


Liftcrane Boom Capacities

Boom No. B10:290
20 610 kg Crane Counterweight
0 kg Carbody Counterweight
360 Degree Rating

MLC90A-1 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 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 3 is 9 070 kg. When Drum 1 or Drum 2 is used, capacity with single part whip line is 12 520 kg. 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 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. 80121887**, Wire Rope Specifications chart **No. 9751-A**, Counterweight Arrangements chart **No. 9745-A**, and Wind Conditions chart **No. 9750-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. 9749-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 6 480 mm crawlers, 900 mm treads, 4 390 mm gantry, 8 part boom hoist reeving, two 32 mm boom pendants, 20 610 kg crane counterweight, and 0 kg carbody counterweight.

Consult chart **No. 9753-AM** when Jib No. 117 is attached.

Upper Boom Point Deduct
Deduct 260 kg from capacities when upper boom point is attached. Deduct does not apply to 19,0 m boom length.

Third Line Deduct
Deduct 120 kg from capacities when boom top is equipped with optional 3rd sheave wire rope guide.

Deduct From Capacities When Jib No. 117 Is Attached	
Jib Length (m)	Deduct (kg)
9,1	2 050
12,2	2 400
15,2	2 800
18,3	3 350
Weight of jib and 325 kg suspended beneath jib point have been included in determination of deduct.	

Refer to Table 1 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.

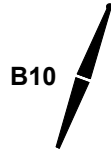
Combined weight beneath boom point sheaves must not exceed block weight shown.

Table 1

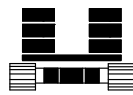
Boom Length (m)	Over End or Side of Crawlers	Over End of Blocked Crawlers
	Block Weight (kg)	
19,0 - 40,0	1 725	1 725
43,0	1 200	1 200
46,0 - 49,0	325	325
52,0		325
55,0		#
<p>Warning: Crane must remain in-line with crawlers when raising over end of blocked crawlers until operating radius is within 360 degree chart. <i>Crane tipping or structural damage can occur.</i></p>		

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Explanation of Symbols



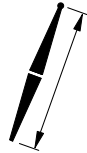
Boom No. B10:290



Crane Counterweight
+
Carbody Counterweight



360 Degree Rating



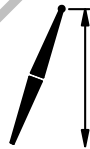
Boom Length



Operating Radius
(see page 1)



Boom Angle
(see page 1)



Boom Point Elevation
(see page 1)

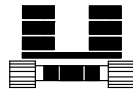
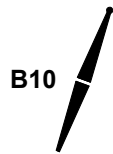


Lifting Capacities
(see page 1)

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ASME B30.5



20 610 kg
+
0 kg



19,0 m

m	°	m	kg
4,6	80,3	20,8	70 600
5,0	78,9	20,7	59 400
5,5	77,4	20,6	49 800
6,0	75,8	20,5	42 900
6,5	74,3	20,3	37 800
7,0	72,7	20,2	33 500
7,5	71,1	20,0	30 100
8,0	69,5	19,8	27 200
8,5	67,9	19,6	24 900
9,0	66,2	19,4	22 900
9,5	64,5	19,2	21 100
10,0	62,8	18,9	19 600
10,5	61,1	18,6	18 300
11,0	59,4	18,3	17 100
11,5	57,6	18,0	16 100
12,0	55,8	17,7	15 100
13,0	52,0	16,9	13 500
14,0	48,0	16,1	12 100
15,0	43,8	15,1	11 000
16,0	39,1	13,9	10 100
17,0	34,0	12,5	9 200
18,0	28,0	10,8	8 500

22,0 m

m	°	m	kg
4,9	80,8	23,8	62 300
5,0	80,5	23,8	59 600
5,5	79,1	23,7	50 000
6,0	77,8	23,6	43 100
6,5	76,5	23,5	37 900
7,0	75,1	23,3	33 700
7,5	73,8	23,2	30 200
8,0	72,4	23,0	27 400
8,5	71,0	22,9	25 000
9,0	69,6	22,7	23 000
9,5	68,2	22,5	21 300
10,0	66,8	22,3	19 800
10,5	65,4	22,0	18 400
11,0	64,0	21,8	17 200
11,5	62,5	21,5	16 200
12,0	61,0	21,3	15 300
13,0	58,0	20,6	13 600
14,0	54,8	20,0	12 300
15,0	51,5	19,2	11 200
16,0	48,1	18,3	10 200
17,0	44,4	17,4	9 400
18,0	40,5	16,2	8 600
19,0	36,3	15,0	8 000
20,0	31,6	13,4	7 400
21,0	26,0	11,6	6 900

25,0 m

m	°	m	kg
5,5	80,5	26,7	50 200
6,0	79,3	26,6	43 100
6,5	78,1	26,5	37 900
7,0	76,9	26,4	33 700
7,5	75,8	26,3	30 200
8,0	74,6	26,1	27 300
8,5	73,4	26,0	25 000
9,0	72,2	25,8	23 000
9,5	71,0	25,7	21 200
10,0	69,7	25,5	19 700
10,5	68,5	25,3	18 400
11,0	67,3	25,1	17 200
11,5	66,0	24,9	16 100
12,0	64,7	24,6	15 200
13,0	62,2	24,1	13 600
14,0	59,5	23,5	12 200
15,0	56,8	22,9	11 100
16,0	54,0	22,2	10 100
17,0	51,1	21,4	9 300
18,0	48,1	20,6	8 500
19,0	44,9	19,6	7 900
20,0	41,5	18,5	7 300
21,0	37,9	17,3	6 800
22,0	33,9	15,9	6 300
23,0	29,5	14,2	5 900
24,0	24,3	12,2	5 500

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28,0 m

m	°	m	kg
5,8	80,9	29,7	45 700
6,0	80,5	29,7	43 100
6,5	79,4	29,6	37 900
7,0	78,4	29,5	33 600
7,5	77,3	29,4	30 200
8,0	76,3	29,3	27 300
8,5	75,2	29,1	24 900
9,0	74,2	29,0	22 900
9,5	73,1	28,8	21 200
10,0	72,0	28,7	19 700
10,5	70,9	28,5	18 300
11,0	69,8	28,3	17 200
11,5	68,7	28,1	16 100
12,0	67,6	27,9	15 200
13,0	65,4	27,5	13 500
14,0	63,1	27,0	12 200
15,0	60,8	26,5	11 100
16,0	58,4	25,9	10 100
17,0	56,0	25,2	9 300
18,0	53,4	24,5	8 500
19,0	50,8	23,7	7 900
20,0	48,1	22,8	7 300
21,0	45,3	21,9	6 800
22,0	42,3	20,8	6 300
23,0	39,1	19,6	5 900
24,0	35,7	18,3	5 500
25,0	32,0	16,8	5 200
26,0	27,9	15,0	4 800
27,0	23,0	12,8	4 500

31,0 m

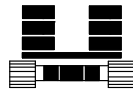
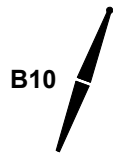
m	°	m	kg
6,7	80,1	32,6	35 800
7,0	79,5	32,6	33 600
7,5	78,6	32,5	30 100
8,0	77,6	32,3	27 300
8,5	76,7	32,2	24 900
9,0	75,7	32,1	22 900
9,5	74,8	32,0	21 100
10,0	73,8	31,8	19 600
10,5	72,8	31,7	18 300
11,0	71,9	31,5	17 100
11,5	70,9	31,3	16 000
12,0	69,9	31,1	15 100
13,0	67,9	30,8	13 500
14,0	65,9	30,3	12 100
15,0	63,8	29,8	11 000
16,0	61,8	29,3	10 000
17,0	59,6	28,7	9 200
18,0	57,5	28,1	8 400
19,0	55,2	27,4	7 800
20,0	52,9	26,7	7 200
21,0	50,6	25,9	6 700
22,0	48,1	25,0	6 200
23,0	45,6	24,1	5 800
24,0	42,9	23,0	5 400
25,0	40,1	21,9	5 100
26,0	37,1	20,6	4 700
27,0	33,8	19,2	4 500
28,0	30,3	17,6	4 200

34,0 m

m	°	m	kg
6,7	80,9	35,7	35 800
7,0	80,4	35,6	33 500
7,5	79,6	35,5	30 100
8,0	78,7	35,4	27 200
8,5	77,9	35,3	24 800
9,0	77,0	35,2	22 800
9,5	76,1	35,1	21 100
10,0	75,3	34,9	19 600
10,5	74,4	34,8	18 200
11,0	73,5	34,6	17 000
11,5	72,6	34,5	16 000
12,0	71,7	34,3	15 000
13,0	69,9	34,0	13 400
14,0	68,1	33,6	12 000
15,0	66,3	33,1	10 900
16,0	64,4	32,7	10 000
17,0	62,5	32,2	9 100
18,0	60,6	31,6	8 400
19,0	58,7	31,0	7 700
20,0	56,7	30,4	7 100
21,0	54,6	29,7	6 600
22,0	52,5	28,9	6 200
23,0	50,3	28,1	5 700
24,0	48,1	27,3	5 300
25,0	45,8	26,3	5 000
26,0	43,3	25,3	4 700
27,0	40,8	24,2	4 400
28,0	38,1	22,9	4 100
29,0	35,3	21,6	3 900
30,0	32,2	20,0	3 600
32,0	25,1	16,3	3 200

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20 610 kg
+
0 kg



37,0 m

m	°	m	kg
7,3	80,7	38,6	31 100
7,5	80,4	38,6	30 000
8,0	79,7	38,5	27 100
8,5	78,9	38,4	24 800
9,0	78,1	38,3	22 800
9,5	77,3	38,2	21 000
10,0	76,5	38,0	19 500
10,5	75,7	37,9	18 100
11,0	74,9	37,8	16 900
11,5	74,1	37,6	15 900
12,0	73,3	37,5	14 900
13,0	71,6	37,2	13 300
14,0	70,0	36,8	11 900
15,0	68,3	36,4	10 800
16,0	66,7	36,0	9 900
17,0	65,0	35,5	9 000
18,0	63,2	35,0	8 300
19,0	61,5	34,5	7 600
20,0	59,7	33,9	7 000
21,0	57,9	33,3	6 500
22,0	56,0	32,7	6 000
23,0	54,1	32,0	5 600
24,0	52,2	31,2	5 200
25,0	50,2	30,4	4 900
26,0	48,1	29,5	4 600
27,0	46,0	28,6	4 300
28,0	43,8	27,6	4 000
29,0	41,5	26,5	3 800
30,0	39,1	25,3	3 500
32,0	33,8	22,5	3 100
34,0	27,7	19,1	2 700

40,0 m

m	°	m	kg
7,9	80,6	41,5	27 400
8,0	80,4	41,5	27 100
8,5	79,7	41,4	24 700
9,0	79,0	41,3	22 700
9,5	78,2	41,2	20 900
10,0	77,5	41,1	19 400
10,5	76,8	41,0	18 100
11,0	76,0	40,9	16 900
11,5	75,3	40,7	15 800
12,0	74,6	40,6	14 900
13,0	73,1	40,3	13 200
14,0	71,6	40,0	11 900
15,0	70,0	39,6	10 700
16,0	68,5	39,2	9 800
17,0	66,9	38,8	8 900
18,0	65,4	38,4	8 200
19,0	63,8	37,9	7 500
20,0	62,2	37,4	7 000
21,0	60,5	36,8	6 400
22,0	58,9	36,2	6 000
23,0	57,2	35,6	5 600
24,0	55,4	34,9	5 200
25,0	53,7	34,2	4 800
26,0	51,9	33,4	4 500
27,0	50,0	32,6	4 200
28,0	48,1	31,7	3 900
29,0	46,1	30,8	3 700
30,0	44,1	29,8	3 500
32,0	39,8	27,5	3 000
34,0	35,0	24,9	2 700
36,0	29,6	21,7	2 400
38,0	23,1	17,6	2 100

43,0 m

m	°	m	kg
8,5	80,4	44,5	24 500
9,0	79,8	44,4	22 600
9,5	79,1	44,3	20 900
10,0	78,4	44,2	19 300
10,5	77,7	44,1	18 000
11,0	77,0	44,0	16 800
11,5	76,4	43,9	15 700
12,0	75,7	43,7	14 800
13,0	74,3	43,5	13 200
14,0	72,9	43,2	11 800
15,0	71,5	42,8	10 600
16,0	70,1	42,5	9 700
17,0	68,7	42,1	8 800
18,0	67,2	41,7	8 100
19,0	65,8	41,2	7 400
20,0	64,3	40,8	6 900
21,0	62,8	40,3	6 300
22,0	61,3	39,7	5 900
23,0	59,7	39,1	5 500
24,0	58,2	38,5	5 100
25,0	56,6	37,9	4 700
26,0	55,0	37,2	4 400
27,0	53,3	36,5	4 100
28,0	51,6	35,7	3 800
29,0	49,9	34,9	3 600
30,0	48,1	34,0	3 400
32,0	44,4	32,1	2 900
34,0	40,5	29,8	2 600
36,0	36,1	27,3	2 200
38,0	31,3	24,3	2 000

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46,0 m

m	°	m	kg
9,1	80,3	47,4	22 000
9,5	79,8	47,3	20 800
10,0	79,2	47,2	19 300
10,5	78,5	47,1	17 900
11,0	77,9	47,0	16 700
11,5	77,3	46,9	15 600
12,0	76,6	46,8	14 700
13,0	75,3	46,6	13 100
14,0	74,0	46,3	11 700
15,0	72,7	46,0	10 600
16,0	71,4	45,6	9 600
17,0	70,1	45,3	8 700
18,0	68,8	44,9	8 000
19,0	67,4	44,5	7 400
20,0	66,1	44,1	6 800
21,0	64,7	43,6	6 300
22,0	63,3	43,1	5 800
23,0	61,9	42,6	5 400
24,0	60,5	42,0	5 000
25,0	59,0	41,4	4 600
26,0	57,6	40,8	4 300
27,0	56,1	40,1	4 000
28,0	54,5	39,4	3 700
29,0	53,0	38,7	3 500
30,0	51,4	37,9	3 300
32,0	48,1	36,2	2 800
34,0	44,7	34,3	2 500
36,0	41,0	32,1	2 200
38,0	37,0	29,6	1 900

49,0 m

m	°	m	kg
9,1	80,9	50,5	21 900
9,5	80,4	50,4	20 700
10,0	79,8	50,3	19 200
10,5	79,2	50,2	17 800
11,0	78,7	50,1	16 600
11,5	78,1	50,0	15 600
12,0	77,5	49,9	14 600
13,0	76,3	49,7	13 000
14,0	75,0	49,4	11 600
15,0	73,8	49,1	10 500
16,0	72,6	48,8	9 500
17,0	71,4	48,5	8 600
18,0	70,1	48,1	7 900
19,0	68,9	47,8	7 300
20,0	67,6	47,3	6 700
21,0	66,4	46,9	6 100
22,0	65,1	46,5	5 700
23,0	63,8	46,0	5 300
24,0	62,5	45,5	4 900
25,0	61,1	44,9	4 500
26,0	59,8	44,3	4 200
27,0	58,4	43,7	3 900
28,0	57,0	43,1	3 600
29,0	55,6	42,4	3 400
30,0	54,2	41,7	3 200
32,0	51,2	40,2	2 700
34,0	48,1	38,5	2 400
36,0	44,9	36,6	2 000
38,0	41,5	34,4	1 700

52,0 m

m	°	m	kg
9,8	80,7	53,4	19 800
10,0	80,4	53,4	19 100
10,5	79,9	53,3	17 700
11,0	79,3	53,2	16 500
11,5	78,7	53,1	15 500
12,0	78,2	53,0	14 500
13,0	77,1	52,7	12 900
14,0	75,9	52,5	11 500
15,0	74,8	52,2	10 400
16,0	73,6	51,9	9 400
17,0	72,5	51,6	8 600
18,0	71,3	51,3	7 800
19,0	70,2	50,9	7 200
20,0	69,0	50,6	6 600
21,0	67,8	50,2	6 100
22,0	66,6	49,7	5 600
23,0	65,4	49,3	5 200
24,0	64,2	48,8	4 800
25,0	62,9	48,3	4 400
26,0	61,7	47,8	4 100
27,0	60,4	47,2	3 800
28,0	59,1	46,6	3 600
29,0	57,8	46,0	3 300
30,0	56,5	45,4	3 100
32,0	53,8	44,0	2 600
34,0	51,0	42,4	2 300
36,0	48,1	40,7	2 000

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ASME B30.5



20 610 kg
+
0 kg



 m	 °	 m	 kg
10,4	80,6	56,3	18 000
10,5	80,4	56,3	17 700
11,0	79,9	56,2	16 400
11,5	79,4	56,1	15 400
12,0	78,8	56,0	14 400
13,0	77,8	55,8	12 800
14,0	76,7	55,6	11 400
15,0	75,6	55,3	10 300
16,0	74,5	55,1	9 300
17,0	73,5	54,8	8 500
18,0	72,4	54,4	7 700
19,0	71,3	54,1	7 100
20,0	70,2	53,8	6 500
21,0	69,1	53,4	6 000
22,0	67,9	53,0	5 500
23,0	66,8	52,6	5 100
24,0	65,7	52,1	4 700
25,0	64,5	51,6	4 300
26,0	63,3	51,2	4 000
27,0	62,2	50,6	3 700
28,0	61,0	50,1	3 400
29,0	59,8	49,5	3 200
30,0	58,6	48,9	3 000
32,0	56,1	47,6	2 500
34,0	53,5	46,2	2 200
36,0	50,9	44,6	1 800

REFERENCE ONLY!