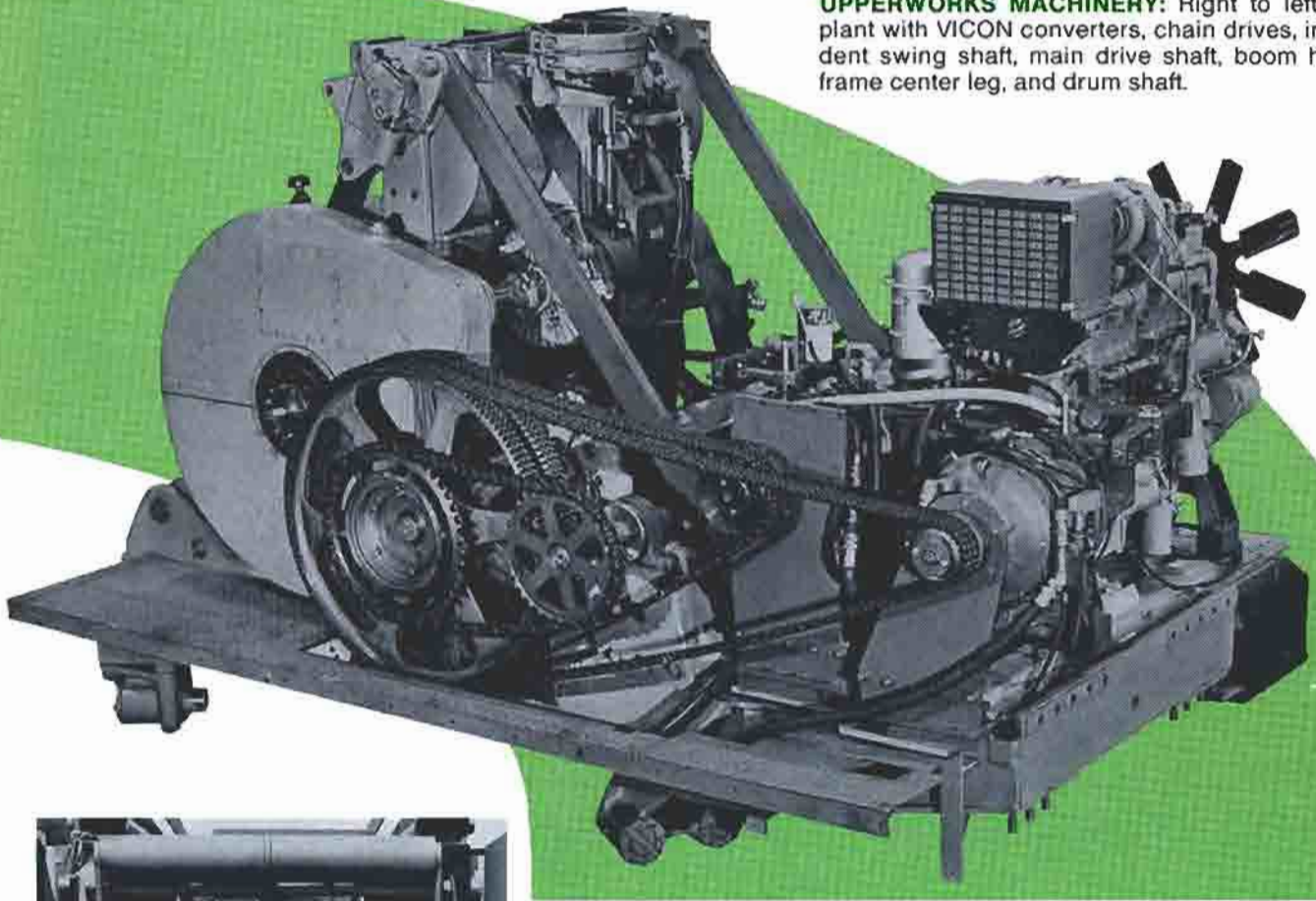


SWING LOCK: Air-operated, spring-loaded, gear-type lock engages swing gear for positive locking.

INDEPENDENT BOOM HOIST: Permits simultaneous booming, hoisting, and swinging for faster operation with superior load control. Reliable, mechanical boom hoist mounted on top of A-frame powers boom both up and down for accurate control of load radius. Dual-drum design provides equal tension on both sides of boom rigging for superior handling. Air-controlled, single-disc reversing clutches provide smooth operation. Spring-applied, air-released main brake, manually-controlled auxiliary brake, and gravity-applied ratchet-and-pawl provided.



UPPERWORKS MACHINERY: Right to left: power plant with VICON converters, chain drives, independent swing shaft, main drive shaft, boom hoist, A-frame center leg, and drum shaft.



DRUM SHAFT ASSEMBLY: Heat-treated alloy-steel shaft, antifriction-bearing mounted for efficient operation. Enclosed drum gears run in oil for extended life with minimized maintenance. Antifriction-bearing-mounted drums are cast steel with a cast-iron brake-and-clutch flange bolted to outboard side. Clutch spiders splined to drum shaft. Clutches are air-controlled, internal-expanding, band type. Brakes are external-contracting band type with toggle design that maximizes braking efficiency. Mechanically-applied brakes are standard on liftcranes. Air-applied brakes are optional on liftcranes and standard on clamshells and draglines to increase operator efficiency in duty cycle applications. Spring set parking brakes are provided on liftcranes and duty cycle machines that employ air-controlled brakes.

CENTRALIZED LUBRICATION: Conveniently grouped and labeled grease fittings placed in an easily-accessible location simplify lubrication and reduce maintenance time.



FRONT END EQUIPMENT

NO. 8 BOOM: Rugged boom serves both liftcrane and duty cycle applications. 30' (9.15m) butt; 10' (3.05m), 20' (6.10m), and 30' (9.15m) inserts; 30' (9.15m) top. All sections constructed of inverted-angle chords and tubular lacings welded in rectangular box-section design 74" (1.88m) wide x 72" (1.83m) deep. Chords 100,000 PSI (7,000 kg/cm²) yield steel; lacings 90,000 PSI (6,300 kg/cm²) yield steel. Adjacent boom sections connect with four single-bolt pad joints for fast boom assembly. Basic boom length; 60' (18.30m). Maximum boom lengths: 100' (30.50m) for dragline; 120' (36.60m) for clamshell; 210' (64.05m) for liftcrane.

"Open Throat Top", standard on liftcranes and combination lift-clam-drag machines. Features four 24" (610mm) diameter sheaves in lower point and two 27" (686mm) diameter sheaves in upper point, all mounted on straight roller bearings. Rope guard provided on liftcranes; cheek plate provided on combination machines.

"Regular Top", standard on duty cycle machines. Equipped with cheek plate and one 36" (914mm) diameter sheave for dragline or magnet, or two 36" (914mm) diameter sheaves for clamshell or grapple. All sheaves mounted on tapered roller bearings.

GANTRY AND BACKHITCH: Fabricated gantry has parallel tube legs. Supported on large pins by A-frame center leg. Folding, link-type backhitch is pin-connected to gantry and rear of machinery house. All sheaves antifriction-bearing mounted.

EQUALIZER: Fabricated steel frame supports six antifriction-bearing-mounted sheaves.

BOOM RIGGING: Ten-part standard rigging formed by a single line reeved from boom hoist drums through sheaves on gantry and equalizer. Rigging between gantry and equalizer remains intact during shipment, minimizing setup time. On liftcranes and combination machines, equalizer is connected to boom point by two 1½" (38mm) diameter pendants. As inserts are added to lengthen boom, additional pendant sets are added to lengthen rigging. On machines equipped specifically for duty cycle service, equalizer is connected to boom point by two 2-part bridles of wire rope.

AUTOMATIC BOOM STOP: Standard on liftcrane, clamshell, and combination machines. When boom reaches 82° angle from horizontal, it contacts a push rod mechanism that automatically stops boom hoist operation.

PANTOGRAPHIC BOOM STOP: Standard on clamshell. Folding arms pin to A-frame and boom butt provide physical stop when boom reaches maximum allowable angle.

TELESCOPIC BOOM STOP: Standard on liftcrane. Air-cushioned telescoping tubes pinned to boom and A-frame start cushioning at 74° boom angle; provide positive physical stop at 85° from horizontal.

WIRE ROPE GUIDE: Mounted on upper side of boom top. Two fleeting sheaves, bronze-bearing mounted in steel frame.

WIRE ROPE ROLLER GUIDES: Mounted on top of boom inserts. Rollers are induction-hardened tubing, antifriction-bearing mounted.

NO. 123 JIB: Optional. 20-ton (18.14-metric ton) maximum capacity. 30' (9.15m) basic length extendible to 40' (12.20m), 50' (15.25m), or 60' (18.30m) with 10' (3.05m) inserts and matching pendants. Jib offset angle adjustable to 0, 10, or 20 degrees. All-welded construction with tubular chords and lacings. Chords 100,000 PSI (7,000 kg/cm²) yield steel. Rectangular box section 30" (762mm) wide x 30" (762mm) deep at pin-connected joints. Jib point has 24" (610mm) OD, antifriction-bearing-mounted sheave, cheek plate, and anchor for two-part line. Maximum boom-and-jib combination, 230' (70.15m).

NO. 124 JIB: Optional. 10-ton (9.07-metric ton) maximum capacity. 30' (9.15m) basic length extendible to 40' (12.20m), 50' (15.25m), or 60' (18.30m), with 10' (3.05m) inserts and matching pendants. Jib offset angle adjustable to 0, 10, 20, or 30 degrees. All-welded construction with tubular chords and lacings. Chords 100,000 PSI (7,000 kg/cm²) yield steel. Rectangular box section 29½" (749mm) wide x 22" (559mm) deep at pin-connected joints. Jib point has 19½" (495mm) OD, antifriction-bearing-mounted sheave with wire rope guide. Anchor joint for two-part line optional. Maximum boom-and-jib combination, 250' (76.25m).

CONSULT JIB LIFTING CAPACITY CHARTS FOR SPECIFIC CAPACITY WHEN USED ON VARIOUS BOOM LENGTHS.

REVOLVING FAIRLEAD: Furnished on dragline-equipped machines. Full revolving, antifriction-bearing mounted in support at front of rotating bed. All joints tapered-pin connected for maximum stability. Trunnion shaft bronze-bearing mounted. Two large side guide rollers are case hardened and bronze-bearing mounted for long life. Two end guide rollers provided. For boom lengths through 80' (24.40m).

HINGED FAIRLEAD: Optional. Recommended for booms longer than 80' (24.40m). Extends guide sheaves for greater drag rope fleet angle. Stationary frame securely mounted to boom hinge lugs and front of rotating bed with tapered pins for maximum rigidity. Swivel frame antifriction-bearing mounted. Drag rope fully guided through swivel frame by sheaves and rollers. Sheaves mounted on tapered shaft for maximum stability; shafts antifriction-bearing mounted.

TAGLINE: Boom-mounted, two-barrel tagline with 20" (508mm) wheel standard on clamshell-equipped machines. Boom-mounted, three-barrel tagline with 30" (762mm) wheel optional.

MANITOWOC ENGINEERING CO.

Division of The Manitowoc Company, Inc.
Manitowoc, Wisconsin 54220

Because of a program of continuing improvements, Manitowoc Engineering Co. reserves the right to change specifications at any time, without notice.

APE Model D36-42 Single Acting Diesel Impact Hammer

MODEL D36-42 (3.6 metric ton ram)

D36-42 in fixed leads.



SPECIFICATIONS

Stroke at maximum rated energy	135 in (343 cm)
Maximum rated energy (Setting 4)	89,302 ft-lbs (121,076 Nm)
Setting 3	74,450 ft-lbs (100,939 Nm)
Setting 2	59,201 ft-lbs (80,265 Nm)
Minimum rated energy (Setting 1)	43,952 ft-lbs (59,590 Nm)
<i>(Variable throttle allows for lower minimum energy and infinite fuel settings.)</i>	
Maximum obtainable stroke	157 in (381 cm)
Maximum obtainable energy	103,855 ft-lbs (140,807 Nm)
Speed (blows per minute)	34-53

WEIGHTS

Ram	7,938 lbs (3,600 kg)
Anvil	1,023 lbs (2,255 kg)
Anvil cross sectional area	367.94 sq in (934.56 sq-cm)
Hammer weight (includes trip device)	22,795 lbs (10,866 kg)
Typical operating (weight with DB32 and pipe insert)	28,097 lbs (12,742 kg)

CAPACITIES

Fuel tank (runs on diesel or bio-diesel)	23.1 gal (87 liters)
Oil tank	4.5 gal (17 liters)

CONSUMPTION

Diesel or Bio-diesel fuel	3 gal/hr (11 liters/hr)
Lubrication	.39 gal/hr (1.4 liters/hr)
Grease	8 to 10 pumps every 45 minutes of operation time.

Optional Variable Throttle Control



Drive Base Assembly



STRIKER PLATE FOR DB 32

Weight	1,036 lbs (470 kg)
Diameter	25 in (57.15 cm)
Area	471 sq-in (696 sq-cm)
Thickness	8 inches (20.32 cm)

CUSHION MATERIAL

Type/Qty	Micarta/2 ea
Diameter	25 in (57.15 cm)
Thickness	1 in (25.4 mm)
Type/Qty	Aluminum/3 ea
Thickness	1/2 in (12.7 mm)
Diameter	25 in (57.15 cm)
Total Combined Thickness	3.5 inches (8.89 cm)
Area	490 in (1,246 cm)
Elastic-modulus	285 ksi (1,965 mpa)
Coeff. of restitution	.8

DRIVE CAP

DB 32:	2,436 lbs (1,104 kg)
--------	----------------------

INSERT WEIGHT

H-Beam insert for 12" (305 mm) and 14" (355 mm):	948 lbs (430 kg)
Large pipe insert for sizes 12" to 24" diameter:	1,830 lbs (830 kg)

MINIMUM BOX LEAD SIZE/OPERATING LENGTH

Minimum box leader size	8 in x 32 in (3.14 cm x 81.28 cm)
Operating length as described above	354 in (9 m)



Corporate Offices
7032 South 196th
Kent, Washington 98032 USA
(800) 248-8498 & (253) 872-0141
(253) 872-8710 Fax

Visit our WEB site:
www.apeibro.com
e-mail: ape@apeibro.com



(800) 248-8498

Diesel Hammer Energy Output and Pile Bearing Chart

APE Model D36-42 Diesel Impact Hammer

The energy output is based on the identical Piston/Travel calculations utilized in the FHWA Gates Formula.
 The pile bearing chart is based on the FHWA Gates Formula for pile bearing and is provided for the user's convenience only.

$$\text{Pile Bearing (tons)} = ((1.75 * \text{SQRT "E" LOG10} * 10N) - 100) / 2000$$

E = Developed Energy and N = Number of Blows Per Inch

APE has no preference for these particular formulas and calculations over any other.

Ram Weight (lbs): 7,938

Blows (per minute)	Stroke (ft)	Energy (ft-lbs)	Pile Set (Blows per inch)																		
			2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
60	4.00	31,752	153	180	200	215	227	238	247	255	262	268	274	280	285	289	294	298	302	305	309
59	4.17	33,101	157	185	205	220	233	244	253	261	268	275	281	287	292	296	301	305	309	313	316
58	4.33	34,372	161	190	210	226	238	249	259	267	274	281	287	293	298	303	308	312	316	320	323
57	4.50	35,721	165	194	215	231	244	255	265	273	281	288	294	300	305	310	315	319	323	327	331
56	4.67	37,070	169	199	220	236	250	261	271	279	287	294	300	306	312	317	321	326	330	334	338
55	4.83	38,341	173	203	224	241	255	266	276	285	293	300	306	312	318	323	328	332	336	340	344
54	5.00	39,690	177	207	229	246	260	272	282	291	299	306	312	319	324	329	334	339	343	347	351
53	5.17	41,039	181	212	234	251	265	277	287	296	305	312	319	325	330	336	341	345	350	354	358
52	5.33	42,310	184	216	238	256	270	282	293	302	310	317	324	330	336	342	347	351	356	360	364
51	5.50	43,659	188	220	243	261	275	287	298	307	316	323	330	336	342	348	353	358	362	367	371
50	5.75	45,644	193	226	249	268	282	295	306	315	324	332	339	345	351	357	362	367	372	376	380
49	6.00	47,628	198	232	256	274	290	302	313	323	332	340	347	354	360	366	371	376	381	385	389
48	6.25	49,613	204	238	262	281	297	310	321	331	340	348	355	362	368	374	380	385	390	394	398
47	6.50	51,597	209	244	268	288	303	317	328	338	348	356	363	370	377	383	388	393	398	403	407
46	6.83	54,217	215	251	276	296	312	326	338	348	357	366	374	381	387	393	399	404	409	414	419
45	7.17	56,915	222	258	284	305	321	335	347	358	367	376	384	391	398	404	410	416	421	426	430
44	7.50	59,535	228	265	292	313	330	344	356	367	377	386	394	401	408	415	421	426	431	437	441
43	7.83	62,155	234	272	299	321	338	352	365	376	386	395	404	411	418	425	431	437	442	447	452
42	8.17	64,853	240	279	307	329	346	361	374	385	396	405	413	421	428	435	441	447	453	458	463
41	8.58	68,108	247	287	316	338	356	371	385	396	407	416	425	433	440	447	453	459	465	470	475
40	9.00	71,442	254	295	325	347	366	382	395	407	418	427	436	444	452	459	465	472	477	483	488
39	9.50	75,411	263	305	335	358	377	393	407	420	431	441	450	458	466	473	480	486	492	498	503
38	10.00	79,380	271	314	345	369	388	405	419	432	443	453	463	471	479	486	493	500	506	512	517
37	10.50	83,349	279	323	355	379	399	416	431	444	455	466	475	484	492	500	507	513	520	526	531
36	11.17	88,667	289	335	367	393	413	431	446	459	471	482	492	501	509	517	524	531	538	544	550

APE Model D50-42 Single Acting Diesel Impact Hammer

D50-42 in a stand-off.



MODEL D50-42 (5.0 metric ton ram)

SPECIFICATIONS

Stroke at maximum rated energy	135 in (343 cm)
Maximum rated energy (Setting 4)	124,031 ft-lbs (167.44 kNm)
Setting 3	102,946 ft-lbs (138.98 kNm)
Setting 2	81,861 ft-lbs (110.51 kNm)
Minimum rated energy (Setting 1)	60,775 ft-lbs (82.05 kNm)
<i>(Variable throttle allows for infinite fuel settings)</i>	

Maximum obtainable stroke	157 in (381 cm)
Maximum obtainable energy	144,243 ft-lbs (196 kNm)
Speed (blows per minute)	34-53

WEIGHTS (Approximate)

Ram	11,025 lbs (5,000 kg)
Anvil	2,255 lbs (1,023 kg)
Anvil cross sectional area	367.94 in ² (2373.80 cm ²)
Hammer weight (includes trip device)	25,882 lbs (11,737 kg)
Typical operating (weight with DB32 and pipe insert)	31,184 lbs (14,142 kg)

CAPACITIES

Fuel tank (runs on diesel or bio-diesel)	23.1 gal (87.4 liters)
Oil tank	4.4 gal (16.65 liters)

CONSUMPTION

Diesel or Bio-diesel fuel	4.16 gal/hr (16 liters/hr)
Lubrication	0.39 gal/hr (1.47 liters/hr)
Grease	8 to 10 pumps every 20 minutes of operation time.

Optional Variable Throttle Control.



Drive Base Assembly.



STRIKER PLATE

Weight	1,036 lbs (470 kg)
Diameter	25 in (63.5 cm)
Area	491 in ² (3167.74 cm ²)
Thickness	8 in (20.32 cm)

CUSHION MATERIAL

Type/Qty	Micarta / 2 each
Diameter	25 in (63.5 cm)
Thickness	1 in (25.4 mm)
Type/Qty	Aluminum / 3 each
Thickness	1/2 in (12.7 mm)
Diameter	25 in (63.5 cm)
Total Combined Thickness	3.5 in (8.89 cm) 491 in ²
Area	(3167.74 cm ²)
Elastic-modulus	285 ksi (1,965 mpa)
Coeff. of restitution	0.8

DRIVE CAP

DB 32:	2,436 lbs (1,104 kg)
--------	----------------------

INSERT WEIGHT

H-Beam insert for 12" (305 mm) and 14" (355 mm):	948 lbs (430 kg)
Large pipe insert for sizes 12" to 24" diameter:	1,830 lbs (830 kg)

MINIMUM BOX LEAD SIZE/OPERATING LENGTH

Minimum box leader size	8 in x 32 in (20.32 cm x 81.28 cm)
Operating length as described above	354 in (900 cm)



Corporate Offices
7032 South 196th
Kent, Washington 98032 USA
(800) 248-8498 & (253) 872-0141
(253) 872-8710 Fax

Visit our WEB site:
www.apeibro.com
e-mail: ape@apeibro.com



(800) 248-8498

Diesel Hammer Energy Output and Pile Bearing Chart

APE Model D50-42 Diesel Impact Hammer

The energy output is based on the identical Piston/Travel calculations utilized in the FHWA Gates Formula.
 The pile bearing chart is based on the FHWA Gates Formula for pile bearing and is provided for the user's convenience only.
 Pile Bearing (tons) = $((1.75 * \text{SQRT "E" LOG}_{10} * 10N) - 100) / 2000$

E = Developed Energy and N = Number of Blows Per Inch

APE has no preference for these particular formulas and calculations over any other.

Ram Weight (lbs): 11,025

Blows (per minute)	Stroke (ft)	Energy (ft-lbs)	Pile Set (Blows per inch)																		
			2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
60	4.00	44,100	189	221	244	262	277	289	300	309	318	325	332	338	344	350	355	360	364	369	373
59	4.17	45,974	194	227	251	269	284	296	307	317	325	333	340	347	353	358	364	368	373	378	382
58	4.33	47,738	199	232	256	275	290	303	314	324	332	340	347	354	360	366	371	376	381	386	390
57	4.50	49,613	204	238	262	281	297	310	321	331	340	348	355	362	368	374	380	385	390	394	398
56	4.67	51,487	208	243	268	287	303	316	328	338	347	355	363	370	376	382	388	393	398	402	407
55	4.83	53,251	213	248	273	293	309	323	334	345	354	362	370	377	383	389	395	400	405	410	415
54	5.00	55,125	217	253	279	299	315	329	341	351	361	369	377	384	391	397	403	408	413	418	423
53	5.17	56,999	222	259	285	305	321	335	348	358	368	376	384	392	398	405	410	416	421	426	431
52	5.33	58,763	226	263	290	310	327	341	354	365	374	383	391	398	405	412	418	423	428	433	438
51	5.50	60,638	230	268	295	316	333	348	360	371	381	390	398	405	412	419	425	431	436	441	446
50	5.75	63,394	237	275	303	324	342	356	369	381	391	400	408	416	423	429	436	441	447	452	457
49	6.00	66,150	243	282	311	332	350	365	378	390	400	409	418	426	433	440	446	452	458	463	468
48	6.25	68,906	249	289	318	340	358	374	387	399	409	419	428	436	443	450	456	462	468	473	479
47	6.50	71,663	255	296	325	348	367	382	396	408	418	428	437	445	453	460	466	472	478	484	489
46	6.83	75,301	262	305	335	358	377	393	407	419	430	440	449	458	465	472	479	486	492	497	502
45	7.17	79,049	270	313	344	368	387	404	418	431	442	452	462	470	478	485	492	499	505	511	516
44	7.50	82,688	277	322	353	377	397	414	429	442	453	464	473	482	490	498	505	511	517	523	529
43	7.83	86,326	284	330	362	387	407	424	439	452	464	475	485	493	502	509	517	523	530	536	542
42	8.17	90,074	292	338	371	396	417	435	450	463	475	486	496	505	514	521	529	536	542	548	554
41	8.58	94,595	300	348	381	407	429	447	462	476	488	499	510	519	528	536	543	550	557	563	569
40	9.00	99,225	309	357	392	418	440	459	475	489	501	513	523	533	542	550	558	565	572	578	584
39	9.50	104,738	318	368	404	431	454	472	489	503	516	528	539	549	558	566	574	582	589	595	602
38	10.00	110,250	328	379	415	444	467	486	503	518	531	543	554	564	574	582	590	598	605	612	619
37	10.50	115,763	337	390	427	456	479	499	517	532	545	558	569	579	589	598	606	614	621	628	635
36	11.17	123,149	349	404	442	472	496	517	534	550	564	577	588	599	609	618	627	635	643	650	657