

Liftcrane Boom Capacities

Meets
ANSI B30.5
Requirements

Boom No. 83A
24 040 kg Counterweight
360 Degree Rating

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 are not shown for boom positions which, without load, provide less than required ANSI B30.5 backward stability.

Capacities indicated by (b) require 1 770 kg minimum weight. Capacities indicated by (c) require 4 540 kg minimum weight. Capacities indicated by (d) require 6 800 kg minimum weight.

To maintain boom and mast stability at high boom angles, a minimum of 4 parts hoist line is required for capacities denoted by (c) and (d).

Upper boom point operation not allowed on capacities denoted by (b), (c) or (d).

Upper boom point capacity for liftcrane service is 29 940 kg with single part 38 mm whip line. Upper boom point capacity for liftcrane service is 19 960 kg with single part 32 mm whip line or 29 940 kg with two part whip line. When boom butt mounted auxiliary drum equipped for 28 mm wire rope is used, capacity with single part whip line is 14 970 kg or 29 940 kg with two part whip line. In all cases, upper boom point capacities cannot exceed those listed for main boom capacity.

Weight of upper boom point, jib, all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom and jib 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. A14196** and Wire Rope Specification chart **No. 8689-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 Operator's 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. 8692-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 7 163 mm extendible crawlers, 1 000 mm treads, 2 921 mm gantry, 7 620 mm live mast, 12 part boom hoist reeving, two 38 mm pendants and 24 040 kg counterweight.

Deduct From Capacities When Jib Is Attached

Jib Length	Jib No. 134A
6,1m	1 950 kg
9,1m	2 310 kg
12,2m	2 770 kg
15,2m	3 220 kg
18,3m	3 540 kg
21,3m	4 040 kg

Upper Boom Point Deduct

Deduct 590 kg from capacities when upper boom point is attached.

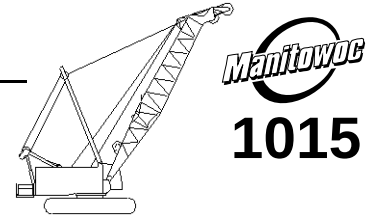
Auxiliary Drum Deduct

Deduct 910 kg from boom capacities when boom butt is equipped with auxiliary drum.

Consult jib chart for jib capacities. Upper boom point and wire rope guard (**No. A13283**) on boom top must be removed when jib is attached. Wire rope guard (**No. A13283**) on boom top must be removed before use of this chart.

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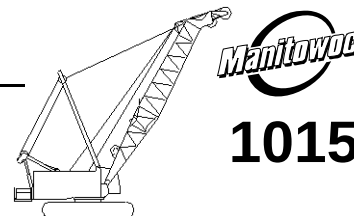
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Maximum Boom and Jib Lengths Lifted Unassisted							
Over Front of Blocked Crawlers		Over Rear of Blocked Crawlers		Over Side of Extended Crawlers		Over Side of Retracted Crawlers	
Boom Length	Jib No. 134A	Boom Length	Jib No. 134A	Boom Length	Jib No. 134A	Boom Length	Jib No. 134A
(a) 57,9m	—	51,8m	—	45,7m	—	39,6m	—
54,9m	—	48,8m	9,1m	42,7m	6,1m	36,6m	6,1m
51,8m	—	45,7m	18,3m	39,6m	12,2m	33,5m	15,2m
48,8m	12,2m	42,7m	21,3m	36,6m	21,3m	30,5m	21,3m
45,7m	21,3m						

Load block, hook and weight ball on ground at start. (a) Upper boom point cannot be attached on 57,9m boom.

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Crawlers Retracted Kilograms	Boom Capacity Crawlers Extended Kilograms
15,2m (50 Ft.) Boom				
4,3	82,0	17,5		120 000 *d
4,5	81,1	17,5		115 200 *d
5,0	79,2	17,3		106 600 c
5,5	77,2	17,2		89 200 c
6,0	75,3	17,0		77 200 b
7,0	71,3	16,7		60 500 b
8,0	67,2	16,2		49 500
9,0	62,9	15,7		41 700
10,0	58,5	15,1		35 800
11,0	53,8	14,4		31 300
12,0	48,8	13,5		27 600
14,0	37,1	11,1	17 300	22 100
18,3m (60 Ft.) Boom				
4,6	82,4	20,5		114 600 *d
5,0	81,0	20,5		106 800 c
5,5	79,4	20,3		89 500 c
6,0	77,8	20,2		77 400 b
7,0	74,5	19,9		60 700 b
8,0	71,2	19,6		49 600
9,0	67,8	19,1		41 800
10,0	64,3	18,6		35 900
11,0	60,7	18,1		31 400
12,0	56,9	17,4		27 700
14,0	48,8	15,8	17 400	22 200
16,0	39,4	13,5	14 200	18 200
18,0	27,1	10,2	11 800	15 200

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Crawlers Retracted Kilograms	Boom Capacity Crawlers Extended Kilograms
21,3m (70 Ft.) Boom				
4,9	82,6	23,6		110 600 c
5,0	82,3	23,5		106 000 c
5,5	80,9	23,5		89 600 c
6,0	79,6	23,4		77 500 b
7,0	76,8	23,1		60 700 b
8,0	74,0	22,8		49 700
9,0	71,1	22,5		41 800
10,0	68,2	22,0		35 900
11,0	65,3	21,6		31 400
12,0	62,2	21,0		27 700
14,0	55,8	19,7	17 400	22 200
16,0	48,8	18,1	14 300	18 300
18,0	40,9	15,9	11 900	15 400
20,0	31,3	12,9	10 000	13 000
24,4m (80 Ft.) Boom				
5,2	82,8	26,6		98 800 c
5,5	82,1	26,5		89 100 c
6,0	80,9	26,5		77 100 b
7,0	78,5	26,2		60 300 b
8,0	76,1	26,0		49 300
9,0	73,6	25,7		41 500
10,0	71,1	25,3		35 600
11,0	68,6	24,9		31 100
12,0	66,0	24,5		27 400
14,0	60,6	23,4	17 100	22 000
16,0	55,0	22,0	14 000	18 100
18,0	48,9	20,4	11 700	15 100
20,0	42,0	18,3	9 900	12 900
22,0	34,1	15,5	8 400	11 000
24,0	23,8	11,6	7 100	9 500


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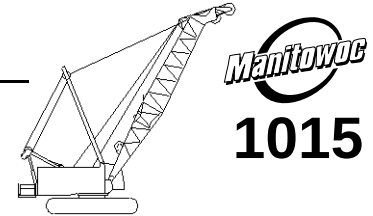
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27,4m (90 Ft.) Boom				
5,5	83,0	29,6		89 500 c
6,0	81,9	29,6		77 000 b
7,0	79,8	29,4		60 300 b
8,0	77,6	29,1		49 300
9,0	75,5	28,9		41 400
10,0	73,3	28,6		35 600
11,0	71,1	28,2		31 000
12,0	68,8	27,8		27 400
14,0	64,2	26,9	17 000	21 900
16,0	59,4	25,7	13 900	18 000
18,0	54,3	24,3	11 600	15 100
20,0	48,9	22,7	9 800	12 800
22,0	42,9	20,6	8 300	11 000
24,0	36,1	18,0	7 100	9 500
26,0	27,8	14,6	6 000	8 200
30,5m (100 Ft.) Boom				
6,1	82,5	32,6		75 100 b
7,0	80,8	32,5		60 200 b
8,0	78,9	32,3		49 200
9,0	77,0	32,0		41 300
10,0	75,0	31,7		35 400
11,0	73,0	31,4		30 900
12,0	71,1	31,1	21 100	27 200
14,0	67,0	30,3	16 800	21 700
16,0	62,8	29,3	13 800	17 900
18,0	58,4	28,1	11 400	14 900
20,0	53,8	26,6	9 600	12 600
22,0	48,9	25,0	8 100	10 800
24,0	43,5	22,9	6 900	9 300
26,0	37,6	20,5	5 900	8 100
28,0	30,6	17,4	5 000	7 000
30,0	21,6	13,0	4 200	6 000

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Crawlers Retracted Kilograms	Boom Capacity Crawlers Extended Kilograms
33,5m (110 Ft.) Boom				
6,7	82,2	35,6		64 400 b
7,0	81,7	35,6		60 500 b
8,0	79,9	35,4		49 100
9,0	78,2	35,2		41 300
10,0	76,4	34,9		35 400
11,0	74,6	34,6		30 800
12,0	72,8	34,3	21 000	27 200
14,0	69,2	33,6	16 800	21 700
16,0	65,5	32,7	13 700	17 800
18,0	61,6	31,6	11 400	14 900
20,0	57,6	30,4	9 600	12 600
22,0	53,4	29,0	8 100	10 800
24,0	48,9	27,3	6 900	9 300
26,0	44,1	25,3	5 800	8 100
28,0	38,8	22,9	5 000	7 000
30,0	32,7	20,0	4 200	6 100
32,0	25,4	16,2	3 500	5 300
36,6m (120 Ft.) Boom				
6,7	82,8	38,7		64 400 b
7,0	82,4	38,7		60 400 b
8,0	80,8	38,5		49 000
9,0	79,2	38,3		41 200
10,0	77,6	38,1		35 200
11,0	76,0	37,8	23 800	30 700
12,0	74,3	37,5	20 900	27 000
14,0	71,0	36,8	16 600	21 500
16,0	67,6	36,0	13 500	17 600
18,0	64,2	35,1	11 200	14 700
20,0	60,6	34,0	9 400	12 500
22,0	56,9	32,7	7 900	10 600
24,0	53,0	31,3	6 700	9 100
26,0	48,9	29,6	5 700	7 900
28,0	44,5	27,6	4 800	6 800
30,0	39,7	25,3	4 100	5 900
32,0	34,4	22,5	3 400	5 100
34,0	28,1	19,1	2 800	4 400
36,0	20,0	14,3	2 300	3 700



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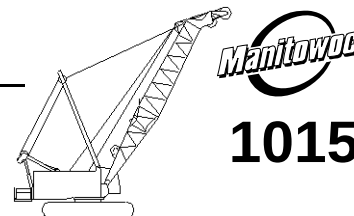
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39,6m (130 Ft.) Boom				
7,3	82,5	41,7		56 100
8,0	81,5	41,6		48 900
9,0	80,0	41,4		41 000
10,0	78,5	41,2		35 100
11,0	77,1	41,0	23 600	30 500
12,0	75,6	40,7	20 700	26 900
14,0	72,5	40,1	16 400	21 400
16,0	69,5	39,3	13 400	17 500
18,0	66,3	38,5	11 100	14 600
20,0	63,1	37,5	9 200	12 300
22,0	59,8	36,3	7 700	10 500
24,0	56,3	35,0	6 500	9 000
26,0	52,7	33,6	5 500	7 700
28,0	48,9	31,9	4 700	6 600
30,0	44,9	29,9	3 900	5 800
32,0	40,5	27,7	3 300	5 000
34,0	35,7	25,0	2 700	4 300
36,0	30,2	21,8	2 100	3 700
38,0	23,6	17,6		3 100
42,7m (140 Ft.) Boom				
7,3	83,0	44,8		56 000
8,0	82,1	44,7		48 800
9,0	80,7	44,5		40 900
10,0	79,4	44,3		35 000
11,0	78,0	44,1	23 300	30 400
12,0	76,6	43,8	20 500	26 700
14,0	73,8	43,3	16 200	21 200
16,0	71,0	42,6	13 200	17 300
18,0	68,1	41,8	10 900	14 400
20,0	65,2	40,9	9 000	12 100
22,0	62,1	39,9	7 600	10 300
24,0	59,0	38,7	6 300	8 800
26,0	55,8	37,4	5 300	7 500
28,0	52,4	35,9	4 400	6 500
30,0	48,9	34,2	3 700	5 600
32,0	45,2	32,2	3 000	4 800
34,0	41,2	30,0	2 400	4 100
36,0	36,8	27,5	1 900	3 500
38,0	31,9	24,4		2 900
40,0	26,2	20,7		2 400
42,0	18,9	15,6		1 900

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Crawlers Retracted Kilograms	Boom Capacity Crawlers Extended Kilograms
45,7m (150 Ft.) Boom				
7,9	82,7	47,8		49 400
8,0	82,6	47,7		48 700
9,0	81,4	47,6		40 800
10,0	80,1	47,4		34 800
11,0	78,8	47,2	23 200	30 300
12,0	77,5	47,0	20 400	26 600
14,0	74,9	46,5	16 100	21 100
16,0	72,3	45,8	13 100	17 200
18,0	69,6	45,1	10 700	14 300
20,0	66,9	44,3	8 900	12 000
22,0	64,2	43,3	7 400	10 200
24,0	61,3	42,2	6 200	8 700
26,0	58,4	41,0	5 200	7 400
28,0	55,4	39,7	4 300	6 400
30,0	52,2	38,2	3 600	5 500
32,0	48,9	36,5	2 900	4 700
34,0	45,4	34,5	2 400	4 000
36,0	41,7	32,4		3 400
38,0	37,7	29,9		2 800
40,0	33,3	27,0		2 300
48,8m (160 Ft.) Boom				
8,5	82,5	50,7		44 000
9,0	81,9	50,7		40 700
10,0	80,7	50,5	26 500	34 700
11,0	79,5	50,3	23 000	30 100
12,0	78,3	50,1	20 200	26 400
14,0	75,9	49,6	15 900	20 900
16,0	73,5	49,0	12 900	17 000
18,0	71,0	48,4	10 500	14 000
20,0	68,5	47,6	8 700	11 800
22,0	65,9	46,7	7 200	10 000
24,0	63,3	45,7	6 000	8 500
26,0	60,6	44,6	5 000	7 200
28,0	57,8	43,4	4 100	6 100
30,0	55,0	42,0	3 400	5 300
32,0	52,0	40,5	2 700	4 500
34,0	48,9	38,8	2 200	3 800
36,0	45,7	36,9		3 200
38,0	42,2	34,7		2 600
40,0	38,5	32,3		2 100


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51,8m (170 Ft.) Boom				
8,5	82,9	53,8		43 900
9,0	82,4	53,8		40 600
10,0	81,3	53,6	26 300	34 500
11,0	80,1	53,4	22 800	30 000
12,0	79,0	53,2	20 000	26 300
14,0	76,8	52,8	15 800	20 700
16,0	74,5	52,2	12 700	16 800
18,0	72,1	51,6	10 300	13 900
20,0	69,8	50,9	8 500	11 600
22,0	67,4	50,0	7 000	9 800
24,0	65,0	49,1	5 800	8 300
26,0	62,5	48,1	4 800	7 000
28,0	59,9	47,0	3 900	6 000
30,0	57,3	45,7	3 200	5 100
32,0	54,6	44,3	2 500	4 300
34,0	51,8	42,8		3 600
36,0	48,9	41,1		3 000
38,0	45,9	39,2		2 400
54,9m (180 Ft.) Boom				
9,1	82,7	56,8	29 800	39 400
10,0	81,8	56,7	26 100	34 400
11,0	80,7	56,5	22 600	29 800
12,0	79,6	56,3	19 800	26 100
14,0	77,5	55,9	15 600	20 600
16,0	75,3	55,4	12 500	16 600
18,0	73,2	54,8	10 100	13 700
20,0	71,0	54,1	8 300	11 400
22,0	68,7	53,3	6 800	9 600
24,0	66,5	52,5	5 600	8 100
26,0	64,1	51,5	4 600	6 800
28,0	61,8	50,5	3 700	5 700
30,0	59,4	49,3	3 000	4 900
32,0	56,9	48,0	2 300	4 100
34,0	54,3	46,6		3 400
36,0	51,7	45,1		2 700
38,0	48,9	43,4		2 200

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Crawlers Retracted Kilograms	Boom Capacity Crawlers Extended Kilograms
57,9m (190 Ft.) Boom				
9,8	82,4	59,8	26 900	29 900 *
10,0	82,2	59,8	26 000	29 900 *
11,0	81,2	59,6	22 500	29 700
12,0	80,2	59,4	19 700	25 900
14,0	78,2	59,0	15 400	20 400
16,0	76,1	58,5	12 300	16 500
18,0	74,1	58,0	10 000	13 600
20,0	72,0	57,3	8 100	11 200
22,0	69,9	56,6	6 700	9 400
24,0	67,8	55,8	5 500	7 900
26,0	65,6	54,9	4 400	6 700
28,0	63,4	53,9	3 600	5 600
30,0	61,1	52,9	2 800	4 700
32,0	58,8	51,7	2 200	3 900
34,0	56,5	50,4		3 200
36,0	54,0	48,9		2 600
38,0	51,5	47,4		2 100