


Liftcrane Boom Capacities

Boom No. B10:500
with 200 200 kg Fixed Position Counterweight
at 4,1 m Position
360 Degree Rating

MLC300
SERIES 3


 **LIFTING CAPACITIES:** Lifting capacities for various boom lengths and operating radii are for freely suspended loads and may be based on percent of static tipping or strength of structural components. Capacities must be reduced by applicable deducts.


Upper boom point capacity for liftcrane service with single part whip line from Drum 6 is 13 600 kg or 27 200 kg with two part whip line. When Drum 2 or Drum 3 is used, capacity with single part whip line is 16 600 kg or 33 300 kg with two part whip line. In all cases, upper boom point capacities cannot exceed those listed for main boom capacity.

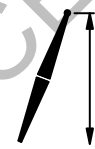
Weight of all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom and jib point sheaves is considered part of load. Boom is not to be lowered beyond radii where combined weights are greater than rated capacity. Where no capacity is shown, operation is not intended or approved.

OPERATING CONDITIONS: Machine to operate on a firm, level, and uniformly supporting surface. Refer to Boom Rigging **No. 81023380**, Wire Rope Specifications chart **No. 9341-A**, Counterweight Arrangements **No. 9345-A**, and Wind Conditions chart **No. 9344-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 the Operator Manual for operating guidelines.

MACHINE TRAVEL: Machine to travel on a firm, level, and uniformly supporting surface. Boom must be within boom angle range shown in capacity chart. Refer to Maximum Allowable Travel Specifications chart **No. 9598-A**.

 **OPERATING RADIUS:** Operating radius is horizontal distance from axis of rotation to center of vertical hoist line or load block.

 **BOOM ANGLE:** Boom angle in degrees (°) 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 9 700 mm crawlers, 1 219 mm or 1 524 mm treads, 9 144 mm live mast, 24 part boom hoist reeving, boom support straps, and 200 200 kg Fixed Position Counterweight.

Consult chart **No. 9604-AM** when Jib No. 148 is attached.

Luffing Jib Backstay Deduct	
Boom Length (m)	Deduct (kg)
36,0	1 600
42,0	1 900
48,0	2 100
54,0	2 400
60,0	2 700
66,0	3 000
72,0	3 200
78,0	3 500

Deduct the appropriate value from capacities when luffing jib backstays are stored on boom.

Deduct From Capacities When Jib No. 148 Is Attached	
Jib Length (m)	Deduct (kg)
12,0	9 100
18,0	13 800
24,0	18 100
30,0	22 100
36,0	27 800
42,0	31 300

Weight of jib and 3 000 kg suspended beneath jib point have been included in determination of deduct.

Refer to Table 1 (with luffing jib backstays stored) and Table 2 (without luffing jib backstays stored) for raising ability with the maximum weight of all load blocks, hooks, weight ball, slings, and hoist lines beneath boom point sheaves. For block weights shown with #, load blocks, hooks, weight ball, and slings must remain on ground until combined weights are within rated capacity of chart. For boom lengths shown with (a), upper boom point must be removed. Raising is not permitted in shaded areas of table.

Combined weight beneath boom point sheaves must not exceed block weight shown.

Table 1a: With Luffing Jib Backstays

Over End or Side of Crawlers	
Boom Length (m)	Block Weight (kg)
36,0	10 300
42,0	10 300
48,0	10 300
54,0	10 300
60,0	7 100
66,0	3 700
72,0	#
78,0	#
84,0	Raising Not Permitted
(a)90,0	

Table 1b: With Luffing Jib Backstays

Over End of Blocked Crawlers	
Boom Length (m)	Block Weight (kg)
36,0	10 300
42,0	10 300
48,0	10 300
54,0	10 300
60,0	7 100
66,0	3 700
72,0	#
78,0	#
84,0	Raising Not Permitted
(a)90,0	

Warning: Crane must remain in-line with crawlers when raising over end of blocked crawlers until operating radius is within 360 degree chart. Crane tipping or structural damage can occur.

Table 2a: Without Luffing Jib Backstays


Over End or Side of Crawlers	
Boom Length (m)	Block Weight (kg)
36,0	10 300
42,0	10 300
48,0	10 300
54,0	10 300
60,0	10 300
66,0	7 100
72,0	3 700
78,0	3 700
84,0	#
(a)90,0	Raising Not Permitted

Table 2b: Without Luffing Jib Backstays


Over End of Blocked Crawlers	
Boom Length (m)	Block Weight (kg)
36,0	10 300
42,0	10 300
48,0	10 300
54,0	10 300
60,0	10 300
66,0	7 100
72,0	3 700
78,0	3 700
84,0	#
(a)90,0	#


Warning: Crane must remain in-line with crawlers when raising over end of blocked crawlers until operating radius is within 360 degree chart. Crane tipping or structural damage can occur.


Explanation of Symbols


 B10 Boom No. B10:500

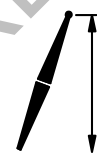
 Fixed Position Counterweight


 360 Degree Rating

 Boom Length

 Operating Radius
(see page 1)

 Boom Angle
(see page 1)

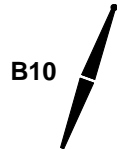
 Boom Point Elevation
(see page 1)

 Lifting Capacities
(see page 1)

REFERENCE ONLY!

MLC300 S-3

ASME B30.5



36,0 m

m	°	m	kg
12,2	74,5	36,6	158 200
13,0	73,1	36,3	144 700
14,0	71,5	36,0	129 200
15,0	69,7	35,6	116 800
16,0	68,0	35,2	106 600
17,0	66,3	34,7	97 500
18,0	64,5	34,2	90 000
19,0	62,7	33,7	83 400
20,0	60,9	33,1	77 400
22,0	57,1	31,8	67 700
24,0	53,1	30,3	59 800
26,0	48,9	28,6	53 200
28,0	44,4	26,6	47 800
30,0	39,5	24,2	43 200
32,0	33,9	21,4	39 100
34,0	27,3	17,7	35 600

42,0 m

m	°	m	kg
11,6	77,6	43,0	171 100
12,0	77,0	42,9	162 300
13,0	75,6	42,6	144 700
14,0	74,2	42,3	129 200
15,0	72,8	42,0	116 800
16,0	71,3	41,6	106 500
17,0	69,9	41,2	97 400
18,0	68,4	40,8	89 800
19,0	66,9	40,4	83 200
20,0	65,4	39,9	77 200
22,0	62,3	38,9	67 500
24,0	59,1	37,7	59 600
26,0	55,8	36,3	53 000
28,0	52,4	34,8	47 600
30,0	48,8	33,1	43 000
32,0	45,0	31,1	39 000
34,0	40,9	28,8	35 500
36,0	36,3	26,2	32 500
38,0	31,2	23,0	29 700
40,0	25,2	19,1	27 300

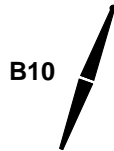
48,0 m

m	°	m	kg
10,4	80,7	49,4	196 000
11,0	79,9	49,3	185 300
12,0	78,7	49,0	162 100
13,0	77,5	48,8	144 500
14,0	76,2	48,5	128 900
15,0	75,0	48,3	116 500
16,0	73,7	48,0	106 200
17,0	72,5	47,6	97 100
18,0	71,2	47,3	89 500
19,0	69,9	46,9	82 900
20,0	68,7	46,5	76 900
22,0	66,1	45,6	67 100
24,0	63,4	44,6	59 200
26,0	60,6	43,5	52 600
28,0	57,8	42,2	47 200
30,0	54,9	40,8	42 600
32,0	51,9	39,3	38 600
34,0	48,7	37,5	35 100
36,0	45,4	35,6	32 100
38,0	41,9	33,4	29 300
40,0	38,0	30,9	26 900
42,0	33,8	28,0	24 800
44,0	29,1	24,6	22 800
46,0	23,4	20,3	21 000

REFER TO THE MANITOWOC WEBSITE FOR THE COMPLETE CATALOGUE

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ASME B30.5



54,0 m

m	o	m	kg
9,8	82,4	55,6	199 800
10,0	82,1	55,5	196 000
11,0	81,0	55,4	181 300
12,0	80,0	55,2	162 200
13,0	78,9	55,0	144 600
14,0	77,8	54,7	129 000
15,0	76,7	54,5	116 500
16,0	75,6	54,2	106 200
17,0	74,5	53,9	97 100
18,0	73,4	53,6	89 500
19,0	72,3	53,3	82 800
20,0	71,1	52,9	76 800
22,0	68,9	52,2	67 100
24,0	66,6	51,3	59 100
26,0	64,2	50,3	52 600
28,0	61,8	49,3	47 200
30,0	59,3	48,1	42 500
32,0	56,8	46,8	38 500
34,0	54,2	45,3	35 100
36,0	51,5	43,8	32 000
38,0	48,7	42,0	29 300
40,0	45,7	40,1	26 900
42,0	42,6	38,0	24 700
44,0	39,3	35,6	22 800
46,0	35,7	32,8	21 000
48,0	31,8	29,7	19 400
50,0	27,3	26,0	17 900
52,0	22,0	21,4	16 500

60,0 m

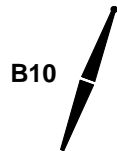
m	o	m	kg
8,5	84,3	61,8	190 900
9,0	83,9	61,7	187 400
10,0	82,9	61,6	179 200
11,0	82,0	61,5	171 300
12,0	81,0	61,3	160 600
13,0	80,0	61,1	144 200
14,0	79,0	60,9	128 500
15,0	78,1	60,7	116 000
16,0	77,1	60,4	105 700
17,0	76,1	60,2	96 600
18,0	75,1	59,9	88 900
19,0	74,1	59,6	82 300
20,0	73,1	59,3	76 300
22,0	71,1	58,6	66 500
24,0	69,0	57,8	58 500
26,0	67,0	57,0	51 900
28,0	64,9	56,0	46 500
30,0	62,7	55,0	41 900
32,0	60,5	53,9	37 800
34,0	58,3	52,7	34 400
36,0	56,0	51,3	31 400
38,0	53,6	49,8	28 600
40,0	51,2	48,2	26 200
42,0	48,6	46,5	24 100
44,0	46,0	44,6	22 100
46,0	43,2	42,5	20 400
48,0	40,3	40,2	18 800
50,0	37,2	37,6	17 300
52,0	33,8	34,7	15 900
54,0	30,1	31,3	14 600
56,0	25,9	27,4	13 500
58,0	20,8	22,5	12 300

66,0 m

m	o	m	kg
8,5	84,8	67,8	169 300
9,0	84,4	67,8	166 900
10,0	83,6	67,6	160 500
11,0	82,7	67,5	154 000
12,0	81,8	67,3	147 800
13,0	80,9	67,2	138 900
14,0	80,0	67,0	128 500
15,0	79,2	66,8	116 000
16,0	78,3	66,6	105 600
17,0	77,4	66,3	96 500
18,0	76,5	66,1	88 800
19,0	75,6	65,8	82 200
20,0	74,7	65,5	76 100
22,0	72,9	64,9	66 300
24,0	71,0	64,2	58 400
26,0	69,2	63,5	51 800
28,0	67,3	62,6	46 300
30,0	65,4	61,7	41 700
32,0	63,4	60,7	37 700
34,0	61,5	59,6	34 200
36,0	59,4	58,5	31 200
38,0	57,4	57,2	28 400
40,0	55,3	55,8	26 100
42,0	53,1	54,3	23 900
44,0	50,9	52,7	21 900
46,0	48,6	50,9	20 200
48,0	46,2	49,0	18 600
50,0	43,7	47,0	17 100
52,0	41,0	44,7	15 700
54,0	38,3	42,2	14 500
56,0	35,3	39,4	13 300
58,0	32,1	36,3	12 200
60,0	28,6	32,8	11 200
62,0	24,5	28,6	10 300
64,0	19,7	23,4	9 400

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ASME B30.5



72,0 m			
m	°	m	kg
9,1	84,8	73,8	140 100
10,0	84,1	73,7	139 300
11,0	83,3	73,6	137 200
12,0	82,5	73,4	132 000
13,0	81,7	73,3	127 100
14,0	80,9	73,1	121 500
15,0	80,1	72,9	114 100
16,0	79,3	72,7	105 000
17,0	78,4	72,5	95 800
18,0	77,6	72,3	88 200
19,0	76,8	72,0	81 500
20,0	76,0	71,8	75 500
22,0	74,3	71,2	65 600
24,0	72,7	70,6	57 600
26,0	71,0	69,9	51 000
28,0	69,3	69,1	45 600
30,0	67,6	68,3	40 900
32,0	65,8	67,4	36 900
34,0	64,1	66,4	33 400
36,0	62,3	65,4	30 400
38,0	60,4	64,3	27 700
40,0	58,6	63,0	25 300
42,0	56,7	61,7	23 100
44,0	54,7	60,3	21 200
46,0	52,7	58,8	19 400
48,0	50,7	57,2	17 800
50,0	48,5	55,4	16 300
52,0	46,4	53,5	15 000
54,0	44,1	51,5	13 700
56,0	41,7	49,3	12 500
58,0	39,2	46,8	11 500
60,0	36,6	44,2	10 500
62,0	33,7	41,3	9 500
64,0	30,7	38,0	8 600
66,0	27,3	34,2	7 800
68,0	23,5	29,8	7 000
70,0	18,9	24,4	6 300

78,0 m			
m	°	m	kg
9,8	84,7	79,7	116 300
10,0	84,6	79,7	116 100
11,0	83,8	79,6	115 300
12,0	83,1	79,5	114 600
13,0	82,3	79,3	113 800
14,0	81,6	79,2	113 100
15,0	80,8	79,0	112 400
16,0	80,1	78,8	104 900
17,0	79,4	78,6	95 700
18,0	78,6	78,4	88 000
19,0	77,8	78,2	81 300
20,0	77,1	78,0	75 200
22,0	75,6	77,4	65 400
24,0	74,0	76,9	57 400
26,0	72,5	76,2	50 800
28,0	71,0	75,6	45 300
30,0	69,4	74,8	40 600
32,0	67,8	74,0	36 600
34,0	66,2	73,1	33 100
36,0	64,6	72,2	30 100
38,0	62,9	71,1	27 300
40,0	61,2	70,0	24 900
42,0	59,5	68,9	22 800
44,0	57,8	67,6	20 800
46,0	56,0	66,3	19 100
48,0	54,2	64,8	17 500
50,0	52,4	63,3	16 000
52,0	50,5	61,7	14 600
54,0	48,5	59,9	13 400
56,0	46,5	58,0	12 200
58,0	44,4	56,0	11 100
60,0	42,2	53,8	10 100
62,0	40,0	51,4	9 200
64,0	37,6	48,9	8 300
66,0	35,0	46,1	7 500
68,0	32,3	43,0	6 700
70,0	29,4	39,5	5 900
72,0	26,2	35,6	5 100
74,0	22,5	31,0	4 300

84,0 m			
m	°	m	kg
10,4	84,7	85,7	98 000
11,0	84,3	85,7	97 500
12,0	83,6	85,5	96 800
13,0	82,9	85,4	96 200
14,0	82,2	85,3	95 500
15,0	81,5	85,1	94 900
16,0	80,8	84,9	94 200
17,0	80,1	84,8	92 400
18,0	79,4	84,6	86 800
19,0	78,7	84,3	80 700
20,0	78,0	84,1	74 600
22,0	76,6	83,7	64 700
24,0	75,2	83,1	56 700
26,0	73,8	82,5	50 000
28,0	72,4	81,9	44 600
30,0	70,9	81,2	39 900
32,0	69,5	80,5	35 800
34,0	68,0	79,7	32 400
36,0	66,5	78,8	29 300
38,0	65,0	77,9	26 600
40,0	63,5	76,9	24 200
42,0	61,9	75,8	22 000
44,0	60,4	74,7	20 000
46,0	58,8	73,4	18 300
48,0	57,2	72,2	16 700
50,0	55,5	70,8	15 200
52,0	53,8	69,3	13 800
54,0	52,1	67,8	12 600
56,0	50,3	66,1	11 400
58,0	48,5	64,4	10 300
60,0	46,6	62,5	9 300
62,0	44,7	60,5	8 400
64,0	42,7	58,3	7 500
66,0	40,6	56,0	6 500
68,0	38,4	53,5	5 600
70,0	36,1	50,8	4 800

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ASME B30.5



m	α	m	kg
11,0	84,7	91,7	82 500
12,0	84,0	91,6	81 900
13,0	83,4	91,5	81 300
14,0	82,7	91,3	80 400
15,0	82,1	91,2	78 600
16,0	81,4	91,0	76 500
17,0	80,8	90,9	74 400
18,0	80,1	90,7	72 400
19,0	79,5	90,5	70 500
20,0	78,8	90,3	68 700
22,0	77,5	89,8	63 900
24,0	76,2	89,3	56 500
26,0	74,9	88,8	49 900
28,0	73,6	88,2	44 400
30,0	72,2	87,6	39 700
32,0	70,9	86,9	35 700
34,0	69,5	86,1	32 200
36,0	68,2	85,3	29 100
38,0	66,8	84,5	26 400
40,0	65,4	83,6	24 000
42,0	64,0	82,6	21 800
44,0	62,5	81,5	19 900
46,0	61,1	80,4	18 100
48,0	59,6	79,3	16 500
50,0	58,1	78,0	15 000
52,0	56,6	76,7	13 700
54,0	55,0	75,3	12 400
56,0	53,4	73,8	11 300
58,0	51,8	72,3	10 200
60,0	50,2	70,6	9 200
62,0	48,5	68,8	8 300
64,0	46,7	67,0	7 300
66,0	44,9	65,0	6 300
68,0	43,1	62,9	5 400
70,0	41,2	60,6	4 500

REFERENCE ONLY!