

Liftcrane Boom Capacities

Boom No. 74A

101,400 lb Crane Counterweight

0 lb Carbody Counterweight

Crawler Machine on a Barge

0 Degree thru 3 Degree Static Machine List

No Travel - 360 Degree Rating

MLC165-1 SERIES 1



LIFTING CAPACITIES: Lifting capacities are for a crawler machine when operating on a barge. Machine shall be positively secured to prevent shifting. 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.

Boom Backward Stability: A minimum of 4 parts hoist line is required for capacities denoted by (b), (c), and (d) for boom lengths 49.2 ft thru 98.4 ft. Capacities indicated by (b) require 3,000 lb minimum weight, (c) requires 7,500 lb minimum weight, and (d) requires 15,000 lb minimum weight. **Caution: Do not operate in areas indicated by (b), (c), or (d) without required minimum weights.** Boom will not boom down and boom hoist wire rope may go slack causing wire rope damage or failure.

Upper boom point capacity for liftcrane service with single part whip line is 27,558 lb or 55,116 lb with two part whip line. When boom butt mounted auxiliary drum is used, capacity with single part whip line is 20,000 lb or 40,000 lb with two part whip line. In all cases, upper boom point capacities cannot exceed those listed for main boom capacity.

206.7 ft thru 236.2 ft boom lengths require only the middle three sheaves in lower boom point. All other sheaves must be removed from lower boom point.

Weight of upper boom point, all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom point sheaves, is considered part of main boom 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 uniformly supporting surface with machine list not to exceed degrees noted. Refer to Boom Rigging **No. 81023602**, Wire Rope Specification chart **No. 9408-A**, and Wind Conditions chart **No. 9407-A**. Crane operator judgment must be used to allow for dynamic load effects of swinging, hoisting or lowering, wind conditions, as well as adverse operating conditions and physical machine depreciation. Refer to Operator's Manual for operating guidelines.



OPERATING RADIUS: Operating radius is horizontal distance from axis of rotation at barge deck 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 barge deck to centerline of boom point shaft.

MACHINE EQUIPMENT: Machine equipped with 26 ft 2 in. crawlers, 43 in. treads, 23 ft 7 in. live mast, 18 part boom hoist reeving, boom support straps, 101,400 lb crane counterweight, and 0 lb carbody counterweight.



101,400 lb Crane Counterweight
6 Side Boxes

WARNING: Free fall operation is limited to 13,000 lb per part of line when lowering load with free fall clutch/brake pedal. Hydraulic power must be used for full line pull.

Upper Boom Point Deduct

Deduct 1,300 lb from capacities when upper boom point is attached.
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Lower Boom Point Sheave Deduct

Deduct 700 lb from capacities for boom lengths 147.6 ft thru 196.9 ft when lower boom point is equipped with outer sheave clusters.

Auxiliary Drum Deduct

Deduct 1,800 lb from capacities when boom butt is equipped with auxiliary drum, and 6,0 m (19.7 ft) insert is equipped with wire rope guide sheaves

Third Line Deduct

Deduct 400 lb from capacities when boom is equipped for three line operation.

Refer to **Tables 1 and 2** for raising ability with the maximum weight of all load blocks, hooks, weight balls, slings, and hoist lines beneath lower and/or upper boom point sheaves. For block weights shown with #, a, or b, load blocks, hooks, weight balls, and slings must remain on barge deck until combined weights are within rated capacity of chart. For block weights shown with (a), auxiliary drum mounted in boom butt, wire rope guide sheaves in 6,0 m (19.7 ft) insert, and boom lights must be removed. For block weights shown with (b), upper boom point must be removed. Raising is not permitted in shaded areas of table.

Caution: Combined weight beneath lower and/or upper boom point sheaves must not exceed block weight shown. Jib cannot be attached on crawler machine while operating on a barge.

Table 1

Raising Ability Over End or Side of Crawlers				
Boom Length (ft)	Machine List			
	0°	1°	2°	3°
	Block Weight (lb)			
49.2 - 147.6	7,700	7,700	7,700	7,700
157.5	7,700	7,700	5,800	5,800
167.3	5,800	5,800	1,600	1,600
177.1	1,600	1,600	1,600	1,600
187.0	1,600	1,600	1,600	1,600
196.8	#	#	#	#
206.7	#	b	b	b
216.5	a, b	a, b	a, b	a, b
226.4	RAISING NOT PERMITTED			
236.2				

Table 2

Raising Ability Over Front of Blocked Crawlers				
Boom Length (ft)	Machine List			
	0°	1°	2°	3°
	Block Weight (lb)			
49.2 - 147.6	7,700	7,700	7,700	7,700
157.5	7,700	7,700	5,800	5,800
167.3	5,800	5,800	1,600	1,600
177.1	1,600	1,600	1,600	1,600
187.0	1,600	1,600	1,600	1,600
196.8	#	#	#	#
206.7	#	#	#	#
216.5	#	#	#	#
226.4	#	b	b	b
236.2	a, b	a, b	RAISING NOT PERMITTED	
Warning: Crane must remain in-line with crawlers when raising over end of blocked crawlers until operating radius and crane configuration is within 360 degree chart.				

Explanation of Symbols



Boom No. 74A



Crane Counterweight
+
Carbody Counterweight



360 Degree Rating



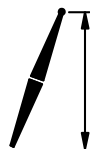
Boom Length



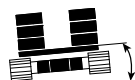
Operating Radius
(see page 1)



Boom Angle
(see page 1)



Boom Point Elevation
(see page 1)

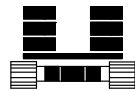


Machine List



Lifting Capacities
(see page 1)

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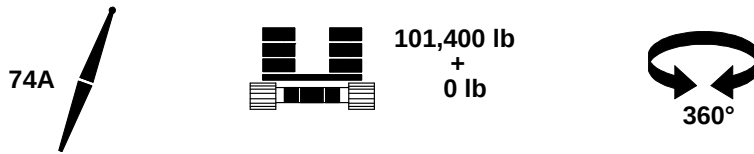


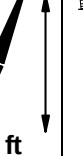
101,400 lb
+
0 lb



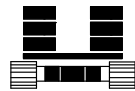
14	81.7	55.1	363,800 d				14
15	80.5	54.9	344,000 d	318,500 d			15
16	79.3	54.6	324,000 d	298,300 d	224,000 d		16
17	78.1	54.4	306,100 d	280,500 d	221,900 d	170,000 d	17
18	76.9	54.1	290,000 d	264,600 d	209,200 d	170,000 d	18
19	75.7	53.8	275,500 c	250,400 c	197,800 c	169,900 c	19
20	74.5	53.5	262,400 c	237,600 c	187,600 c	161,700 c	20
22	72.0	52.8	224,700 c	207,700 c	169,900 c	146,300 c	22
24	69.5	52.0	193,100 b	180,300 b	155,100 b	133,400 b	24
26	66.9	51.1	169,000 b	159,000 b	142,600 b	122,500 b	26
28	64.3	50.1	150,000	142,100	131,900	113,100	28
30	61.7	48.9	134,700	128,200	122,200	105,000	30
32	58.9	47.7	122,100	116,700	111,700	97,900	32
34	56.1	46.3	111,500	107,000	102,800	91,600	34
36	53.1	44.7	102,400	98,600	95,100	86,000	36
38	50.0	43.0	94,600	91,400	88,300	81,000	38
40	46.8	41.0	87,900	85,100	82,400	76,500	40
42	43.3	38.8	81,900	79,500	77,200	72,400	42
44	39.6	36.4	76,600	74,500	72,600	68,700	44
46	35.6	33.5	71,800	70,100	68,400	65,200	46
48	31.0	30.1	67,600	66,100	64,600	62,100	48
50	25.6	26.0	63,700	62,400	61,200	59,100	50

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 59.1 ft							
 ft	 °	 ft	 0° lb	 1° lb	 2° lb	 3° lb	 ft
16	81.1	64.7	323,700 d				16
17	80.1	64.5	305,800 d	260,300 d			17
18	79.1	64.3	289,800 d	260,300 d	177,100 d		18
19	78.1	64.0	275,300 c	250,300 c	177,100 c	133,300 c	19
20	77.1	63.8	262,100 c	237,500 c	177,100 c	133,300 c	20
22	75.1	63.2	225,200 c	205,300 c	169,800 c	133,300 c	22
24	73.1	62.5	193,500 b	178,500 b	155,000 b	133,300 b	24
26	71.0	61.8	169,400 b	157,600 b	142,500 b	122,400 b	26
28	68.9	61.0	150,400	141,000	131,800	113,000	28
30	66.8	60.1	135,000	127,300	120,300	104,900	30
32	64.6	59.1	122,400	116,000	110,100	97,800	32
34	62.4	58.0	111,800	106,400	101,400	91,600	34
36	60.2	56.8	102,800	98,100	93,800	86,000	36
38	57.8	55.5	95,000	91,000	87,300	81,000	38
40	55.5	54.1	88,200	84,700	81,500	76,500	40
42	53.0	52.5	82,200	79,200	76,400	72,400	42
44	50.4	50.8	77,000	74,300	71,800	68,700	44
46	47.8	48.9	72,200	69,900	67,700	65,300	46
48	45.0	46.9	68,000	66,000	64,000	62,100	48
50	42.1	44.6	64,200	62,400	60,600	59,000	50
55	33.8	37.7	56,000	54,700	53,400	52,200	55
60	22.7	27.4	49,400	48,500	47,600	46,700	60

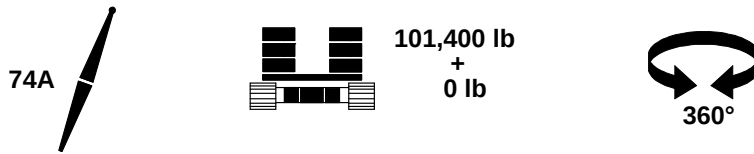
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101,400 lb
+
0 lb

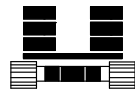


17	81.6	74.5	305,200 d				17
18	80.7	74.3	289,100 c				18
19	79.9	74.1	274,600 c	246,400 c			19
20	79.0	73.9	261,500 c	237,200 c	169,000 c		20
22	77.3	73.4	225,000 c	202,400 c	169,000 c	127,600 c	22
24	75.6	72.9	193,200 b	176,100 b	154,500 b	127,600 b	24
26	73.8	72.3	169,100 b	155,600 b	142,100 b	121,800 b	26
28	72.1	71.6	150,100	139,300	129,700	112,500	28
30	70.3	70.8	134,700	125,800	117,900	104,400	30
32	68.5	70.0	122,100	114,600	107,900	97,300	32
34	66.7	69.1	111,400	105,200	99,400	91,100	34
36	64.8	68.1	102,400	97,000	92,100	85,500	36
38	62.9	67.0	94,600	90,000	85,700	80,500	38
40	61.0	65.9	87,800	83,800	80,000	76,000	40
42	59.1	64.6	81,900	78,300	75,000	71,900	42
44	57.1	63.3	76,600	73,500	70,500	67,700	44
46	55.0	61.9	71,900	69,100	66,500	64,000	46
48	52.9	60.3	67,700	65,200	62,800	60,600	48
50	50.7	58.6	63,900	61,600	59,500	57,500	50
55	45.0	53.8	55,800	54,100	52,400	50,900	55
60	38.5	47.8	49,200	47,900	46,700	45,400	60
65	30.8	40.0	43,800	42,800	41,900	40,900	65
70	20.5	28.7	39,200	38,500	37,800	37,100	70



ft	°	ft	lb	lb	lb	lb	ft
19	81.2	84.2	274,300 c				19
20	80.4	84.0	261,100 c	234,000 c			20
22	78.9	83.5	225,200 b	199,900 b	167,100 b		22
24	77.4	83.1	193,500 b	174,200 b	154,300 b	126,300 b	24
26	75.9	82.5	169,300 b	154,100 b	141,200 b	121,600 b	26
28	74.4	81.9	150,200	138,000	127,400	112,300	28
30	72.9	81.3	134,800	124,800	116,000	104,200	30
32	71.3	80.6	122,100	113,800	106,300	97,100	32
34	69.8	79.8	111,500	104,400	98,000	90,800	34
36	68.2	79.0	102,500	96,300	90,800	85,300	36
38	66.6	78.1	94,700	89,400	84,500	80,100	38
40	65.0	77.1	87,900	83,200	79,000	75,000	40
42	63.3	76.1	81,900	77,800	74,100	70,500	42
44	61.7	74.9	76,700	73,000	69,700	66,500	44
46	60.0	73.8	71,900	68,700	65,700	62,900	46
48	58.3	72.5	67,700	64,800	62,100	59,600	48
50	56.5	71.1	63,900	61,300	58,900	56,500	50
55	51.9	67.3	55,800	53,800	51,900	50,000	55
60	47.0	62.8	49,300	47,700	46,200	44,700	60
65	41.6	57.3	43,900	42,700	41,500	40,300	65
70	35.6	50.7	39,400	38,400	37,500	36,500	70
75	28.4	42.2	35,600	34,800	34,000	33,300	75
80	18.6	29.7	32,200	31,600	31,100	30,500	80

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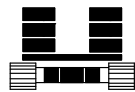


101,400 lb
+
0 lb



ft	°	ft	lb	lb	lb	lb	ft
20	81.5	94.0	260,900 c				20
22	80.2	93.6	225,500 b	197,600 b			22
24	78.9	93.2	193,600 b	172,400 b	154,200 b		24
26	77.5	92.7	169,400 b	152,700 b	138,700 b	120,800 b	26
28	76.2	92.2	150,300	136,800	125,300	112,100	28
30	74.8	91.6	134,900	123,800	114,200	104,100	30
32	73.5	91.0	122,300	112,900	104,700	97,000	32
34	72.1	90.3	111,600	103,700	96,700	90,400	34
36	70.7	89.6	102,600	95,700	89,600	84,100	36
38	69.4	88.8	94,800	88,800	83,500	78,600	38
40	68.0	88.0	88,000	82,800	78,100	73,700	40
42	66.5	87.1	82,000	77,400	73,200	69,400	42
44	65.1	86.1	76,700	72,700	68,900	65,400	44
46	63.6	85.1	72,000	68,400	65,000	61,900	46
48	62.2	84.0	67,800	64,500	61,500	58,700	48
50	60.7	82.8	64,000	61,000	58,300	55,700	50
55	56.8	79.6	55,900	53,600	51,400	49,300	55
60	52.8	75.9	49,400	47,600	45,800	44,100	60
65	48.5	71.6	44,100	42,600	41,100	39,800	65
70	43.9	66.6	39,600	38,400	37,200	36,000	70
75	38.9	60.6	35,800	34,800	33,800	32,900	75
80	33.2	53.3	32,500	31,700	30,900	30,100	80
85	26.4	44.1	29,600	28,900	28,300	27,700	85
90	17.1	30.6	27,000	26,500	26,000	25,600	90

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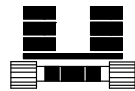


101,400 lb
+
0 lb



ft	°	ft	0° lb	1° lb	2° lb	3° lb	ft
22	81.2	103.6	225,600 b				22
24	80.0	103.2	193,700 b	170,500 b			24
26	78.8	102.8	169,400	151,100	136,100		26
28	77.6	102.3	150,300	135,500	123,100	111,800	28
30	76.4	101.8	134,900	122,700	112,300	103,300	30
32	75.2	101.3	122,200	112,000	103,100	95,300	32
34	74.0	100.7	111,500	102,800	95,200	88,400	34
36	72.8	100.0	102,500	95,000	88,300	82,400	36
38	71.5	99.3	94,700	88,100	82,300	77,100	38
40	70.3	98.6	87,900	82,100	77,000	72,300	40
42	69.0	97.8	81,900	76,800	72,200	68,100	42
44	67.8	97.0	76,600	72,100	68,000	64,200	44
46	66.5	96.1	71,900	67,900	64,200	60,700	46
48	65.2	95.1	67,700	64,000	60,700	57,600	48
50	63.9	94.1	63,800	60,600	57,500	54,700	50
55	60.6	91.3	55,800	53,200	50,700	48,500	55
60	57.1	88.1	49,300	47,200	45,200	43,300	60
65	53.5	84.5	43,900	42,200	40,600	39,000	65
70	49.7	80.3	39,400	38,000	36,700	35,400	70
75	45.7	75.6	35,600	34,500	33,300	32,300	75
80	41.4	70.1	32,400	31,400	30,400	29,500	80
85	36.6	63.6	29,500	28,700	27,900	27,100	85
90	31.2	55.8	27,000	26,300	25,600	25,000	90
95	24.7	45.8	24,700	24,200	23,600	23,100	95
100	15.8	31.3	22,600	22,200	21,800	21,400	100

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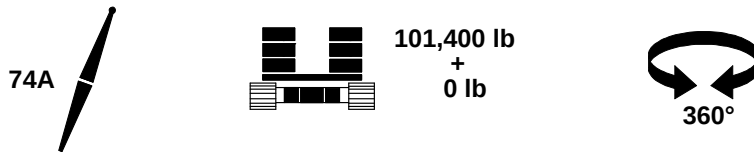


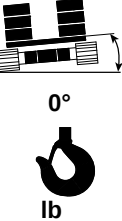
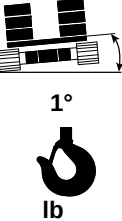
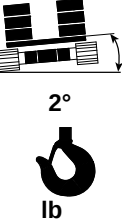
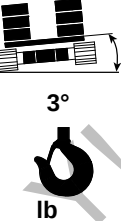
101,400 lb
+
0 lb



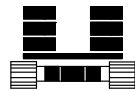
24	80.9	113.3	193,800 b				24
26	79.8	112.9	169,500	149,700			26
28	78.7	112.4	150,400	134,400	121,100		28
30	77.7	112.0	135,000	121,700	110,600	101,100	30
32	76.6	111.5	122,300	111,100	101,600	93,400	32
34	75.5	110.9	111,600	102,100	93,900	86,700	34
36	74.4	110.4	102,500	94,300	87,200	80,900	36
38	73.3	109.7	94,700	87,600	81,300	75,700	38
40	72.1	109.1	87,900	81,600	76,100	71,100	40
42	71.0	108.4	81,900	76,400	71,400	67,000	42
44	69.9	107.6	76,600	71,700	67,300	63,200	44
46	68.8	106.8	71,900	67,500	63,500	59,800	46
48	67.6	105.9	67,700	63,700	60,100	56,800	48
50	66.4	105.0	63,900	60,300	57,000	53,900	50
55	63.5	102.6	55,800	52,900	50,300	47,800	55
60	60.5	99.8	49,300	47,000	44,800	42,800	60
65	57.3	96.6	44,000	42,100	40,300	38,600	65
70	54.1	93.1	39,500	37,900	36,400	35,000	70
75	50.7	89.0	35,700	34,400	33,100	31,900	75
80	47.1	84.5	32,400	31,300	30,200	29,200	80
85	43.3	79.3	29,600	28,600	27,700	26,800	85
90	39.2	73.4	27,100	26,300	25,500	24,700	90
95	34.7	66.4	24,900	24,200	23,500	22,900	95
100	29.5	58.1	22,900	22,300	21,700	21,200	100
105	23.3	47.4	21,000	20,600	20,100	19,700	105

MLC165-1 S-1



 118.1 ft							
 ft	 °	 ft	 0° lb	 1° lb	 2° lb	 3° lb	 ft
24	81.7	123.2	193,800 b				24
26	80.7	122.9	169,500	148,200			26
28	79.7	122.5	150,400	133,100	119,000		28
30	78.7	122.1	134,900	120,600	108,700		30
32	77.7	121.6	122,100	110,100	100,000	91,300	32
34	76.7	121.1	111,500	101,200	92,500	84,900	34
36	75.7	120.6	102,400	93,500	85,900	79,200	36
38	74.7	120.0	94,500	86,800	80,100	74,200	38
40	73.7	119.4	87,700	81,000	75,000	69,700	40
42	72.7	118.8	81,700	75,700	70,400	65,700	42
44	71.6	118.1	76,400	71,100	66,300	62,000	44
46	70.6	117.4	71,700	66,900	62,600	58,700	46
48	69.6	116.6	67,500	63,200	59,300	55,700	48
50	68.5	115.8	63,700	59,800	56,200	52,900	50
55	65.9	113.6	55,600	52,500	49,600	46,900	55
60	63.2	111.1	49,100	46,500	44,200	42,000	60
65	60.4	108.3	43,700	41,600	39,700	37,800	65
70	57.5	105.1	39,300	37,500	35,900	34,300	70
75	54.6	101.6	35,500	34,000	32,600	31,300	75
80	51.5	97.7	32,200	30,900	29,700	28,600	80
85	48.2	93.3	29,400	28,300	27,300	26,300	85
90	44.8	88.4	26,900	25,900	25,000	24,200	90
95	41.2	82.8	24,600	23,900	23,100	22,300	95
100	37.3	76.5	22,700	22,000	21,300	20,700	100
105	32.9	69.0	20,900	20,300	19,700	19,200	105
110	28.0	60.2	19,300	18,800	18,300	17,800	110
115	22.0	48.9	17,800	17,400	17,000	16,600	115

MLC165-1 S-1

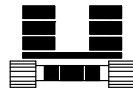


101,400 lb
+
0 lb



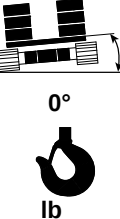
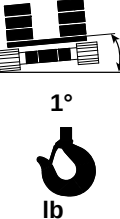
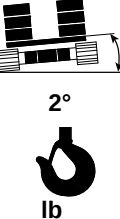
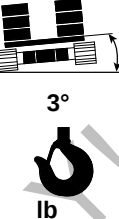
26	81.4	132.9	169,500				26
28	80.5	132.5	150,300	131,800			28
30	79.6	132.1	134,800	119,500	107,000		30
32	78.7	131.7	122,000	109,200	98,500	89,400	32
34	77.8	131.3	111,300	100,400	91,100	83,200	34
36	76.8	130.8	102,200	92,800	84,700	77,700	36
38	75.9	130.3	94,400	86,100	79,000	72,800	38
40	75.0	129.7	87,600	80,300	74,000	68,400	40
42	74.0	129.1	81,600	75,200	69,500	64,500	42
44	73.1	128.5	76,300	70,600	65,500	60,900	44
46	72.2	127.8	71,600	66,400	61,800	57,700	46
48	71.2	127.1	67,300	62,700	58,500	54,700	48
50	70.3	126.4	63,500	59,300	55,500	52,000	50
55	67.8	124.4	55,400	52,100	49,000	46,200	55
60	65.4	122.1	48,900	46,200	43,700	41,300	60
65	62.9	119.6	43,600	41,300	39,200	37,200	65
70	60.3	116.7	39,100	37,200	35,400	33,700	70
75	57.7	113.6	35,300	33,700	32,200	30,700	75
80	54.9	110.1	32,000	30,700	29,400	28,100	80
85	52.1	106.3	29,200	28,000	26,900	25,800	85
90	49.2	102.1	26,700	25,700	24,700	23,800	90
95	46.1	97.3	24,500	23,600	22,800	21,900	95
100	42.9	92.1	22,500	21,800	21,000	20,300	100
105	39.4	86.1	20,800	20,100	19,400	18,800	105
110	35.6	79.4	19,200	18,600	18,000	17,400	110
115	31.4	71.5	17,700	17,200	16,700	16,200	115
120	26.7	62.1	16,400	15,900	15,500	15,100	120
125	20.9	50.2	15,100	14,800	14,400	14,100	125

MLC165-1 S-1

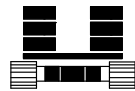


101,400 lb
+
0 lb



 137.8 ft							
 ft	 °	 ft	 0° lb	 1° lb	 2° lb	 3° lb	 ft
28	81.2	142.5	150,200				28
30	80.3	142.2	134,700	118,400			30
32	79.5	141.8	121,900	108,200	96,900		32
34	78.6	141.4	111,200	99,500	89,700	81,400	34
36	77.8	140.9	102,100	91,900	83,400	76,100	36
38	76.9	140.4	94,200	85,400	77,800	71,300	38
40	76.1	139.9	87,400	79,600	72,900	67,000	40
42	75.2	139.4	81,400	74,500	68,500	63,200	42
44	74.4	138.8	76,100	69,900	64,500	59,700	44
46	73.5	138.2	71,300	65,800	60,900	56,600	46
48	72.6	137.5	67,100	62,100	57,700	53,700	48
50	71.7	136.8	63,300	58,800	54,700	51,000	50
55	69.5	135.0	55,200	51,600	48,300	45,300	55
60	67.3	132.9	48,700	45,700	43,000	40,500	60
65	65.0	130.6	43,300	40,900	38,600	36,500	65
70	62.6	128.0	38,800	36,800	34,900	33,100	70
75	60.2	125.2	35,000	33,300	31,600	30,100	75
80	57.8	122.1	31,800	30,300	28,800	27,500	80
85	55.3	118.7	28,900	27,600	26,400	25,200	85
90	52.7	114.9	26,400	25,300	24,200	23,200	90
95	50.0	110.8	24,200	23,200	22,300	21,400	95
100	47.2	106.2	22,300	21,400	20,600	19,800	100
105	44.2	101.2	20,500	19,700	19,000	18,300	105
110	41.1	95.6	18,900	18,200	17,600	16,900	110
115	37.7	89.3	17,500	16,900	16,300	15,700	115
120	34.1	82.1	16,100	15,600	15,100	14,600	120
125	30.1	73.9	14,900	14,500	14,000	13,600	125
130	25.5	64.0	13,800	13,400	13,000	12,600	130
135	19.9	51.5	12,700	12,400	12,100	11,800	135

MLC165-1 S-1

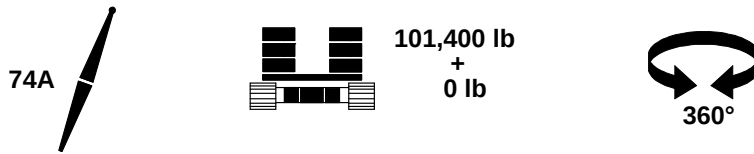


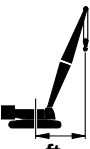
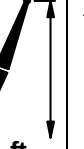
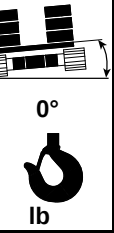
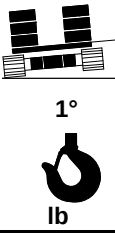
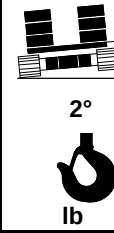
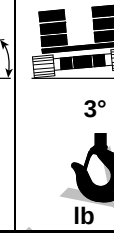
101,400 lb
+
0 lb



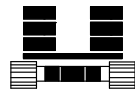
ft	°	ft	lb	lb	lb	lb	ft
30	81.0	152.2	135,100				30
32	80.2	151.8	122,300	107,700			32
34	79.4	151.4	111,600	99,100	88,900		34
36	78.6	151.0	102,500	91,700	82,700	75,100	36
38	77.8	150.5	94,600	85,200	77,300	70,500	38
40	77.0	150.1	87,800	79,500	72,500	66,400	40
42	76.2	149.6	81,800	74,500	68,100	62,600	42
44	75.4	149.0	76,500	69,900	64,200	59,200	44
46	74.6	148.5	71,700	65,900	60,700	56,100	46
48	73.8	147.9	67,500	62,200	57,500	53,300	48
50	73.0	147.2	63,700	58,800	54,600	50,700	50
55	70.9	145.5	55,600	51,700	48,200	45,100	55
60	68.9	143.6	49,000	45,900	43,000	40,400	60
65	66.8	141.5	43,700	41,100	38,700	36,500	65
70	64.6	139.1	39,200	37,000	35,000	33,100	70
75	62.4	136.5	35,400	33,500	31,800	30,200	75
80	60.2	133.7	32,200	30,500	29,000	27,600	80
85	57.9	130.6	29,300	27,900	26,600	25,300	85
90	55.6	127.2	26,800	25,600	24,500	23,300	90
95	53.2	123.5	24,600	23,600	22,500	21,600	95
100	50.7	119.5	22,700	21,700	20,800	19,900	100
105	48.1	115.0	20,900	20,100	19,300	18,500	105
110	45.4	110.2	19,300	18,600	17,900	17,200	110
115	42.5	104.8	17,900	17,200	16,600	16,000	115
120	39.5	98.9	16,600	16,000	15,400	14,900	120
125	36.3	92.3	15,400	14,800	14,300	13,800	125
130	32.8	84.8	14,200	13,800	13,300	12,900	130
135	28.9	76.1	13,200	12,800	12,400	12,000	135
140	24.4	65.7	12,200	11,900	11,600	11,200	140
145	19.0	52.6	11,300	11,000	10,800	10,500	145

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 157.5 ft							
 ft	 °	 ft	 0° lb	 1° lb	 2° lb	 3° lb	 ft
30	81.6	162.1	134,900				30
32	80.8	161.8	122,100				32
34	80.1	161.4	111,400	98,200			34
36	79.3	161.0	102,300	90,900	81,500		36
38	78.6	160.6	94,400	84,500	76,200	69,100	38
40	77.9	160.2	87,600	78,800	71,400	65,100	40
42	77.1	159.7	81,500	73,800	67,200	61,400	42
44	76.4	159.2	76,200	69,300	63,300	58,100	44
46	75.6	158.7	71,500	65,300	59,800	55,100	46
48	74.8	158.1	67,200	61,600	56,700	52,300	48
50	74.1	157.5	63,400	58,300	53,800	49,800	50
55	72.2	155.9	55,300	51,200	47,500	44,200	55
60	70.3	154.2	48,800	45,400	42,400	39,600	60
65	68.3	152.2	43,400	40,600	38,100	35,700	65
70	66.3	150.0	38,900	36,600	34,400	32,400	70
75	64.3	147.6	35,100	33,100	31,300	29,500	75
80	62.2	145.0	31,900	30,100	28,500	27,000	80
85	60.2	142.2	29,000	27,500	26,100	24,800	85
90	58.0	139.1	26,500	25,200	24,000	22,800	90
95	55.8	135.7	24,300	23,200	22,100	21,000	95
100	53.6	132.1	22,400	21,300	20,400	19,400	100
105	51.2	128.1	20,600	19,700	18,800	18,000	105
110	48.8	123.8	19,000	18,200	17,400	16,700	110
115	46.3	119.1	17,600	16,900	16,200	15,500	115
120	43.7	113.9	16,300	15,600	15,000	14,400	120
125	41.0	108.3	15,100	14,500	13,900	13,400	125
130	38.1	102.1	14,000	13,400	12,900	12,400	130
135	35.0	95.1	12,900	12,500	12,000	11,600	135
140	31.6	87.2	12,000	11,600	11,200	10,800	140
145	27.8	78.2	11,100	10,700	10,400	10,000	145
150	23.5	67.4	10,300	9,900	9,600	9,300	150
155	18.2	53.6	9,500	9,200	8,900	8,700	155

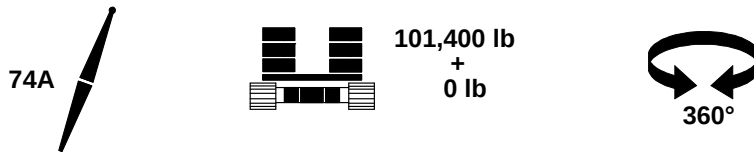
MLC165-1 S-1



101,400 lb
+
0 lb

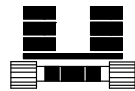


ft	°	ft	lb	lb	lb	lb	ft
32	81.4	171.8	122,000				32
34	80.7	171.4	111,200	97,400			34
36	80.0	171.1	102,100	90,100			36
38	79.3	170.7	94,200	83,700	75,100		38
40	78.6	170.3	87,400	78,100	70,400	63,800	40
42	77.9	169.8	81,300	73,200	66,200	60,300	42
44	77.2	169.4	76,000	68,700	62,400	57,000	44
46	76.5	168.9	71,300	64,700	59,000	54,100	46
48	75.8	168.3	67,000	61,100	55,900	51,400	48
50	75.1	167.8	63,200	57,800	53,100	48,900	50
55	73.3	166.3	55,100	50,700	46,900	43,400	55
60	71.5	164.6	48,500	45,000	41,800	38,900	60
65	69.6	162.8	43,200	40,200	37,500	35,100	65
70	67.8	160.8	38,700	36,200	33,900	31,800	70
75	65.9	158.5	34,900	32,800	30,800	29,000	75
80	64.0	156.1	31,600	29,800	28,100	26,500	80
85	62.1	153.5	28,800	27,200	25,700	24,300	85
90	60.1	150.6	26,300	24,900	23,600	22,300	90
95	58.1	147.6	24,100	22,800	21,700	20,600	95
100	56.0	144.2	22,100	21,000	20,000	19,000	100
105	53.9	140.6	20,400	19,400	18,400	17,600	105
110	51.8	136.7	18,800	17,900	17,100	16,300	110
115	49.5	132.5	17,300	16,600	15,800	15,100	115
120	47.2	127.9	16,000	15,300	14,600	14,000	120
125	44.8	123.0	14,800	14,200	13,600	13,000	125
130	42.3	117.6	13,700	13,100	12,600	12,100	130
135	39.6	111.6	12,700	12,200	11,700	11,200	135
140	36.8	105.1	11,800	11,300	10,800	10,400	140
145	33.8	97.8	10,900	10,500	10,100	9,700	145
150	30.5	89.6	10,100	9,700	9,300	9,000	150
155	26.8	80.2	9,300	9,000	8,600	8,300	155
160	22.6	68.9	8,600	8,300	8,000	7,700	160
165	17.4	54.6	7,900	7,600	7,400	7,100	165



ft	°	ft	lb	lb	lb	lb	ft
34	81.2	181.4	111,000				34
36	80.5	181.1	101,900	89,300			36
38	79.9	180.7	94,000	83,000			38
40	79.2	180.3	87,100	77,400	69,400		40
42	78.6	179.9	81,100	72,500	65,300	59,100	42
44	77.9	179.5	75,800	68,100	61,500	55,900	44
46	77.2	179.0	71,000	64,100	58,200	53,000	46
48	76.6	178.5	66,800	60,500	55,100	50,400	48
50	75.9	178.0	62,900	57,200	52,300	47,900	50
55	74.2	176.6	54,800	50,200	46,200	42,600	55
60	72.5	175.0	48,200	44,500	41,200	38,200	60
65	70.8	173.3	42,900	39,700	36,900	34,400	65
70	69.1	171.4	38,400	35,700	33,300	31,100	70
75	67.3	169.3	34,600	32,300	30,200	28,300	75
80	65.6	167.1	31,300	29,300	27,500	25,900	80
85	63.8	164.6	28,500	26,800	25,200	23,700	85
90	61.9	162.0	26,000	24,500	23,100	21,800	90
95	60.1	159.1	23,800	22,400	21,200	20,000	95
100	58.2	156.0	21,800	20,600	19,500	18,500	100
105	56.2	152.7	20,000	19,000	18,000	17,000	105
110	54.3	149.2	18,400	17,500	16,600	15,800	110
115	52.2	145.3	17,000	16,200	15,400	14,600	115
120	50.1	141.2	15,700	14,900	14,200	13,500	120
125	48.0	136.7	14,500	13,800	13,100	12,500	125
130	45.7	131.9	13,400	12,800	12,200	11,600	130
135	43.4	126.7	12,400	11,800	11,300	10,700	135
140	40.9	121.1	11,400	10,900	10,400	9,900	140
145	38.4	114.9	10,600	10,100	9,600	9,200	145
150	35.6	108.0	9,700	9,300	8,900	8,500	150
155	32.7	100.5	9,000	8,600	8,200	7,900	155
160	29.5	91.9	8,300	7,900	7,600	7,300	160
165	25.9	82.1	7,600	7,300	7,000	6,700	165
170	21.8	70.4	6,900	6,700	6,400	6,200	170
175	16.7	55.5	6,300	6,100	5,900	5,600	175

MLC165-1 S-1

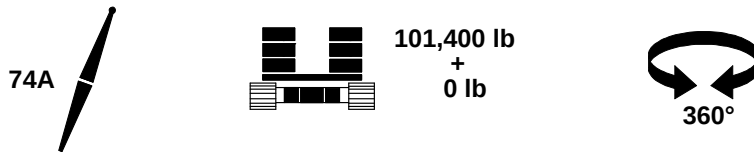


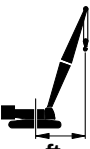
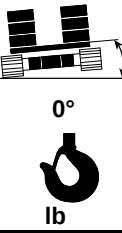
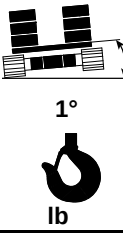
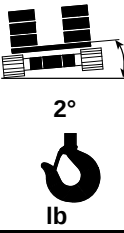
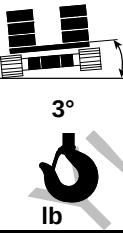
101,400 lb
+
0 lb



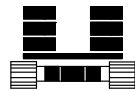
ft	°	ft	lb	lb	lb	lb	ft
34	81.7	191.4	110,900				34
36	81.0	191.1	101,700				36
38	80.4	190.7	93,800	82,300			38
40	79.8	190.4	87,000	76,800			40
42	79.2	190.0	80,900	71,900	64,400		42
44	78.6	189.5	75,600	67,500	60,700	54,900	44
46	77.9	189.1	70,800	63,600	57,400	52,100	46
48	77.3	188.6	66,600	60,000	54,400	49,500	48
50	76.7	188.1	62,700	56,800	51,600	47,100	50
55	75.1	186.8	54,600	49,800	45,600	41,900	55
60	73.5	185.3	48,000	44,100	40,600	37,500	60
65	71.9	183.7	42,700	39,400	36,500	33,800	65
70	70.2	181.9	38,200	35,400	32,900	30,600	70
75	68.6	180.0	34,400	32,000	29,800	27,800	75
80	66.9	177.9	31,100	29,000	27,200	25,400	80
85	65.3	175.6	28,300	26,500	24,800	23,300	85
90	63.5	173.1	25,800	24,200	22,700	21,300	90
95	61.8	170.5	23,600	22,200	20,900	19,600	95
100	60.0	167.6	21,600	20,400	19,200	18,100	100
105	58.2	164.5	19,800	18,700	17,700	16,700	105
110	56.4	161.2	18,300	17,300	16,300	15,400	110
115	54.5	157.7	16,800	15,900	15,100	14,200	115
120	52.6	153.9	15,500	14,700	13,900	13,200	120
125	50.6	149.9	14,300	13,600	12,900	12,200	125
130	48.6	145.5	13,200	12,500	11,900	11,300	130
135	46.5	140.8	12,200	11,600	11,000	10,400	135
140	44.3	135.8	11,300	10,700	10,200	9,600	140
145	42.1	130.3	10,400	9,900	9,400	8,900	145
150	39.7	124.4	9,600	9,100	8,700	8,200	150
155	37.2	117.9	8,800	8,400	8,000	7,600	155
160	34.5	110.8	8,100	7,700	7,300	7,000	160
165	31.7	103.0	7,400	7,100	6,700	6,400	165
170	28.6	94.1	6,800	6,500	6,200	5,900	170
175	25.1	83.9	6,200	5,900	5,600	5,400	175
180	21.1	71.8	5,600	5,400	5,100	4,900	180
185	16.1	56.2	5,100	4,900	4,700	4,400	185

MLC165-1 S-1



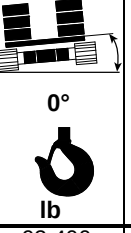
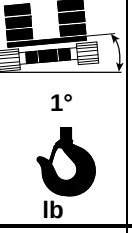
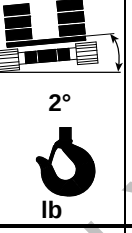
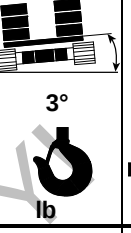
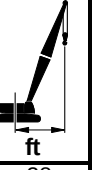
 196.9 ft							
 ft	 °	 ft	 0° lb	 1° lb	 2° lb	 3° lb	 ft
36	81.5	201.1	101,500				36
38	80.9	200.7	93,600				38
40	80.3	200.4	86,700	76,100			40
42	79.7	200.0	80,700	71,200			42
44	79.1	199.6	75,300	66,900	59,800		44
46	78.5	199.2	70,600	63,000	56,600	49,500	46
48	77.9	198.7	66,300	59,400	53,600	48,600	48
50	77.3	198.3	62,500	56,200	50,800	46,200	50
55	75.8	197.0	54,300	49,300	44,900	41,100	55
60	74.3	195.6	47,700	43,600	40,000	36,800	60
65	72.8	194.1	42,400	38,900	35,900	33,100	65
70	71.3	192.4	37,900	35,000	32,300	30,000	70
75	69.7	190.6	34,100	31,600	29,300	27,200	75
80	68.2	188.6	30,800	28,600	26,600	24,800	80
85	66.6	186.4	27,900	26,000	24,300	22,700	85
90	65.0	184.1	25,400	23,800	22,200	20,800	90
95	63.3	181.6	23,200	21,800	20,400	19,100	95
100	61.7	178.9	21,300	19,900	18,700	17,600	100
105	60.0	176.1	19,500	18,300	17,200	16,200	105
110	58.3	173.0	17,900	16,900	15,900	14,900	110
115	56.6	169.7	16,500	15,500	14,600	13,700	115
120	54.8	166.2	15,200	14,300	13,500	12,700	120
125	53.0	162.5	14,000	13,200	12,400	11,700	125
130	51.1	158.5	12,900	12,100	11,500	10,800	130
135	49.2	154.2	11,900	11,200	10,600	10,000	135
140	47.2	149.7	10,900	10,300	9,700	9,200	140
145	45.2	144.8	10,000	9,500	9,000	8,500	145
150	43.1	139.5	9,200	8,700	8,200	7,800	150
155	40.9	133.8	8,500	8,000	7,600	7,100	155
160	38.6	127.6	7,800	7,300	6,900	6,500	160
165	36.1	120.9	7,100	6,700	6,300	6,000	165
170	33.5	113.6	6,500	6,100	5,800	5,400	170
175	30.7	105.4	5,900	5,600	5,200	4,900	175
180	27.7	96.2	5,300	5,000	4,700	4,500	180
185	24.3	85.6	4,800	4,500	4,300	4,000	185
190	20.4	73.1	4,200	4,000	3,800	3,500	190
195	15.4	57.0	3,600	3,500	3,200	3,000	195

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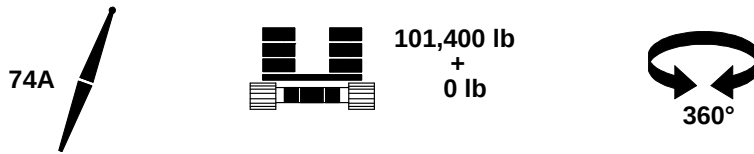


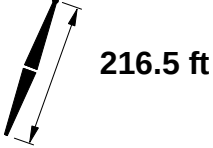
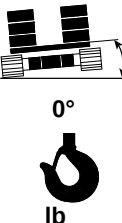
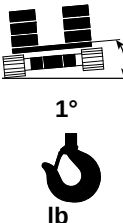
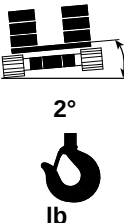
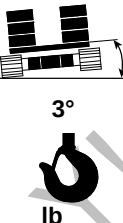
101,400 lb
+
0 lb



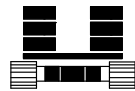
 206.7 ft							
 ft	 °	 ft	 0° lb	 1° lb	 2° lb	 3° lb	 ft
38	81.3	210.7	93,400				38
40	80.8	210.4	86,500				40
42	80.2	210.0	80,500	70,600			42
44	79.7	209.6	75,100	66,300	56,100		44
46	79.1	209.2	70,300	62,400	55,800		46
48	78.5	208.8	66,100	58,900	52,800	43,600	48
50	78.0	208.4	62,200	55,700	50,100	43,500	50
55	76.5	207.2	54,000	48,800	44,300	40,300	55
60	75.1	205.9	47,500	43,200	39,400	36,100	60
65	73.7	204.4	42,100	38,500	35,300	32,400	65
70	72.2	202.8	37,600	34,500	31,800	29,300	70
75	70.7	201.1	33,800	31,200	28,800	26,600	75
80	69.3	199.2	30,500	28,200	26,200	24,300	80
85	67.8	197.2	27,600	25,700	23,800	22,200	85
90	66.2	195.0	25,200	23,400	21,800	20,300	90
95	64.7	192.6	22,900	21,400	20,000	18,600	95
100	63.2	190.1	21,000	19,600	18,300	17,100	100
105	61.6	187.4	19,200	18,000	16,800	15,700	105
110	60.0	184.6	17,600	16,500	15,500	14,500	110
115	58.4	181.5	16,200	15,200	14,200	13,300	115
120	56.7	178.2	14,900	14,000	13,100	12,300	120
125	55.0	174.8	13,700	12,800	12,100	11,300	125
130	53.3	171.1	12,600	11,800	11,100	10,400	130
135	51.5	167.1	11,600	10,900	10,200	9,600	135
140	49.7	162.9	10,600	10,000	9,400	8,800	140
145	47.9	158.5	9,800	9,200	8,600	8,100	145
150	45.9	153.7	8,900	8,400	7,900	7,400	150
155	44.0	148.6	8,200	7,700	7,200	6,800	155
160	41.9	143.1	7,500	7,000	6,600	6,200	160
165	39.8	137.2	6,800	6,400	6,000	5,600	165
170	37.5	130.8	6,200	5,800	5,400	5,100	170
175	35.1	123.8	5,600	5,300	4,900	4,600	175
180	32.6	116.2	5,000	4,700	4,400	4,100	180
185	29.9	107.7	4,400	4,200	3,900	3,500	185
190	26.9	98.2	3,800	3,700	3,300	3,000	190
195	23.6	87.3	3,200	3,100			195

MLC165-1 S-1



							
 ft	 °	 ft	 0° lb	 1° lb	 2° lb	 3° lb	 ft
40	81.2	220.3	86,300				40
42	80.7	220.0	80,200	67,400			42
44	80.1	219.6	74,800	65,600			44
46	79.6	219.3	70,100	61,800	49,700		46
48	79.1	218.9	65,800	58,300	49,600		48
50	78.5	218.4	61,900	55,100	49,400	38,400	50
55	77.2	217.3	53,700	48,300	43,600	38,100	55
60	75.8	216.1	47,200	42,700	38,800	35,300	60
65	74.4	214.7	41,800	38,000	34,700	31,800	65
70	73.0	213.2	37,300	34,100	31,200	28,700	70
75	71.6	211.5	33,400	30,700	28,200	26,000	75
80	70.2	209.7	30,200	27,800	25,600	23,700	80
85	68.8	207.8	27,300	25,200	23,300	21,600	85
90	67.4	205.7	24,800	23,000	21,300	19,700	90
95	65.9	203.5	22,600	21,000	19,500	18,100	95
100	64.5	201.1	20,600	19,200	17,800	16,600	100
105	63.0	198.6	18,900	17,600	16,300	15,200	105
110	61.5	195.9	17,300	16,100	15,000	14,000	110
115	60.0	193.0	15,800	14,800	13,800	12,800	115
120	58.4	190.0	14,500	13,600	12,600	11,800	120
125	56.8	186.7	13,300	12,400	11,600	10,800	125
130	55.2	183.3	12,200	11,400	10,700	9,900	130
135	53.6	179.6	11,200	10,500	9,800	9,100	135
140	51.9	175.7	10,300	9,600	8,900	8,300	140
145	50.2	171.6	9,400	8,800	8,200	7,600	145
150	48.4	167.2	8,600	8,000	7,500	6,900	150
155	46.6	162.6	7,800	7,300	6,800	6,300	155
160	44.8	157.6	7,100	6,600	6,200	5,700	160
165	42.8	152.2	6,500	6,000	5,600	5,200	165
170	40.8	146.5	5,800	5,400	5,000	4,600	170
175	38.7	140.4	5,200	4,900	4,500	4,000	175
180	36.5	133.8	4,500	4,300	3,900	3,500	180
185	34.2	126.6	3,900	3,700	3,300		185
190	31.7	118.7	3,300	3,100			190

MLC165-1 S-1

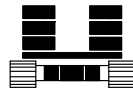


101,400 lb
+
0 lb



ft	°	ft	lb	lb	lb	lb	ft
40	81.6	230.3	81,000				40
42	81.1	230.0	80,000				42
44	80.6	229.6	74,600	60,200			44
46	80.1	229.3	69,900	59,900			46
48	79.5	228.9	65,600	57,800	44,100		48
50	79.0	228.5	61,700	54,600	44,000		50
55	77.7	227.4	53,500	47,800	43,000	33,700	55
60	76.4	226.2	46,900	42,300	38,200	33,400	60
65	75.1	224.9	41,500	37,600	34,200	31,200	65
70	73.8	223.5	37,000	33,700	30,800	28,100	70
75	72.5	221.9	33,200	30,400	27,800	25,500	75
80	71.1	220.2	29,900	27,500	25,200	23,200	80
85	69.8	218.4	27,100	24,900	22,900	21,100	85
90	68.4	216.4	24,600	22,700	20,900	19,300	90
95	67.1	214.3	22,400	20,700	19,100	17,700	95
100	65.7	212.0	20,400	18,900	17,500	16,200	100
105	64.3	209.6	18,600	17,300	16,000	14,800	105
110	62.8	207.1	17,000	15,800	14,700	13,600	110
115	61.4	204.4	15,600	14,500	13,400	12,500	115
120	59.9	201.5	14,300	13,300	12,300	11,400	120
125	58.5	198.5	13,100	12,200	11,300	10,500	125
130	57.0	195.2	12,000	11,100	10,300	9,600	130
135	55.4	191.8	11,000	10,200	9,500	8,800	135
140	53.9	188.2	10,000	9,300	8,600	8,000	140
145	52.3	184.3	9,200	8,500	7,900	7,300	145
150	50.6	180.3	8,400	7,800	7,200	6,600	150
155	49.0	176.0	7,600	7,000	6,500	6,000	155
160	47.2	171.4	6,900	6,400	5,900	5,400	160
165	45.5	166.5	6,200	5,800	5,300	4,800	165
170	43.7	161.3	5,500	5,200	4,700	4,200	170
175	41.8	155.8	4,800	4,600	4,100	3,600	175
180	39.8	149.9	4,200	4,000	3,500	3,100	180
185	37.8	143.6	3,600	3,400			185
190	35.6	136.7	3,000				190

74A



101,400 lb
+
0 lb



ft	°	ft	0° lb	1° lb
42	81.5	240.0	79,200	
44	81.0	239.6	74,000	
46	80.5	239.3	69,200	53,900
48	80.0	238.9	64,900	53,800
50	79.5	238.5	61,000	53,700
55	78.2	237.5	52,800	46,900
60	77.0	236.4	46,200	41,400
65	75.8	235.1	40,800	36,800
70	74.5	233.7	36,300	32,800
75	73.2	232.2	32,500	29,500
80	72.0	230.6	29,200	26,600
85	70.7	228.9	26,300	24,100
90	69.4	227.0	23,800	21,800
95	68.1	225.0	21,600	19,800
100	66.7	222.8	19,600	18,000
105	65.4	220.6	17,900	16,400
110	64.1	218.1	16,300	15,000
115	62.7	215.6	14,800	13,600
120	61.3	212.9	13,500	12,400
125	59.9	210.0	12,300	11,300
130	58.5	206.9	11,200	10,300
135	57.1	203.7	10,200	9,400
140	55.6	200.3	9,200	8,500
145	54.1	196.7	8,400	7,700
150	52.6	192.9	7,600	6,900
155	51.0	188.9	6,700	6,200
160	49.4	184.7	5,900	5,500
165	47.8	180.2	5,100	4,900
170	46.1	175.4	4,400	4,200
175	44.4	170.4	3,700	3,500
180	42.6	165.0	3,100	