


Liftcrane Boom Capacities

Boom No. B15:505-500
175 200 kg VPC (Variable Position Counterweight)
360 Degree Rating

MLC300 SERIES 2


 **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. 80109323**, Wire Rope Specifications chart **No. 9683-A**, Counterweight Arrangements chart **No. 9345-A**, and Wind Conditions chart **No. 9682-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. 9681-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 175 200 kg VPC.

Consult chart **No. 9685-AM** when Jib No. 148 is attached.

Luffing Jib Backstay Deduct	
Boom Length (m)	Deduct (kg)
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 (lb)
12,0	10 500
18,0	11 500
24,0	12 500
30,0	15 200
36,0	18 600
42,0	21 100

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

Table 2: Without Luffing Jib Backstays


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


Explanation of Symbols


B15  Boom No. B15:505-500


 VPC (Variable 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-2

ASME B30.5



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	263 200
8,0	82,6	43,7	241 000
9,0	81,2	43,5	220 300
10,0	79,8	43,3	197 300
12,0	77,0	42,9	149 200
14,0	74,2	42,3	120 100
16,0	71,3	41,6	100 200
18,0	68,4	40,8	85 900
20,0	65,4	39,9	75 100
22,0	62,3	38,9	66 600
24,0	59,1	37,7	59 700
26,0	55,8	36,3	54 100
28,0	52,4	34,8	49 400
30,0	48,8	33,1	45 400
32,0	45,0	31,1	41 900
34,0	40,9	28,8	38 900
36,0	36,3	26,2	36 300
38,0	31,2	23,0	34 000
40,0	25,2	19,1	31 900

48,0 m

m	°	m	kg
7,3	84,4	49,8	243 500
8,0	83,5	49,8	234 200
9,0	82,3	49,6	214 600
10,0	81,1	49,4	196 500
12,0	78,7	49,0	150 300
14,0	76,2	48,5	120 900
16,0	73,7	48,0	100 900
18,0	71,2	47,3	86 500
20,0	68,7	46,5	75 600
22,0	66,1	45,6	67 000
24,0	63,4	44,6	60 100
26,0	60,6	43,5	54 400
28,0	57,8	42,2	49 700
30,0	54,9	40,8	45 600
32,0	51,9	39,3	42 200
34,0	48,7	37,5	39 200
36,0	45,4	35,6	36 500
38,0	41,9	33,4	34 200
40,0	38,0	30,9	32 100
42,0	33,8	28,0	30 100
44,0	29,1	24,6	27 800
46,0	23,4	20,3	25 700

54,0 m

m	°	m	kg
7,3	85,0	55,9	222 700
8,0	84,3	55,8	220 400
9,0	83,2	55,7	209 100
10,0	82,1	55,5	193 200
12,0	80,0	55,2	151 700
14,0	77,8	54,7	122 100
16,0	75,6	54,2	102 000
18,0	73,4	53,6	87 500
20,0	71,1	52,9	76 500
22,0	68,9	52,2	67 900
24,0	66,6	51,3	61 000
26,0	64,2	50,3	55 300
28,0	61,8	49,3	50 500
30,0	59,3	48,1	46 400
32,0	56,8	46,8	42 900
34,0	54,2	45,3	39 900
36,0	51,5	43,8	37 200
38,0	48,7	42,0	34 700
40,0	45,7	40,1	32 000
42,0	42,6	38,0	29 500
44,0	39,3	35,6	27 300
46,0	35,7	32,8	25 300
48,0	31,8	29,7	23 400
50,0	27,3	26,0	21 700
52,0	22,0	21,4	20 100

MLC300 S-2

ASME B30.5



60,0 m

m	o	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	153 400
14,0	79,0	60,9	123 200
16,0	77,1	60,4	103 000
18,0	75,1	59,9	88 400
20,0	73,1	59,3	77 300
22,0	71,1	58,6	68 600
24,0	69,0	57,8	61 600
26,0	67,0	57,0	55 800
28,0	64,9	56,0	51 000
30,0	62,7	55,0	46 900
32,0	60,5	53,9	43 400
34,0	58,3	52,7	40 300
36,0	56,0	51,3	37 200
38,0	53,6	49,8	34 100
40,0	51,2	48,2	31 400
42,0	48,6	46,5	28 900
44,0	46,0	44,6	26 700
46,0	43,2	42,5	24 700
48,0	40,3	40,2	22 900
50,0	37,2	37,6	21 200
52,0	33,8	34,7	19 600
54,0	30,1	31,3	18 200
56,0	25,9	27,4	16 900
58,0	20,8	22,5	15 600

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	160 400
12,0	81,8	67,3	147 800
14,0	80,0	67,0	124 300
16,0	78,3	66,6	103 600
18,0	76,5	66,1	88 900
20,0	74,7	65,5	77 800
22,0	72,9	64,9	69 000
24,0	71,0	64,2	62 000
26,0	69,2	63,5	56 200
28,0	67,3	62,6	51 400
30,0	65,4	61,7	47 300
32,0	63,4	60,7	43 700
34,0	61,5	59,6	40 000
36,0	59,4	58,5	36 500
38,0	57,4	57,2	33 500
40,0	55,3	55,8	30 700
42,0	53,1	54,3	28 300
44,0	50,9	52,7	26 000
46,0	48,6	50,9	24 000
48,0	46,2	49,0	22 200
50,0	43,7	47,0	20 500
52,0	41,0	44,7	19 000
54,0	38,3	42,2	17 600
56,0	35,3	39,4	16 200
58,0	32,1	36,3	15 000
60,0	28,6	32,8	13 900
62,0	24,5	28,6	12 800
64,0	19,7	23,4	11 800

72,0 m

m	o	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	121 700
16,0	79,3	72,7	105 200
18,0	77,6	72,3	89 700
20,0	76,0	71,8	78 500
22,0	74,3	71,2	69 700
24,0	72,7	70,6	62 600
26,0	71,0	69,9	56 700
28,0	69,3	69,1	51 900
30,0	67,6	68,3	47 600
32,0	65,8	67,4	43 300
34,0	64,1	66,4	39 300
36,0	62,3	65,4	35 800
38,0	60,4	64,3	32 800
40,0	58,6	63,0	30 000
42,0	56,7	61,7	27 600
44,0	54,7	60,3	25 400
46,0	52,7	58,8	23 300
48,0	50,7	57,2	21 500
50,0	48,5	55,4	19 800
52,0	46,4	53,5	18 300
54,0	44,1	51,5	16 900
56,0	41,7	49,3	15 600
58,0	39,2	46,8	14 300
60,0	36,6	44,2	13 200
62,0	33,7	41,3	12 100
64,0	30,7	38,0	11 100
66,0	27,3	34,2	10 200
68,0	23,5	29,8	9 300
70,0	18,9	24,4	8 500

MLC300 S-2

ASME B30.5



175 200 kg



360°

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	107 200
18,0	78,6	78,4	90 300
20,0	77,1	78,0	79 000
22,0	75,6	77,4	70 200
24,0	74,0	76,9	63 000
26,0	72,5	76,2	57 200
28,0	71,0	75,6	52 200
30,0	69,4	74,8	47 300
32,0	67,8	74,0	42 700
34,0	66,2	73,1	38 700
36,0	64,6	72,2	35 300
38,0	62,9	71,1	32 200
40,0	61,2	70,0	29 400
42,0	59,5	68,9	27 000
44,0	57,8	67,6	24 800
46,0	56,0	66,3	22 700
48,0	54,2	64,8	20 900
50,0	52,4	63,3	19 200
52,0	50,5	61,7	17 700
54,0	48,5	59,9	16 300
56,0	46,5	58,0	15 000
58,0	44,4	56,0	13 700
60,0	42,2	53,8	12 600
62,0	40,0	51,4	11 500
64,0	37,6	48,9	10 600
66,0	35,0	46,1	9 600
68,0	32,3	43,0	8 700
70,0	29,4	39,5	7 900
72,0	26,2	35,6	7 000
74,0	22,5	31,0	5 700
76,0	18,1	25,4	4 500

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	90 400
20,0	78,0	84,1	79 700
22,0	76,6	83,7	70 700
24,0	75,2	83,1	63 600
26,0	73,8	82,5	57 600
28,0	72,4	81,9	51 700
30,0	70,9	81,2	46 400
32,0	69,5	80,5	41 800
34,0	68,0	79,7	37 800
36,0	66,5	78,8	34 300
38,0	65,0	77,9	31 200
40,0	63,5	76,9	28 500
42,0	61,9	75,8	26 000
44,0	60,4	74,7	23 800
46,0	58,8	73,4	21 800
48,0	57,2	72,2	20 000
50,0	55,5	70,8	18 300
52,0	53,8	69,3	16 700
54,0	52,1	67,8	15 300
56,0	50,3	66,1	14 000
58,0	48,5	64,4	12 800
60,0	46,6	62,5	11 600
62,0	44,7	60,5	10 600
64,0	42,7	58,3	9 600
66,0	40,6	56,0	8 700
68,0	38,4	53,5	7 800
70,0	36,1	50,8	7 000
72,0	33,7	47,9	6 200
74,0	31,1	44,7	5 400
76,0	28,3	41,0	4 500

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	62 100
26,0	74,9	88,8	57 800
28,0	73,6	88,2	51 500
30,0	72,2	87,6	46 200
32,0	70,9	86,9	41 600
34,0	69,5	86,1	37 600
36,0	68,2	85,3	34 100
38,0	66,8	84,5	31 000
40,0	65,4	83,6	28 300
42,0	64,0	82,6	25 800
44,0	62,5	81,5	23 600
46,0	61,1	80,4	21 600
48,0	59,6	79,3	19 700
50,0	58,1	78,0	18 100
52,0	56,6	76,7	16 500
54,0	55,0	75,3	15 100
56,0	53,4	73,8	13 800
58,0	51,8	72,3	12 600
60,0	50,2	70,6	11 400
62,0	48,5	68,8	10 400
64,0	46,7	67,0	9 400
66,0	44,9	65,0	8 500
68,0	43,1	62,9	7 600
70,0	41,2	60,6	6 800
72,0	39,2	58,2	6 000
74,0	37,1	55,6	5 300
76,0	34,9	52,7	4 500