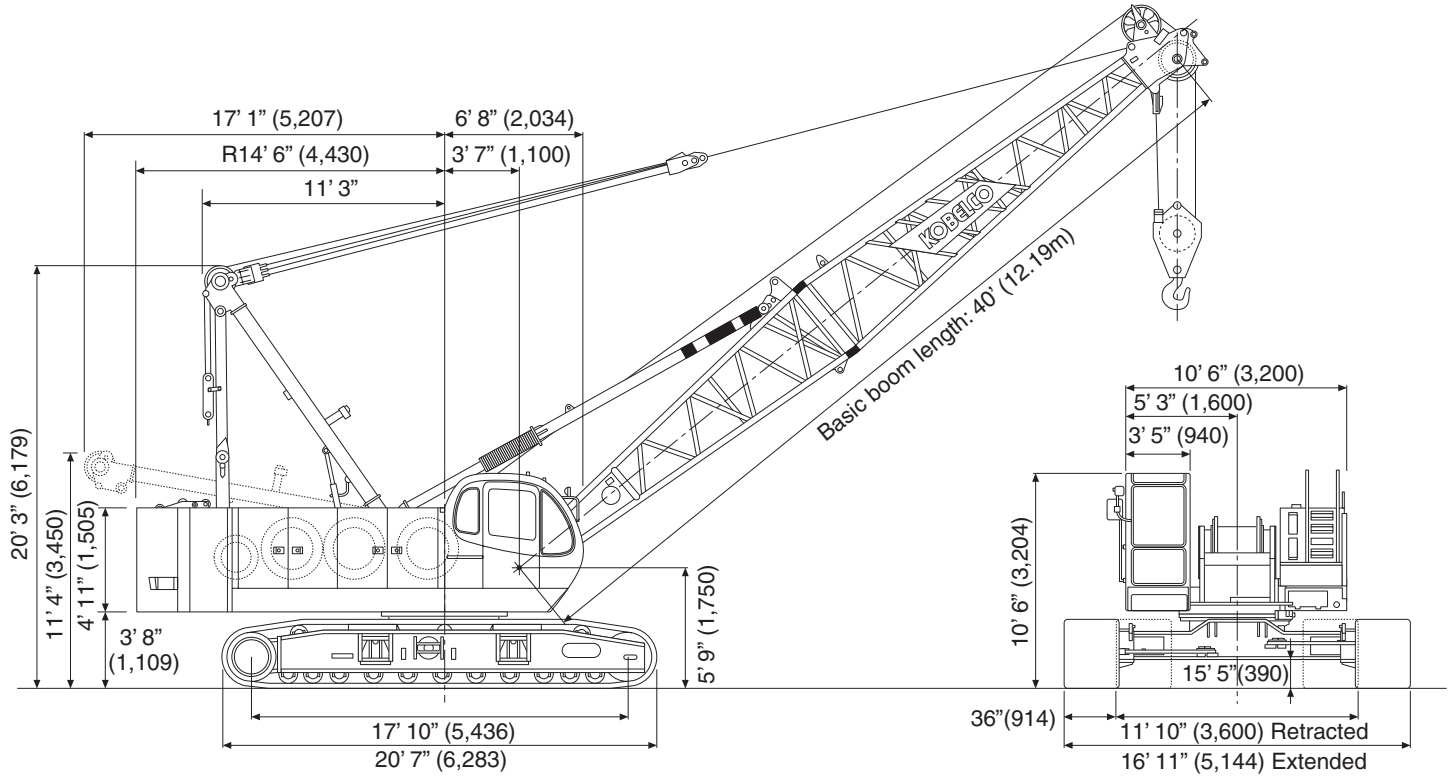


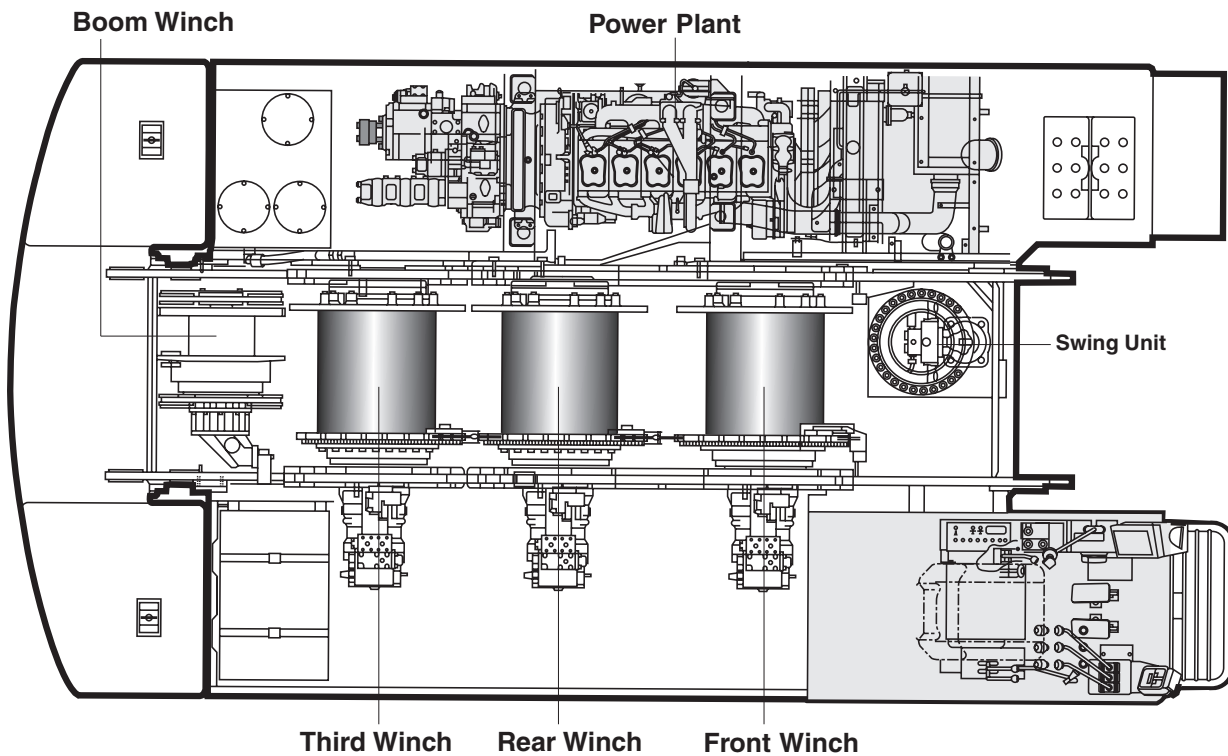
**Kobelco CK1000 Crawler Crane  
Load Charts & Specifications**

# GENERAL DIMENSIONS

Unit: ft-in(mm)



# UPPER MACHINERY LAYOUT



# SPECIFICATIONS

## UPPER MACHINERY



### Power plant

<b>Model</b> .....	Mitsubishi 6D24-TEG
<b>Type</b> .....	Water-cooled diesel, direct fuel injection with turbocharger
<b>No. of cylinder</b> .....	6
<b>Bore and stroke</b> .....	5.1" x 5.9" (130 mm x 150 mm)
<b>Displacement</b> .....	729 cu in (11.945 liters)
<b>Rated power</b> .....	265 HP (198 kW) Net at 2,000 rpm (SAE J 1349)
<b>Max. torque</b> .....	784 lb•ft (1,059 N•m) Net at 1,400 rpm (SAE J 1349)
<b>Cooling system</b> .....	Liquid, recirculating bypass
<b>Starter</b> .....	24 V, 5.5 kW
<b>Alternator</b> .....	24 V, 80 AMP
<b>Cycles</b> .....	4
<b>Radiator</b> .....	Corrugated type core, thermostatically controlled
<b>Air cleaner</b> .....	Dry type with replaceable paper element
<b>Fuel tank capacity</b> .....	105 US gal (400 liters)
<b>Batteries</b> .....	Two 12V, 150 AH capacity batteries, connected in parallel



### Hydraulic System

**Pumps:** All three variable displacement piston-type pumps are driven by a heavy-duty pump drive. One of these pumps is used in the right propel circuit and hook hoist circuit, and can accommodate an optional third circuit. Another is used in the left propel circuit, boom hoist circuit and hook hoist circuit. The third variable displacement pump is used in the swing circuit. In addition, two gear pumps are used in the control system and auxiliary equipment. One of these serves the clutch and brakes.

**Control:** Full-flow hydraulic control system for constant variable pressure to front and rear drums, boom hoist brakes and clutches. Controls respond instantly to the touch, delivering smooth function operation.

#### Relief valve pressure:

#### Load hoist, boom hoist

and propel system ..... 4,480 psi (315 kg/cm<sup>2</sup>)

**Swing system** ..... 3,980 psi (280 kg/cm<sup>2</sup>)

**Control system** ..... 1,140 psi (80 kg/cm<sup>2</sup>)

**Reservoir capacity:** 119 US gal (450 liters)

**Cooling:** Oil-to-air heat exchanger (plate-fin type)

**Filtration:** Full-flow and bypass type with replaceable paper element

**Electrical wiring:** All wiring harnesses and connectors are numbered for easier servicing. Machine is equipped with individual fused branch circuits.



### Boom hoisting system

Powered by a hydraulic axial piston motor through a planetary reducer.

**Brake:** A spring-set, hydraulically released multiple-disc brake is internally fitted in the boom hoist motor and operated through a counter-balance valve.

**Drum:** Single drum, grooved for 5/8 in (15.8 mm) dia. wire rope

**Line speed:** Single line on first drum layer

Hoisting ..... 213 ft/min (65 m/min)

Lowering ..... 213 ft/min (65 m/min)



### Load Hoist system

Front and rear drums for load hoist powered by hydraulic variable displacement piston-type motors, driven through planetary reducers.

**Brakes & Clutches (compatible):** Forced-circulation oil-cooled wet-type multi-disc brakes, each using positive and negative actuation.

**Drums:** (front and rear): 24.1" (613 mm) P.C.D. x 24.5" (622 mm) wide drums, each grooved for 1" (25.4 mm) wire rope.

#### Wire rope capacity:

Front drum 623 ft (190 m) working length

Rear drum 525 ft (160 m) working length

Optional third drum 623 ft (190 m) working length

Storage length (each drum) 984 ft (300 m)

**Line speed:** Single line on the first drum layer

Hoisting ..... 328 ft/min (100m/min)

Lowering ..... 328 ft/min (100m/min)

**Optional third drum:** with the same dimensions as front and rear drums



### Swing system

**Swing unit:** Powered by a hydraulic piston-type motor driving spur gears through planetary reducers, the swing system provides 360° rotation.

**Swing speed** ..... 3.5 rpm

**Swing brake:** A spring-set, hydraulically released multiple-disc brake is internally fitted in swing motor.

**Swing circle:** Single-row ball bearing with an integral internally cut swing gear.



### Operator's Cab

Totally enclosed, full vision cab fitted with tinted safety glass and a sliding front window. A fully adjustable, high-backed seat with arm rests permits operators to set their ideal working position. Side mounted console for auxiliary controls and instruments. An air conditioner, a signal horn, cigarette lighter, windshield wiper and inspection lamp socket are standard features.



### Controls

In front of operator are the foot pedals for front and rear drum brakes. At operator's right side are the travel (propel) control levers and the function lock lever. To the operator's right front are the boom hoist control lever, main (front) and auxiliary (rear) winch control levers and the free-fall select switches for the main and auxiliary winches. To the operators left front are the swing control lever and third drum control lever (if the machine is so equipped). To the operator's left are the crawler extend/retract lever and the positive swing lock. The left-hand console contains toggle switches for travel (propel) speed, free-fall high/low select, gantry control, crane-clamshell select switch and the anti-two-block/boom over-hoist switches. Directly in front of the console are the drum pawl lock for boom, front, rear and third drum (if so equipped) and the engine ignition key. The swing brake and signal horn are mounted on the swing control lever.

**Gauges:** Fuel gauge, engine water temperature gauge, hour meter and tachometer are located on the monitor display.

**Warning display:** All potential warnings, including battery charge, engine oil pressure, air cleaner, engine oil filter, control main pressure, and hydraulic oil temperature will appear on the monitor display when a fault occurs.

**Safety device:** Function lock lever, anti-two-block, boom over hoist limit switch, boom angle indicator, signal horn, boom hoist drum lock, front and rear drum lock, swing lock, swing alarm (buzzer and lamps), boom backstops, safety latch on hook blocks, and optional load moment indicator

## ATTACHMENT



### Boom:

Welded lattice construction using tubular, high-tensile steel chords with pin connections between sections. Boom tip is open throat construction. Two idler sheaves and three point sheaves are standard.

<b>Max. lifting capacity</b>	100 US tons (90,700kg)
<b>Basic boom length</b>	40 ft (12.19 m)
<b>Max. boom length</b>	200 ft (61.0 m)

Boom	Weight
<b>Boom tip</b>	2,650 lbs (1,200 kg)
<b>Boom base</b>	2,600 lbs (1,180 kg)
<b>Insert (10 ft)</b>	680 lbs (310 kg)
<b>Insert (20 ft)</b>	1,150 lbs (520 kg)
<b>Insert (40 ft)</b>	2,120 lbs (960 kg)



### Jib (optional):

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

<b>Max. lifting capacity</b>	24,000 lbs (10,900 kg)
<b>Max. jib length</b>	60 ft (18.3 m)
<b>Max. total length of boom and jib</b>	190 ft (57.9 m) + 60 ft (18.3 m)

Jib	Weight
<b>Jib tip</b>	620 lbs (280 kg)
<b>Jib base</b>	440 lbs (200 kg)
<b>Insert (10 ft)</b>	220 lbs (100 kg)
<b>Insert (20 ft)</b>	400 lbs (180 kg)

### Diameter of wire ropes

#### Standard:

Load hoist (front, rear and third) ..... 1 in (25.4 mm)  
 Boom hoist (12-part line) ..... 5/8 in (15.8 mm)  
 Boom suspension rope (2 sets) ..... 1 3/16 in (30 mm)  
 Wire ropes ..... IWRC, 6 x Fi (25) c/o (Front and rear)

#### Optional:

Jib back stay guy line (2 lines) ..... 7/8 in (22 mm)

**Boom backstops:** telescopic type with spring bumper

### Line pull

	Rated line pull	Maximum line pull
<b>Front</b>	25,100 lbs (11,400 kg)	44,100 lbs (20,000 kg)
<b>Rear</b>	25,100 lbs (11,400 kg)	44,100 lbs (20,000 kg)
<b>Third (optional)</b>	25,100 lbs (11,400 kg)	44,100 lbs (20,000 kg)



### Gantry

High folding type, fitted with sheave frame for boom hoist reeving. Hydraulic lift is standard. Positions full up and full down.

### Counterweights

Three-piece, vertically arranged, mounted behind the machinery compartment.

Total counterweight ..... 63,000 lbs (28,600kg)

#### Carbody counterweight:

Total weight (Two-pieces) ..... 8,800 lbs (4,000 kg)

#### Self-handling devices:

Optional counterweight self-removal device

Optional crawler frame self-removal device



### Weight

**Operating weight:** Approx. 173,000 lbs (including 40 ft boom and 100 US-ton hook block)

#### Ground pressure:

Average 10.8 psi (0.76 kg/cm<sup>2</sup>) with standard 36" shoes

Max. gradeability: 40%

## LOWER MACHINERY

**Carbody:** Steel-welded carbody with axles

**Crawler:** Crawler assemblies can be hydraulically extended/retracted. Crawler track tension is maintained by hydraulic jack force on the track-adjusting bearing block.

**Crawler drive:** Independent hydraulic propel drive is built into each side frame, each with a hydraulic motor propelling a drive tumbler through a planetary gear box.

**Crawler brakes:** Spring-set, hydraulically released multiple-disc parking brakes are built into each propel drive.

**Steering mechanism:** A hydraulic travel system provides skid steering (driving one track only) and counter-rotation of tracks (driving tracks in opposite directions) and differential track speed.

**Track rollers:** 11 lower rollers and 3 upper rollers are fitted to each side frame, sealed and maintenance-free.

#### Shoes:

Number ..... 66 per side

#### Shoes (flat):

Shoe width ..... 36" (914 mm)

#### Max. travel speed:

High range ..... 1.1 mph (1.7km/h)

Low range ..... 0.7 mph (1.1km/h)

# NOTES

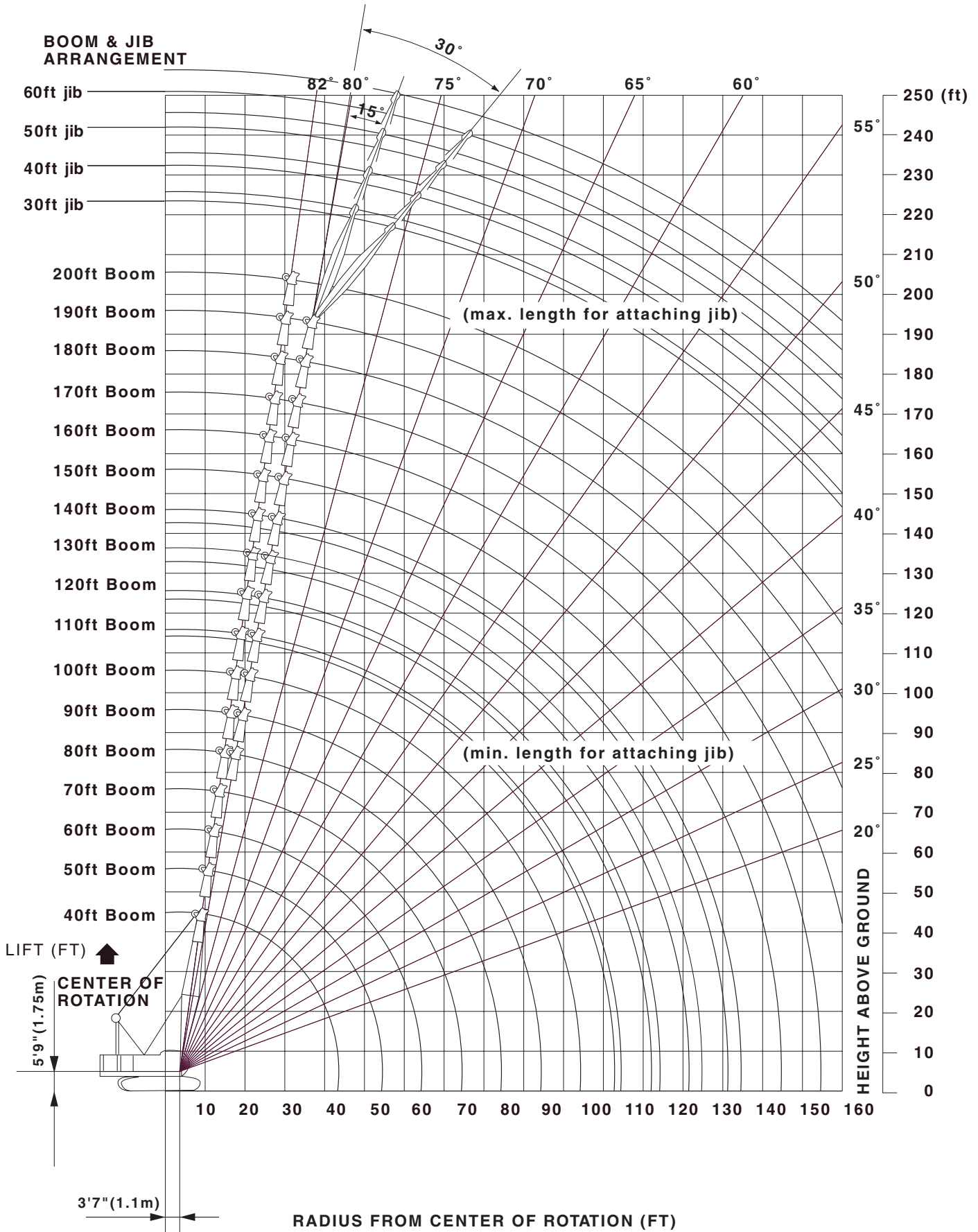
**The following guidelines should be referred to when when interpreting the load rating charts.**

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 on level and 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 grounds, 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. Capacities do not exceed 75% of minimum tipping loads. Capacities 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 operator's manual and all the instruction manuals. If these manuals are missing, obtain replacements. Boom backstops are required for all boom lengths. Gantry must be in the fully raised position for all operations. Crawlers must be fully extended and be locked in position. The crane must be leveled to within 1% on a firm supporting surface.
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 capacity.
6. Weight of hooks, hook blocks, slings and other lifting devices are 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.

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

8. The total load that can be lifted with the jib is limited by rated jib loads. The total load that can be lifted with the auxiliary sheave is limited by rated auxiliary sheave loads.
9. Boom lengths for jib mounting are from 80 ft (24.4 m) to 190 ft (57.9 m).
10. An auxiliary sheave cannot be used on a 200 ft (61.0 m) boom length.
11. The boom should be erected over the front of the crawlers, not laterally.
12. Least stable position is over the side.
13. Lifting capacities listed apply only to the machine as originally manufactured and designed by KOBELCO CONSTRUCTION MACHINERY CO., LTD. Modifications to this machine or use of equipment other than that specified can reduce operating capacity.
14. Designed and rated to comply with ANSI Code B30.5.

# WORKING RANGES (with fixed jib)

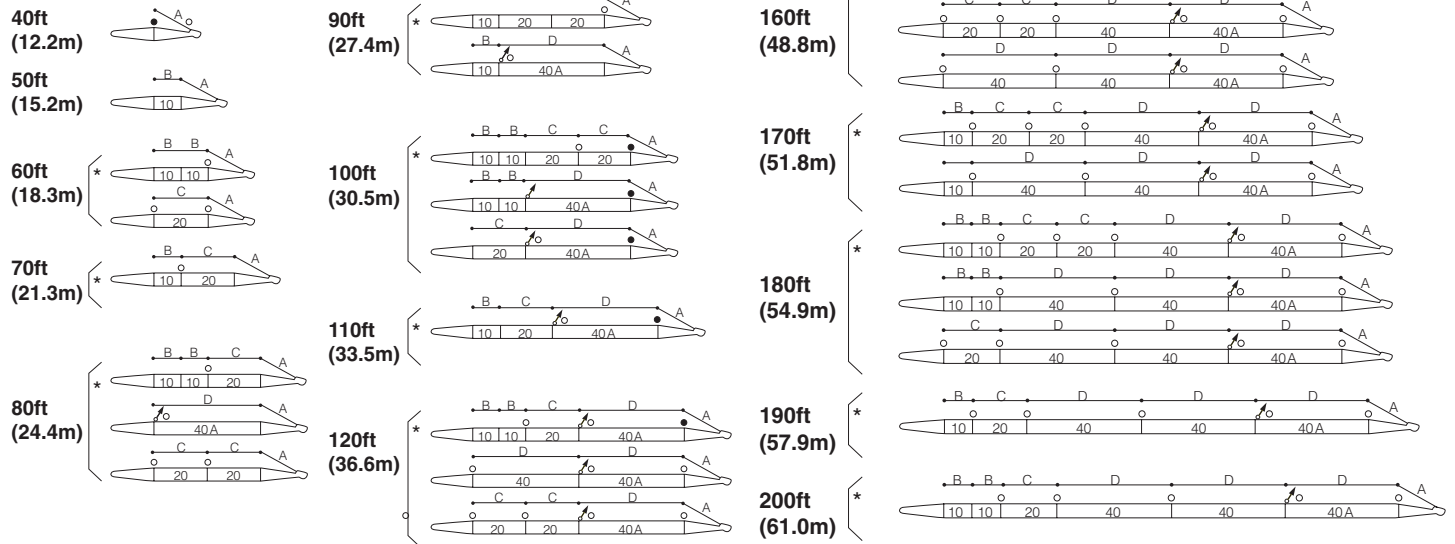


# BOOM AND GUY LINE ARRANGEMENT

Symbol	Dimensions of Guy Line	
	Diameter in (mm)	Length ft-in (m)
A	13/16 (30)	20-3 (6.17)
B	13/16 (30)	10-0 (3.05)
C	13/16 (30)	20-0 (6.10)
D	13/16 (30)	40-0 (12.20)

For most efficient use of this machine, boom and guy line arrangement must be correctly observed as shown in this figure.

- 📍 Location of jib backstay lug
- Location of cable roller on boom tip
- Location of cable roller on boom insert

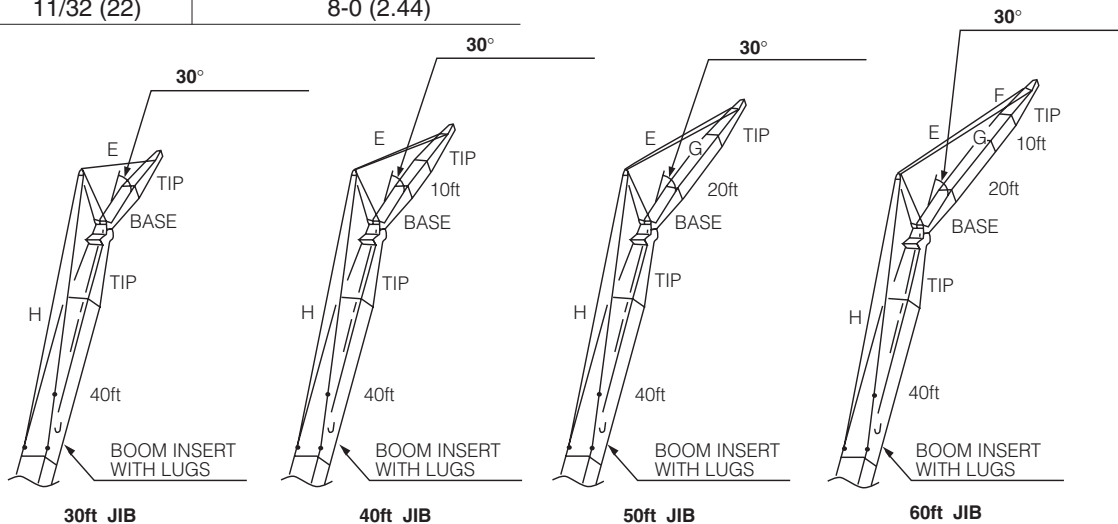


\* Manufacturer's recommended boom arrangement makes shorter boom arrangements possible.

# JIB AND GUY LINE ARRANGEMENT

Symbol	Dimensions of Guy Line	
	Diameter in (mm)	Length ft-in (m)
E	11/32 (22)	63-5 (19.34)
F	11/32 (22)	19-3 (5.88)
G	11/32 (22)	38-7 (11.75)
H	11/32 (22)	123-2 (37.54)
J	11/32 (22)	8-0 (2.44)

- This figure shows the arrangement when the jib offset angle is 30 degrees.
- When setting the offset angle to 10 degrees, deduct the additional guy line J from the boom side guy line H.
- For jib use with 80-100 ft of main boom, you must use the 40 ft boom insert that has lugs.
- Jib use is from 80-190 ft of main boom only.



# CK1000 Lifting Capacity

## LIFT CRANE SERVICE

Refer to notes page 4.

3 Counterweights, 2 Carbody weights, Crawler Fully Extended

Boom Length (ft)	Load Radius (ft)	Boom Angle (degree)	Boom Point Elev. (ft)	360° Rated Load (lbs)	Boom Length (ft)	Load Radius (ft)	Boom Angle (degree)	Boom Point Elev. (ft)	360° Rated Load (lbs)
<b>40</b>	<b>10.0</b>	<b>81.9</b>	<b>45.3</b>	<b>*200,000</b>	<b>50</b>	<b>12.0</b>	<b>81.2</b>	<b>55.1</b>	<b>*185,180</b>
	11.0	80.5	45.2	*200,000		13.0	80.1	55.0	*171,950
	<b>12.0</b>	<b>79.0</b>	<b>45.0</b>	<b>*185,400</b>		<b>14.0</b>	<b>78.9</b>	<b>54.8</b>	<b>*160,050</b>
	13.0	77.5	44.8	*172,170		15.0	77.7	54.6	*150,130
	<b>14.0</b>	<b>76.1</b>	<b>44.6</b>	<b>*160,270</b>		<b>16.0</b>	<b>76.5</b>	<b>54.4</b>	<b>*140,870</b>
	15.0	74.6	44.3	*150,350		17.0	75.4	54.1	*133,150
	<b>16.0</b>	<b>73.1</b>	<b>44.0</b>	<b>*141,090</b>		<b>18.0</b>	<b>74.2</b>	<b>53.8</b>	<b>*125,880</b>
	17.0	71.5	43.7	*133,370		19.0	73.0	53.5	*119,040
	<b>18.0</b>	<b>70.0</b>	<b>43.3</b>	<b>*126,100</b>		<b>20.0</b>	<b>71.7</b>	<b>53.2</b>	<b>*111,330</b>
	19.0	68.5	42.9	*119,040		22.0	69.3	52.5	*98,760
	<b>20.0</b>	<b>66.9</b>	<b>42.5</b>	<b>*111,110</b>		<b>24.0</b>	<b>66.8</b>	<b>51.7</b>	<b>87,520</b>
	22.0	63.7	41.6	*97,440		26.0	64.3	50.8	77,820
	<b>24.0</b>	<b>60.5</b>	<b>40.5</b>	<b>*86,420</b>		<b>28.0</b>	<b>61.7</b>	<b>49.8</b>	<b>70,100</b>
	26.0	57.1	39.3	*76,940		30.0	59.0	48.6	63,710
	<b>28.0</b>	<b>53.5</b>	<b>37.9</b>	<b>*69,000</b>		<b>32.0</b>	<b>56.3</b>	<b>47.3</b>	<b>58,420</b>
	30.0	49.8	36.3	*62,160		34.0	53.5	45.9	53,790
	<b>32.0</b>	<b>45.9</b>	<b>34.5</b>	<b>*55,990</b>		<b>36.0</b>	<b>50.5</b>	<b>44.3</b>	<b>50,040</b>
34.0	41.7	32.3	*50,260	38.0	47.4	42.5	46,510		
<b>36.0</b>	<b>37.0</b>	<b>29.8</b>	<b>*45,190</b>	<b>40.0</b>	<b>44.2</b>	<b>40.6</b>	<b>43,430</b>		
38.0	31.8	26.8	*40,120	45.0	35.0	34.4	*35,270		
<b>40.0</b>	<b>25.7</b>	<b>23.1</b>	<b>*35,270</b>	<b>50.0</b>	<b>22.8</b>	<b>25.1</b>	<b>*27,110</b>		
<b>60</b>	<b>13.0</b>	<b>81.7</b>	<b>65.1</b>	<b>*171,730</b>	<b>70</b>	<b>15.0</b>	<b>81.3</b>	<b>74.9</b>	<b>*149,690</b>
	14.0	80.8	65.0	*159,830		16.0	80.4	74.8	*140,430
	<b>15.0</b>	<b>79.8</b>	<b>64.8</b>	<b>*149,910</b>		<b>17.0</b>	<b>79.6</b>	<b>74.6</b>	<b>*131,830</b>
	16.0	78.8	64.6	*140,650		18.0	78.8	74.4	*122,570
	<b>17.0</b>	<b>77.8</b>	<b>64.4</b>	<b>*132,930</b>		<b>19.0</b>	<b>77.9</b>	<b>74.2</b>	<b>*114,630</b>
	18.0	76.9	64.2	*124,330		20.0	77.1	74.0	*107,580
	<b>19.0</b>	<b>75.9</b>	<b>63.9</b>	<b>*116,180</b>		<b>22.0</b>	<b>75.4</b>	<b>73.5</b>	<b>*95,900</b>
	20.0	74.9	63.7	*109,120		24.0	73.7	72.9	*86,420
	<b>22.0</b>	<b>72.9</b>	<b>63.1</b>	<b>*97,000</b>		<b>26.0</b>	<b>72.0</b>	<b>72.3</b>	<b>77,600</b>
	24.0	70.9	62.4	*87,300		28.0	70.2	71.6	69,880
	<b>26.0</b>	<b>68.8</b>	<b>61.7</b>	<b>77,600</b>		<b>30.0</b>	<b>68.5</b>	<b>70.9</b>	<b>63,490</b>
	28.0	66.8	60.9	69,880		32.0	66.7	70.0	57,980
	<b>30.0</b>	<b>64.6</b>	<b>59.9</b>	<b>63,490</b>		<b>34.0</b>	<b>64.9</b>	<b>69.1</b>	<b>53,350</b>
	32.0	62.5	58.9	58,200		36.0	63.1	68.1	49,600
	<b>34.0</b>	<b>60.3</b>	<b>57.8</b>	<b>53,570</b>		<b>38.0</b>	<b>61.2</b>	<b>67.1</b>	<b>46,070</b>
	36.0	58.1	56.7	49,600		40.0	59.3	65.9	42,980
	<b>38.0</b>	<b>55.8</b>	<b>55.3</b>	<b>46,070</b>		<b>45.0</b>	<b>54.4</b>	<b>62.6</b>	<b>37,030</b>
40.0	53.4	53.9	43,210	50.0	49.1	58.6	32,180		
<b>45.0</b>	<b>47.1</b>	<b>49.7</b>	<b>37,030</b>	<b>55.0</b>	<b>43.4</b>	<b>53.8</b>	<b>28,650</b>		
50.0	40.1	44.4	32,400	60.0	37.0	47.9	25,570		
<b>55.0</b>	<b>31.8</b>	<b>37.3</b>	<b>*27,330</b>	<b>65.0</b>	<b>29.4</b>	<b>40.1</b>	<b>*22,040</b>		
60.0	20.7	26.9	*21,600						
<b>80</b>	<b>16.0</b>	<b>81.6</b>	<b>84.9</b>	<b>*138,660</b>	<b>80</b>	<b>34.0</b>	<b>68.2</b>	<b>80.0</b>	<b>53,130</b>
	17.0	80.9	84.7	*128,300		36.0	66.7	79.2	49,160
	<b>18.0</b>	<b>80.2</b>	<b>84.6</b>	<b>*119,260</b>		<b>38.0</b>	<b>65.1</b>	<b>78.3</b>	<b>45,850</b>
	19.0	79.5	84.4	*111,550		40.0	63.5	77.3	42,760
	<b>20.0</b>	<b>78.7</b>	<b>84.2</b>	<b>*104,710</b>		<b>45.0</b>	<b>59.4</b>	<b>74.6</b>	<b>36,590</b>
	22.0	77.3	83.8	*93,250		50.0	55.1	71.3	31,960
	<b>24.0</b>	<b>75.8</b>	<b>83.3</b>	<b>*84,210</b>		<b>55.0</b>	<b>50.6</b>	<b>67.5</b>	<b>28,210</b>
	26.0	74.3	82.7	*76,720		60.0	45.7	63.0	25,130
	<b>28.0</b>	<b>72.8</b>	<b>82.1</b>	<b>69,440</b>		<b>65.0</b>	<b>40.4</b>	<b>57.6</b>	<b>22,700</b>
	30.0	71.3	81.5	63,050		70.0	34.5	51.0	20,720
<b>32.0</b>	<b>69.8</b>	<b>80.8</b>	<b>57,760</b>	<b>75.0</b>	<b>27.4</b>	<b>42.5</b>	<b>*17,850</b>		



# CK1000 Lifting Capacity

## LIFT CRANE SERVICE

Refer to notes page 4.

3 Counterweights, 2 Carbody weights, Crawler Fully Extended

Boom Length (ft)	Load Radius (ft)	Boom Angle (degree)	Boom Point Elev. (ft)	360° Rated Load (lbs)	Boom Length (ft)	Load Radius (ft)	Boom Angle (degree)	Boom Point Elev. (ft)	360° Rated Load (lbs)
<b>90</b>	<b>17.0</b>	<b>81.9</b>	<b>94.8</b>	<b>*125,660</b>	<b>100</b>	<b>19.0</b>	<b>81.6</b>	<b>104.7</b>	<b>*107,360</b>
	18.0	81.3	94.7	*117,720		20.0	81.0	104.5	*100,750
	<b>19.0</b>	<b>80.6</b>	<b>94.5</b>	<b>*109,780</b>		<b>22.0</b>	<b>79.8</b>	<b>104.1</b>	<b>*89,500</b>
	20.0	80.0	94.4	*103,170		24.0	78.7	103.8	*80,680
	<b>22.0</b>	<b>78.7</b>	<b>94.0</b>	<b>*91,710</b>		<b>26.0</b>	<b>77.5</b>	<b>103.4</b>	<b>*73,410</b>
	24.0	77.4	93.6	*82,670		28.0	76.3	102.9	*67,460
	<b>26.0</b>	<b>76.1</b>	<b>93.1</b>	<b>*75,390</b>		<b>30.0</b>	<b>75.1</b>	<b>102.4</b>	<b>*62,390</b>
	28.0	74.8	92.6	*69,220		32.0	73.9	101.8	57,310
	<b>30.0</b>	<b>73.4</b>	<b>92.0</b>	<b>63,050</b>		<b>34.0</b>	<b>72.7</b>	<b>101.2</b>	<b>52,680</b>
	32.0	72.1	91.4	57,540		36.0	71.5	100.6	48,720
	<b>34.0</b>	<b>70.8</b>	<b>90.7</b>	<b>52,910</b>		<b>38.0</b>	<b>70.3</b>	<b>99.9</b>	<b>45,410</b>
	36.0	69.4	90.0	49,160		40.0	69.1	99.1	42,320
	<b>38.0</b>	<b>68.0</b>	<b>89.2</b>	<b>45,630</b>		<b>45.0</b>	<b>66.0</b>	<b>97.1</b>	<b>36,150</b>
	40.0	66.6	88.3	42,540		50.0	62.8	94.7	31,520
	<b>45.0</b>	<b>63.1</b>	<b>86.0</b>	<b>36,370</b>		<b>55.0</b>	<b>59.5</b>	<b>91.9</b>	<b>27,770</b>
	50.0	59.5	83.3	31,740		60.0	56.1	88.7	24,690
	<b>55.0</b>	<b>55.7</b>	<b>80.1</b>	<b>27,990</b>		<b>65.0</b>	<b>52.6</b>	<b>85.2</b>	<b>22,260</b>
	60.0	51.7	76.3	25,130		70.0	48.8	81.0	20,060
	<b>65.0</b>	<b>47.5</b>	<b>72.1</b>	<b>22,480</b>		<b>75.0</b>	<b>44.9</b>	<b>76.3</b>	<b>18,290</b>
	70.0	43.0	67.1	20,500		80.0	40.6	70.8	16,750
<b>75.0</b>	<b>38.0</b>	<b>61.1</b>	<b>18,730</b>	<b>85.0</b>	<b>36.0</b>	<b>64.5</b>	<b>15,430</b>		
80.0	32.4	53.9	*17,190	90.0	30.7	56.8	*14,320		
<b>85.0</b>	<b>25.8</b>	<b>44.9</b>	<b>*14,770</b>	<b>95.0</b>	<b>24.4</b>	<b>47.0</b>	<b>*12,340</b>		
<b>110</b>	<b>20.0</b>	<b>81.8</b>	<b>114.6</b>	<b>*100,300</b>	<b>120</b>	<b>22.0</b>	<b>81.6</b>	<b>124.4</b>	<b>*87,080</b>
	22.0	80.8	114.3	*89,060		24.0	80.6	124.1	*78,480
	<b>24.0</b>	<b>79.7</b>	<b>114.0</b>	<b>*80,020</b>		<b>26.0</b>	<b>79.6</b>	<b>123.8</b>	<b>*71,200</b>
	26.0	78.7	113.6	*72,750		28.0	78.6	123.4	*65,250
	<b>28.0</b>	<b>77.6</b>	<b>113.2</b>	<b>*66,790</b>		<b>30.0</b>	<b>77.7</b>	<b>123.0</b>	<b>*60,180</b>
	30.0	76.5	112.7	*61,720		32.0	76.7	122.5	*55,990
	<b>32.0</b>	<b>75.4</b>	<b>112.2</b>	<b>*57,310</b>		<b>34.0</b>	<b>75.7</b>	<b>122.0</b>	<b>*52,240</b>
	34.0	74.4	111.7	52,680		36.0	74.7	121.5	48,500
	<b>36.0</b>	<b>73.3</b>	<b>111.1</b>	<b>48,720</b>		<b>38.0</b>	<b>73.7</b>	<b>120.9</b>	<b>44,970</b>
	38.0	72.2	110.5	45,410		40.0	72.7	120.3	42,100
	<b>40.0</b>	<b>71.1</b>	<b>109.8</b>	<b>42,320</b>		<b>45.0</b>	<b>70.2</b>	<b>118.6</b>	<b>35,930</b>
	45.0	68.3	107.9	36,150		50.0	67.6	116.7	31,080
	<b>50.0</b>	<b>65.5</b>	<b>105.8</b>	<b>31,520</b>		<b>55.0</b>	<b>65.0</b>	<b>114.5</b>	<b>27,330</b>
	55.0	62.6	103.4	27,770		60.0	62.3	112.0	24,470
	<b>60.0</b>	<b>59.6</b>	<b>100.6</b>	<b>24,690</b>		<b>65.0</b>	<b>59.6</b>	<b>109.2</b>	<b>21,820</b>
	65.0	56.5	97.4	22,260		70.0	56.8	106.1	19,840
	<b>70.0</b>	<b>53.3</b>	<b>93.9</b>	<b>20,060</b>		<b>75.0</b>	<b>53.9</b>	<b>102.7</b>	<b>18,070</b>
	75.0	49.9	89.9	18,290		80.0	50.8	98.7	16,530
	<b>80.0</b>	<b>46.4</b>	<b>85.4</b>	<b>16,750</b>		<b>85.0</b>	<b>47.7</b>	<b>94.5</b>	<b>15,210</b>
	85.0	42.7	80.3	15,430		90.0	44.3	89.5	13,880
<b>90.0</b>	<b>38.6</b>	<b>74.3</b>	<b>14,320</b>	<b>95.0</b>	<b>40.8</b>	<b>84.1</b>	<b>13,000</b>		
95.0	34.2	67.5	13,220	100.0	36.9	77.8	12,120		
<b>100.0</b>	<b>29.2</b>	<b>59.4</b>	<b>*12,120</b>	<b>105.0</b>	<b>32.7</b>	<b>70.5</b>	<b>11,240</b>		
105.0	23.2	49.1	*10,360	110.0	27.9	61.9	*10,140		
				<b>115.0</b>	<b>22.2</b>	<b>51.1</b>	<b>*8,590</b>		

# CK1000 Lifting Capacity

## LIFT CRANE SERVICE

Refer to notes page 4.

3 Counterweights, 2 Carbody weights, Crawler Fully Extended

Boom Length (ft)	Load Radius (ft)	Boom Angle (degree)	Boom Point Elev. (ft)	360° Rated Load (lbs)	Boom Length (ft)	Load Radius (ft)	Boom Angle (degree)	Boom Point Elev. (ft)	360° Rated Load (lbs)
<b>130</b>	<b>24.0</b>	<b>81.3</b>	<b>134.2</b>	<b>*71,860</b>	<b>140</b>	<b>24.0</b>	<b>81.9</b>	<b>144.3</b>	<b>*61,720</b>
	26.0	80.4	133.9	*70,980		26.0	81.1	144.0	*60,840
	<b>28.0</b>	<b>79.5</b>	<b>133.5</b>	<b>*65,030</b>		<b>28.0</b>	<b>80.3</b>	<b>143.7</b>	<b>*59,960</b>
	30.0	78.6	133.2	*59,960		30.0	79.4	143.3	*58,640
	<b>32.0</b>	<b>77.7</b>	<b>132.7</b>	<b>*55,550</b>		<b>32.0</b>	<b>78.6</b>	<b>143.0</b>	<b>*54,450</b>
	34.0	76.8	132.3	*51,800		34.0	77.8	142.6	*50,700
	<b>36.0</b>	<b>75.9</b>	<b>131.8</b>	<b>*48,500</b>		<b>36.0</b>	<b>76.9</b>	<b>142.1</b>	<b>*47,390</b>
	38.0	75.0	131.3	44,970		38.0	76.1	141.6	*44,530
	<b>40.0</b>	<b>74.1</b>	<b>130.7</b>	<b>41,880</b>		<b>40.0</b>	<b>75.2</b>	<b>141.1</b>	<b>41,660</b>
	45.0	71.8	129.2	35,710		45.0	73.1	139.7	35,490
	<b>50.0</b>	<b>69.4</b>	<b>127.4</b>	<b>31,080</b>		<b>50.0</b>	<b>71.0</b>	<b>138.1</b>	<b>30,860</b>
	55.0	67.1	125.5	27,330		55.0	68.8	136.2	27,110
	<b>60.0</b>	<b>64.6</b>	<b>123.1</b>	<b>24,250</b>		<b>60.0</b>	<b>66.6</b>	<b>134.2</b>	<b>24,030</b>
	65.0	62.2	120.7	21,820		65.0	64.3	131.9	21,380
	<b>70.0</b>	<b>59.6</b>	<b>117.8</b>	<b>19,620</b>		<b>70.0</b>	<b>62.0</b>	<b>129.3</b>	<b>19,400</b>
	75.0	57.0	114.7	17,850		75.0	59.7	126.6	17,630
	<b>80.0</b>	<b>54.4</b>	<b>111.4</b>	<b>16,310</b>		<b>80.0</b>	<b>57.2</b>	<b>123.4</b>	<b>16,090</b>
	85.0	51.6	107.6	14,990		85.0	54.8	120.1	14,770
	<b>90.0</b>	<b>48.7</b>	<b>103.4</b>	<b>13,880</b>		<b>90.0</b>	<b>52.2</b>	<b>116.3</b>	<b>13,440</b>
	95.0	45.7	98.7	12,780		95.0	49.6	112.3	12,560
<b>100.0</b>	<b>42.5</b>	<b>93.5</b>	<b>11,900</b>	<b>100.0</b>	<b>46.8</b>	<b>107.8</b>	<b>11,460</b>		
105.0	39.1	87.7	11,020	105.0	43.9	102.8	10,800		
<b>110.0</b>	<b>35.4</b>	<b>81.0</b>	<b>10,360</b>	<b>110.0</b>	<b>40.9</b>	<b>97.4</b>	<b>9,920</b>		
115.0	31.4	73.4	*9,470	115.0	37.6	91.1	9,250		
<b>120.0</b>	<b>26.8</b>	<b>64.3</b>	<b>*8,370</b>	<b>120.0</b>	<b>34.1</b>	<b>84.2</b>	<b>8,590</b>		
125.0	21.3	52.9	*7,050	125.0	30.2	76.1	*7,710		
				<b>130.0</b>	<b>25.8</b>	<b>66.6</b>	<b>*6,830</b>		
				135.0	20.5	54.7	*5,730		
<b>150</b>	<b>26.0</b>	<b>81.7</b>	<b>154.2</b>	<b>*52,680</b>	<b>160</b>	<b>28.0</b>	<b>81.5</b>	<b>164.0</b>	<b>*44,090</b>
	28.0	80.9	153.8	*51,800		30.0	80.8	163.7	*43,430
	<b>30.0</b>	<b>80.2</b>	<b>153.5</b>	<b>*51,140</b>		<b>32.0</b>	<b>80.1</b>	<b>163.3</b>	<b>*42,760</b>
	32.0	79.4	153.2	*50,260		34.0	79.3	162.9	*42,100
	<b>34.0</b>	<b>78.6</b>	<b>152.8</b>	<b>*49,600</b>		<b>36.0</b>	<b>78.6</b>	<b>162.6</b>	<b>*41,440</b>
	36.0	77.8	152.3	*46,510		38.0	77.9	162.2	*40,780
	<b>38.0</b>	<b>77.0</b>	<b>151.9</b>	<b>*43,650</b>		<b>40.0</b>	<b>77.1</b>	<b>161.7</b>	<b>*40,340</b>
	40.0	76.3	151.4	*41,220		45.0	75.3	160.5	35,270
	<b>45.0</b>	<b>74.3</b>	<b>150.1</b>	<b>35,720</b>		<b>50.0</b>	<b>73.4</b>	<b>159.0</b>	<b>30,640</b>
	50.0	72.3	148.6	30,640		55.0	71.5	157.4	26,890
	<b>55.0</b>	<b>70.3</b>	<b>146.9</b>	<b>26,890</b>		<b>60.0</b>	<b>69.6</b>	<b>155.7</b>	<b>23,800</b>
	60.0	68.2	145.0	23,800		65.0	67.7	153.7	21,160
	<b>65.0</b>	<b>66.1</b>	<b>142.8</b>	<b>21,380</b>		<b>70.0</b>	<b>65.8</b>	<b>151.6</b>	<b>19,180</b>
	70.0	64.0	140.5	19,180		75.0	63.8	149.3	17,410
	<b>75.0</b>	<b>61.9</b>	<b>138.0</b>	<b>17,410</b>		<b>80.0</b>	<b>61.8</b>	<b>146.7</b>	<b>15,870</b>
	80.0	59.7	135.2	15,870		85.0	59.7	143.8	14,320
	<b>85.0</b>	<b>57.4</b>	<b>132.1</b>	<b>14,550</b>		<b>90.0</b>	<b>57.6</b>	<b>140.8</b>	<b>13,220</b>
	90.0	55.1	128.7	13,440		95.0	55.4	137.4	12,120
	<b>95.0</b>	<b>52.8</b>	<b>125.2</b>	<b>12,340</b>		<b>100.0</b>	<b>53.2</b>	<b>133.8</b>	<b>11,240</b>
	100.0	50.3	121.1	11,460		105.0	51.0	130.0	10,360
<b>105.0</b>	<b>47.8</b>	<b>116.8</b>	<b>10,580</b>	<b>110.0</b>	<b>48.6</b>	<b>125.7</b>	<b>9,700</b>		
110.0	45.1	112.0	9,700	115.0	46.2	121.2	9,030		
<b>115.0</b>	<b>42.3</b>	<b>106.7</b>	<b>9,030</b>	<b>120.0</b>	<b>43.6</b>	<b>116.0</b>	<b>8,370</b>		
120.0	39.4	100.9	8,590	125.0	40.9	110.5	7,710		
<b>125.0</b>	<b>36.3</b>	<b>94.5</b>	<b>7,930</b>	<b>130.0</b>	<b>38.1</b>	<b>104.4</b>	<b>7,270</b>		
130.0	32.9	87.2	*7,490	135.0	35.1	97.1	*6,830		
<b>135.0</b>	<b>29.1</b>	<b>78.7</b>	<b>*6,610</b>	<b>140.0</b>	<b>31.8</b>	<b>90.0</b>	<b>*5,950</b>		
140.0	24.9	68.9	*5,730	145.0	28.2	81.3	*5,290		
				<b>150.0</b>	<b>24.1</b>	<b>71.0</b>	<b>*4,400</b>		

# CK1000 Lifting Capacity

## LIFT CRANE SERVICE

Refer to notes page 4.

3 Counterweights, 2 Carbody weights, Crawler Fully Extended

Boom Length (ft)	Load Radius (ft)	Boom Angle (degree)	Boom Point Elev. (ft)	360° Rated Load (lbs)	Boom Length (ft)	Load Radius (ft)	Boom Angle (degree)	Boom Point Elev. (ft)	360° Rated Load (lbs)
<b>170</b>	<b>28.0</b>	<b>82.0</b>	<b>174.1</b>	<b>*38,800</b>	<b>180</b>	<b>30.0</b>	<b>81.8</b>	<b>183.9</b>	<b>*33,730</b>
	30.0	81.3	173.8	*38,130		32.0	81.2	183.6	*33,060
	<b>32.0</b>	<b>80.6</b>	<b>173.4</b>	<b>*37,470</b>		<b>34.0</b>	<b>80.5</b>	<b>183.3</b>	<b>*32,620</b>
	34.0	80.0	173.1	*37,030		36.0	79.9	182.9	*31,960
	<b>36.0</b>	<b>79.3</b>	<b>172.8</b>	<b>*36,370</b>		<b>38.0</b>	<b>79.2</b>	<b>182.5</b>	<b>*31,520</b>
	38.0	78.6	172.4	*35,710		40.0	78.6	182.5	*31,080
	<b>40.0</b>	<b>77.9</b>	<b>171.9</b>	<b>*35,270</b>		<b>45.0</b>	<b>77.0</b>	<b>181.1</b>	<b>*29,760</b>
	45.0	76.2	170.8	*33,950		50.0	75.3	179.8	*28,650
	<b>50.0</b>	<b>74.4</b>	<b>169.4</b>	<b>30,420</b>		<b>55.0</b>	<b>73.7</b>	<b>178.5</b>	<b>26,230</b>
	55.0	72.7	168.0	26,670		60.0	72.0	176.9	23,360
	<b>60.0</b>	<b>70.9</b>	<b>166.3</b>	<b>23,580</b>		<b>65.0</b>	<b>70.3</b>	<b>175.2</b>	<b>20,720</b>
	65.0	69.1	164.5	20,940		70.0	68.6	173.3	18,730
	<b>70.0</b>	<b>67.3</b>	<b>162.5</b>	<b>18,950</b>		<b>75.0</b>	<b>66.9</b>	<b>171.3</b>	<b>16,750</b>
	75.0	65.4	160.3	17,190		80.0	65.1	169.0	15,210
	<b>80.0</b>	<b>63.6</b>	<b>158.0</b>	<b>15,650</b>		<b>85.0</b>	<b>63.4</b>	<b>166.6</b>	<b>13,880</b>
	85.0	61.7	155.4	14,100		90.0	61.6	164.0	12,780
	<b>90.0</b>	<b>59.7</b>	<b>152.5</b>	<b>13,000</b>		<b>95.0</b>	<b>59.7</b>	<b>161.1</b>	<b>11,680</b>
	95.0	57.7	149.4	11,900		100.0	57.9	158.2	10,800
	<b>100.0</b>	<b>55.7</b>	<b>146.1</b>	<b>11,020</b>		<b>105.0</b>	<b>56.0</b>	<b>154.9</b>	<b>9,920</b>
	105.0	53.6	142.5	10,140		110.0	54.0	151.3	9,030
	<b>110.0</b>	<b>51.5</b>	<b>138.7</b>	<b>9,470</b>		<b>115.0</b>	<b>52.0</b>	<b>147.5</b>	<b>8,370</b>
115.0	49.3	134.6	8,810	120.0	50.0	143.6	7,710		
<b>120.0</b>	<b>47.1</b>	<b>130.2</b>	<b>8,150</b>	<b>125.0</b>	<b>47.8</b>	<b>139.0</b>	<b>7,270</b>		
125.0	44.7	125.3	7,490	130.0	45.6	134.3	6,830		
<b>130.0</b>	<b>42.2</b>	<b>119.9</b>	<b>7,050</b>	<b>135.0</b>	<b>43.4</b>	<b>129.4</b>	<b>6,170</b>		
135.0	39.6	114.1	6,610	140.0	41.0	123.8	5,730		
<b>140.0</b>	<b>36.9</b>	<b>107.8</b>	<b>*6,170</b>	<b>145.0</b>	<b>38.5</b>	<b>117.7</b>	<b>*5,290</b>		
145.0	34.0	100.8	*5,510	150.0	35.8	111.0	*4,850		
<b>150.0</b>	<b>30.8</b>	<b>92.7</b>	<b>*4,850</b>	<b>155.0</b>	<b>33.0</b>	<b>103.7</b>	<b>*4,180</b>		
155.0	27.3	83.7	*4,180	160.0	29.9	95.4	*3,520		
<b>160.0</b>	<b>23.3</b>	<b>73.0</b>	<b>*3,520</b>	<b>165.0</b>	<b>26.5</b>	<b>86.0</b>	<b>*3,080</b>		
<b>190</b>	<b>32.0</b>	<b>81.6</b>	<b>193.7</b>	<b>*29,540</b>	<b>200</b>	<b>34.0</b>	<b>81.5</b>	<b>203.5</b>	<b>*25,790</b>
	34.0	81.0	193.4	*28,880		36.0	80.9	203.2	*25,350
	<b>36.0</b>	<b>80.4</b>	<b>193.1</b>	<b>*28,430</b>		<b>38.0</b>	<b>80.3</b>	<b>202.9</b>	<b>*24,910</b>
	38.0	79.8	192.7	*27,990		40.0	79.7	202.5	*24,470
	<b>40.0</b>	<b>79.2</b>	<b>192.4</b>	<b>*27,550</b>		<b>45.0</b>	<b>78.3</b>	<b>201.6</b>	<b>*23,360</b>
	45.0	77.6	191.3	*26,450		50.0	76.8	200.4	*22,480
	<b>50.0</b>	<b>76.1</b>	<b>190.1</b>	<b>*25,350</b>		<b>55.0</b>	<b>75.3</b>	<b>199.2</b>	<b>*21,380</b>
	55.0	74.5	188.8	*24,250		60.0	73.8	197.8	*19,840
	<b>60.0</b>	<b>73.0</b>	<b>187.4</b>	<b>*22,700</b>		<b>65.0</b>	<b>72.3</b>	<b>196.2</b>	<b>*18,510</b>
	65.0	71.4	185.8	20,500		70.0	70.8	194.6	*16,970
	<b>70.0</b>	<b>69.8</b>	<b>184.0</b>	<b>18,510</b>		<b>75.0</b>	<b>69.3</b>	<b>192.8</b>	<b>*15,650</b>
	75.0	68.2	182.1	16,750		80.0	67.8	190.9	*14,550
	<b>80.0</b>	<b>66.5</b>	<b>179.9</b>	<b>15,210</b>		<b>85.0</b>	<b>66.2</b>	<b>188.7</b>	<b>13,440</b>
	85.0	64.9	177.8	13,660		90.0	64.6	186.4	12,340
	<b>90.0</b>	<b>63.2</b>	<b>175.3</b>	<b>12,560</b>		<b>95.0</b>	<b>63.0</b>	<b>183.9</b>	<b>11,240</b>
	95.0	61.5	172.7	11,460		100.0	61.4	181.3	10,360
	<b>100.0</b>	<b>59.7</b>	<b>169.7</b>	<b>10,580</b>		<b>105.0</b>	<b>59.8</b>	<b>178.5</b>	<b>9,470</b>
	105.0	58.0	166.8	9,700		110.0	58.1	175.5	8,590
	<b>110.0</b>	<b>56.2</b>	<b>163.6</b>	<b>9,030</b>		<b>115.0</b>	<b>56.4</b>	<b>172.3</b>	<b>7,930</b>
	115.0	54.3	160.0	8,370		120.0	54.6	168.7	7,270
	<b>120.0</b>	<b>52.5</b>	<b>156.4</b>	<b>7,710</b>		<b>125.0</b>	<b>52.9</b>	<b>165.2</b>	<b>*6,610</b>
125.0	50.5	152.3	7,050	130.0	51.0	161.1	*5,950		
<b>130.0</b>	<b>48.5</b>	<b>148.0</b>	<b>6,610</b>	<b>135.0</b>	<b>49.2</b>	<b>157.1</b>	<b>*5,290</b>		
135.0	46.5	143.5	6,170	140.0	47.2	152.4	*4,620		
<b>140.0</b>	<b>44.4</b>	<b>138.6</b>	<b>5,730</b>	<b>145.0</b>	<b>45.2</b>	<b>147.6</b>	<b>*4,180</b>		
145.0	42.1	133.1	*5,290	150.0	43.2	142.6	*3,520		
<b>150.0</b>	<b>39.8</b>	<b>127.3</b>	<b>*4,850</b>	<b>155.0</b>	<b>41.0</b>	<b>136.9</b>	<b>*3,080</b>		
155.0	37.4	121.1	*4,180						
<b>160.0</b>	<b>34.8</b>	<b>114.1</b>	<b>*3,740</b>						
165.0	32.1	106.7	*3,300						

# CK1000 Jib Lifting Capacity

## LIFT CRANE SERVICE

Refer to notes page 4.

80 ft Boom						90 ft Boom						100 ft Boom						110 ft Boom																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
Load Radius (ft)	30 ft Jib Offset Angle		40 ft Jib Offset Angle		50 ft Jib Offset Angle		60 ft Jib Offset Angle		Load Radius (ft)	30 ft Jib Offset Angle		40 ft Jib Offset Angle		50 ft Jib Offset Angle		60 ft Jib Offset Angle		Load Radius (ft)	30 ft Jib Offset Angle		40 ft Jib Offset Angle		50 ft Jib Offset Angle		60 ft Jib Offset Angle																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	10°	30°	10°	30°	10°	30°	10°	30°		10°	30°	10°	30°	10°	30°	10°	30°		10°	30°	10°	30°	10°	30°	10°	30°																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	30	*24,000									32	*24,000										30									32	*24,000								34	*24,000									32									34	*24,000		*24,000						36	*24,000		*24,000							34	*24,000								36	*24,000		*24,000						38	*24,000		*24,000							36	*24,000								38	*24,000	*21,000	*24,000			*20,000			40	*24,000	*21,000	*24,000							38	*24,000								40	*24,000	*21,000	*24,000			*20,000		*18,000	45	*24,000	*21,000	*24,000							40	*24,000						*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					45	*24,000	*19,020	*23,890	*14,020	*19,550	*11,300	*16,970	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				50	*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				55	*24,000	*19,020	*23,890	*14,020	*19,550	*11,300	*16,970	60	*24,000	*17,500	*20,700	*12,980	*17,080	*10,490	*14,850	*8,950	65	22,660	*17,320	*20,410	*12,360	*16,730	*10,250				60	*24,000	*18,120	*22,020	*13,330	*18,000	*10,730	*16,970	65	22,920	*16,710	*19,180	*12,360	*15,800	*9,980	*13,730	*8,480	70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780				65	22,660	*17,320	*20,410	*12,360	*16,730	*10,250	*14,460	70	20,810	*16,020	*17,870	*11,830	*14,720	*9,540	*12,760	*8,060	75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360				70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780	*13,470	75	18,910	*15,380	*16,660	*11,350	*13,710	*9,100	*11,860	*7,670	80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990				75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360	*12,520	80	17,370	*14,850	*15,670	*10,930	*12,870	*8,730	*11,130	*7,340	85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680				80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990	*11,080	85	16,020		*14,810	*10,560	*12,140	*8,420	*10,470	*7,030	90	14,570		*14,740	*10,930	*12,210	*8,370				85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680	*11,080	90	14,850		*14,040	*10,250	*11,500	*8,130	*9,870	*6,760	95	13,470		13,620	*10,580	*11,570	*8,110				90	14,570		*14,740	*10,930	*12,210	*8,370	*10,470	95	13,750		*13,310		*10,890	*7,840	*9,320	*6,500	100	12,540		12,690	*10,270	*11,020	*7,870				95	13,470		13,620	*10,580	*11,570	*8,110	*9,890	100	12,830		*12,690		*10,360	*7,620	*8,860	*6,280	105	11,700		11,860		*10,530	*7,640				100	12,540		12,690	*10,270	*11,020	*7,870	*9,390	105			*12,120		*9,890		*8,440	*6,100	110			10,080		*10,070					105	11,700		11,860		*10,530	*7,640	*8,950	110			*12,350		*9,470		*8,060	*5,930	115			10,360		*9,650					110			10,080		*10,070		*8,550	115					*9,080		*7,690		120					*9,300					115			10,360		*9,650		*8,150	120							*7,380		125					*8,970					120					*9,300		*7,820	125							*7,120		130										125					*8,970		*7,530										135										130							*7,270																				135				
32	*24,000								34	*24,000									32									34	*24,000		*24,000						36	*24,000		*24,000							34	*24,000								36	*24,000		*24,000						38	*24,000		*24,000							36	*24,000								38	*24,000	*21,000	*24,000			*20,000			40	*24,000	*21,000	*24,000							38	*24,000								40	*24,000	*21,000	*24,000			*20,000		*18,000	45	*24,000	*21,000	*24,000							40	*24,000						*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					45	*24,000	*19,020	*23,890	*14,020	*19,550	*11,300	*16,970	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				50	*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				55	*24,000	*19,020	*23,890	*14,020	*19,550	*11,300	*16,970	60	*24,000	*17,500	*20,700	*12,980	*17,080	*10,490	*14,850	*8,950	65	22,660	*17,320	*20,410	*12,360	*16,730	*10,250				60	*24,000	*18,120	*22,020	*13,330	*18,000	*10,730	*16,970	65	22,920	*16,710	*19,180	*12,360	*15,800	*9,980	*13,730	*8,480	70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780				65	22,660	*17,320	*20,410	*12,360	*16,730	*10,250	*14,460	70	20,810	*16,020	*17,870	*11,830	*14,720	*9,540	*12,760	*8,060	75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360				70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780	*13,470	75	18,910	*15,380	*16,660	*11,350	*13,710	*9,100	*11,860	*7,670	80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990				75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360	*12,520	80	17,370	*14,850	*15,670	*10,930	*12,870	*8,730	*11,130	*7,340	85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680				80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990	*11,080	85	16,020		*14,810	*10,560	*12,140	*8,420	*10,470	*7,030	90	14,570		*14,740	*10,930	*12,210	*8,370				85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680	*11,080	90	14,850		*14,040	*10,250	*11,500	*8,130	*9,870	*6,760	95	13,470		13,620	*10,580	*11,570	*8,110				90	14,570		*14,740	*10,930	*12,210	*8,370	*10,470	95	13,750		*13,310		*10,890	*7,840	*9,320	*6,500	100	12,540		12,690	*10,270	*11,020	*7,870				95	13,470		13,620	*10,580	*11,570	*8,110	*9,890	100	12,830		*12,690		*10,360	*7,620	*8,860	*6,280	105	11,700		11,860		*10,530	*7,640				100	12,540		12,690	*10,270	*11,020	*7,870	*9,390	105			*12,120		*9,890		*8,440	*6,100	110			10,080		*10,070					105	11,700		11,860		*10,530	*7,640	*8,950	110			*12,350		*9,470		*8,060	*5,930	115			10,360		*9,650					110			10,080		*10,070		*8,550	115					*9,080		*7,690		120					*9,300					115			10,360		*9,650		*8,150	120							*7,380		125					*8,970					120					*9,300		*7,820	125							*7,120		130										125					*8,970		*7,530										135										130							*7,270																				135							*7,010																												
34	*24,000		*24,000						36	*24,000		*24,000							34	*24,000								36	*24,000		*24,000						38	*24,000		*24,000							36	*24,000								38	*24,000	*21,000	*24,000			*20,000			40	*24,000	*21,000	*24,000							38	*24,000								40	*24,000	*21,000	*24,000			*20,000		*18,000	45	*24,000	*21,000	*24,000							40	*24,000						*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					45	*24,000	*19,020	*23,890	*14,020	*19,550	*11,300	*16,970	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				50	*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				55	*24,000	*19,020	*23,890	*14,020	*19,550	*11,300	*16,970	60	*24,000	*17,500	*20,700	*12,980	*17,080	*10,490	*14,850	*8,950	65	22,660	*17,320	*20,410	*12,360	*16,730	*10,250				60	*24,000	*18,120	*22,020	*13,330	*18,000	*10,730	*16,970	65	22,920	*16,710	*19,180	*12,360	*15,800	*9,980	*13,730	*8,480	70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780				65	22,660	*17,320	*20,410	*12,360	*16,730	*10,250	*14,460	70	20,810	*16,020	*17,870	*11,830	*14,720	*9,540	*12,760	*8,060	75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360				70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780	*13,470	75	18,910	*15,380	*16,660	*11,350	*13,710	*9,100	*11,860	*7,670	80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990				75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360	*12,520	80	17,370	*14,850	*15,670	*10,930	*12,870	*8,730	*11,130	*7,340	85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680				80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990	*11,080	85	16,020		*14,810	*10,560	*12,140	*8,420	*10,470	*7,030	90	14,570		*14,740	*10,930	*12,210	*8,370				85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680	*11,080	90	14,850		*14,040	*10,250	*11,500	*8,130	*9,870	*6,760	95	13,470		13,620	*10,580	*11,570	*8,110				90	14,570		*14,740	*10,930	*12,210	*8,370	*10,470	95	13,750		*13,310		*10,890	*7,840	*9,320	*6,500	100	12,540		12,690	*10,270	*11,020	*7,870				95	13,470		13,620	*10,580	*11,570	*8,110	*9,890	100	12,830		*12,690		*10,360	*7,620	*8,860	*6,280	105	11,700		11,860		*10,530	*7,640				100	12,540		12,690	*10,270	*11,020	*7,870	*9,390	105			*12,120		*9,890		*8,440	*6,100	110			10,080		*10,070					105	11,700		11,860		*10,530	*7,640	*8,950	110			*12,350		*9,470		*8,060	*5,930	115			10,360		*9,650					110			10,080		*10,070		*8,550	115					*9,080		*7,690		120					*9,300					115			10,360		*9,650		*8,150	120							*7,380		125					*8,970					120					*9,300		*7,820	125							*7,120		130										125					*8,970		*7,530										135										130							*7,270																				135							*7,010																																																								
36	*24,000		*24,000						38	*24,000		*24,000							36	*24,000								38	*24,000	*21,000	*24,000			*20,000			40	*24,000	*21,000	*24,000							38	*24,000								40	*24,000	*21,000	*24,000			*20,000		*18,000	45	*24,000	*21,000	*24,000							40	*24,000						*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					45	*24,000	*19,020	*23,890	*14,020	*19,550	*11,300	*16,970	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				50	*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				55	*24,000	*19,020	*23,890	*14,020	*19,550	*11,300	*16,970	60	*24,000	*17,500	*20,700	*12,980	*17,080	*10,490	*14,850	*8,950	65	22,660	*17,320	*20,410	*12,360	*16,730	*10,250				60	*24,000	*18,120	*22,020	*13,330	*18,000	*10,730	*16,970	65	22,920	*16,710	*19,180	*12,360	*15,800	*9,980	*13,730	*8,480	70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780				65	22,660	*17,320	*20,410	*12,360	*16,730	*10,250	*14,460	70	20,810	*16,020	*17,870	*11,830	*14,720	*9,540	*12,760	*8,060	75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360				70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780	*13,470	75	18,910	*15,380	*16,660	*11,350	*13,710	*9,100	*11,860	*7,670	80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990				75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360	*12,520	80	17,370	*14,850	*15,670	*10,930	*12,870	*8,730	*11,130	*7,340	85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680				80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990	*11,080	85	16,020		*14,810	*10,560	*12,140	*8,420	*10,470	*7,030	90	14,570		*14,740	*10,930	*12,210	*8,370				85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680	*11,080	90	14,850		*14,040	*10,250	*11,500	*8,130	*9,870	*6,760	95	13,470		13,620	*10,580	*11,570	*8,110				90	14,570		*14,740	*10,930	*12,210	*8,370	*10,470	95	13,750		*13,310		*10,890	*7,840	*9,320	*6,500	100	12,540		12,690	*10,270	*11,020	*7,870				95	13,470		13,620	*10,580	*11,570	*8,110	*9,890	100	12,830		*12,690		*10,360	*7,620	*8,860	*6,280	105	11,700		11,860		*10,530	*7,640				100	12,540		12,690	*10,270	*11,020	*7,870	*9,390	105			*12,120		*9,890		*8,440	*6,100	110			10,080		*10,070					105	11,700		11,860		*10,530	*7,640	*8,950	110			*12,350		*9,470		*8,060	*5,930	115			10,360		*9,650					110			10,080		*10,070		*8,550	115					*9,080		*7,690		120					*9,300					115			10,360		*9,650		*8,150	120							*7,380		125					*8,970					120					*9,300		*7,820	125							*7,120		130										125					*8,970		*7,530										135										130							*7,270																				135							*7,010																																																																																				
38	*24,000	*21,000	*24,000			*20,000			40	*24,000	*21,000	*24,000							38	*24,000								40	*24,000	*21,000	*24,000			*20,000		*18,000	45	*24,000	*21,000	*24,000							40	*24,000						*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					45	*24,000	*19,020	*23,890	*14,020	*19,550	*11,300	*16,970	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				50	*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				55	*24,000	*19,020	*23,890	*14,020	*19,550	*11,300	*16,970	60	*24,000	*17,500	*20,700	*12,980	*17,080	*10,490	*14,850	*8,950	65	22,660	*17,320	*20,410	*12,360	*16,730	*10,250				60	*24,000	*18,120	*22,020	*13,330	*18,000	*10,730	*16,970	65	22,920	*16,710	*19,180	*12,360	*15,800	*9,980	*13,730	*8,480	70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780				65	22,660	*17,320	*20,410	*12,360	*16,730	*10,250	*14,460	70	20,810	*16,020	*17,870	*11,830	*14,720	*9,540	*12,760	*8,060	75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360				70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780	*13,470	75	18,910	*15,380	*16,660	*11,350	*13,710	*9,100	*11,860	*7,670	80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990				75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360	*12,520	80	17,370	*14,850	*15,670	*10,930	*12,870	*8,730	*11,130	*7,340	85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680				80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990	*11,080	85	16,020		*14,810	*10,560	*12,140	*8,420	*10,470	*7,030	90	14,570		*14,740	*10,930	*12,210	*8,370				85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680	*11,080	90	14,850		*14,040	*10,250	*11,500	*8,130	*9,870	*6,760	95	13,470		13,620	*10,580	*11,570	*8,110				90	14,570		*14,740	*10,930	*12,210	*8,370	*10,470	95	13,750		*13,310		*10,890	*7,840	*9,320	*6,500	100	12,540		12,690	*10,270	*11,020	*7,870				95	13,470		13,620	*10,580	*11,570	*8,110	*9,890	100	12,830		*12,690		*10,360	*7,620	*8,860	*6,280	105	11,700		11,860		*10,530	*7,640				100	12,540		12,690	*10,270	*11,020	*7,870	*9,390	105			*12,120		*9,890		*8,440	*6,100	110			10,080		*10,070					105	11,700		11,860		*10,530	*7,640	*8,950	110			*12,350		*9,470		*8,060	*5,930	115			10,360		*9,650					110			10,080		*10,070		*8,550	115					*9,080		*7,690		120					*9,300					115			10,360		*9,650		*8,150	120							*7,380		125					*8,970					120					*9,300		*7,820	125							*7,120		130										125					*8,970		*7,530										135										130							*7,270																				135							*7,010																																																																																																																
40	*24,000	*21,000	*24,000			*20,000		*18,000	45	*24,000	*21,000	*24,000							40	*24,000						*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					45	*24,000	*19,020	*23,890	*14,020	*19,550	*11,300	*16,970	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				50	*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				55	*24,000	*19,020	*23,890	*14,020	*19,550	*11,300	*16,970	60	*24,000	*17,500	*20,700	*12,980	*17,080	*10,490	*14,850	*8,950	65	22,660	*17,320	*20,410	*12,360	*16,730	*10,250				60	*24,000	*18,120	*22,020	*13,330	*18,000	*10,730	*16,970	65	22,920	*16,710	*19,180	*12,360	*15,800	*9,980	*13,730	*8,480	70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780				65	22,660	*17,320	*20,410	*12,360	*16,730	*10,250	*14,460	70	20,810	*16,020	*17,870	*11,830	*14,720	*9,540	*12,760	*8,060	75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360				70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780	*13,470	75	18,910	*15,380	*16,660	*11,350	*13,710	*9,100	*11,860	*7,670	80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990				75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360	*12,520	80	17,370	*14,850	*15,670	*10,930	*12,870	*8,730	*11,130	*7,340	85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680				80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990	*11,080	85	16,020		*14,810	*10,560	*12,140	*8,420	*10,470	*7,030	90	14,570		*14,740	*10,930	*12,210	*8,370				85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680	*11,080	90	14,850		*14,040	*10,250	*11,500	*8,130	*9,870	*6,760	95	13,470		13,620	*10,580	*11,570	*8,110				90	14,570		*14,740	*10,930	*12,210	*8,370	*10,470	95	13,750		*13,310		*10,890	*7,840	*9,320	*6,500	100	12,540		12,690	*10,270	*11,020	*7,870				95	13,470		13,620	*10,580	*11,570	*8,110	*9,890	100	12,830		*12,690		*10,360	*7,620	*8,860	*6,280	105	11,700		11,860		*10,530	*7,640				100	12,540		12,690	*10,270	*11,020	*7,870	*9,390	105			*12,120		*9,890		*8,440	*6,100	110			10,080		*10,070					105	11,700		11,860		*10,530	*7,640	*8,950	110			*12,350		*9,470		*8,060	*5,930	115			10,360		*9,650					110			10,080		*10,070		*8,550	115					*9,080		*7,690		120					*9,300					115			10,360		*9,650		*8,150	120							*7,380		125					*8,970					120					*9,300		*7,820	125							*7,120		130										125					*8,970		*7,530										135										130							*7,270																				135							*7,010																																																																																																																																												
45	*24,000	*20,700	*24,000	*15,360		*20,000		*18,000	50	*24,000	*20,100	*24,000	*14,810	*20,000					45	*24,000	*19,020	*23,890	*14,020	*19,550	*11,300	*16,970	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				50	*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				55	*24,000	*19,020	*23,890	*14,020	*19,550	*11,300	*16,970	60	*24,000	*17,500	*20,700	*12,980	*17,080	*10,490	*14,850	*8,950	65	22,660	*17,320	*20,410	*12,360	*16,730	*10,250				60	*24,000	*18,120	*22,020	*13,330	*18,000	*10,730	*16,970	65	22,920	*16,710	*19,180	*12,360	*15,800	*9,980	*13,730	*8,480	70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780				65	22,660	*17,320	*20,410	*12,360	*16,730	*10,250	*14,460	70	20,810	*16,020	*17,870	*11,830	*14,720	*9,540	*12,760	*8,060	75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360				70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780	*13,470	75	18,910	*15,380	*16,660	*11,350	*13,710	*9,100	*11,860	*7,670	80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990				75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360	*12,520	80	17,370	*14,850	*15,670	*10,930	*12,870	*8,730	*11,130	*7,340	85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680				80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990	*11,080	85	16,020		*14,810	*10,560	*12,140	*8,420	*10,470	*7,030	90	14,570		*14,740	*10,930	*12,210	*8,370				85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680	*11,080	90	14,850		*14,040	*10,250	*11,500	*8,130	*9,870	*6,760	95	13,470		13,620	*10,580	*11,570	*8,110				90	14,570		*14,740	*10,930	*12,210	*8,370	*10,470	95	13,750		*13,310		*10,890	*7,840	*9,320	*6,500	100	12,540		12,690	*10,270	*11,020	*7,870				95	13,470		13,620	*10,580	*11,570	*8,110	*9,890	100	12,830		*12,690		*10,360	*7,620	*8,860	*6,280	105	11,700		11,860		*10,530	*7,640				100	12,540		12,690	*10,270	*11,020	*7,870	*9,390	105			*12,120		*9,890		*8,440	*6,100	110			10,080		*10,070					105	11,700		11,860		*10,530	*7,640	*8,950	110			*12,350		*9,470		*8,060	*5,930	115			10,360		*9,650					110			10,080		*10,070		*8,550	115					*9,080		*7,690		120					*9,300					115			10,360		*9,650		*8,150	120							*7,380		125					*8,970					120					*9,300		*7,820	125							*7,120		130										125					*8,970		*7,530										135										130							*7,270																				135							*7,010																																																																																																																																																																							
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				50	*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				55	*24,000	*19,020	*23,890	*14,020	*19,550	*11,300	*16,970	60	*24,000	*17,500	*20,700	*12,980	*17,080	*10,490	*14,850	*8,950	65	22,660	*17,320	*20,410	*12,360	*16,730	*10,250				60	*24,000	*18,120	*22,020	*13,330	*18,000	*10,730	*16,970	65	22,920	*16,710	*19,180	*12,360	*15,800	*9,980	*13,730	*8,480	70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780				65	22,660	*17,320	*20,410	*12,360	*16,730	*10,250	*14,460	70	20,810	*16,020	*17,870	*11,830	*14,720	*9,540	*12,760	*8,060	75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360				70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780	*13,470	75	18,910	*15,380	*16,660	*11,350	*13,710	*9,100	*11,860	*7,670	80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990				75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360	*12,520	80	17,370	*14,850	*15,670	*10,930	*12,870	*8,730	*11,130	*7,340	85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680				80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990	*11,080	85	16,020		*14,810	*10,560	*12,140	*8,420	*10,470	*7,030	90	14,570		*14,740	*10,930	*12,210	*8,370				85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680	*11,080	90	14,850		*14,040	*10,250	*11,500	*8,130	*9,870	*6,760	95	13,470		13,620	*10,580	*11,570	*8,110				90	14,570		*14,740	*10,930	*12,210	*8,370	*10,470	95	13,750		*13,310		*10,890	*7,840	*9,320	*6,500	100	12,540		12,690	*10,270	*11,020	*7,870				95	13,470		13,620	*10,580	*11,570	*8,110	*9,890	100	12,830		*12,690		*10,360	*7,620	*8,860	*6,280	105	11,700		11,860		*10,530	*7,640				100	12,540		12,690	*10,270	*11,020	*7,870	*9,390	105			*12,120		*9,890		*8,440	*6,100	110			10,080		*10,070					105	11,700		11,860		*10,530	*7,640	*8,950	110			*12,350		*9,470		*8,060	*5,930	115			10,360		*9,650					110			10,080		*10,070		*8,550	115					*9,080		*7,690		120					*9,300					115			10,360		*9,650		*8,150	120							*7,380		125					*8,970					120					*9,300		*7,820	125							*7,120		130										125					*8,970		*7,530										135										130							*7,270																				135							*7,010																																																																																																																																																																																																		
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				55	*24,000	*19,020	*23,890	*14,020	*19,550	*11,300	*16,970	60	*24,000	*17,500	*20,700	*12,980	*17,080	*10,490	*14,850	*8,950	65	22,660	*17,320	*20,410	*12,360	*16,730	*10,250				60	*24,000	*18,120	*22,020	*13,330	*18,000	*10,730	*16,970	65	22,920	*16,710	*19,180	*12,360	*15,800	*9,980	*13,730	*8,480	70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780				65	22,660	*17,320	*20,410	*12,360	*16,730	*10,250	*14,460	70	20,810	*16,020	*17,870	*11,830	*14,720	*9,540	*12,760	*8,060	75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360				70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780	*13,470	75	18,910	*15,380	*16,660	*11,350	*13,710	*9,100	*11,860	*7,670	80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990				75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360	*12,520	80	17,370	*14,850	*15,670	*10,930	*12,870	*8,730	*11,130	*7,340	85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680				80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990	*11,080	85	16,020		*14,810	*10,560	*12,140	*8,420	*10,470	*7,030	90	14,570		*14,740	*10,930	*12,210	*8,370				85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680	*11,080	90	14,850		*14,040	*10,250	*11,500	*8,130	*9,870	*6,760	95	13,470		13,620	*10,580	*11,570	*8,110				90	14,570		*14,740	*10,930	*12,210	*8,370	*10,470	95	13,750		*13,310		*10,890	*7,840	*9,320	*6,500	100	12,540		12,690	*10,270	*11,020	*7,870				95	13,470		13,620	*10,580	*11,570	*8,110	*9,890	100	12,830		*12,690		*10,360	*7,620	*8,860	*6,280	105	11,700		11,860		*10,530	*7,640				100	12,540		12,690	*10,270	*11,020	*7,870	*9,390	105			*12,120		*9,890		*8,440	*6,100	110			10,080		*10,070					105	11,700		11,860		*10,530	*7,640	*8,950	110			*12,350		*9,470		*8,060	*5,930	115			10,360		*9,650					110			10,080		*10,070		*8,550	115					*9,080		*7,690		120					*9,300					115			10,360		*9,650		*8,150	120							*7,380		125					*8,970					120					*9,300		*7,820	125							*7,120		130										125					*8,970		*7,530										135										130							*7,270																				135							*7,010																																																																																																																																																																																																																													
60	*24,000	*17,500	*20,700	*12,980	*17,080	*10,490	*14,850	*8,950	65	22,660	*17,320	*20,410	*12,360	*16,730	*10,250				60	*24,000	*18,120	*22,020	*13,330	*18,000	*10,730	*16,970	65	22,920	*16,710	*19,180	*12,360	*15,800	*9,980	*13,730	*8,480	70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780				65	22,660	*17,320	*20,410	*12,360	*16,730	*10,250	*14,460	70	20,810	*16,020	*17,870	*11,830	*14,720	*9,540	*12,760	*8,060	75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360				70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780	*13,470	75	18,910	*15,380	*16,660	*11,350	*13,710	*9,100	*11,860	*7,670	80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990				75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360	*12,520	80	17,370	*14,850	*15,670	*10,930	*12,870	*8,730	*11,130	*7,340	85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680				80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990	*11,080	85	16,020		*14,810	*10,560	*12,140	*8,420	*10,470	*7,030	90	14,570		*14,740	*10,930	*12,210	*8,370				85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680	*11,080	90	14,850		*14,040	*10,250	*11,500	*8,130	*9,870	*6,760	95	13,470		13,620	*10,580	*11,570	*8,110				90	14,570		*14,740	*10,930	*12,210	*8,370	*10,470	95	13,750		*13,310		*10,890	*7,840	*9,320	*6,500	100	12,540		12,690	*10,270	*11,020	*7,870				95	13,470		13,620	*10,580	*11,570	*8,110	*9,890	100	12,830		*12,690		*10,360	*7,620	*8,860	*6,280	105	11,700		11,860		*10,530	*7,640				100	12,540		12,690	*10,270	*11,020	*7,870	*9,390	105			*12,120		*9,890		*8,440	*6,100	110			10,080		*10,070					105	11,700		11,860		*10,530	*7,640	*8,950	110			*12,350		*9,470		*8,060	*5,930	115			10,360		*9,650					110			10,080		*10,070		*8,550	115					*9,080		*7,690		120					*9,300					115			10,360		*9,650		*8,150	120							*7,380		125					*8,970					120					*9,300		*7,820	125							*7,120		130										125					*8,970		*7,530										135										130							*7,270																				135							*7,010																																																																																																																																																																																																																																																								
65	22,920	*16,710	*19,180	*12,360	*15,800	*9,980	*13,730	*8,480	70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780				65	22,660	*17,320	*20,410	*12,360	*16,730	*10,250	*14,460	70	20,810	*16,020	*17,870	*11,830	*14,720	*9,540	*12,760	*8,060	75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360				70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780	*13,470	75	18,910	*15,380	*16,660	*11,350	*13,710	*9,100	*11,860	*7,670	80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990				75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360	*12,520	80	17,370	*14,850	*15,670	*10,930	*12,870	*8,730	*11,130	*7,340	85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680				80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990	*11,080	85	16,020		*14,810	*10,560	*12,140	*8,420	*10,470	*7,030	90	14,570		*14,740	*10,930	*12,210	*8,370				85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680	*11,080	90	14,850		*14,040	*10,250	*11,500	*8,130	*9,870	*6,760	95	13,470		13,620	*10,580	*11,570	*8,110				90	14,570		*14,740	*10,930	*12,210	*8,370	*10,470	95	13,750		*13,310		*10,890	*7,840	*9,320	*6,500	100	12,540		12,690	*10,270	*11,020	*7,870				95	13,470		13,620	*10,580	*11,570	*8,110	*9,890	100	12,830		*12,690		*10,360	*7,620	*8,860	*6,280	105	11,700		11,860		*10,530	*7,640				100	12,540		12,690	*10,270	*11,020	*7,870	*9,390	105			*12,120		*9,890		*8,440	*6,100	110			10,080		*10,070					105	11,700		11,860		*10,530	*7,640	*8,950	110			*12,350		*9,470		*8,060	*5,930	115			10,360		*9,650					110			10,080		*10,070		*8,550	115					*9,080		*7,690		120					*9,300					115			10,360		*9,650		*8,150	120							*7,380		125					*8,970					120					*9,300		*7,820	125							*7,120		130										125					*8,970		*7,530										135										130							*7,270																				135							*7,010																																																																																																																																																																																																																																																																																			
70	20,810	*16,020	*17,870	*11,830	*14,720	*9,540	*12,760	*8,060	75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360				70	20,540	*16,620	*19,040	*12,760	*15,580	*9,780	*13,470	75	18,910	*15,380	*16,660	*11,350	*13,710	*9,100	*11,860	*7,670	80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990				75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360	*12,520	80	17,370	*14,850	*15,670	*10,930	*12,870	*8,730	*11,130	*7,340	85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680				80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990	*11,080	85	16,020		*14,810	*10,560	*12,140	*8,420	*10,470	*7,030	90	14,570		*14,740	*10,930	*12,210	*8,370				85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680	*11,080	90	14,850		*14,040	*10,250	*11,500	*8,130	*9,870	*6,760	95	13,470		13,620	*10,580	*11,570	*8,110				90	14,570		*14,740	*10,930	*12,210	*8,370	*10,470	95	13,750		*13,310		*10,890	*7,840	*9,320	*6,500	100	12,540		12,690	*10,270	*11,020	*7,870				95	13,470		13,620	*10,580	*11,570	*8,110	*9,890	100	12,830		*12,690		*10,360	*7,620	*8,860	*6,280	105	11,700		11,860		*10,530	*7,640				100	12,540		12,690	*10,270	*11,020	*7,870	*9,390	105			*12,120		*9,890		*8,440	*6,100	110			10,080		*10,070					105	11,700		11,860		*10,530	*7,640	*8,950	110			*12,350		*9,470		*8,060	*5,930	115			10,360		*9,650					110			10,080		*10,070		*8,550	115					*9,080		*7,690		120					*9,300					115			10,360		*9,650		*8,150	120							*7,380		125					*8,970					120					*9,300		*7,820	125							*7,120		130										125					*8,970		*7,530										135										130							*7,270																				135							*7,010																																																																																																																																																																																																																																																																																																														
75	18,910	*15,380	*16,660	*11,350	*13,710	*9,100	*11,860	*7,670	80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990				75	18,620	*15,960	*17,760	*12,230	*14,520	*9,360	*12,520	80	17,370	*14,850	*15,670	*10,930	*12,870	*8,730	*11,130	*7,340	85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680				80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990	*11,080	85	16,020		*14,810	*10,560	*12,140	*8,420	*10,470	*7,030	90	14,570		*14,740	*10,930	*12,210	*8,370				85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680	*11,080	90	14,850		*14,040	*10,250	*11,500	*8,130	*9,870	*6,760	95	13,470		13,620	*10,580	*11,570	*8,110				90	14,570		*14,740	*10,930	*12,210	*8,370	*10,470	95	13,750		*13,310		*10,890	*7,840	*9,320	*6,500	100	12,540		12,690	*10,270	*11,020	*7,870				95	13,470		13,620	*10,580	*11,570	*8,110	*9,890	100	12,830		*12,690		*10,360	*7,620	*8,860	*6,280	105	11,700		11,860		*10,530	*7,640				100	12,540		12,690	*10,270	*11,020	*7,870	*9,390	105			*12,120		*9,890		*8,440	*6,100	110			10,080		*10,070					105	11,700		11,860		*10,530	*7,640	*8,950	110			*12,350		*9,470		*8,060	*5,930	115			10,360		*9,650					110			10,080		*10,070		*8,550	115					*9,080		*7,690		120					*9,300					115			10,360		*9,650		*8,150	120							*7,380		125					*8,970					120					*9,300		*7,820	125							*7,120		130										125					*8,970		*7,530										135										130							*7,270																				135							*7,010																																																																																																																																																																																																																																																																																																																																									
80	17,370	*14,850	*15,670	*10,930	*12,870	*8,730	*11,130	*7,340	85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680				80	17,080	*15,430	*16,730	*11,720	*13,660	*8,990	*11,080	85	16,020		*14,810	*10,560	*12,140	*8,420	*10,470	*7,030	90	14,570		*14,740	*10,930	*12,210	*8,370				85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680	*11,080	90	14,850		*14,040	*10,250	*11,500	*8,130	*9,870	*6,760	95	13,470		13,620	*10,580	*11,570	*8,110				90	14,570		*14,740	*10,930	*12,210	*8,370	*10,470	95	13,750		*13,310		*10,890	*7,840	*9,320	*6,500	100	12,540		12,690	*10,270	*11,020	*7,870				95	13,470		13,620	*10,580	*11,570	*8,110	*9,890	100	12,830		*12,690		*10,360	*7,620	*8,860	*6,280	105	11,700		11,860		*10,530	*7,640				100	12,540		12,690	*10,270	*11,020	*7,870	*9,390	105			*12,120		*9,890		*8,440	*6,100	110			10,080		*10,070					105	11,700		11,860		*10,530	*7,640	*8,950	110			*12,350		*9,470		*8,060	*5,930	115			10,360		*9,650					110			10,080		*10,070		*8,550	115					*9,080		*7,690		120					*9,300					115			10,360		*9,650		*8,150	120							*7,380		125					*8,970					120					*9,300		*7,820	125							*7,120		130										125					*8,970		*7,530										135										130							*7,270																				135							*7,010																																																																																																																																																																																																																																																																																																																																																																				
85	16,020		*14,810	*10,560	*12,140	*8,420	*10,470	*7,030	90	14,570		*14,740	*10,930	*12,210	*8,370				85	15,760	*14,940	*15,800	*11,300	*12,890	*8,680	*11,080	90	14,850		*14,040	*10,250	*11,500	*8,130	*9,870	*6,760	95	13,470		13,620	*10,580	*11,570	*8,110				90	14,570		*14,740	*10,930	*12,210	*8,370	*10,470	95	13,750		*13,310		*10,890	*7,840	*9,320	*6,500	100	12,540		12,690	*10,270	*11,020	*7,870				95	13,470		13,620	*10,580	*11,570	*8,110	*9,890	100	12,830		*12,690		*10,360	*7,620	*8,860	*6,280	105	11,700		11,860		*10,530	*7,640				100	12,540		12,690	*10,270	*11,020	*7,870	*9,390	105			*12,120		*9,890		*8,440	*6,100	110			10,080		*10,070					105	11,700		11,860		*10,530	*7,640	*8,950	110			*12,350		*9,470		*8,060	*5,930	115			10,360		*9,650					110			10,080		*10,070		*8,550	115					*9,080		*7,690		120					*9,300					115			10,360		*9,650		*8,150	120							*7,380		125					*8,970					120					*9,300		*7,820	125							*7,120		130										125					*8,970		*7,530										135										130							*7,270																				135							*7,010																																																																																																																																																																																																																																																																																																																																																																																															
90	14,850		*14,040	*10,250	*11,500	*8,130	*9,870	*6,760	95	13,470		13,620	*10,580	*11,570	*8,110				90	14,570		*14,740	*10,930	*12,210	*8,370	*10,470	95	13,750		*13,310		*10,890	*7,840	*9,320	*6,500	100	12,540		12,690	*10,270	*11,020	*7,870				95	13,470		13,620	*10,580	*11,570	*8,110	*9,890	100	12,830		*12,690		*10,360	*7,620	*8,860	*6,280	105	11,700		11,860		*10,530	*7,640				100	12,540		12,690	*10,270	*11,020	*7,870	*9,390	105			*12,120		*9,890		*8,440	*6,100	110			10,080		*10,070					105	11,700		11,860		*10,530	*7,640	*8,950	110			*12,350		*9,470		*8,060	*5,930	115			10,360		*9,650					110			10,080		*10,070		*8,550	115					*9,080		*7,690		120					*9,300					115			10,360		*9,650		*8,150	120							*7,380		125					*8,970					120					*9,300		*7,820	125							*7,120		130										125					*8,970		*7,530										135										130							*7,270																				135							*7,010																																																																																																																																																																																																																																																																																																																																																																																																																										
95	13,750		*13,310		*10,890	*7,840	*9,320	*6,500	100	12,540		12,690	*10,270	*11,020	*7,870				95	13,470		13,620	*10,580	*11,570	*8,110	*9,890	100	12,830		*12,690		*10,360	*7,620	*8,860	*6,280	105	11,700		11,860		*10,530	*7,640				100	12,540		12,690	*10,270	*11,020	*7,870	*9,390	105			*12,120		*9,890		*8,440	*6,100	110			10,080		*10,070					105	11,700		11,860		*10,530	*7,640	*8,950	110			*12,350		*9,470		*8,060	*5,930	115			10,360		*9,650					110			10,080		*10,070		*8,550	115					*9,080		*7,690		120					*9,300					115			10,360		*9,650		*8,150	120							*7,380		125					*8,970					120					*9,300		*7,820	125							*7,120		130										125					*8,970		*7,530										135										130							*7,270																				135							*7,010																																																																																																																																																																																																																																																																																																																																																																																																																																																					
100	12,830		*12,690		*10,360	*7,620	*8,860	*6,280	105	11,700		11,860		*10,530	*7,640				100	12,540		12,690	*10,270	*11,020	*7,870	*9,390	105			*12,120		*9,890		*8,440	*6,100	110			10,080		*10,070					105	11,700		11,860		*10,530	*7,640	*8,950	110			*12,350		*9,470		*8,060	*5,930	115			10,360		*9,650					110			10,080		*10,070		*8,550	115					*9,080		*7,690		120					*9,300					115			10,360		*9,650		*8,150	120							*7,380		125					*8,970					120					*9,300		*7,820	125							*7,120		130										125					*8,970		*7,530										135										130							*7,270																				135							*7,010																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
105			*12,120		*9,890		*8,440	*6,100	110			10,080		*10,070					105	11,700		11,860		*10,530	*7,640	*8,950	110			*12,350		*9,470		*8,060	*5,930	115			10,360		*9,650					110			10,080		*10,070		*8,550	115					*9,080		*7,690		120					*9,300					115			10,360		*9,650		*8,150	120							*7,380		125					*8,970					120					*9,300		*7,820	125							*7,120		130										125					*8,970		*7,530										135										130							*7,270																				135							*7,010																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
110			*12,350		*9,470		*8,060	*5,930	115			10,360		*9,650					110			10,080		*10,070		*8,550	115					*9,080		*7,690		120					*9,300					115			10,360		*9,650		*8,150	120							*7,380		125					*8,970					120					*9,300		*7,820	125							*7,120		130										125					*8,970		*7,530										135										130							*7,270																				135							*7,010																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
115					*9,080		*7,690		120					*9,300					115			10,360		*9,650		*8,150	120							*7,380		125					*8,970					120					*9,300		*7,820	125							*7,120		130										125					*8,970		*7,530										135										130							*7,270																				135							*7,010																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
120							*7,380		125					*8,970					120					*9,300		*7,820	125							*7,120		130										125					*8,970		*7,530										135										130							*7,270																				135							*7,010																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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# CK1000 Jib Lifting Capacity

## LIFT CRANE SERVICE

Refer to notes page 4.

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

# CLAMSHELL

## 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: 100 ft (30.5 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-C-Tip

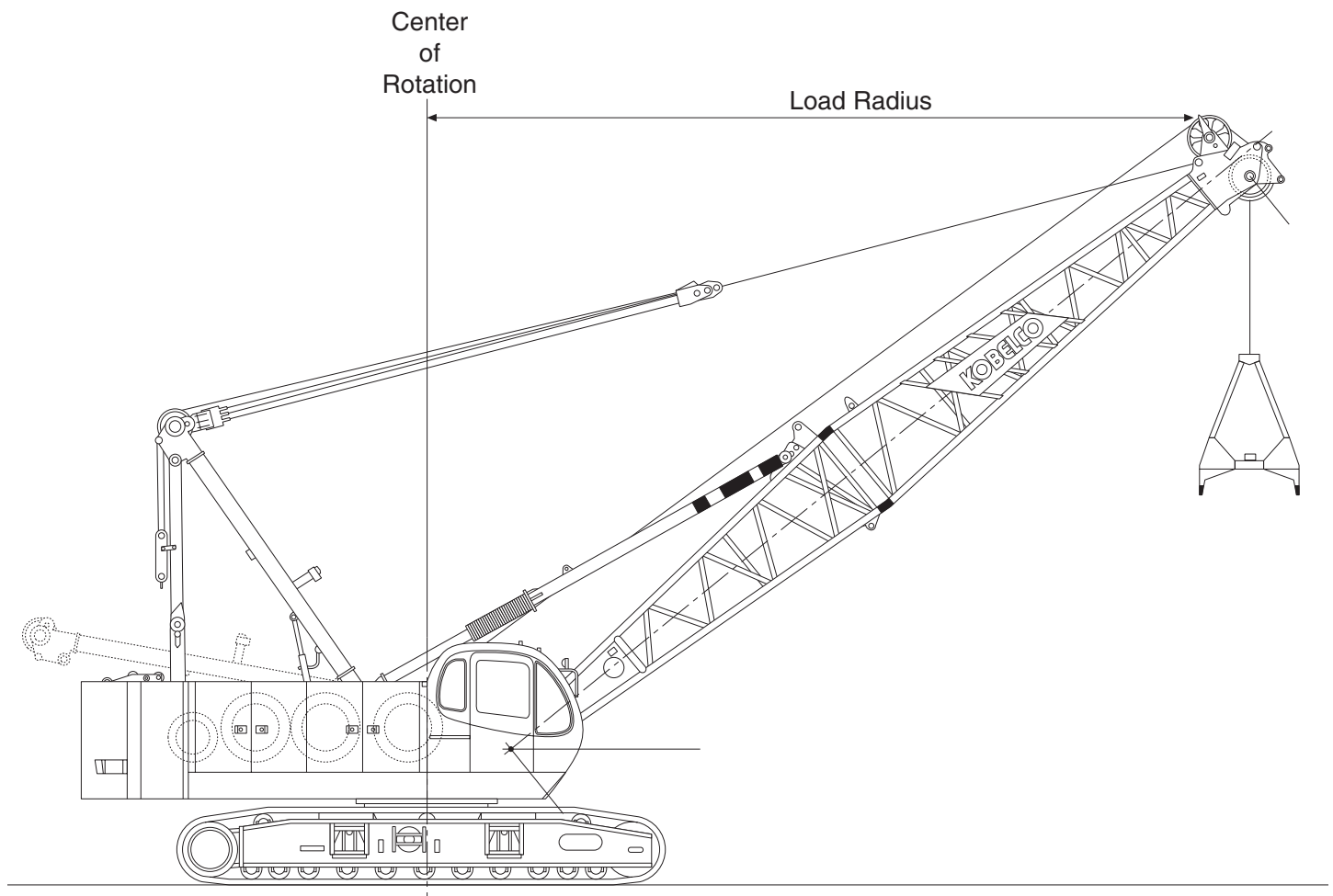
Base = 20 ft (6.10 m)

Insert: A = 10 ft (3.05 m)

B = 20 ft (6.10 m)

C = 40 ft (12.2 m)

Tip = 20 ft (6.10 m)



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 soft or uneven supporting surface, rapid cycle operations, or bucket suction.
4. The combined weight of the bucket and load must not exceed these capacities.
5. Boom length for clamshell operation should not exceed 100 ft (30.5 m).

# Rated Load

No. of Counterweight: 1 Position of Crawlers: Extended

Boom Length (ft)	Load Radius (ft)	Boom Angle (degree)	Rated Load (lbs)	Boom Length (ft)	Load Radius (ft)	Boom Angle (degree)	Rated Load (lbs)
<b>40</b>	<b>22</b>	<b>63.7</b>	<b>*22,000</b>	<b>50</b>	<b>26</b>	<b>64.3</b>	<b>*22,000</b>
	24	60.5	*22,000		28	61.7	*22,000
	<b>26</b>	<b>57.1</b>	<b>*22,000</b>		<b>30</b>	<b>59.7</b>	<b>*22,000</b>
	28	53.5	*22,000		32	56.3	*22,000
	<b>30</b>	<b>49.8</b>	<b>*22,000</b>		<b>34</b>	<b>53.5</b>	<b>*21,400</b>
	32	45.9	*22,000		36	50.5	*20,200
	<b>34</b>	<b>41.7</b>	<b>*21,400</b>		<b>38</b>	<b>47.4</b>	<b>*19,200</b>
	36	37.0	*20,200		40	44.2	*18,200
	<b>38</b>	<b>31.8</b>	<b>*19,200</b>		<b>42</b>	<b>40.7</b>	<b>*17,300</b>
40	25.7	*18,200	44	37.0	*16,500		
				<b>46</b>	<b>32.9</b>	<b>*15,800</b>	
				48	28.3	*15,200	
<b>60</b>	<b>30</b>	<b>64.6</b>	<b>*22,000</b>	<b>70</b>	<b>34</b>	<b>64.9</b>	<b>*21,400</b>
	32	62.5	*22,000		36	63.1	*20,200
	<b>34</b>	<b>60.3</b>	<b>*21,400</b>		<b>38</b>	<b>61.2</b>	<b>*19,200</b>
	36	58.1	*20,200		40	59.3	*18,200
	<b>38</b>	<b>55.8</b>	<b>*19,200</b>		<b>42</b>	<b>57.4</b>	<b>*17,300</b>
	40	53.4	*18,200		44	55.4	*16,500
	<b>42</b>	<b>51.0</b>	<b>*17,300</b>		<b>46</b>	<b>53.4</b>	<b>*15,800</b>
	44	48.4	*16,500		48	51.3	*15,200
	<b>46</b>	<b>45.8</b>	<b>*15,800</b>		<b>50</b>	<b>49.1</b>	<b>*14,600</b>
	48	43.0	*15,200		52	46.9	*14,600
	<b>50</b>	<b>40.1</b>	<b>*14,600</b>		<b>54</b>	<b>44.6</b>	<b>*13,500</b>
	52	37.0	*14,000		56	42.2	*13,000
	<b>54</b>	<b>33.6</b>	<b>*13,500</b>		<b>58</b>	<b>39.6</b>	<b>*12,500</b>
	56	29.9	*13,000		60	37.0	*12,100
<b>58</b>	<b>25.7</b>	<b>*12,500</b>	<b>62</b>	<b>34.1</b>	<b>*11,700</b>		
			64	31.0	*11,400		
			<b>66</b>	<b>27.6</b>	<b>*11,000</b>		



# Rated Load

No. of Counterweight: 1 Position of Crawlers: Extended

Boom Length (ft)	Load Radius (ft)	Boom Angle (degree)	Rated Load (lbs)	Boom Length (ft)	Load Radius (ft)	Boom Angle (degree)	Rated Load (lbs)
<b>80</b>	<b>38</b>	<b>65.1</b>	<b>*19,200</b>	<b>90</b>	<b>42</b>	<b>65.2</b>	<b>*17,300</b>
	40	63.5	*18,200		44	63.8	*16,500
	<b>42</b>	<b>61.9</b>	<b>*17,300</b>		<b>46</b>	<b>62.4</b>	<b>*15,800</b>
	44	60.2	*16,500		48	60.9	*15,200
	<b>46</b>	<b>58.6</b>	<b>*15,800</b>		<b>50</b>	<b>59.5</b>	<b>*14,600</b>
	48	56.9	*15,200		52	58.0	*14,000
	<b>50</b>	<b>55.1</b>	<b>*14,600</b>		<b>54</b>	<b>56.4</b>	<b>*13,500</b>
	52	53.3	*14,600		56	54.9	*13,900
	<b>54</b>	<b>51.5</b>	<b>*13,500</b>		<b>58</b>	<b>53.3</b>	<b>*12,500</b>
	56	49.6	*13,000		60	51.7	*12,100
	<b>58</b>	<b>47.7</b>	<b>*12,500</b>		<b>62</b>	<b>50.0</b>	<b>*11,700</b>
	60	45.7	*12,100		64	48.3	*11,400
	<b>62</b>	<b>43.7</b>	<b>*11,700</b>		<b>66</b>	<b>46.6</b>	<b>*11,000</b>
	64	41.5	*11,400		68	46.6	*10,700
	<b>66</b>	<b>39.3</b>	<b>*11,000</b>		<b>70</b>	<b>43.8</b>	<b>*10,400</b>
68	37.0	*10,700	72	41.0	*10,100		
<b>70</b>	<b>34.5</b>	<b>*10,400</b>	<b>74</b>	<b>39.0</b>	<b>9,700</b>		
72	31.8	*10,100	76	36.9	9,200		
<b>74</b>	<b>28.9</b>	<b>*9,800</b>	<b>78</b>	<b>34.7</b>	<b>9,000</b>		
76	25.7	*9,400	80	32.4	8,500		
				<b>82</b>	<b>29.9</b>	<b>8,300</b>	
				84	27.2	7,900	
<b>100</b>	<b>46</b>	<b>65.4</b>	<b>*15,800</b>				
	48	64.1	*15,200				
	<b>50</b>	<b>62.8</b>	<b>*14,600</b>				
	52	61.5	*14,000				
	<b>54</b>	<b>60.2</b>	<b>*13,500</b>				
	56	58.8	*13,000				
	<b>58</b>	<b>57.5</b>	<b>*12,500</b>				
	60	56.1	*12,100				
	<b>64</b>	<b>53.3</b>	<b>*11,400</b>				
	66	51.8	*11,000				
	<b>68</b>	<b>50.4</b>	<b>*10,700</b>				
	70	48.8	10,300				
	<b>72</b>	<b>47.3</b>	<b>9,900</b>				
	74	45.7	9,400				
	<b>76</b>	<b>44.1</b>	<b>9,000</b>				
78	42.4	8,800					
<b>80</b>	<b>40.6</b>	<b>8,300</b>					
82	38.8	8,100					
<b>84</b>	<b>36.9</b>	<b>7,700</b>					
86	35.0	7,400					
<b>88</b>	<b>32.9</b>	<b>7,200</b>					
90	30.7	7,000					
<b>92</b>	<b>28.3</b>	<b>6,800</b>					
94	25.8	6,600					

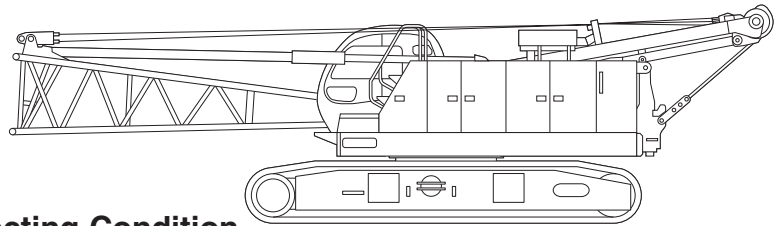
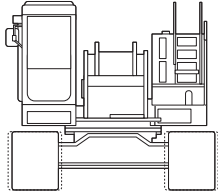
# TRANSPORTATION

## ■CK1000 Transportation Style 1

Base Machine, Boom Base with Crawlers

Weight: 99,770 lbs (45,250 kg)

Dimensions: 11' 4" height × 11' 10" width × 39' 11" length (3,450 mm × 3,610 mm × 12,170 mm)

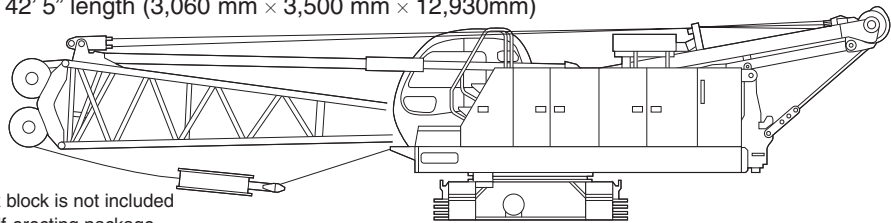
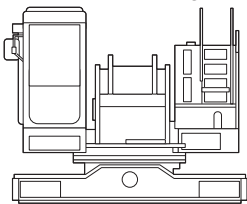


## ■CK1000 Transportation Style 2 Self-Erecting Condition

Base Machine, Boom Base without Crawlers

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

Dimensions: 10' 0" height × 11' 6" width × 42' 5" length (3,060 mm × 3,500 mm × 12,930 mm)



Hook block is not included in self-erecting package

## ■CK1000 Transportation Style 3

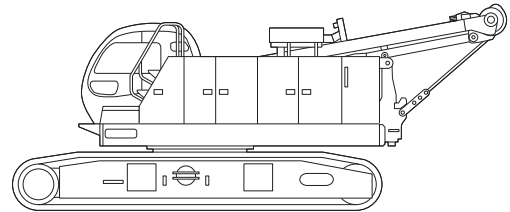
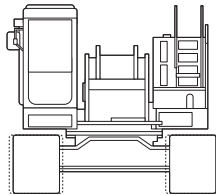
Base Machine with Crawlers

Weight:

96,780 lbs (43,900 kg)

Dimensions:

11' 4" height × 11' 10" width × 27' 7" length (3,450 mm × 3,610 mm × 8,410 mm)

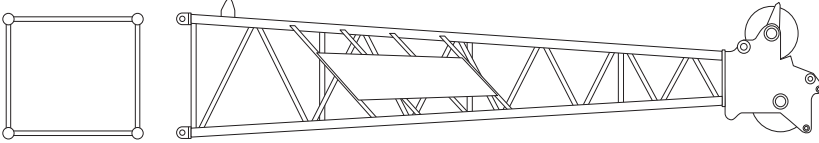


## ■Booms

Boom Tip:

2,580 lbs (1,170 kg)

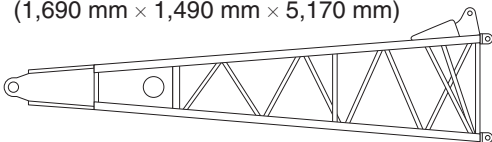
4' 10" height × 4' 11" width × 22' 8" length (1,480 mm × 1,505 mm × 6,910 mm)



Boom Base:

2,510 lbs (1,140 kg)

5' 7" height × 4' 11" width × 19' 7" length (1,690 mm × 1,490 mm × 5,170 mm)

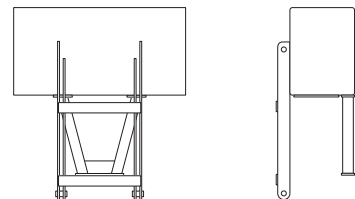


## ■Carbody Counterweights

Carbody Counterweights:

4,410 lbs (2,000 kg) × 2

1' 11" height × 4' 3" width × 4' 9" length (590 mm × 1,300 mm × 1,450 mm)



## ■Counterweights

Counterweight (A)

Weight: 27,300 lbs (12,400 kg)

5' 6" height × 1' 11" width × 11' 10" length (1,670 mm × 570 mm × 3,600 mm)

Counterweight (B)

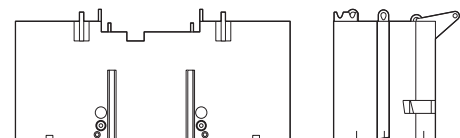
Weight: 8,160 lbs (3,700 kg)

Dimensions: 5' 6" height × 1' width × 11' 10" length (1,660 mm × 300 mm × 3,600 mm)

Counterweight (C)

Weight: 27,560 lbs (12,500 kg)

Dimensions: 5' 4" height × 3' width × 11' 10" length (1,640 mm × 910 mm × 3,600 mm)



(A) (B) (C)

## ■Other Attachments

Attachment	Weights	Dimensions (H × W × L)
10ft Insert Boom:	680 lbs (310 kg)	4' 3" × 4' 11" × 10' 5" (1,290 mm × 1,490 mm × 3,165 mm)
20ft Insert Boom:	1,150 lbs (520 kg)	4' 3" × 4' 11" × 20' 4" (1,290 mm × 1,490 mm × 6,210 mm)
40ft Insert Boom:	2,120 lbs (960 kg)	4' 3" × 4' 11" × 40' 4" (1,290 mm × 1,490 mm × 12,305 mm)
Jib Tip:	620 lbs (280 kg)	2' 7" × 2' 7" × 16' 3" (790 mm × 790 mm × 4,960 mm)
Jib Base:	440 lbs (200 kg)	2' 7" × 2' 7" × 15' 9" (790 mm × 790 mm × 4,810 mm)
10ft Insert Jib:	220 lbs (100 kg)	2' 7" × 2' 7" × 10' 3" (790 mm × 790 mm × 3,120 mm)
20ft Insert Jib:	400 lbs (180 kg)	2' 7" × 2' 7" × 20' 3" (790 mm × 790 mm × 6,160 mm)
Jib Strut	550 lbs (250 kg)	2' 2" × 2' 9" × 11' 11" (620 mm × 840 mm × 3,620 mm)
Upper Spreader:	600 lbs (270 kg)	2' 3" × 10.6" × 5' 2" (680 mm × 270 mm × 1,580 mm)

# CK1000

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**Note:** Due to our policy of continual product improvements all designs and specifications are subject to change without advance notice.

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