



LIFTING CHARTS - Crawler Cranes

KOBELCO MODEL CK1000-III - 100 TON CAPACITY

Main Boom Rated Loads in Pounds

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

Carbody weight: 16,100 lbs (7,300 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 lengths.
 - Gantry must be fully raised position for all operations.
 - Crawlers must be fully extended and be locked in position.
 - Counterweight: 63,490 lbs.
 - Carbody weight: 16,100 lbs

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

- The total load that can be lifted by the jib is limited by rated jib loads.

- Boom lengths for jib mounting are 80 ft (24.4 m) to 190 ft (57.9 m).
- The total load that can be lifted 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.
- Permissible boom lengths for installing auxiliary sheave are from 40 ft (12.2 m) to 190 ft (57.9 m).
- The boom should be erected over the front of the crawlers, not laterally.
- Least stable position is over the side.
- Maximum hoist load for number of reeving parts of line for hoist rope.

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 for Auxiliary Sheave

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

- 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 ANSI code B30.5.

STERLING CRANE

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 *

STERLING CRANE

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 *

STERLING CRANE

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 *			