

Liftcrane Boom Capacities


Boom No. B10:500

135 200 kg VPC (Variable Position Counterweight)

Rating Over End of Blocked Crawlers

No Travel - Limited Swing

MLC300 SERIES 1


 **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 over end of machine with crawlers blocked 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.

BOOM BACKWARD STABILITY: Capacities indicated by (b) require 2 270 kg minimum weight. **Caution: Do not operate in areas indicated by (b) without required minimum weight.** Boom may not lower and boom hoist wire rope may go slack causing wire rope damage or failure.

OPERATING CONDITIONS: Machine to operate on a firm, level, and uniformly supporting surface. 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. 9348-A**. Refer to Boom Rigging **No. 81023380**, Wire Rope Specifications chart **No. 9341-A**, Counterweight Arrangements chart **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, wind conditions, as well as adverse operating conditions and physical machine depreciation. Refer to the Operator 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:** 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 135 200 kg VPC.

Consult chart **No. 9454-AM** when Jib No. 148 is attached.

Luffing Jib Backstay Deduct	
Boom Length (m)	Deduct (kg)
30,0	1 400
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
84,0	3 700

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.

REFERENCE ONLY!

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. Raising is not permitted in shaded areas of table.

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


Table 1: With Luffing Jib Backstays

Over End of Blocked Crawlers	
Boom Length (m)	Block Weight (kg)
30,0	10 300
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	#
90,0	Raising Not Permitted

Table 2: Without Luffing Jib Backstays

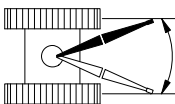
Over End of Blocked Crawlers	
Boom Length (m)	Block Weight (kg)
30,0	10 300
36,0	10 300
42,0	10 300
48,0	10 300
54,0	10 300
60,0	10 300
66,0	7 100
72,0	3 700
78,0	#
84,0	#
90,0	#

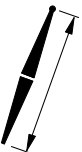
Explanation of Symbols


B10  Boom No. B10:500


 VPC (Variable Position Counterweight)


 Blocked Crawler


 Limited Swing

 Boom Length

 Operating Radius
(see page 1)

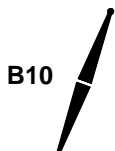
 Boom Angle
(see page 1)

 Boom Point Elevation
(see page 1)

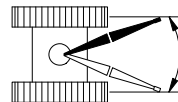
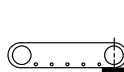
 Lifting Capacities
(see page 1)

MLC300 S-1

ASME B30.5



135 200 kg



30,0 m			
m	°	m	kg
5,5	84,5	31,9	300 000 b
6,0	83,5	31,9	300 000 b
6,5	82,5	31,8	291 400 b
7,0	81,6	31,7	274 800 b
8,0	79,6	31,5	247 400
9,0	77,6	31,2	224 800
10,0	75,7	31,0	205 900
12,0	71,6	30,3	157 200
14,0	67,5	29,5	124 000
16,0	63,2	28,5	102 200
18,0	58,8	27,3	86 800
20,0	54,1	25,8	75 300
22,0	49,0	24,1	66 400
24,0	43,6	22,1	59 300
26,0	37,4	19,5	53 400
28,0	30,2	16,3	48 600
30,0	20,5	11,7	44 500

36,0 m			
m	°	m	kg
5,8	84,9	37,9	294 700 b
6,0	84,6	37,9	293 700 b
6,5	83,8	37,8	283 400
7,0	83,0	37,8	268 100
8,0	81,4	37,6	242 200
9,0	79,7	37,4	220 700
10,0	78,1	37,2	202 600
12,0	74,8	36,6	159 200
14,0	71,5	36,0	125 700
16,0	68,0	35,2	103 600
18,0	64,5	34,2	88 100
20,0	60,9	33,1	76 500
22,0	57,1	31,8	67 400
24,0	53,1	30,3	60 200
26,0	48,9	28,6	54 400
28,0	44,4	26,6	49 500
30,0	39,5	24,2	45 400
32,0	33,9	21,4	41 800
34,0	27,3	17,7	38 200

42,0 m			
m	°	m	kg
6,4	84,8	43,9	267 800
6,5	84,7	43,9	267 400
7,0	84,0	43,8	261 400
8,0	82,6	43,7	235 700
9,0	81,2	43,5	215 400
10,0	79,8	43,3	198 300
12,0	77,0	42,9	160 400
14,0	74,2	42,3	126 500
16,0	71,3	41,6	104 300
18,0	68,4	40,8	88 600
20,0	65,4	39,9	76 900
22,0	62,3	38,9	67 800
24,0	59,1	37,7	60 600
26,0	55,8	36,3	54 700
28,0	52,4	34,8	49 800
30,0	48,8	33,1	45 600
32,0	45,0	31,1	41 900
34,0	40,9	28,8	38 100
36,0	36,3	26,2	34 800
38,0	31,2	23,0	31 900
40,0	25,2	19,1	29 300

REFERENCIA

MLC300 S-1

ASME B30.5



48,0 m			
m	°	m	kg
7,3	84,4	49,8	243 500
8,0	83,5	49,8	228 800
9,0	82,3	49,6	209 900
10,0	81,1	49,4	193 700
12,0	78,7	49,0	162 400
14,0	76,2	48,5	127 600
16,0	73,7	48,0	105 200
18,0	71,2	47,3	89 400
20,0	68,7	46,5	77 500
22,0	66,1	45,6	68 400
24,0	63,4	44,6	61 100
26,0	60,6	43,5	55 100
28,0	57,8	42,2	50 100
30,0	54,9	40,8	45 800
32,0	51,9	39,3	41 500
34,0	48,7	37,5	37 700
36,0	45,4	35,6	34 500
38,0	41,9	33,4	31 500
40,0	38,0	30,9	29 000
42,0	33,8	28,0	26 600
44,0	29,1	24,6	24 500
46,0	23,4	20,3	22 600

54,0 m			
m	°	m	kg
7,3	85,0	55,9	222 700
8,0	84,3	55,8	220 000
9,0	83,2	55,7	204 200
10,0	82,1	55,5	189 000
12,0	80,0	55,2	162 600
14,0	77,8	54,7	128 900
16,0	75,6	54,2	106 400
18,0	73,4	53,6	90 500
20,0	71,1	52,9	78 600
22,0	68,9	52,2	69 300
24,0	66,6	51,3	62 000
26,0	64,2	50,3	56 000
28,0	61,8	49,3	50 800
30,0	59,3	48,1	45 800
32,0	56,8	46,8	41 500
34,0	54,2	45,3	37 700
36,0	51,5	43,8	34 400
38,0	48,7	42,0	31 500
40,0	45,7	40,1	28 900
42,0	42,6	38,0	26 600
44,0	39,3	35,6	24 500
46,0	35,7	32,8	22 600
48,0	31,8	29,7	20 900
50,0	27,3	26,0	19 300
52,0	22,0	21,4	17 800

60,0 m			
m	°	m	kg
7,9	84,9	61,8	192 300
8,0	84,8	61,9	192 100
9,0	83,9	61,7	187 700
10,0	82,9	61,6	179 200
12,0	81,0	61,3	160 500
14,0	79,0	60,9	130 500
16,0	77,1	60,4	107 500
18,0	75,1	59,9	91 500
20,0	73,1	59,3	79 500
22,0	71,1	58,6	70 100
24,0	69,0	57,8	62 700
26,0	67,0	57,0	56 300
28,0	64,9	56,0	50 200
30,0	62,7	55,0	45 200
32,0	60,5	53,9	40 800
34,0	58,3	52,7	37 100
36,0	56,0	51,3	33 800
38,0	53,6	49,8	30 900
40,0	51,2	48,2	28 300
42,0	48,6	46,5	26 000
44,0	46,0	44,6	23 900
46,0	43,2	42,5	22 000
48,0	40,3	40,2	20 300
50,0	37,2	37,6	18 700
52,0	33,8	34,7	17 300
54,0	30,1	31,3	15 900
56,0	25,9	27,4	14 700
58,0	20,8	22,5	13 500

MLC300 S-1

ASME B30.5



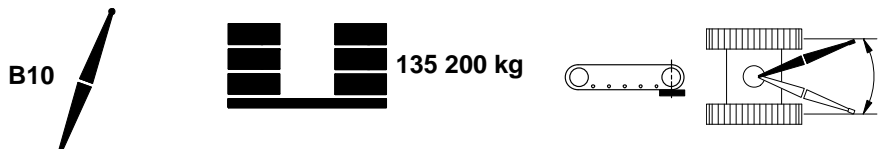
66,0 m			
m	°	m	kg
8,5	84,8	67,8	169 300
9,0	84,4	67,8	166 900
10,0	83,6	67,6	160 400
12,0	81,8	67,3	147 800
14,0	80,0	67,0	132 300
16,0	78,3	66,6	108 300
18,0	76,5	66,1	92 100
20,0	74,7	65,5	80 000
22,0	72,9	64,9	70 700
24,0	71,0	64,2	63 100
26,0	69,2	63,5	56 100
28,0	67,3	62,6	50 100
30,0	65,4	61,7	45 000
32,0	63,4	60,7	40 700
34,0	61,5	59,6	36 900
36,0	59,4	58,5	33 600
38,0	57,4	57,2	30 700
40,0	55,3	55,8	28 100
42,0	53,1	54,3	25 800
44,0	50,9	52,7	23 700
46,0	48,6	50,9	21 900
48,0	46,2	49,0	20 100
50,0	43,7	47,0	18 600
52,0	41,0	44,7	17 100
54,0	38,3	42,2	15 800
56,0	35,3	39,4	14 600
58,0	32,1	36,3	13 400
60,0	28,6	32,8	12 400
62,0	24,5	28,6	11 400
64,0	19,7	23,4	10 400

72,0 m			
m	°	m	kg
9,1	84,8	73,8	140 100
10,0	84,1	73,7	139 300
12,0	82,5	73,4	132 000
14,0	80,9	73,1	122 200
16,0	79,3	72,7	110 500
18,0	77,6	72,3	93 100
20,0	76,0	71,8	80 900
22,0	74,3	71,2	71 200
24,0	72,7	70,6	62 700
26,0	71,0	69,9	55 400
28,0	69,3	69,1	49 400
30,0	67,6	68,3	44 300
32,0	65,8	67,4	40 000
34,0	64,1	66,4	36 200
36,0	62,3	65,4	32 900
38,0	60,4	64,3	30 000
40,0	58,6	63,0	27 400
42,0	56,7	61,7	25 100
44,0	54,7	60,3	23 000
46,0	52,7	58,8	21 100
48,0	50,7	57,2	19 400
50,0	48,5	55,4	17 800
52,0	46,4	53,5	16 400
54,0	44,1	51,5	15 100
56,0	41,7	49,3	13 800
58,0	39,2	46,8	12 700
60,0	36,6	44,2	11 600
62,0	33,7	41,3	10 600
64,0	30,7	38,0	9 700
66,0	27,3	34,2	8 800
68,0	23,5	29,8	8 000
70,0	18,9	24,4	7 200

78,0 m			
m	°	m	kg
9,8	84,7	79,7	116 300
10,0	84,6	79,7	116 100
12,0	83,1	79,5	114 600
14,0	81,6	79,2	113 100
16,0	80,1	78,8	108 800
18,0	78,6	78,4	94 200
20,0	77,1	78,0	81 500
22,0	75,6	77,4	71 500
24,0	74,0	76,9	62 400
26,0	72,5	76,2	55 200
28,0	71,0	75,6	49 100
30,0	69,4	74,8	44 000
32,0	67,8	74,0	39 700
34,0	66,2	73,1	35 900
36,0	64,6	72,2	32 600
38,0	62,9	71,1	29 700
40,0	61,2	70,0	27 100
42,0	59,5	68,9	24 800
44,0	57,8	67,6	22 700
46,0	56,0	66,3	20 800
48,0	54,2	64,8	19 100
50,0	52,4	63,3	17 500
52,0	50,5	61,7	16 100
54,0	48,5	59,9	14 700
56,0	46,5	58,0	13 500
58,0	44,4	56,0	12 400
60,0	42,2	53,8	11 300
62,0	40,0	51,4	10 300
64,0	37,6	48,9	9 400
66,0	35,0	46,1	8 500
68,0	32,3	43,0	7 700
70,0	29,4	39,5	7 000
72,0	26,2	35,6	6 200
74,0	22,5	31,0	5 500
76,0	18,1	25,4	4 900

MLC300 S-1

ASME B30.5



84,0 m			
m	°	m	kg
10,4	84,7	85,7	98 000
12,0	83,6	85,5	96 800
14,0	82,2	85,3	95 500
16,0	80,8	84,9	94 200
18,0	79,4	84,6	92 100
20,0	78,0	84,1	82 000
22,0	76,6	83,7	70 700
24,0	75,2	83,1	61 800
26,0	73,8	82,5	54 500
28,0	72,4	81,9	48 400
30,0	70,9	81,2	43 300
32,0	69,5	80,5	38 900
34,0	68,0	79,7	35 200
36,0	66,5	78,8	31 800
38,0	65,0	77,9	28 900
40,0	63,5	76,9	26 300
42,0	61,9	75,8	24 000
44,0	60,4	74,7	21 900
46,0	58,8	73,4	20 000
48,0	57,2	72,2	18 300
50,0	55,5	70,8	16 700
52,0	53,8	69,3	15 300
54,0	52,1	67,8	13 900
56,0	50,3	66,1	12 700
58,0	48,5	64,4	11 600
60,0	46,6	62,5	10 500
62,0	44,7	60,5	9 500
64,0	42,7	58,3	8 600
66,0	40,6	56,0	7 800
68,0	38,4	53,5	6 900
70,0	36,1	50,8	6 200
72,0	33,7	47,9	5 500
74,0	31,1	44,7	4 800

90,0 m			
m	°	m	kg
11,0	84,7	91,7	82 500
12,0	84,0	91,6	81 900
14,0	82,7	91,3	80 600
16,0	81,4	91,0	76 600
18,0	80,1	90,7	72 400
20,0	78,8	90,3	68 600
22,0	77,5	89,8	65 200
24,0	76,2	89,3	61 200
26,0	74,9	88,8	54 400
28,0	73,6	88,2	48 300
30,0	72,2	87,6	43 200
32,0	70,9	86,9	38 800
34,0	69,5	86,1	35 000
36,0	68,2	85,3	31 700
38,0	66,8	84,5	28 800
40,0	65,4	83,6	26 200
42,0	64,0	82,6	23 900
44,0	62,5	81,5	21 800
46,0	61,1	80,4	19 900
48,0	59,6	79,3	18 200
50,0	58,1	78,0	16 600
52,0	56,6	76,7	15 100
54,0	55,0	75,3	13 800
56,0	53,4	73,8	12 600
58,0	51,8	72,3	11 500
60,0	50,2	70,6	10 400
62,0	48,5	68,8	9 400
64,0	46,7	67,0	8 500
66,0	44,9	65,0	7 600
68,0	43,1	62,9	6 800
70,0	41,2	60,6	6 100
72,0	39,2	58,2	5 400