

# Liftcrane Boom Capacities

**Boom No. B20:350**

**50 120 kg Crane Counterweight**

**15 880 kg Carbody Counterweight**

**360 Degree Rating**

## MLC150-1 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.

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. 80117859**, Wire Rope Specifications chart **No. 9848-A**, Counterweight Arrangements chart **No. 9828-A**, and Wind Conditions chart **No. 9847-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. 9846-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 ( $^{\circ}$ ) 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 7 980 mm crawlers, 1 200 mm treads, 5 300 mm gantry, 10 part boom hoist reeving, boom straps, 50 120 kg crane counterweight, and 15 880 kg carbody counterweight.

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)	
15,0 - 54,0	3 475	3 475
57,0	3 400	3 475
60,0	2 625	3 125
63,0	900	900
66,0	#	#

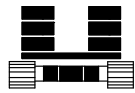
**Warning:** Crane must remain in-line with crawlers when raising over end of blocked crawlers until operating radius is within 360 degree chart. *Crane tipping or structural damage can occur.*

REFERENCE ONLY!

## Explanation of Symbols



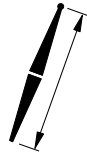
Boom No. B20:350



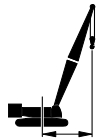
Crane Counterweight  
+  
Carbody Counterweight



360 Degree Rating



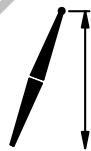
Boom Length



Operating Radius  
(see page 1)



Boom Angle  
(see page 1)



Boom Point Elevation  
(see page 1)



Lifting Capacities  
(see page 1)

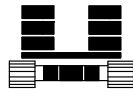
REFERENCE ONLY!

# MLC150-1 S-2

ASME B30.5



B20



50 120 kg  
+  
15 880 kg



360°

15,0 m			
m	°	m	kg
4,9	80,3	16,7	74 800
5,0	79,8	16,7	74 800
5,5	77,8	16,5	74 800
6,0	75,8	16,4	74 800
6,5	73,8	16,2	74 800
7,0	71,7	16,0	74 800
8,0	67,5	15,6	74 100
9,0	63,2	15,0	64 500
10,0	58,6	14,3	56 300
11,0	53,8	13,6	50 200
12,0	48,5	12,6	45 900
13,0	42,8	11,5	42 400
14,0	36,1	10,1	38 200
15,0	27,9	8,2	34 700
15,2	25,5	7,6	34 000

18,0 m			
m	°	m	kg
5,5	79,9	19,7	80 500
6,0	78,2	19,5	80 500
6,5	76,6	19,4	80 500
7,0	74,9	19,2	80 500
8,0	71,5	18,9	80 000
9,0	68,1	18,4	71 800
10,0	64,5	17,9	61 800
11,0	60,8	17,3	53 700
12,0	56,9	16,6	47 500
13,0	52,9	15,8	42 400
14,0	48,5	14,9	38 200
15,0	43,8	13,8	34 800
16,0	38,6	12,5	31 900
17,0	32,6	10,9	29 300
18,0	25,4	8,8	27 100

21,0 m			
m	°	m	kg
6,1	79,7	22,6	80 500
6,5	78,6	22,5	80 500
7,0	77,1	22,4	80 500
8,0	74,3	22,0	80 000
9,0	71,4	21,7	71 900
10,0	68,4	21,2	61 900
11,0	65,4	20,8	53 800
12,0	62,3	20,2	47 600
13,0	59,0	19,6	42 500
14,0	55,7	18,8	38 300
15,0	52,2	18,0	34 900
16,0	48,4	17,1	32 000
17,0	44,5	16,0	29 400
18,0	40,2	14,8	27 200
19,0	35,4	13,4	25 300
20,0	29,8	11,6	23 500
20,7	25,0	10,0	22 400

REFERENCE ONLY

# MLC150-1 S-2

ASME B30.5



50 120 kg  
+  
15 880 kg



**24,0 m**

m	o	m	kg
6,4	80,3	25,6	80 500
6,5	80,0	25,6	80 500
7,0	78,8	25,4	80 500
8,0	76,3	25,2	80 000
9,0	73,8	24,9	71 900
10,0	71,3	24,5	61 900
11,0	68,7	24,1	53 700
12,0	66,0	23,6	47 500
13,0	63,3	23,1	42 400
14,0	60,6	22,5	38 300
15,0	57,7	21,8	34 800
16,0	54,7	21,1	32 000
17,0	51,6	20,2	29 400
18,0	48,4	19,3	27 200
19,0	44,9	18,3	25 200
20,0	41,3	17,1	23 500
22,0	32,8	14,2	20 600
23,2	26,7	11,9	19 100

**27,0 m**

m	o	m	kg
7,0	80,0	28,5	80 500
8,0	77,9	28,3	80 000
9,0	75,7	28,0	71 900
10,0	73,4	27,7	61 800
11,0	71,2	27,3	53 700
12,0	68,9	26,9	47 500
13,0	66,6	26,5	42 400
14,0	64,2	25,9	38 200
15,0	61,8	25,4	34 800
16,0	59,3	24,8	31 900
17,0	56,7	24,1	29 300
18,0	54,0	23,3	27 100
19,0	51,3	22,5	25 200
20,0	48,4	21,6	23 400
22,0	42,2	19,4	20 600
24,0	35,0	16,7	18 200
25,9	26,4	13,1	16 300

**30,0 m**

m	o	m	kg
7,3	80,4	31,5	80 500
8,0	79,1	31,4	80 000
9,0	77,1	31,1	71 900
10,0	75,2	30,8	61 800
11,0	73,1	30,5	53 600
12,0	71,1	30,1	47 400
13,0	69,1	29,7	42 300
14,0	67,0	29,3	38 100
15,0	64,8	28,8	34 700
16,0	62,7	28,3	31 800
17,0	60,4	27,7	29 200
18,0	58,2	27,0	27 000
19,0	55,8	26,3	25 100
20,0	53,4	25,5	23 300
22,0	48,3	23,8	20 500
24,0	42,8	21,7	18 100
26,0	36,5	19,1	16 100
28,0	29,0	15,7	14 500
28,7	26,1	14,3	14 000

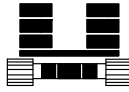
REFERENCE ONLY

# MLC150-1 S-2

ASME B30.5



B20



50 120 kg  
+  
15 880 kg



33,0 m			
m	o	m	kg
7,9	80,3	34,5	80 500
8,0	80,1	34,5	80 000
9,0	78,3	34,2	71 800
10,0	76,6	34,0	61 700
11,0	74,7	33,7	53 600
12,0	72,9	33,4	47 300
13,0	71,1	33,0	42 300
14,0	69,2	32,6	38 100
15,0	67,3	32,1	34 600
16,0	65,4	31,7	31 800
17,0	63,4	31,1	29 100
18,0	61,4	30,6	26 900
19,0	59,4	30,0	25 000
20,0	57,3	29,3	23 300
22,0	53,0	27,8	20 400
24,0	48,4	26,0	18 000
26,0	43,4	24,0	16 100
28,0	37,8	21,5	14 400
30,0	31,4	18,3	13 000
31,4	26,0	15,6	12 100


36,0 m			
m	o	m	kg
8,5	80,1	37,4	76 100
9,0	79,3	37,3	71 800
10,0	77,7	37,1	61 700
11,0	76,0	36,8	53 500
12,0	74,4	36,5	47 200
13,0	72,7	36,2	42 200
14,0	71,0	35,8	38 000
15,0	69,3	35,4	34 500
16,0	67,6	35,0	31 600
17,0	65,8	34,5	29 000
18,0	64,0	34,0	26 800
19,0	62,2	33,5	24 900
20,0	60,4	32,9	23 200
22,0	56,6	31,5	20 300
24,0	52,6	30,0	17 900
26,0	48,3	28,3	15 900
28,0	43,8	26,2	14 300
30,0	38,8	23,8	12 900
32,0	33,1	20,8	11 700
34,0	26,3	17,0	10 600
34,1	25,7	16,7	10 500

39,0 m			
m	o	m	kg
8,8	80,4	40,4	73 500
9,0	80,2	40,4	71 800
10,0	78,7	40,2	61 600
11,0	77,2	39,9	53 400
12,0	75,6	39,6	47 200
13,0	74,1	39,3	42 100
14,0	72,6	39,0	37 900
15,0	71,0	38,6	34 400
16,0	69,4	38,3	31 500
17,0	67,8	37,8	28 900
18,0	66,2	37,4	26 700
19,0	64,6	36,9	24 800
20,0	62,9	36,3	23 000
22,0	59,5	35,2	20 200
24,0	56,0	33,8	17 800
26,0	52,3	32,3	15 800
28,0	48,3	30,5	14 200
30,0	44,2	28,5	12 800
32,0	39,6	26,1	11 600
34,0	34,5	23,3	10 500
36,0	28,7	19,8	9 600
36,9	25,6	18,0	9 200

# MLC150-1 S-2

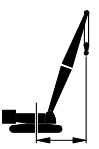

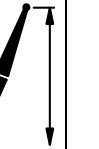

ASME B30.5



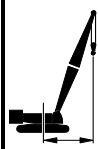
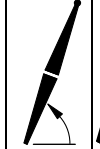



**50 120 kg**  
 +  

**15 880 kg**




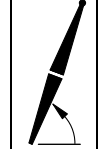
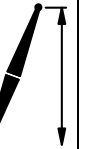

**42,0 m**

 m	 °	 m	 kg
9,4	80,3	43,3	66 900
10,0	79,5	43,2	61 500
11,0	78,1	43,0	53 300
12,0	76,7	42,7	47 100
13,0	75,3	42,5	42 000
14,0	73,8	42,2	37 800
15,0	72,4	41,8	34 300
16,0	71,0	41,5	31 400
17,0	69,5	41,1	28 800
18,0	68,0	40,7	26 600
19,0	66,5	40,2	24 700
20,0	65,0	39,7	22 900
22,0	61,9	38,7	20 000
24,0	58,7	37,4	17 700
26,0	55,4	36,1	15 700
28,0	52,0	34,5	14 100
30,0	48,3	32,7	12 700
32,0	44,4	30,7	11 400
34,0	40,3	28,4	10 400
36,0	35,7	25,7	9 400
38,0	30,5	22,4	8 600
39,6	25,5	19,2	8 000

**45,0 m**

 m	 °	 m	 kg
10,1	80,1	46,3	60 800
11,0	78,9	46,1	53 200
12,0	77,6	45,8	47 000
13,0	76,3	45,6	41 900
14,0	74,9	45,3	37 700
15,0	73,6	45,0	34 200
16,0	72,3	44,6	31 300
17,0	70,9	44,3	28 700
18,0	69,6	43,9	26 500
19,0	68,2	43,5	24 600
20,0	66,8	43,0	22 800
22,0	63,9	42,1	19 900
24,0	61,0	40,9	17 600
26,0	58,0	39,7	15 600
28,0	54,9	38,3	14 000
30,0	51,7	36,7	12 500
32,0	48,3	35,0	11 300
34,0	44,7	33,0	10 300
36,0	40,8	30,7	9 300
38,0	36,6	28,1	8 500
40,0	31,9	25,0	7 800
42,0	26,5	21,2	7 100
42,4	25,3	20,4	7 000

**48,0 m**

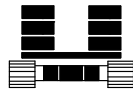
 m	 °	 m	 kg
10,4	80,4	49,3	58 000
11,0	79,6	49,1	53 200
12,0	78,4	48,9	46 900
13,0	77,2	48,7	41 800
14,0	75,9	48,4	37 500
15,0	74,7	48,1	34 100
16,0	73,4	47,8	31 200
17,0	72,2	47,5	28 600
18,0	70,9	47,1	26 400
19,0	69,6	46,7	24 400
20,0	68,3	46,3	22 700
22,0	65,7	45,4	19 800
24,0	63,0	44,4	17 400
26,0	60,3	43,3	15 400
28,0	57,5	42,0	13 800
30,0	54,5	40,6	12 400
32,0	51,5	39,0	11 200
34,0	48,3	37,2	10 100
36,0	44,9	35,2	9 200
38,0	41,4	33,0	8 400
40,0	37,5	30,5	7 600
42,0	33,2	27,5	6 900
44,0	28,4	23,9	6 300
45,1	25,3	21,6	6 000

# MLC150-1 S-2

ASME B30.5



B20



50 120 kg  
+  
15 880 kg



360°

51,0 m			
m	o	m	kg
11,0	80,3	52,2	53 200
12,0	79,1	52,0	46 800
13,0	77,9	51,8	41 600
14,0	76,8	51,5	37 400
15,0	75,6	51,2	33 900
16,0	74,4	50,9	31 100
17,0	73,3	50,6	28 400
18,0	72,1	50,3	26 200
19,0	70,9	49,9	24 300
20,0	69,7	49,6	22 500
22,0	67,2	48,7	19 600
24,0	64,7	47,8	17 300
26,0	62,2	46,7	15 300
28,0	59,6	45,5	13 700
30,0	56,9	44,2	12 300
32,0	54,2	42,8	11 000
34,0	51,3	41,2	10 000
36,0	48,3	39,4	9 100
38,0	45,1	37,5	8 200
40,0	41,8	35,3	7 500
42,0	38,2	32,8	6 800
44,0	34,3	29,9	6 200
46,0	29,9	26,6	5 700
47,9	25,2	22,8	5 200

54,0 m			
m	o	m	kg
11,3	80,5	55,2	51 000
12,0	79,7	55,1	46 700
13,0	78,6	54,9	41 500
14,0	77,5	54,6	37 300
15,0	76,4	54,4	33 800
16,0	75,3	54,1	30 900
17,0	74,2	53,8	28 300
18,0	73,1	53,5	26 100
19,0	72,0	53,1	24 200
20,0	70,9	52,8	22 400
22,0	68,6	52,0	19 500
24,0	66,3	51,1	17 100
26,0	63,9	50,1	15 100
28,0	61,5	49,0	13 500
30,0	59,0	47,9	12 100
32,0	56,5	46,5	10 900
34,0	53,8	45,1	9 800
36,0	51,1	43,5	8 900
38,0	48,3	41,7	8 100
40,0	45,3	39,7	7 300
42,0	42,2	37,6	6 700
44,0	38,8	35,1	6 000
46,0	35,2	32,4	5 500
48,0	31,2	29,2	5 000
50,0	26,7	25,3	4 500
50,6	25,1	24,0	4 400

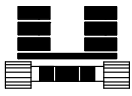
57,0 m			
m	o	m	kg
11,9	80,4	58,1	47 000
12,0	80,2	58,1	46 400
13,0	79,2	57,9	41 400
14,0	78,2	57,7	37 200
15,0	77,2	57,5	33 700
16,0	76,1	57,2	30 800
17,0	75,1	56,9	28 200
18,0	74,0	56,6	26 000
19,0	73,0	56,3	24 000
20,0	71,9	56,0	22 300
22,0	69,8	55,2	19 400
24,0	67,6	54,4	17 000
26,0	65,4	53,5	15 000
28,0	63,1	52,5	13 400
30,0	60,8	51,3	12 000
32,0	58,5	50,1	10 800
34,0	56,0	48,8	9 700
36,0	53,5	47,3	8 800
38,0	51,0	45,7	7 900
40,0	48,3	43,9	7 200
42,0	45,5	42,0	6 500
44,0	42,5	39,8	5 900
46,0	39,4	37,4	5 400
48,0	36,0	34,7	4 900
50,0	32,3	31,6	4 400
52,0	28,2	28,0	4 000
53,3	25,0	25,2	3 700



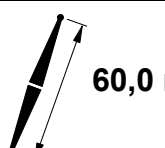
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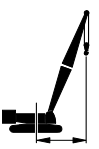

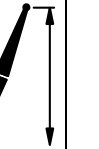

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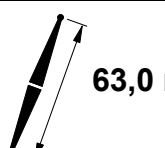


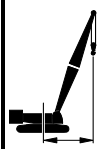
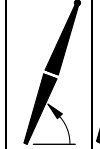


 50 120 kg  
+  
15 880 kg

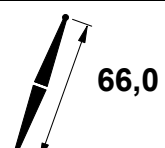



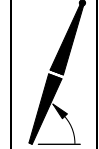
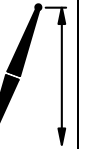

 **60,0 m**

 m	 °	 m	 kg
12,5	80,3	61,1	43 100
13,0	79,8	61,0	41 300
14,0	78,8	60,8	37 100
15,0	77,8	60,6	33 600
16,0	76,8	60,3	30 700
17,0	75,8	60,0	28 100
18,0	74,8	59,8	25 800
19,0	73,9	59,5	23 900
20,0	72,9	59,1	22 100
22,0	70,8	58,4	19 200
24,0	68,8	57,7	16 800
26,0	66,7	56,8	14 900
28,0	64,6	55,9	13 200
30,0	62,4	54,8	11 800
32,0	60,2	53,7	10 600
34,0	58,0	52,4	9 500
36,0	55,7	51,1	8 600
38,0	53,3	49,6	7 800
40,0	50,8	47,9	7 000
42,0	48,3	46,2	6 400
44,0	45,6	44,2	5 800
46,0	42,8	42,1	5 200
48,0	39,9	39,7	4 700
50,0	36,7	37,1	4 300
52,0	33,3	34,1	3 800
54,0	29,5	30,7	3 400
55,8	25,7	27,2	3 100

 **63,0 m**

 m	 °	 m	 kg
12,8	80,4	64,1	38 100
13,0	80,3	64,0	38 000
14,0	79,3	63,8	36 900
15,0	78,4	63,6	33 400
16,0	77,5	63,4	30 600
17,0	76,5	63,1	27 900
18,0	75,6	62,9	25 700
19,0	74,6	62,6	23 800
20,0	73,7	62,3	22 000
22,0	71,8	61,6	19 100
24,0	69,8	60,9	16 700
26,0	67,9	60,1	14 700
28,0	65,9	59,2	13 100
30,0	63,9	58,2	11 700
32,0	61,8	57,1	10 400
34,0	59,7	55,9	9 400
36,0	57,5	54,7	8 500
38,0	55,3	53,3	7 600
40,0	53,0	51,8	6 900
42,0	50,7	50,2	6 200
44,0	48,3	48,4	5 600
46,0	45,7	46,5	5 100
48,0	43,1	44,3	4 600
50,0	40,3	42,0	4 100
52,0	37,3	39,4	3 700
54,0	34,1	36,6	3 300
56,0	30,6	33,3	2 900
58,0	26,7	29,5	2 600
58,5	25,6	28,3	2 500

 **66,0 m**

 m	 °	 m	 kg
13,4	80,3	67,0	33 800
14,0	79,8	66,9	33 400
15,0	78,9	66,7	32 700
16,0	78,0	66,5	30 400
17,0	77,2	66,2	27 800
18,0	76,3	66,0	25 600
19,0	75,4	65,7	23 600
20,0	74,5	65,4	21 800
22,0	72,6	64,8	18 900
24,0	70,8	64,1	16 500
26,0	68,9	63,3	14 600
28,0	67,0	62,5	12 900
30,0	65,1	61,5	11 500
32,0	63,2	60,5	10 300
34,0	61,2	59,4	9 200
36,0	59,2	58,2	8 300
38,0	57,1	56,9	7 500
40,0	55,0	55,5	6 700
42,0	52,8	54,0	6 000
44,0	50,6	52,4	5 400
46,0	48,3	50,6	4 900
48,0	45,8	48,7	4 400
50,0	43,3	46,6	3 900
52,0	40,7	44,3	3 500
54,0	37,9	41,8	3 100
56,0	34,9	38,9	2 800
58,0	31,6	35,8	2 400
60,0	28,0	32,1	2 100
61,3	25,5	29,5	1 900