

Liftcrane Boom Capacities

Boom No. 82 or 22EL
51 980 kg Counterweight
360 Degree Rating

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. 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. 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, travel, wind conditions, as well as adverse operating conditions and physical machine depreciation. Refer to operators manual for operating guidelines.

MACHINE TRAVEL: Machine to travel on a firm, level and uniformly supporting surface and boom within boom angle range shown in capacity chart. Refer to Maximum Allowable Travel Specification chart **No. 8225-A**.

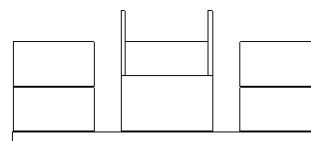
OPERATING RADIUS: Operating radius is horizontal distance from axis of rotation to center of vertical hoist line or load block. Boom angle is angle between horizontal and centerline of boom butt and inserts, and is an indication of operating radius. In all cases, operating radius shall govern capacity.

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.

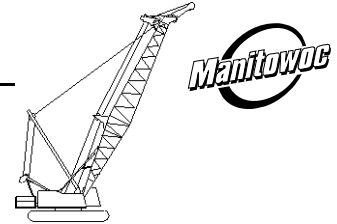
Maximum Boom Lengths Lifted Unassisted	
Over End of Blocked Crawlers	Over Side of Crawlers
64.0m	57.9m
Load block, hook and weight ball on ground at start.	

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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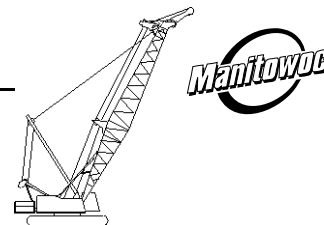
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Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
21.3m (70 Ft.) BOOM			
4.9	82.8	23.5	196 000 *b
5.0	82.5	23.5	191 700 *b
5.5	81.1	23.4	175 400 *b
6.0	79.7	23.3	159 300 b
7.0	77.0	23.1	118 100 b
8.0	74.2	22.8	93 100
9.0	71.3	22.5	76 300
10.0	68.4	22.1	64 500
11.0	65.5	21.6	55 600
12.0	62.5	21.1	48 600
13.0	59.3	20.5	43 100
14.0	56.1	19.8	38 500
15.0	52.7	19.0	34 700
16.0	49.1	18.1	31 500
18.0	41.3	16.0	26 300
20.0	31.9	13.2	22 400
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	159 400 b
7.0	78.6	26.2	118 300 b
8.0	76.2	26.0	93 300
9.0	73.8	25.7	76 500
10.0	71.3	25.3	64 500
11.0	68.8	24.9	55 600
12.0	66.2	24.5	48 600
13.0	63.5	24.0	43 100
14.0	60.9	23.4	38 500
15.0	58.1	22.8	34 700
16.0	55.2	22.1	31 500
18.0	49.1	20.4	26 300
20.0	42.4	18.4	22 400
22.0	34.5	15.7	19 200
24.0	24.5	11.9	16 600
27.4m (90 Ft.) BOOM			
5.8	82.5	29.6	166 600 *b
6.0	82.0	29.5	159 300 b
7.0	79.9	29.3	118 600 b
8.0	77.8	29.1	93 400
9.0	75.6	28.9	76 600
10.0	73.4	28.6	64 600
11.0	71.2	28.2	55 600
12.0	69.0	27.8	48 700
13.0	66.7	27.4	43 100
14.0	64.4	26.9	38 500

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
27.4m (90 Ft.) BOOM			
15.0	62.0	26.4	34 700
16.0	59.6	25.8	31 500
18.0	54.5	24.4	26 300
20.0	49.1	22.7	22 400
22.0	43.2	20.7	19 300
24.0	36.4	18.2	16 700
26.0	28.3	14.9	14 600
30.5m (100 Ft.) BOOM			
6.1	82.7	32.6	156 300 b
7.0	80.9	32.5	118 800 b
8.0	79.0	32.3	93 600
9.0	77.1	32.0	76 700
10.0	75.1	31.7	64 700
11.0	73.2	31.4	55 700
12.0	71.2	31.1	48 700
13.0	69.2	30.7	43 100
14.0	67.1	30.3	38 500
15.0	65.1	29.8	34 800
16.0	62.9	29.3	31 500
18.0	58.6	28.1	26 300
20.0	54.0	26.7	22 400
22.0	49.1	25.0	19 300
24.0	43.8	23.1	16 800
26.0	37.9	20.6	14 600
28.0	31.0	17.6	12 800
30.0	22.2	13.4	11 300
33.5m (110 Ft.) BOOM			
6.7	82.3	35.6	129 300
7.0	81.8	35.5	119 900
8.0	80.0	35.4	93 600
9.0	78.3	35.2	76 700
10.0	76.5	34.9	64 700
11.0	74.8	34.6	55 700
12.0	73.0	34.3	48 700
13.0	71.2	34.0	43 100
14.0	69.3	33.6	38 500
15.0	67.5	33.2	34 700
16.0	65.6	32.7	31 400
18.0	61.7	31.7	26 300
20.0	57.7	30.4	22 300
22.0	53.5	29.0	19 200
24.0	49.1	27.3	16 600
26.0	44.3	25.4	14 500
28.0	39.0	23.0	12 800
30.0	33.1	20.2	11 200
32.0	25.8	16.5	9 900

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
36.6m (120 Ft.) BOOM			
6.7	82.9	38.7	129 400
7.0	82.5	38.6	120 000
8.0	80.9	38.5	93 700
9.0	79.3	38.3	76 700
10.0	77.7	38.0	64 700
11.0	76.1	37.8	55 700
12.0	74.4	37.5	48 700
13.0	72.8	37.2	43 000
14.0	71.1	36.8	38 500
15.0	69.5	36.5	34 600
16.0	67.8	36.1	31 400
18.0	64.3	35.1	26 200
20.0	60.7	34.0	22 200
22.0	57.0	32.8	19 100
24.0	53.2	31.3	16 600
26.0	49.1	29.6	14 500
28.0	44.7	27.7	12 700
30.0	40.0	25.4	11 200
32.0	34.7	22.7	9 900
34.0	28.5	19.3	8 700
36.0	20.6	14.7	7 700
39.6m (130 Ft.) BOOM			
7.3	82.6	41.7	110 000
8.0	81.6	41.6	93 800
9.0	80.1	41.4	76 800
10.0	78.6	41.2	64 700
11.0	77.2	40.9	55 700
12.0	75.7	40.7	48 600
13.0	74.2	40.4	43 000
14.0	72.6	40.1	38 500
15.0	71.1	39.7	34 600
16.0	69.6	39.4	31 300
18.0	66.4	38.5	26 200
20.0	63.2	37.5	22 200
22.0	59.9	36.4	19 100
24.0	56.4	35.1	16 500
26.0	52.8	33.6	14 500
28.0	49.1	31.9	12 700
30.0	45.1	30.0	11 200
32.0	40.7	27.8	9 800
34.0	36.0	25.2	8 700
36.0	30.5	22.0	7 700
38.0	24.0	18.0	6 800



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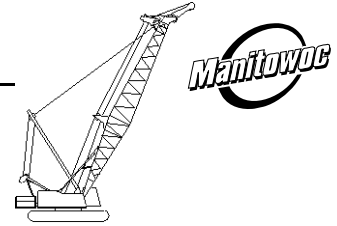
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999 SERIES 1

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
42.7m (140 Ft.) BOOM			
7.9	82.3	44.7	95 400
8.0	82.2	44.6	94 000
9.0	80.8	44.5	76 800
10.0	79.5	44.3	64 700
11.0	78.1	44.1	55 700
12.0	76.7	43.8	48 600
13.0	75.3	43.6	43 000
14.0	73.9	43.3	38 400
15.0	72.5	43.0	34 500
16.0	71.1	42.6	31 300
18.0	68.2	41.8	26 100
20.0	65.3	40.9	22 100
22.0	62.2	39.9	19 000
24.0	59.1	38.7	16 400
26.0	55.9	37.4	14 300
28.0	52.6	35.9	12 600
30.0	49.1	34.2	11 100
32.0	45.4	32.3	9 800
34.0	41.4	30.1	8 600
36.0	37.0	27.6	7 600
38.0	32.2	24.6	6 700
40.0	26.6	20.9	5 900
42.0	19.4	16.0	5 100
45.7m (150 Ft.) BOOM			
7.9	82.8	47.7	95 400
8.0	82.7	47.7	94 000
9.0	81.4	47.6	76 700
10.0	80.2	47.4	64 600
11.0	78.9	47.2	55 600
12.0	77.6	47.0	48 500
13.0	76.3	46.7	42 800
14.0	75.0	46.4	38 200
15.0	73.7	46.2	34 400
16.0	72.4	45.8	31 100
18.0	69.7	45.1	25 900
20.0	67.0	44.3	22 000
22.0	64.3	43.3	18 800
24.0	61.4	42.3	16 300
26.0	58.5	41.1	14 100
28.0	55.5	39.7	12 400
30.0	52.3	38.2	10 900
32.0	49.1	36.5	9 600
34.0	45.6	34.6	8 400
36.0	41.9	32.5	7 400
38.0	37.9	30.0	6 500
40.0	33.6	27.2	5 700
42.0	28.6	23.7	5 000
44.0	22.6	19.4	4 300

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
48.8m (160 Ft.) BOOM			
8.5	82.5	50.7	84 000
9.0	82.0	50.7	76 900
10.0	80.8	50.5	64 600
11.0	79.6	50.3	55 500
12.0	78.4	50.1	48 400
13.0	77.2	49.9	42 700
14.0	76.0	49.6	38 100
15.0	74.8	49.3	34 300
16.0	73.5	49.0	31 000
18.0	71.1	48.4	25 800
20.0	68.5	47.6	21 800
22.0	66.0	46.7	18 700
24.0	63.4	45.7	16 100
26.0	60.7	44.6	14 000
28.0	57.9	43.4	12 300
30.0	55.1	42.1	10 800
32.0	52.1	40.5	9 400
34.0	49.1	38.8	8 300
36.0	45.8	37.0	7 300
38.0	42.4	34.8	6 400
40.0	38.7	32.4	5 600
42.0	34.7	29.7	4 900
44.0	30.2	26.4	4 200
46.0	25.0	22.5	3 600
48.0	18.5	17.3	3 100
51.8m (170 Ft.) BOOM			
8.5	83.0	53.8	83 900
9.0	82.5	53.7	76 900
10.0	81.3	53.6	64 500
11.0	80.2	53.4	55 400
12.0	79.1	53.2	48 300
13.0	78.0	53.0	42 700
14.0	76.8	52.8	38 000
15.0	75.7	52.5	34 200
16.0	74.5	52.2	30 900
18.0	72.2	51.6	25 700
20.0	69.9	50.9	21 700
22.0	67.5	50.1	18 600
24.0	65.1	49.2	16 000
26.0	62.6	48.1	13 900
28.0	60.0	47.0	12 100
30.0	57.4	45.8	10 600
32.0	54.7	44.4	9 300
34.0	52.0	42.8	8 200
36.0	49.1	41.1	7 200
38.0	46.0	39.3	6 300
40.0	42.8	37.2	5 500
42.0	39.4	34.8	4 800
44.0	35.7	32.1	4 100
46.0	31.6	29.1	3 500
48.0	27.0	25.4	3 000
50.0	21.5	20.8	2 500

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
54.9m (180 Ft.) BOOM			
9.1	82.7	56.8	74 700
10.0	81.8	56.7	64 400
11.0	80.8	56.5	55 300
12.0	79.7	56.3	48 300
13.0	78.6	56.1	42 500
14.0	77.6	55.9	37 900
15.0	76.5	55.6	34 100
16.0	75.4	55.4	30 800
18.0	73.2	54.8	25 600
20.0	71.0	54.1	21 600
22.0	68.8	53.4	18 400
24.0	66.5	52.5	15 900
26.0	64.2	51.6	13 800
28.0	61.9	50.5	12 000
30.0	59.5	49.4	10 500
32.0	57.0	48.1	9 200
34.0	54.4	46.7	8 000
36.0	51.8	45.1	7 000
38.0	49.0	43.4	6 200
40.0	46.2	41.6	5 300
42.0	43.2	39.5	4 600
44.0	40.0	37.2	4 000
46.0	36.6	34.6	3 400
48.0	32.8	31.6	2 800
50.0	28.6	28.2	2 300
57.9m (190 Ft.) BOOM			
9.8	82.5	59.8	67 100
10.0	82.3	59.8	64 600
11.0	81.3	59.6	55 200
12.0	80.3	59.4	48 200
13.0	79.2	59.2	42 500
14.0	78.2	59.0	37 800
15.0	77.2	58.8	33 900
16.0	76.2	58.5	30 700
18.0	74.2	58.0	25 400
20.0	72.1	57.3	21 400
22.0	70.0	56.6	18 200
24.0	67.8	55.8	15 700
26.0	65.7	54.9	13 600
28.0	63.5	54.0	11 800
30.0	61.2	52.9	10 300
32.0	58.9	51.7	9 000
34.0	56.6	50.4	7 900
36.0	54.1	49.0	6 800
38.0	51.6	47.4	5 900
40.0	49.0	45.7	5 200
42.0	46.3	43.9	4 400
44.0	43.5	41.8	3 800
46.0	40.5	39.6	3 200
48.0	37.3	37.0	2 700
50.0	33.9	34.2	2 100



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Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
61.0m (200 Ft.) BOOM			
9.8	82.9	62.9	67 000
10.0	82.7	62.8	64 500
11.0	81.7	62.7	55 200
12.0	80.7	62.5	48 000
13.0	79.8	62.3	42 300
14.0	78.8	62.1	37 700
15.0	77.9	61.9	33 800
16.0	76.9	61.7	30 500
18.0	75.0	61.2	25 300
20.0	73.0	60.6	21 200
22.0	71.0	59.9	18 100
24.0	69.0	59.1	15 500
26.0	67.0	58.3	13 400
28.0	64.9	57.4	11 600
30.0	62.8	56.4	10 100
32.0	60.7	55.3	8 800
34.0	58.5	54.1	7 700
36.0	56.2	52.7	6 700
38.0	53.9	51.3	5 800
40.0	51.5	49.7	5 000
42.0	49.0	48.0	4 200
44.0	46.5	46.2	3 600
46.0	43.8	44.2	3 000
48.0	41.0	41.9	2 500
50.0	38.0	39.4	2 000

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
64.0m (210 Ft.) BOOM			
10.4	82.7	65.9	60 600
11.0	82.1	65.8	55 100
12.0	81.2	65.6	47 900
13.0	80.3	65.4	42 200
14.0	79.4	65.2	37 500
15.0	78.5	65.0	33 700
16.0	77.5	64.8	30 400
18.0	75.7	64.3	25 100
20.0	73.8	63.7	21 100
22.0	72.0	63.1	17 900
24.0	70.1	62.4	15 400
26.0	68.1	61.6	13 300
28.0	66.2	60.7	11 500
30.0	64.2	59.8	10 000
32.0	62.2	58.8	8 700
34.0	60.1	57.6	7 500
36.0	58.0	56.4	6 500
38.0	55.9	55.1	5 600
40.0	53.7	53.6	4 800
42.0	51.4	52.0	4 100
44.0	49.0	50.3	3 500
46.0	46.6	48.5	2 900
48.0	44.1	46.5	2 300
50.0	41.4	44.3	1 800