


Liftcrane Boom

Extended Upper Point Capacities

MLC300 SERIES 2

Boom No. B45:505-500
with 7,0 m Extended Upper Boom Point
180 200 kg Fixed Position Counterweight
at 4,1 m Position
360 Degree Rating


 **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 (upper sheave) capacity for liftcrane service with single part whip line from Drum 6 is 13 600 kg. When Drum 2 or Drum 3 is used, capacity with single part whip line is 16 600 kg. In all cases, upper boom point capacities cannot exceed those listed for extended upper boom point (lower sheave) capacity.


Weight of all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath 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. 84049567**, Wire Rope Specifications chart **No. 9647-A**, Counterweight Arrangements chart **No. 9345-A**, and Wind Conditions chart **No. 9646-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. 9644-A**.

 **EXTENDED UPPER BOOM POINT OPERATING RADIUS:** Extended upper boom point 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.

 **EXTENDED UPPER BOOM POINT ELEVATION:** Extended upper boom point elevation is vertical distance from ground level to centerline of extended upper 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 180 200 kg Fixed Position Counterweight.

Luffing Jib Backstay Deduct	
Boom Length (m)	Deduct (kg)
35,0	1 400
41,0	1 700
47,0	2 000
53,0	2 200
59,0	2 400
65,0	2 700
71,0	3 000

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

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 extended upper boom point (lower or upper 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 extended upper boom point (lower or upper 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)
35,0	3 400
41,0	3 400
47,0	3 400
53,0	3 400
59,0	3 400
65,0	3 400
71,0	#
77,0	Raising Not Permitted

Table 1b: With Luffing Jib Backstays

Over End of Blocked Crawlers	
Boom Length (m)	Block Weight (kg)
35,0	3 400
41,0	3 400
47,0	3 400
53,0	3 400
59,0	3 400
65,0	3 400
71,0	#
77,0	Raising Not Permitted

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

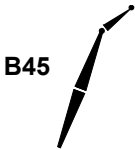


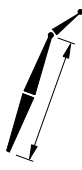
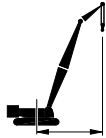



Over End or Side of Crawlers	
Boom Length (m)	Block Weight (kg)
35,0	3 400
41,0	3 400
47,0	3 400
53,0	3 400
59,0	3 400
65,0	3 400
71,0	#
77,0	Raising Not Permitted

Table 2b: Without Luffing Jib Backstays

Over End of Blocked Crawlers	
Boom Length (m)	Block Weight (kg)
35,0	3 400
41,0	3 400
47,0	3 400
53,0	3 400
59,0	3 400
65,0	3 400
71,0	#
77,0	#

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.

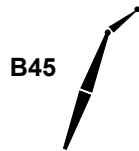
Explanation of Symbols

-  Boom No. B45:505-500
-  Fixed Position Counterweight
-  360 Degree Rating
-  Boom Length
-  Extended Upper Boom Point Operating Radius
(see page 1)
-  Boom Angle
(see page 1)
-  Extended Upper Boom Point Elevation
(see page 1)
-  Lifting Capacities
(see page 1)

REFERENCE ONLY!

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ASME B30.5



180 200 kg



360°

35,0 m			
m	°	m	kg
11,9	81,4	42,3	85 600
12,0	81,2	42,3	85 500
12,5	80,5	42,1	84 900
13,0	79,8	42,0	84 400
14,0	78,3	41,7	83 400
16,0	75,4	41,0	81 500
18,0	72,4	40,2	79 800
20,0	69,4	39,3	73 900
22,0	66,2	38,2	64 700
24,0	63,0	37,0	57 100
26,0	59,6	35,6	50 900
28,0	56,1	34,0	45 800
30,0	52,4	32,3	41 400
32,0	48,5	30,2	37 500
34,0	44,2	27,9	34 200
36,0	39,5	25,2	31 300

41,0 m			
m	°	m	kg
11,6	82,9	48,5	94 100
12,0	82,3	48,4	93 800
12,5	81,7	48,3	93 500
13,0	81,1	48,2	93 200
13,5	80,5	48,0	92 900
14,0	79,9	47,9	92 600
16,0	77,3	47,3	91 400
18,0	74,8	46,6	84 900
20,0	72,2	45,8	73 600
22,0	69,5	44,9	64 400
24,0	66,8	43,9	56 800
26,0	64,0	42,8	50 600
28,0	61,2	41,5	45 500
30,0	58,2	40,1	41 100
32,0	55,1	38,5	37 200
34,0	51,9	36,7	34 000
36,0	48,5	34,7	31 000
38,0	44,8	32,5	28 400
40,0	40,9	29,9	26 100

47,0 m			
m	°	m	kg
12,5	82,7	54,4	100 000
13,0	82,1	54,3	100 000
13,5	81,6	54,2	100 000
14,0	81,0	54,1	99 900
14,5	80,5	54,0	99 600
16,0	78,8	53,6	96 700
18,0	76,6	53,0	85 300
20,0	74,3	52,3	73 300
22,0	72,0	51,5	64 000
24,0	69,6	50,6	56 400
26,0	67,3	49,6	50 200
28,0	64,8	48,5	45 000
30,0	62,3	47,3	40 600
32,0	59,7	46,0	36 800
34,0	57,1	44,6	33 500
36,0	54,3	42,9	30 600
38,0	51,4	41,2	28 000
40,0	48,4	39,2	25 700
42,0	45,2	37,0	23 600
44,0	41,8	34,5	21 700
46,0	38,1	31,7	20 000

REFERENCIA

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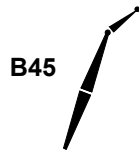
53,0 m			
m	o	m	kg
13,1	82,8	60,4	100 000
13,5	82,4	60,3	100 000
14,0	82,0	60,2	100 000
14,5	81,5	60,1	100 000
15,0	81,0	60,0	100 000
16,0	80,0	59,8	97 000
18,0	78,0	59,2	84 900
20,0	76,0	58,6	72 900
22,0	73,9	57,9	63 600
24,0	71,8	57,1	56 000
26,0	69,7	56,3	49 700
28,0	67,6	55,3	44 600
30,0	65,4	54,3	40 100
32,0	63,2	53,1	36 300
34,0	60,9	51,9	33 000
36,0	58,6	50,5	30 100
38,0	56,2	49,0	27 500
40,0	53,7	47,4	25 200
42,0	51,1	45,6	23 100
44,0	48,4	43,7	21 200
46,0	45,6	41,5	19 500
48,0	42,6	39,1	18 000
50,0	39,4	36,5	16 500

59,0 m			
m	o	m	kg
13,7	83,0	66,4	100 000
14,0	82,7	66,3	100 000
14,5	82,3	66,2	100 000
15,0	81,8	66,1	100 000
15,5	81,4	66,0	98 900
16,0	80,9	65,9	96 800
18,0	79,1	65,4	84 600
20,0	77,3	64,9	72 500
22,0	75,5	64,3	63 100
24,0	73,6	63,6	55 500
26,0	71,7	62,8	49 200
28,0	69,8	61,9	44 000
30,0	67,9	61,0	39 600
32,0	65,9	60,0	35 700
34,0	63,9	58,9	32 400
36,0	61,9	57,7	29 500
38,0	59,8	56,4	26 900
40,0	57,6	55,0	24 600
42,0	55,4	53,5	22 600
44,0	53,2	51,9	20 700
46,0	50,8	50,1	19 000
48,0	48,4	48,1	17 400
50,0	45,8	46,0	16 000
52,0	43,2	43,7	14 700
54,0	40,3	41,2	13 500
56,0	37,3	38,3	12 300

65,0 m			
m	o	m	kg
14,6	82,8	72,3	100 000
15,0	82,5	72,3	100 000
15,5	82,1	72,2	100 000
16,0	81,7	72,1	98 900
16,5	81,3	72,0	95 200
18,0	80,0	71,6	84 200
20,0	78,4	71,1	72 100
22,0	76,7	70,5	62 700
24,0	75,0	69,9	55 000
26,0	73,3	69,2	48 700
28,0	71,6	68,4	43 500
30,0	69,9	67,6	39 000
32,0	68,1	66,7	35 200
34,0	66,3	65,7	31 800
36,0	64,5	64,7	28 900
38,0	62,7	63,5	26 300
40,0	60,8	62,3	24 000
42,0	58,8	61,0	21 900
44,0	56,9	59,5	20 100
46,0	54,8	58,0	18 400
48,0	52,8	56,3	16 800
50,0	50,6	54,5	15 400
52,0	48,4	52,6	14 100
54,0	46,1	50,5	12 900
56,0	43,6	48,3	11 700
58,0	41,1	45,8	10 700
60,0	38,4	43,1	9 700

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ASME B30.5



180 200 kg



71,0 m				77,0 m			
m	o	m	kg	m	o	m	kg
15,2	82,9	78,3	100 000	16,2	82,8	84,2	97 900
15,5	82,7	78,2	100 000	16,5	82,6	84,1	94 900
16,0	82,3	78,1	99 100	17,0	82,2	84,1	90 700
16,5	82,0	78,0	95 200	17,5	81,9	84,0	86 900
17,0	81,6	77,9	91 300	18,0	81,5	83,9	83 400
18,0	80,8	77,7	83 900	20,0	80,1	83,4	71 200
20,0	79,3	77,3	71 700	22,0	78,7	82,9	61 800
22,0	77,8	76,7	62 300	24,0	77,3	82,4	54 000
24,0	76,2	76,2	54 600	26,0	75,8	81,8	47 700
26,0	74,7	75,5	48 300	28,0	74,4	81,2	42 400
28,0	73,1	74,8	43 000	30,0	72,9	80,5	37 900
30,0	71,5	74,1	38 500	32,0	71,5	79,7	34 000
32,0	69,9	73,2	34 700	34,0	70,0	78,9	30 700
34,0	68,3	72,4	31 300	36,0	68,5	78,0	27 800
36,0	66,7	71,4	28 400	38,0	66,9	77,1	25 100
38,0	65,0	70,4	25 800	40,0	65,4	76,1	22 800
40,0	63,3	69,3	23 500	42,0	63,8	75,0	20 700
42,0	61,6	68,1	21 400	44,0	62,3	73,9	18 800
44,0	59,8	66,8	19 500	46,0	60,6	72,6	17 100
46,0	58,0	65,4	17 800	48,0	59,0	71,3	15 600
48,0	56,2	64,0	16 300	50,0	57,3	69,9	14 100
50,0	54,3	62,4	14 800	52,0	55,6	68,5	12 800
52,0	52,4	60,8	13 500	54,0	53,9	66,9	11 600
54,0	50,4	59,0	12 300	56,0	52,1	65,2	10 500
56,0	48,3	57,1	11 200	58,0	50,2	63,4	9 500
58,0	46,2	55,0	10 200	60,0	48,3	61,5	8 500
60,0	44,0	52,8	9 200	62,0	46,4	59,5	7 600
62,0	41,7	50,4	8 300	64,0	44,3	57,3	6 700
64,0	39,2	47,7	7 400	66,0	42,2	55,0	5 900
66,0	36,6	44,9	6 600	68,0	40,0	52,4	5 100