

# Liftcrane Boom Capacities


**Boom No. B20:350**

**110,500 lb Crane Counterweight**

**35,000 lb 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 26 ft 2 in. crawlers, 48 in. treads, 17 ft 5 in. gantry, 10 part boom hoist reeving, boom straps, 110,500 lb crane counterweight, and 35,000 lb 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**

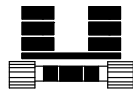
Boom Length (ft)	Over End or Side of Crawlers	Over End of Blocked Crawlers
	Block Weight (lb)	
49.2 - 177.2	7,700	7,700
187.0	7,500	7,700
196.9	5,800	6,900
206.7	2,000	2,000
216.5	#	#
<p><b>Warning:</b> Crane must remain in-line with crawlers when raising over end of blocked crawlers until operating radius is within 360 degree chart. Crane tipping or structural damage can occur.</p>		

REFERENCE ONLY!

## Explanation of Symbols



Boom No. B20:350



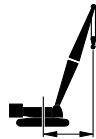
Crane Counterweight  
+  
Carbody Counterweight



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)

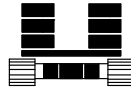
REFERENCE ONLY!

# MLC150-1 S-2

ASME B30.5



B20



110,500 lb  
+  
35,000 lb



**49.2 ft**

ft	°	ft	lb
16	80.3	54.9	164,900
17	79.1	54.6	164,900
18	77.9	54.3	164,900
19	76.6	54.0	164,900
20	75.4	53.7	164,900
22	72.9	53.0	164,900
24	70.4	52.1	164,900
26	67.9	51.2	164,900
28	65.2	50.1	152,800
30	62.5	48.9	139,100
32	59.8	47.6	127,800
34	56.9	46.2	118,600
36	53.9	44.6	111,000
38	50.8	42.8	104,800
40	47.5	40.8	99,600
42	44.0	38.5	95,400
44	40.2	35.9	89,400
46	36.0	32.9	84,100
48	31.3	29.4	79,300
50	25.6	24.9	74,900

**59.1 ft**

ft	°	ft	lb
18	79.9	64.5	177,600
19	78.9	64.2	177,600
20	77.9	64.0	177,600
22	75.9	63.4	177,600
24	73.9	62.7	177,600
26	71.8	61.9	177,600
28	69.7	61.1	167,900
30	67.5	60.2	155,500
32	65.4	59.1	141,200
34	63.1	58.0	129,100
36	60.9	56.8	118,800
38	58.5	55.4	110,000
40	56.1	54.0	102,300
42	53.7	52.4	95,500
44	51.1	50.6	89,500
46	48.4	48.7	84,200
48	45.6	46.6	79,400
50	42.6	44.2	75,100
55	34.1	37.0	65,900
59	25.3	28.8	59,800

**68.9 ft**

ft	°	ft	lb
20	79.7	74.1	177,600
22	78.0	73.6	177,600
24	76.2	73.0	177,600
26	74.5	72.4	177,600
28	72.7	71.7	167,900
30	71.0	70.9	155,700
32	69.2	70.1	141,300
34	67.3	69.1	129,300
36	65.5	68.1	119,000
38	63.6	67.0	110,200
40	61.6	65.9	102,500
42	59.7	64.6	95,700
44	57.7	63.2	89,700
46	55.6	61.7	84,400
48	53.5	60.1	79,600
50	51.3	58.4	75,200
55	45.4	53.5	66,100
60	38.8	47.3	58,700
65	31.0	39.2	52,600
68	25.0	32.8	49,400

REFER TO SPECIFICATIONS

# MLC150-1 S-2

ASME B30.5



110,500 lb  
+  
35,000 lb



**78.7 ft**

ft	o	ft	lb
21	80.3	84.0	177,600
22	79.5	83.7	177,600
24	78.0	83.2	177,600
26	76.5	82.7	177,600
28	75.0	82.1	167,900
30	73.5	81.4	155,700
32	71.9	80.7	141,300
34	70.3	79.9	129,200
36	68.8	79.0	118,900
38	67.2	78.1	110,100
40	65.5	77.1	102,400
42	63.9	76.1	95,600
44	62.2	74.9	89,600
46	60.5	73.7	84,300
48	58.8	72.4	79,500
50	57.0	71.0	75,100
55	52.4	67.1	65,900
60	47.4	62.5	58,600
65	42.0	56.9	52,500
70	35.9	50.1	47,400
75	28.5	41.2	43,000
76	26.7	39.1	42,200

**88.6 ft**

ft	o	ft	lb
23	80.0	93.6	177,600
24	79.4	93.4	177,600
26	78.0	92.9	177,600
28	76.7	92.3	167,900
30	75.4	91.8	155,700
32	74.0	91.1	141,200
34	72.6	90.4	129,100
36	71.3	89.7	118,900
38	69.9	88.9	110,000
40	68.5	88.0	102,300
42	67.0	87.1	95,500
44	65.6	86.1	89,500
46	64.1	85.1	84,100
48	62.7	84.0	79,300
50	61.2	82.8	75,000
55	57.3	79.5	65,800
60	53.2	75.7	58,400
65	48.9	71.3	52,400
70	44.3	66.2	47,300
75	39.2	60.1	43,000
80	33.4	52.7	39,200
85	26.4	43.0	36,000

**98.4 ft**

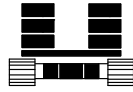
ft	o	ft	lb
24	80.5	103.4	177,600
26	79.3	103.0	177,600
28	78.1	102.5	167,900
30	76.9	102.0	155,600
32	75.7	101.4	141,100
34	74.4	100.8	129,000
36	73.2	100.1	118,700
38	72.0	99.4	109,800
40	70.7	98.7	102,100
42	69.5	97.9	95,300
44	68.2	97.0	89,300
46	66.9	96.1	83,900
48	65.6	95.1	79,100
50	64.3	94.1	74,800
55	61.0	91.3	65,600
60	57.5	88.0	58,200
65	53.9	84.3	52,100
70	50.1	80.1	47,100
75	46.0	75.3	42,700
80	41.7	69.7	39,000
85	36.8	63.0	35,800
90	31.3	55.0	32,900
94	26.1	47.0	30,900

# MLC150-1 S-2

ASME B30.5



B20



110,500 lb  
+  
35,000 lb



360°

**108.3 ft**

ft	o	ft	lb
26	80.3	113.1	177,600
28	79.2	112.6	167,900
30	78.1	112.2	155,500
32	77.0	111.6	141,000
34	75.9	111.1	128,900
36	74.8	110.5	118,600
38	73.7	109.9	109,700
40	72.6	109.2	102,000
42	71.4	108.4	95,200
44	70.3	107.7	89,200
46	69.2	106.9	83,800
48	68.0	106.0	79,000
50	66.8	105.1	74,700
55	63.9	102.6	65,500
60	60.8	99.7	58,100
65	57.7	96.5	52,000
70	54.4	92.9	46,900
75	51.0	88.8	42,600
80	47.4	84.2	38,900
85	43.6	78.9	35,700
90	39.4	72.9	32,800
95	34.8	65.8	30,300
100	29.6	57.2	28,100
103	25.9	51.0	26,800

**118.1 ft**

ft	o	ft	lb
28	80.1	122.7	167,900
30	79.1	122.3	155,400
32	78.1	121.8	140,900
34	77.1	121.3	128,800
36	76.1	120.8	118,400
38	75.1	120.2	109,500
40	74.1	119.5	101,800
42	73.1	118.9	95,000
44	72.0	118.2	89,000
46	71.0	117.5	83,600
48	69.9	116.7	78,800
50	68.9	115.8	74,400
55	66.2	113.6	65,200
60	63.5	111.1	57,800
65	60.7	108.2	51,700
70	57.9	105.0	46,600
75	54.9	101.5	42,300
80	51.8	97.5	38,600
85	48.5	93.0	35,400
90	45.1	88.0	32,600
95	41.4	82.4	30,100
100	37.5	75.9	27,800
105	33.1	68.3	25,800
110	28.0	59.2	24,000
112	25.8	55.0	23,300

**128.0 ft**

ft	o	ft	lb
29	80.4	132.5	162,100
30	80.0	132.3	155,200
32	79.0	131.9	140,700
34	78.1	131.4	128,600
36	77.2	130.9	118,200
38	76.3	130.4	109,300
40	75.3	129.8	101,600
42	74.4	129.2	94,800
44	73.5	128.6	88,700
46	72.5	127.9	83,400
48	71.6	127.2	78,500
50	70.6	126.5	74,200
55	68.2	124.4	65,000
60	65.7	122.1	57,600
65	63.2	119.5	51,500
70	60.6	116.7	46,400
75	58.0	113.5	42,100
80	55.3	110.0	38,400
85	52.4	106.1	35,100
90	49.5	101.8	32,300
95	46.4	97.0	29,800
100	43.1	91.7	27,600
105	39.6	85.6	25,600
110	35.8	78.8	23,800
115	31.5	70.8	22,100
120	26.7	61.1	20,600
121	25.6	58.9	20,300

# MLC150-1 S-2

ASME B30.5



110,500 lb  
+  
35,000 lb



**137.8 ft**

ft	o	ft	lb
31	80.3	142.2	147,500
32	79.8	142.0	140,600
34	79.0	141.5	128,400
36	78.1	141.1	118,000
38	77.3	140.6	109,100
40	76.4	140.1	101,400
42	75.6	139.5	94,500
44	74.7	138.9	88,500
46	73.8	138.3	83,100
48	72.9	137.6	78,300
50	72.1	136.9	73,900
55	69.8	135.1	64,700
60	67.6	133.0	57,300
65	65.3	130.6	51,200
70	62.9	128.0	46,100
75	60.6	125.2	41,800
80	58.1	122.0	38,100
85	55.6	118.5	34,800
90	53.0	114.7	32,000
95	50.2	110.5	29,500
100	47.4	105.9	27,300
105	44.4	100.8	25,300
110	41.3	95.1	23,400
115	37.9	88.7	21,800
120	34.3	81.5	20,300
125	30.2	73.0	18,900
130	25.5	62.9	17,700

**147.6 ft**

ft	o	ft	lb
33	80.1	151.8	134,000
34	79.7	151.6	128,200
36	78.9	151.2	117,800
38	78.1	150.7	108,900
40	77.3	150.2	101,100
42	76.5	149.7	94,300
44	75.7	149.2	88,300
46	74.9	148.6	82,900
48	74.1	148.0	78,100
50	73.3	147.3	73,700
55	71.2	145.6	64,500
60	69.2	143.7	57,000
65	67.1	141.5	51,000
70	64.9	139.1	45,900
75	62.7	136.5	41,500
80	60.5	133.6	37,800
85	58.2	130.5	34,600
90	55.8	127.1	31,800
95	53.4	123.3	29,300
100	50.9	119.2	27,000
105	48.3	114.7	25,000
110	45.6	109.8	23,200
115	42.7	104.4	21,600
120	39.7	98.4	20,100
125	36.4	91.7	18,700
130	32.9	84.0	17,500
135	28.9	75.2	16,300
139	25.4	66.9	15,400

**157.5 ft**

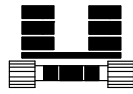
ft	o	ft	lb
34	80.4	161.6	128,000
36	79.6	161.2	117,600
38	78.9	160.8	108,700
40	78.1	160.4	100,900
42	77.4	159.9	94,100
44	76.6	159.4	88,000
46	75.9	158.8	82,600
48	75.1	158.3	77,800
50	74.4	157.7	73,400
55	72.5	156.0	64,200
60	70.5	154.2	56,800
65	68.6	152.2	50,700
70	66.6	150.0	45,500
75	64.6	147.6	41,200
80	62.5	145.0	37,500
85	60.4	142.1	34,300
90	58.3	139.0	31,400
95	56.1	135.6	28,900
100	53.8	131.9	26,700
105	51.5	127.9	24,700
110	49.1	123.5	22,900
115	46.6	118.8	21,200
120	43.9	113.6	19,800
125	41.2	107.9	18,400
130	38.2	101.5	17,100
135	35.1	94.5	16,000
140	31.7	86.5	14,900
145	27.8	77.2	13,900
148	25.3	70.9	13,300

# MLC150-1 S-2

ASME B30.5



B20



110,500 lb  
+  
35,000 lb



360°

**167.3 ft**

ft	o	ft	lb
36	80.3	171.3	117,400
38	79.6	170.9	108,500
40	78.9	170.4	100,700
42	78.2	170.0	93,800
44	77.5	169.5	87,800
46	76.7	169.0	82,400
48	76.0	168.5	77,500
50	75.3	167.9	73,200
55	73.5	166.4	63,900
60	71.7	164.7	56,500
65	69.9	162.8	50,400
70	68.1	160.8	45,300
75	66.2	158.6	40,900
80	64.3	156.1	37,200
85	62.3	153.5	34,000
90	60.4	150.6	31,100
95	58.3	147.5	28,600
100	56.3	144.1	26,400
105	54.2	140.5	24,400
110	52.0	136.5	22,600
115	49.7	132.3	20,900
120	47.4	127.6	19,500
125	45.0	122.6	18,100
130	42.4	117.2	16,800
135	39.8	111.2	15,700
140	36.9	104.5	14,600
145	33.9	97.2	13,600
150	30.5	88.8	12,700
155	26.8	79.2	11,800
157	25.2	74.8	11,500

**177.2 ft**

ft	o	ft	lb
37	80.5	181.1	112,600
38	80.1	180.9	108,300
40	79.5	180.5	100,500
42	78.8	180.1	93,600
44	78.2	179.6	87,500
46	77.5	179.2	82,100
48	76.8	178.7	77,300
50	76.2	178.1	72,900
55	74.5	176.7	63,600
60	72.8	175.1	56,200
65	71.1	173.4	50,100
70	69.3	171.5	44,900
75	67.6	169.4	40,600
80	65.8	167.1	36,900
85	64.0	164.6	33,600
90	62.2	161.9	30,800
95	60.3	159.1	28,300
100	58.4	155.9	26,000
105	56.5	152.6	24,000
110	54.5	149.0	22,200
115	52.4	145.1	20,600
120	50.3	141.0	19,100
125	48.1	136.5	17,700
130	45.9	131.6	16,500
135	43.5	126.3	15,300
140	41.1	120.6	14,300
145	38.5	114.3	13,300
150	35.7	107.4	12,300
155	32.8	99.7	11,500
160	29.5	91.1	10,700
165	25.9	81.0	9,900
166	25.1	78.8	9,800

**187.0 ft**

ft	o	ft	lb
39	80.4	190.7	103,800
40	80.0	190.5	100,200
42	79.4	190.1	93,300
44	78.8	189.7	87,300
46	78.2	189.3	81,900
48	77.5	188.8	77,000
50	76.9	188.3	72,600
55	75.3	187.0	63,300
60	73.7	185.5	55,900
65	72.1	183.8	49,800
70	70.5	182.0	44,700
75	68.8	180.0	40,300
80	67.2	177.9	36,600
85	65.5	175.6	33,300
90	63.8	173.1	30,500
95	62.0	170.4	28,000
100	60.3	167.5	25,800
105	58.5	164.4	23,800
110	56.6	161.1	21,900
115	54.7	157.5	20,300
120	52.8	153.7	18,800
125	50.8	149.6	17,500
130	48.8	145.2	16,200
135	46.7	140.5	15,100
140	44.5	135.4	14,000
145	42.2	129.9	13,000
150	39.8	123.9	12,100
155	37.3	117.4	11,200
160	34.6	110.2	10,400
165	31.7	102.2	9,600
170	28.6	93.2	8,900
175	25.1	82.8	8,300



# MLC150-1 S-2

ASME B30.5



110,500 lb  
+  
35,000 lb



**196.9 ft**

ft	o	ft	lb
41	80.3	200.4	95,100
42	80.0	200.2	93,100
44	79.4	199.8	87,000
46	78.8	199.4	81,600
48	78.2	198.9	76,700
50	77.6	198.4	72,400
55	76.1	197.2	63,100
60	74.6	195.8	55,600
65	73.0	194.2	49,500
70	71.5	192.5	44,300
75	70.0	190.6	40,000
80	68.4	188.6	36,300
85	66.8	186.4	33,000
90	65.2	184.1	30,200
95	63.6	181.6	27,700
100	61.9	178.9	25,400
105	60.2	176.0	23,400
110	58.5	172.9	21,600
115	56.8	169.6	20,000
120	55.0	166.1	18,500
125	53.2	162.3	17,100
130	51.3	158.3	15,800
135	49.4	154.0	14,700
140	47.4	149.4	13,600
145	45.4	144.4	12,600
150	43.2	139.1	11,700
155	41.0	133.3	10,900
160	38.7	127.1	10,000
165	36.2	120.3	9,300
170	33.6	112.9	8,600
175	30.8	104.6	7,900
180	27.7	95.2	7,300
183	25.7	89.0	6,900

**206.7 ft**

ft	o	ft	lb
42	80.4	210.2	84,100
44	79.9	209.8	83,100
46	79.3	209.4	81,300
48	78.7	209.0	76,500
50	78.2	208.5	72,100
55	76.8	207.3	62,800
60	75.3	206.0	55,300
65	73.9	204.5	49,200
70	72.4	202.9	44,000
75	70.9	201.1	39,700
80	69.5	199.2	35,900
85	68.0	197.2	32,700
90	66.5	195.0	29,800
95	64.9	192.6	27,300
100	63.4	190.1	25,100
105	61.8	187.4	23,100
110	60.2	184.5	21,300
115	58.6	181.4	19,600
120	56.9	178.1	18,100
125	55.2	174.6	16,800
130	53.5	170.9	15,500
135	51.7	166.9	14,400
140	49.9	162.7	13,300
145	48.0	158.2	12,300
150	46.1	153.4	11,400
155	44.1	148.2	10,500
160	42.0	142.6	9,700
165	39.9	136.7	9,000
170	37.6	130.2	8,300
175	35.2	123.2	7,600
180	32.7	115.4	7,000
185	29.9	106.9	6,400
190	26.9	97.2	5,800
192	25.6	93.0	5,600

**216.5 ft**

ft	o	ft	lb
44	80.3	219.8	74,500
46	79.8	219.5	73,600
48	79.3	219.0	72,800
50	78.7	218.6	71,800
55	77.4	217.5	62,500
60	76.0	216.2	55,000
65	74.6	214.8	48,800
70	73.2	213.3	43,700
75	71.9	211.6	39,300
80	70.4	209.8	35,600
85	69.0	207.8	32,300
90	67.6	205.8	29,500
95	66.1	203.5	27,000
100	64.7	201.1	24,700
105	63.2	198.6	22,700
110	61.7	195.9	20,900
115	60.2	193.0	19,300
120	58.6	189.9	17,800
125	57.0	186.6	16,400
130	55.4	183.1	15,200
135	53.8	179.5	14,000
140	52.1	175.5	12,900
145	50.4	171.4	11,900
150	48.6	167.0	11,000
155	46.8	162.2	10,200
160	44.9	157.2	9,300
165	43.0	151.8	8,600
170	40.9	146.1	7,900
175	38.8	139.9	7,200
180	36.6	133.2	6,600
185	34.3	125.9	6,000
190	31.8	117.9	5,400
195	29.1	109.1	4,900
200	26.2	99.1	4,300
201	25.5	97.0	4,200