

Liftcrane Boom Capacities

Boom No. 82 or 22EL
51 980 kg Counterweight
Rating Over End of Blocked Crawlers
No Travel - Limited Swing

Meets
ANSI B30.5
Requirements

999 SERIES 1

LIFTING CAPACITIES: Lifting capacities for various boom lengths and operating radii are for freely suspended loads and do not exceed 75% of a static tipping load over end of machine with crawlers blocked. Capacities based on structural competence are denoted by an asterisk (*). Capacities indicated by (b) require 5 670 kg minimum weight.

Upper boom point capacity for liftcrane service with single part whip line is 13 380 kg or 26 760 kg with two part whip line. When boom butt mounted auxiliary drum is used, capacity with single part whip line is 9 070 kg or 18 140 kg with two part whip line. In all cases, upper boom point capacities cannot exceed those listed for main boom capacity.

Weight of all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom point sheaves, is considered part of main boom load. Boom is not to be lowered beyond radii where combined weights are greater than rated capacity. Where no capacity is shown, operation is not intended or approved.

OPERATING CONDITIONS: Machine to operate in a level position on a firm uniformly supporting surface with gantry up. Drive and idler tumblers must be properly blocked so that centerline of tumblers becomes tipping fulcrum. Swing is limited to that sector shown on Operating Range Diagram **No. 8224-A**. Refer to boom rigging **No. 195459** (No. 82) or

No. 195890 (No. 22EL) and Wire Rope Specification chart **No. 8223-A**. Crane operator judgment must be used to allow for dynamic load effects of swinging, hoisting or lowering, wind conditions, as well as adverse operating conditions and physical machine depreciation. Refer to operators manual for operating guidelines.

OPERATING RADIUS: Operating radius is horizontal distance from axis of rotation to center of vertical hoist line or load block. Boom angle is angle between horizontal and centerline of boom butt and inserts, and is an indication of operating radius. In all cases, operating radius shall govern capacity.

BOOM POINT ELEVATION: Boom point elevation is vertical distance from ground level to centerline of boom point shaft.

MACHINE EQUIPMENT: Machine equipped with 8 585 mm crawlers, 1 219 mm treads, 3 124 mm retractable gantry, 9 144 mm live mast, 20 part boom hoist reeving, boom support straps or four 35 mm boom pendants and 51 980 kg counterweight.

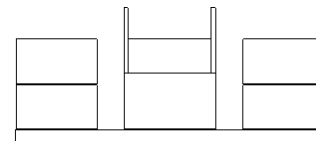
Maximum Boom Length Lifted Unassisted Over End of Blocked Crawlers

Boom Length

64.0m

Load block, hook and weight ball on ground at start.
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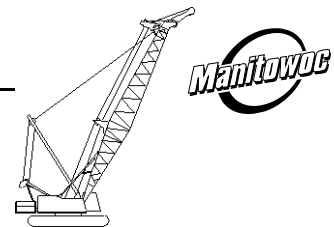
Jib is not to be used with this chart.



51 980 kg Crane Counterweight
4 Side Boxes - 1 Center Box

Boom Catwalks Deduct

Deduct 300 kg from capacities when boom catwalks are attached.
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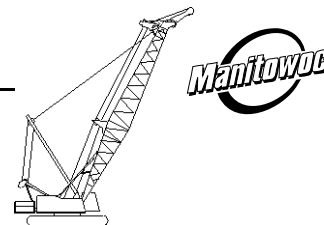
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999 SERIES 1

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
21.3m (70 Ft.) BOOM			
4.9	82.8	23.5	196 000 *b
5.0	82.5	23.5	191 700 *b
5.5	81.1	23.4	175 400 *b
6.0	79.7	23.3	161 600 *b
7.0	77.0	23.1	139 500 *b
8.0	74.2	22.8	122 200
9.0	71.3	22.5	100 700
10.0	68.4	22.1	83 200
11.0	65.5	21.6	70 900
12.0	62.5	21.1	61 500
13.0	59.3	20.5	54 200
14.0	56.1	19.8	48 200
15.0	52.7	19.0	43 300
16.0	49.1	18.1	39 300
18.0	41.3	16.0	32 700
20.0	31.9	13.2	27 800
24.4m (80 Ft.) BOOM			
5.2	83.0	26.6	185 000 *b
5.5	82.2	26.5	175 000 *b
6.0	81.0	26.4	161 300 *b
7.0	78.6	26.2	139 200 *b
8.0	76.2	26.0	122 000
9.0	73.8	25.7	100 900
10.0	71.3	25.3	83 400
11.0	68.8	24.9	71 100
12.0	66.2	24.5	61 600
13.0	63.5	24.0	54 200
14.0	60.9	23.4	48 300
15.0	58.1	22.8	43 400
16.0	55.2	22.1	39 200
18.0	49.1	20.4	32 700
20.0	42.4	18.4	27 800
22.0	34.5	15.7	24 000
24.0	24.5	11.9	20 900
27.4m (90 Ft.) BOOM			
5.8	82.5	29.6	166 600 *b
6.0	82.0	29.5	161 100 *b
7.0	79.9	29.3	139 000 *b
8.0	77.8	29.1	121 800
9.0	75.6	28.9	101 200
10.0	73.4	28.6	83 600
11.0	71.2	28.2	71 100
12.0	69.0	27.8	61 700
13.0	66.7	27.4	54 300
14.0	64.4	26.9	48 300

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
27.4m (90 Ft.) BOOM			
15.0	62.0	26.4	43 400
16.0	59.6	25.8	39 300
18.0	54.5	24.4	32 800
20.0	49.1	22.7	27 900
22.0	43.2	20.7	24 000
24.0	36.4	18.2	20 900
26.0	28.3	14.9	18 300
30.5m (100 Ft.) BOOM			
6.1	82.7	32.6	158 600 *b
7.0	80.9	32.5	138 900 *b
8.0	79.0	32.3	121 800
9.0	77.1	32.0	101 400
10.0	75.1	31.7	83 700
11.0	73.2	31.4	71 300
12.0	71.2	31.1	61 800
13.0	69.2	30.7	54 400
14.0	67.1	30.3	48 400
15.0	65.1	29.8	43 500
16.0	62.9	29.3	39 400
18.0	58.6	28.1	32 800
20.0	54.0	26.7	27 900
22.0	49.1	25.0	24 100
24.0	43.8	23.1	21 000
26.0	37.9	20.6	18 400
28.0	31.0	17.6	16 300
30.0	22.2	13.4	14 400
33.5m (110 Ft.) BOOM			
6.7	82.3	35.6	144 500 *
7.0	81.8	35.5	138 900 *
8.0	80.0	35.4	121 600
9.0	78.3	35.2	101 500
10.0	76.5	34.9	83 800
11.0	74.8	34.6	71 300
12.0	73.0	34.3	61 800
13.0	71.2	34.0	54 400
14.0	69.3	33.6	48 400
15.0	67.5	33.2	43 500
16.0	65.6	32.7	39 300
18.0	61.7	31.7	32 800
20.0	57.7	30.4	27 900
22.0	53.5	29.0	24 000
24.0	49.1	27.3	20 900
26.0	44.3	25.4	18 300
28.0	39.0	23.0	16 200
30.0	33.1	20.2	14 400
32.0	25.8	16.5	12 800

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
36.6m (120 Ft.) BOOM			
6.7	82.9	38.7	144 400 *
7.0	82.5	38.6	138 700 *
8.0	80.9	38.5	121 400
9.0	79.3	38.3	101 700
10.0	77.7	38.0	83 900
11.0	76.1	37.8	71 300
12.0	74.4	37.5	61 800
13.0	72.8	37.2	54 400
14.0	71.1	36.8	48 400
15.0	69.5	36.5	43 400
16.0	67.8	36.1	39 200
18.0	64.3	35.1	32 700
20.0	60.7	34.0	27 800
22.0	57.0	32.8	24 000
24.0	53.2	31.3	20 900
26.0	49.1	29.6	18 300
28.0	44.7	27.7	16 200
30.0	40.0	25.4	14 400
32.0	34.7	22.7	12 800
34.0	28.5	19.3	11 400
36.0	20.6	14.7	10 200
39.6m (130 Ft.) BOOM			
7.3	82.6	41.7	132 600 *
8.0	81.6	41.6	121 300
9.0	80.1	41.4	101 800
10.0	78.6	41.2	83 900
11.0	77.2	40.9	71 400
12.0	75.7	40.7	61 800
13.0	74.2	40.4	54 400
14.0	72.6	40.1	48 400
15.0	71.1	39.7	43 400
16.0	69.6	39.4	39 200
18.0	66.4	38.5	32 700
20.0	63.2	37.5	27 800
22.0	59.9	36.4	23 900
24.0	56.4	35.1	20 800
26.0	52.8	33.6	18 300
28.0	49.1	31.9	16 200
30.0	45.1	30.0	14 300
32.0	40.7	27.8	12 800
34.0	36.0	25.2	11 400
36.0	30.5	22.0	10 200
38.0	24.0	18.0	9 100



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Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
42.7m (140 Ft.) BOOM			
7.9	82.3	44.7	122 400 *
8.0	82.2	44.6	121 100
9.0	80.8	44.5	101 900
10.0	79.5	44.3	83 900
11.0	78.1	44.1	71 400
12.0	76.7	43.8	61 800
13.0	75.3	43.6	54 300
14.0	73.9	43.3	48 300
15.0	72.5	43.0	43 400
16.0	71.1	42.6	39 200
18.0	68.2	41.8	32 700
20.0	65.3	40.9	27 700
22.0	62.2	39.9	23 800
24.0	59.1	38.7	20 800
26.0	55.9	37.4	18 200
28.0	52.6	35.9	16 100
30.0	49.1	34.2	14 300
32.0	45.4	32.3	12 700
34.0	41.4	30.1	11 300
36.0	37.0	27.6	10 100
38.0	32.2	24.6	9 100
40.0	26.6	20.9	8 100
42.0	19.4	16.0	7 200
45.7m (150 Ft.) BOOM			
7.9	82.8	47.7	120 400 *
8.0	82.7	47.7	119 300
9.0	81.4	47.6	102 200
10.0	80.2	47.4	83 900
11.0	78.9	47.2	71 400
12.0	77.6	47.0	61 800
13.0	76.3	46.7	54 300
14.0	75.0	46.4	48 200
15.0	73.7	46.2	43 300
16.0	72.4	45.8	39 100
18.0	69.7	45.1	32 500
20.0	67.0	44.3	27 600
22.0	64.3	43.3	23 700
24.0	61.4	42.3	20 600
26.0	58.5	41.1	18 000
28.0	55.5	39.7	15 900
30.0	52.3	38.2	14 100
32.0	49.1	36.5	12 500
34.0	45.6	34.6	11 200
36.0	41.9	32.5	10 000
38.0	37.9	30.0	8 900
40.0	33.6	27.2	7 900
42.0	28.6	23.7	7 100
44.0	22.6	19.4	6 300

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
48.8m (160 Ft.) BOOM			
8.5	82.5	50.7	107 000 *
9.0	82.0	50.7	100 500
10.0	80.8	50.5	83 900
11.0	79.6	50.3	71 300
12.0	78.4	50.1	61 700
13.0	77.2	49.9	54 200
14.0	76.0	49.6	48 100
15.0	74.8	49.3	43 200
16.0	73.5	49.0	39 000
18.0	71.1	48.4	32 400
20.0	68.5	47.6	27 500
22.0	66.0	46.7	23 600
24.0	63.4	45.7	20 500
26.0	60.7	44.6	17 900
28.0	57.9	43.4	15 800
30.0	55.1	42.1	14 000
32.0	52.1	40.5	12 400
34.0	49.1	38.8	11 000
36.0	45.8	37.0	9 800
38.0	42.4	34.8	8 800
40.0	38.7	32.4	7 800
42.0	34.7	29.7	7 000
44.0	30.2	26.4	6 200
46.0	25.0	22.5	5 500
48.0	18.5	17.3	4 800
51.8m (170 Ft.) BOOM			
8.5	83.0	53.8	105 500 *
9.0	82.5	53.7	100 200
10.0	81.3	53.6	83 900
11.0	80.2	53.4	71 300
12.0	79.1	53.2	61 700
13.0	78.0	53.0	54 200
14.0	76.8	52.8	48 100
15.0	75.7	52.5	43 100
16.0	74.5	52.2	38 900
18.0	72.2	51.6	32 300
20.0	69.9	50.9	27 400
22.0	67.5	50.1	23 500
24.0	65.1	49.2	20 400
26.0	62.6	48.1	17 800
28.0	60.0	47.0	15 700
30.0	57.4	45.8	13 900
32.0	54.7	44.4	12 300
34.0	52.0	42.8	10 900
36.0	49.1	41.1	9 700
38.0	46.0	39.3	8 700
40.0	42.8	37.2	7 700
42.0	39.4	34.8	6 900
44.0	35.7	32.1	6 100
46.0	31.6	29.1	5 400
48.0	27.0	25.4	4 800
50.0	21.5	20.8	4 200

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
54.9m (180 Ft.) BOOM			
9.1	82.7	56.8	93 600 *
10.0	81.8	56.7	84 500
11.0	80.8	56.5	71 200
12.0	79.7	56.3	61 600
13.0	78.6	56.1	54 100
14.0	77.6	55.9	48 000
15.0	76.5	55.6	43 000
16.0	75.4	55.4	38 800
18.0	73.2	54.8	32 200
20.0	71.0	54.1	27 200
22.0	68.8	53.4	23 300
24.0	66.5	52.5	20 200
26.0	64.2	51.6	17 700
28.0	61.9	50.5	15 500
30.0	59.5	49.4	13 700
32.0	57.0	48.1	12 200
34.0	54.4	46.7	10 800
36.0	51.8	45.1	9 600
38.0	49.0	43.4	8 500
40.0	46.2	41.6	7 600
42.0	43.2	39.5	6 700
44.0	40.0	37.2	6 000
46.0	36.6	34.6	5 300
48.0	32.8	31.6	4 600
50.0	28.6	28.2	4 100
52.0	23.8	24.0	3 500



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Meets
ANSI B30.5
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Boom No. 82 or 22EL
51 980 kg Counterweight
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999 SERIES 1

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
57.9m (190 Ft.) BOOM			
9.8	82.5	59.8	87 800
10.0	82.3	59.8	84 200
11.0	81.3	59.6	71 200
12.0	80.3	59.4	61 600
13.0	79.2	59.2	54 000
14.0	78.2	59.0	47 900
15.0	77.2	58.8	42 900
16.0	76.2	58.5	38 700
18.0	74.2	58.0	32 100
20.0	72.1	57.3	27 100
22.0	70.0	56.6	23 200
24.0	67.8	55.8	20 100
26.0	65.7	54.9	17 500
28.0	63.5	54.0	15 300
30.0	61.2	52.9	13 500
32.0	58.9	51.7	11 900
34.0	56.6	50.4	10 600
36.0	54.1	49.0	9 400
38.0	51.6	47.4	8 300
40.0	49.0	45.7	7 400
42.0	46.3	43.9	6 500
44.0	43.5	41.8	5 800
46.0	40.5	39.6	5 100
48.0	37.3	37.0	4 400
50.0	33.9	34.2	3 800
52.0	30.0	30.9	3 300
54.0	25.7	27.0	2 800
56.0	20.5	22.1	2 400

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
61.0m (200 Ft.) BOOM			
9.8	82.9	62.9	80 200 *
10.0	82.7	62.8	79 700
11.0	81.7	62.7	71 100
12.0	80.7	62.5	61 500
13.0	79.8	62.3	53 900
14.0	78.8	62.1	47 800
15.0	77.9	61.9	42 800
16.0	76.9	61.7	38 600
18.0	75.0	61.2	31 900
20.0	73.0	60.6	27 000
22.0	71.0	59.9	23 100
24.0	69.0	59.1	19 900
26.0	67.0	58.3	17 300
28.0	64.9	57.4	15 200
30.0	62.8	56.4	13 400
32.0	60.7	55.3	11 800
34.0	58.5	54.1	10 400
36.0	56.2	52.7	9 200
38.0	53.9	51.3	8 200
40.0	51.5	49.7	7 200
42.0	49.0	48.0	6 400
44.0	46.5	46.2	5 600
46.0	43.8	44.2	4 900
48.0	41.0	41.9	4 300
50.0	38.0	39.4	3 700
52.0	34.8	36.6	3 200
54.0	31.2	33.5	2 600
56.0	27.3	29.8	2 200

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
64.0m (210 Ft.) BOOM			
10.4	82.7	65.9	77 700 *
11.0	82.1	65.8	71 100
12.0	81.2	65.6	61 400
13.0	80.3	65.4	53 800
14.0	79.4	65.2	47 700
15.0	78.5	65.0	42 700
16.0	77.5	64.8	38 500
18.0	75.7	64.3	31 800
20.0	73.8	63.7	26 800
22.0	72.0	63.1	22 900
24.0	70.1	62.4	19 800
26.0	68.1	61.6	17 200
28.0	66.2	60.7	15 000
30.0	64.2	59.8	13 200
32.0	62.2	58.8	11 700
34.0	60.1	57.6	10 300
36.0	58.0	56.4	9 100
38.0	55.9	55.1	8 000
40.0	53.7	53.6	7 100
42.0	51.4	52.0	6 200
44.0	49.0	50.3	5 500
46.0	46.6	48.5	4 800
48.0	44.1	46.5	4 100
50.0	41.4	44.3	3 600
52.0	38.6	41.8	3 000
54.0	35.6	39.1	2 500
56.0	32.3	36.1	2 100