

Liftcrane Boom

Extended Upper Point Capacities

Boom No. B80:680-681-682

with Mast No. M10:684 or Mast No. M11:684 and
24.9 ft Extended Upper Boom Point

881,800 lb VPC (Variable Position Counterweight)

360 Degree Rating

MLC650
VPC-MAX
SERIES 3



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 shown are for boom point or extended upper boom point and their respective operating radii. Capacities must be reduced by applicable deducts.

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. 81022864, Mast Rigging No. 81025005 or No. 84050187, Wire Rope Specification chart No. 9467-A, Counterweight Arrangement chart No. 9349-A, and Wind Conditions chart No. 9466-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 Specification chart No. 9465-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.



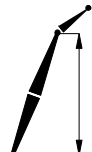
BOOM POINT OPERATING RADIUS: Boom point operating radius is horizontal distance from axis of rotation to center of vertical hoist line or load block on boom point.



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.



BOOM POINT ELEVATION: Boom point elevation is vertical distance from ground level to centerline of boom point shaft.

MACHINE EQUIPMENT: Machine equipped with VPC-MAX, 36 ft 6 in. crawlers, 60 in. or 80 in. treads, 36 ft 1 in. live mast, 118.1 ft mast, 16 part boom hoist reeving, boom support straps, and 881,800 lb VPC.

Luffing Jib Backstay Deduct	
Boom Length (ft)	Deduct (lb)
301.8	13,440
321.5	13,440
341.2	13,440
360.9	17,220
370.7	17,220
380.6	17,220
Deduct the appropriate value from capacities when luffing jib backstays are stored on boom.	

Upper Boom Point (upper sheave) Capacity for Liftcrane Service - Whip Line	
Drum 1 or 3	
1 Part	2 Parts
30,000 lb	60,000 lb
In all cases upper boom point (upper sheave) capacities cannot exceed those listed for extended upper boom point.	

Boom Point Capacity for Liftcrane Service - Whip Line	
Drum 1	Drum 3
1 Part	
48,800 lb	30,000 lb
2 Parts	
97,600 lb	60,000 lb
3 Parts	
146,400 lb	90,000 lb
4 Parts	
195,200 lb	120,000 lb

MLC650

VPC-MAX S-3

ASME B30.5



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 balls, slings, and hoist lines beneath sheaves. For block weights shown with #, load blocks, hooks, weight balls, and slings must remain on ground until combined weights are within rated capacity of chart. Raising is not permitted in shaded areas of table.

Select counterweight position from Tables 1 or 2 that will allow raising and lowering of boom length. Counterweight position selection may be changed with boom on ground or while boom is within operating range of capacity chart.

Combined weight beneath sheaves must not exceed block weight shown.

Table 1a: With Luffing Jib Backstays

Over End or Side of Crawlers		
Boom Length (ft)	38.7 ft Counterweight Position	60.0 ft Counterweight Position
	Block Weight (lb)	
301.8	21,500	21,500
321.5	21,500	21,500
341.2	21,500	21,500
360.9	21,500	21,500
370.7	21,500	21,500
380.6	21,500	21,500
390.4 - 498.7	Raising Not Permitted	

Table 1b: With Luffing Jib Backstays

Over End of Blocked Crawlers		
Boom Length (ft)	38.7 ft Counterweight Position	60.0 ft Counterweight Position
	Block Weight (lb)	
301.8	21,500	21,500
321.5	21,500	21,500
341.2	21,500	21,500
360.9	21,500	21,500
370.7	21,500	21,500
380.6	21,500	21,500
390.4 - 498.7	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. <i>Crane tipping or structural damage can occur.</i>		

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Table 2a: Without Luffing Jib Backstays

Over End or Side of Crawlers		
Boom Length (ft)	38.7 ft Counterweight Position	60.0 ft Counterweight Position
	Block Weight (lb)	
301.8	21,500	21,500
321.5	21,500	21,500
341.2	21,500	21,500
360.9	21,500	21,500
370.7	21,500	21,500
380.6	21,500	21,500
390.4	21,500	21,500
400.3	21,500	21,500
410.1	21,500	21,500
419.9	9,400	21,500
429.8	9,400	21,500
439.6	#	21,500
449.5	#	21,500
459.3	Raising Not Permitted	21,500
469.2		21,500
479.0		21,500
488.8		21,500
498.7		21,500

Table 2b: Without Luffing Jib Backstays

Over End of Blocked Crawlers		
Boom Length (ft)	38.7 ft Counterweight Position	60.0 ft Counterweight Position
	Block Weight (lb)	
301.8	21,500	21,500
321.5	21,500	21,500
341.2	21,500	21,500
360.9	21,500	21,500
370.7	21,500	21,500
380.6	21,500	21,500
390.4	21,500	21,500
400.3	21,500	21,500
410.1	21,500	21,500
419.9	9,400	21,500
429.8	9,400	21,500
439.6	#	21,500
449.5	#	21,500
459.3	#	21,500
469.2	#	21,500
479.0	#	21,500
488.8	Raising Not Permitted	21,500
498.7		21,500

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. Crane tipping or structural damage can occur.

Explanation of Symbols

	Boom No. B80:680-681-682
	VPC (Variable Position Counterweight)
	360 Degree Rating
	Boom Length
	Extended Upper Boom Point Offset Angle
	Extended Upper Boom Point Operating Radius (see page 1)
	Extended Upper Boom Point Elevation (see page 1)
	Boom Point Operating Radius (see page 1)
	Boom Point Elevation (see page 1)
	Boom Angle (see page 1)
	Counterweight Position from Axis of Rotation
	Lifting Capacities (see page 1)

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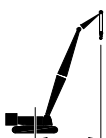
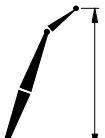
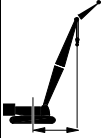
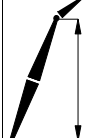
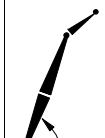
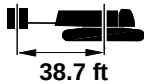
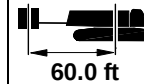
B80



881,800 lb



360°

 301.8 ft  28°						
 ft	 ft	 ft	 ft	 °	 38.7 ft  lb	 60.0 ft  lb
46	333.2	36.6	308.7	84.9	341,600	341,600
47	333.1	37.5	308.6	84.7	341,600	341,600
48	333.0	38.5	308.5	84.5	341,600	341,600
49	332.8	39.4	308.4	84.3	341,600	341,600
50	332.7	40.3	308.3	84.2	341,600	341,600
51	332.6	41.2	308.2	84.0	341,600	341,600
52	332.4	42.2	308.0	83.8	341,600	341,600
53	332.3	43.1	307.9	83.6	341,600	341,600
54	332.1	44.1	307.8	83.4	341,600	341,600
55	332.0	44.9	307.7	83.3	341,600	341,600
60	331.2	49.6	307.0	82.4	341,600	341,600
65	330.3	54.2	306.3	81.5	341,600	341,600
70	329.3	58.9	305.5	80.6	341,600	341,600
75	328.2	63.4	304.6	79.7	341,600	341,600
80	327.1	68.1	303.6	78.8	340,200	340,200
85	325.9	72.7	302.6	77.9	338,400	338,400
90	324.5	77.3	301.5	77.0	336,500	336,500
95	323.1	82.0	300.3	76.1	334,500	334,500
100	321.7	86.6	299.0	75.1	332,500	332,500
105	320.1	91.3	297.7	74.2	330,400	330,400
110	318.4	95.9	296.3	73.3	328,300	328,300
115	316.7	100.5	294.7	72.4	326,300	326,300
120	314.8	105.2	293.1	71.4	324,300	324,300
125	312.9	109.9	291.4	70.5	311,100	322,300
130	310.9	114.5	289.7	69.5	294,700	320,400
135	308.8	119.1	287.8	68.6	279,400	318,600
140	306.5	123.8	285.9	67.6	265,300	316,800
145	304.2	128.5	283.8	66.6	252,200	315,200
150	301.8	133.1	281.7	65.7	240,000	310,700
155	299.2	137.7	279.4	64.7	228,700	305,100
160	296.6	142.4	277.0	63.7	218,000	299,700
165	293.8	147.1	274.6	62.7	208,000	294,600
170	290.9	151.7	272.0	61.7	198,600	289,700
175	287.9	156.4	269.4	60.6	189,700	285,000
180	284.8	161.1	266.6	59.6	181,400	280,500
185	281.6	165.7	263.7	58.5	173,500	276,200
190	278.2	170.4	260.7	57.5	166,000	272,000
195	274.7	175.1	257.5	56.4	158,900	267,500
200	271.0	179.8	254.2	55.3	152,200	258,400
205	267.2	184.5	250.8	54.2	145,800	249,700
210	263.2	189.1	247.2	53.1	139,700	241,400
215	259.1	193.8	243.5	51.9	133,900	233,500
220	254.8	198.5	239.6	50.8	128,400	226,000
225	250.3	203.2	235.6	49.6	123,100	218,900
230	245.6	207.9	231.4	48.4	118,000	212,100
235	240.7	212.6	227.0	47.2	113,100	205,600
240	235.6	217.3	222.4	45.9	108,400	199,300
245	230.3	222.0	217.6	44.6	104,000	193,400
250	224.7	226.7	212.5	43.3	99,700	187,700
255	218.8	231.5	207.2	41.9	95,500	182,200
260	212.7	236.2	201.6	40.6	91,500	176,900
265	206.2	240.9	195.8	39.1	87,700	171,800
270	199.4	245.6	189.6	37.6	83,900	166,900
280	184.6	255.1	176.1	34.5	76,900	157,700
290	167.7	264.7	160.7	31.0	70,200	149,000

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

ft	ft	ft	ft	°	lb	lb
46						
47						
48	332.0	36.2	308.7	84.9	283,200	283,200
49	331.8	37.2	308.6	84.8	283,200	283,200
50	331.7	38.1	308.5	84.6	283,200	283,200
51	331.6	39.1	308.4	84.4	283,200	283,200
52	331.4	39.9	308.3	84.2	283,200	283,200
53	331.3	40.9	308.2	84.1	283,200	283,200
54	331.1	41.8	308.1	83.9	283,200	283,200
55	331.0	42.8	308.0	83.7	283,200	283,200
60	330.1	47.4	307.4	82.8	283,200	283,200
65	329.2	52.0	306.7	81.9	283,200	283,200
70	328.3	56.7	305.9	81.0	283,200	283,200
75	327.2	61.3	305.0	80.1	283,200	283,200
80	326.1	66.0	304.1	79.2	283,200	283,200
85	324.8	70.7	303.1	78.3	283,200	283,200
90	323.5	75.3	302.0	77.4	283,200	283,200
95	322.1	80.0	300.8	76.5	283,200	283,200
100	320.6	84.6	299.6	75.5	283,200	283,200
105	319.0	89.3	298.3	74.6	282,800	282,800
110	317.4	93.9	296.9	73.7	282,200	282,200
115	315.6	98.6	295.4	72.7	281,400	281,400
120	313.8	103.3	293.8	71.8	280,800	280,800
125	311.8	107.9	292.1	70.9	280,100	280,100
130	309.8	112.7	290.4	69.9	279,600	279,600
135	307.7	117.3	288.5	68.9	277,400	277,400
140	305.4	122.0	286.6	68.0	266,800	273,000
145	303.1	126.7	284.6	67.0	253,600	268,700
150	300.7	131.4	282.5	66.0	241,300	264,600
155	298.1	136.1	280.2	65.0	229,900	260,700
160	295.4	140.7	277.9	64.0	219,200	257,000
165	292.7	145.4	275.5	63.0	209,100	253,400
170	289.8	150.1	272.9	62.0	199,700	250,000
175	286.8	154.8	270.3	61.0	190,800	246,700
180	283.6	159.5	267.5	59.9	182,400	243,500
185	280.4	164.3	264.6	58.9	174,400	240,500
190	277.0	169.0	261.6	57.8	166,900	237,600
195	273.4	173.7	258.5	56.7	159,800	234,800
200	269.7	178.4	255.2	55.6	153,000	232,100
205	265.9	183.1	251.8	54.5	146,600	229,500
210	261.9	187.8	248.2	53.4	140,400	227,100
215	257.8	192.6	244.5	52.2	134,600	224,700
220	253.4	197.3	240.6	51.1	129,000	222,500
225	248.9	202.1	236.6	49.9	123,600	219,400
230	244.2	206.8	232.4	48.7	118,500	212,500
235	239.3	211.5	228.0	47.4	113,600	206,000
240	234.2	216.3	223.4	46.2	108,900	199,700
245	228.8	221.1	218.5	44.9	104,400	193,700
250	223.2	225.8	213.5	43.6	100,100	188,000
255	217.3	230.6	208.1	42.2	95,900	182,400
260	211.1	235.4	202.6	40.8	91,900	177,100
265	204.6	240.2	196.7	39.3	88,000	172,000
270	197.7	245.0	190.4	37.8	84,200	167,100
280	182.7	254.6	176.8	34.7	77,100	157,800
290						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

301.8 ft 41°						
	ft	ft	ft	ft	ft	ft
46						
47						
48						
49						
50	330.4	35.9	308.8	85.0	240,600	240,600
51	330.2	36.8	308.7	84.8	240,600	240,600
52	330.1	37.8	308.6	84.7	240,600	240,600
53	329.9	38.7	308.5	84.5	240,600	240,600
54	329.8	39.6	308.4	84.3	240,600	240,600
55	329.6	40.6	308.2	84.1	240,600	240,600
60	328.8	45.2	307.7	83.2	240,600	240,600
65	327.9	49.9	307.0	82.3	240,600	240,600
70	326.9	54.6	306.2	81.4	240,600	240,600
75	325.8	59.3	305.4	80.5	240,600	240,600
80	324.7	63.9	304.5	79.6	240,600	240,600
85	323.4	68.6	303.5	78.7	240,600	240,600
90	322.1	73.3	302.5	77.8	240,600	240,600
95	320.7	78.0	301.3	76.8	240,600	240,600
100	319.2	82.7	300.1	75.9	240,600	240,600
105	317.6	87.4	298.8	75.0	240,600	240,600
110	316.0	92.1	297.4	74.1	240,600	240,600
115	314.2	96.8	296.0	73.1	240,600	240,600
120	312.4	101.5	294.4	72.2	240,600	240,600
125	310.4	106.2	292.8	71.2	240,600	240,600
130	308.4	110.9	291.1	70.3	240,600	240,600
135	306.2	115.6	289.2	69.3	240,600	240,600
140	304.0	120.3	287.3	68.3	240,600	240,600
145	301.6	125.1	285.3	67.3	240,600	240,600
150	299.2	129.7	283.2	66.4	239,200	239,200
155	296.6	134.5	281.0	65.4	231,000	236,400
160	293.9	139.2	278.7	64.4	220,300	233,700
165	291.1	144.0	276.2	63.3	210,100	231,100
170	288.2	148.7	273.7	62.3	200,600	228,600
175	285.2	153.4	271.1	61.3	191,700	226,200
180	282.0	158.2	268.3	60.2	183,200	224,000
185	278.8	162.9	265.4	59.2	175,200	221,800
190	275.3	167.7	262.4	58.1	167,700	219,700
195	271.8	172.4	259.3	57.0	160,500	217,700
200	268.1	177.2	256.0	55.9	153,700	215,800
205	264.2	182.0	252.6	54.8	147,200	214,000
210	260.2	186.8	249.1	53.7	141,000	212,300
215	256.0	191.5	245.4	52.5	135,100	210,700
220	251.6	196.3	241.5	51.3	129,500	209,200
225	247.1	201.1	237.4	50.1	124,100	207,700
230	242.4	205.9	233.2	48.9	119,000	206,400
235	237.4	210.7	228.7	47.7	114,000	205,100
240	232.2	215.5	224.1	46.4	109,300	200,000
245	226.8	220.4	219.3	45.1	104,800	194,000
250	221.1	225.2	214.2	43.7	100,400	188,200
255	215.2	230.0	208.8	42.4	96,200	182,600
260	208.9	234.9	203.2	40.9	92,100	177,300
265						
270						
280						
290						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

321.5 ft					28°	
ft	ft	ft	ft	°	38.7 ft lb	60.0 ft lb
47	352.9	37.7	328.4	85.0	341,600	341,600
48	352.8	38.6	328.3	84.8	341,600	341,600
49	352.7	39.5	328.2	84.7	341,600	341,600
50	352.6	40.5	328.1	84.5	341,600	341,600
51	352.4	41.4	328.0	84.3	341,600	341,600
52	352.3	42.3	327.9	84.2	341,600	341,600
53	352.2	43.3	327.8	84.0	341,600	341,600
54	352.0	44.2	327.6	83.8	341,600	341,600
55	351.9	45.1	327.5	83.7	341,600	341,600
56	351.7	46.0	327.4	83.5	341,600	341,600
60	351.1	49.8	326.9	82.8	341,600	341,600
65	350.3	54.4	326.2	82.0	341,600	341,600
70	349.3	59.1	325.5	81.1	341,600	341,600
75	348.3	63.7	324.6	80.3	341,600	341,600
80	347.3	68.4	323.7	79.4	341,600	341,600
85	346.1	73.0	322.7	78.6	341,600	341,600
90	344.9	77.7	321.7	77.7	341,600	341,600
95	343.6	82.3	320.6	76.9	341,600	341,600
100	342.2	87.0	319.4	76.0	341,600	341,600
105	340.7	91.6	318.1	75.2	341,600	341,600
110	339.2	96.3	316.8	74.3	341,600	341,600
115	337.5	101.0	315.3	73.4	341,600	341,600
120	335.8	105.6	313.8	72.5	327,400	341,600
125	334.0	110.3	312.2	71.6	338,400	338,400
130	332.1	114.9	310.6	70.8	338,400	338,400
135	330.1	119.6	308.8	69.9	277,600	338,400
140	328.0	124.3	307.0	69.0	263,500	331,900
145	325.8	129.0	305.1	68.1	250,400	325,700
150	323.6	133.6	303.0	67.2	238,100	319,800
155	321.2	138.3	300.9	66.2	226,700	314,100
160	318.8	143.0	298.8	65.3	216,100	308,700
165	316.2	147.7	296.5	64.4	206,000	303,500
170	313.5	152.4	294.1	63.4	196,600	298,500
175	310.8	157.0	291.6	62.5	187,800	293,700
180	307.9	161.7	289.0	61.5	179,400	289,100
185	304.9	166.4	286.3	60.6	171,500	284,700
190	301.8	171.1	283.5	59.6	164,000	275,600
195	298.5	175.8	280.6	58.6	156,900	265,900
200	295.2	180.4	277.6	57.6	150,200	256,700
205	291.7	185.2	274.5	56.6	143,800	248,000
210	288.1	189.8	271.2	55.6	137,700	239,800
215	284.3	194.5	267.8	54.5	131,900	231,900
220	280.4	199.2	264.3	53.5	126,300	224,400
225	276.3	203.9	260.6	52.4	121,000	217,300
230	272.1	208.6	256.8	51.3	115,900	210,500
235	267.8	213.4	252.9	50.2	111,100	204,000
240	263.2	218.1	248.7	49.1	106,400	197,700
245	258.5	222.8	244.4	48.0	101,900	191,800
250	253.5	227.5	239.9	46.8	97,600	186,000
255	248.4	232.2	235.3	45.6	93,500	180,500
260	243.0	237.0	230.4	44.4	89,500	175,300
270	231.6	246.4	220.0	41.9	82,000	165,300
280	219.0	255.9	208.5	39.2	74,900	156,100
290	205.2	265.4	195.9	36.4	68,400	147,500
300	189.7	275.0	181.7	33.3	62,200	139,500

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

321.5 ft 35°						
ft	ft	ft	ft	°	lb	lb
47						
48						
49						
50	351.5	38.3	328.3	84.9	288,900	288,900
51	351.4	39.2	328.2	84.7	288,900	288,900
52	351.3	40.1	328.1	84.6	288,900	288,900
53	351.1	41.0	328.0	84.4	288,900	288,900
54	351.0	42.0	327.9	84.2	288,900	288,900
55	350.9	42.9	327.8	84.1	288,900	288,900
56	350.7	43.8	327.7	83.9	288,900	288,900
60	350.1	47.6	327.2	83.2	288,900	288,900
65	349.2	52.2	326.6	82.4	288,900	288,900
70	348.3	56.9	325.8	81.5	288,900	288,900
75	347.3	61.6	325.0	80.7	288,900	288,900
80	346.2	66.2	324.1	79.8	288,900	288,900
85	345.1	70.9	323.2	79.0	288,900	288,900
90	343.8	75.6	322.2	78.1	288,900	288,900
95	342.5	80.3	321.1	77.3	288,900	288,900
100	341.1	84.9	319.9	76.4	288,900	288,900
105	339.7	89.6	318.7	75.5	288,900	288,900
110	338.1	94.3	317.3	74.7	288,900	288,900
115	336.5	99.0	315.9	73.8	288,900	288,900
120	334.7	103.7	314.4	72.9	288,900	288,900
125	332.9	108.3	312.9	72.0	288,900	288,900
130	331.0	113.0	311.3	71.1	288,200	288,200
135	329.0	117.8	309.5	70.2	279,200	283,600
140	326.9	122.4	307.7	69.3	265,000	279,200
145	324.8	127.1	305.8	68.4	251,800	274,900
150	322.5	131.8	303.8	67.5	239,500	270,800
155	320.1	136.5	301.8	66.6	228,000	266,900
160	317.6	141.2	299.6	65.7	217,300	263,100
165	315.1	146.0	297.3	64.7	207,200	259,500
170	312.4	150.7	295.0	63.8	197,800	256,100
175	309.6	155.4	292.5	62.8	188,800	252,700
180	306.7	160.1	289.9	61.9	180,400	249,500
185	303.7	164.8	287.2	60.9	172,500	246,400
190	300.6	169.6	284.5	59.9	164,900	243,400
195	297.3	174.3	281.6	58.9	157,800	240,600
200	294.0	179.0	278.6	57.9	151,000	237,800
205	290.5	183.7	275.4	56.9	144,600	235,200
210	286.8	188.5	272.2	55.9	138,400	232,700
215	283.0	193.2	268.8	54.8	132,600	230,200
220	279.1	197.9	265.3	53.8	127,000	224,900
225	275.0	202.7	261.6	52.7	121,700	217,800
230	270.8	207.4	257.8	51.6	116,600	210,900
235	266.4	212.2	253.9	50.5	111,700	204,400
240	261.8	217.0	249.7	49.4	107,000	198,100
245	257.1	221.7	245.4	48.2	102,500	192,200
250	252.1	226.5	241.0	47.0	98,100	186,400
255	246.9	231.3	236.3	45.8	94,000	180,900
260	241.5	236.0	231.4	44.6	89,900	175,600
270	230.0	245.6	220.9	42.1	82,300	165,600
280	217.4	255.2	209.4	39.4	75,300	156,300
290	203.4	264.9	196.7	36.5	68,600	147,700
300						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

321.5 ft 41°						
	ft	ft	ft	ft	lb	lb
47						
48						
49						
50						
51						
52	349.9	37.9	328.4	85.0	244,000	244,000
53	349.8	38.8	328.3	84.8	244,000	244,000
54	349.6	39.8	328.2	84.6	244,000	244,000
55	349.5	40.7	328.1	84.5	244,000	244,000
56	349.3	41.6	328.0	84.3	244,000	244,000
60	348.7	45.4	327.5	83.6	244,000	244,000
65	347.9	50.1	326.9	82.8	244,000	244,000
70	346.9	54.8	326.2	81.9	244,000	244,000
75	345.9	59.4	325.4	81.1	244,000	244,000
80	344.9	64.2	324.5	80.2	244,000	244,000
85	343.7	68.9	323.6	79.3	244,000	244,000
90	342.5	73.6	322.6	78.5	244,000	244,000
95	341.1	78.3	321.6	77.6	244,000	244,000
100	339.7	83.0	320.4	76.8	244,000	244,000
105	338.3	87.7	319.2	75.9	244,000	244,000
110	336.7	92.4	317.9	75.0	244,000	244,000
115	335.0	97.1	316.5	74.1	244,000	244,000
120	333.3	101.8	315.0	73.2	244,000	244,000
125	331.5	106.5	313.5	72.4	244,000	244,000
130	329.6	111.2	311.9	71.5	244,000	244,000
135	327.6	116.0	310.2	70.6	244,000	244,000
140	325.5	120.7	308.4	69.7	244,000	244,000
145	323.3	125.4	306.5	68.7	244,000	244,000
150	321.0	130.2	304.5	67.8	240,800	243,600
155	318.6	134.9	302.5	66.9	229,300	240,800
160	316.1	139.7	300.3	66.0	218,500	238,100
165	313.6	144.4	298.1	65.0	208,300	235,500
170	310.9	149.2	295.7	64.1	198,800	233,000
175	308.1	153.9	293.3	63.1	189,800	230,500
180	305.2	158.7	290.7	62.2	181,400	228,200
185	302.1	163.4	288.0	61.2	173,400	226,000
190	299.0	168.2	285.3	60.2	165,800	223,900
195	295.7	172.9	282.4	59.2	158,600	221,800
200	292.3	177.7	279.4	58.2	151,800	219,900
205	288.8	182.5	276.3	57.2	145,300	218,000
210	285.1	187.3	273.0	56.1	139,100	216,200
215	281.3	192.1	269.6	55.1	133,200	214,500
220	277.4	196.8	266.1	54.0	127,600	212,800
225	273.3	201.6	262.5	52.9	122,200	211,300
230	269.0	206.4	258.6	51.8	117,100	209,800
235	264.6	211.2	254.7	50.7	112,100	204,800
240	260.0	216.0	250.5	49.6	107,400	198,500
245	255.2	220.9	246.2	48.4	102,900	192,500
250	250.2	225.7	241.7	47.2	98,500	186,700
255	245.0	230.5	237.0	46.0	94,300	181,200
260	239.5	235.3	232.1	44.8	90,300	175,800
270	227.9	245.0	221.6	42.2	82,600	165,800
280						
290						
300						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

ft	ft	ft	ft	°	lb	lb
50	372.4	40.6	347.9	84.8	341,600	341,600
51	372.3	41.5	347.8	84.6	341,600	341,600
52	372.1	42.5	347.7	84.5	341,600	341,600
53	372.0	43.4	347.6	84.3	341,600	341,600
54	371.9	44.3	347.5	84.2	341,600	341,600
55	371.7	45.3	347.4	84.0	341,600	341,600
56	371.6	46.2	347.2	83.8	341,600	341,600
57	371.5	47.1	347.1	83.7	341,600	341,600
58	371.3	48.1	347.0	83.5	341,600	341,600
60	371.0	49.9	346.8	83.2	341,600	341,600
65	370.2	54.6	346.1	82.4	341,600	341,600
70	369.3	59.3	345.4	81.6	341,600	341,600
75	368.4	63.9	344.6	80.8	341,600	341,600
80	367.4	68.6	343.7	80.0	341,600	341,600
85	366.3	73.3	342.8	79.2	341,600	341,600
90	365.1	77.9	341.8	78.4	341,600	341,600
95	363.9	82.6	340.8	77.6	341,600	341,600
100	362.6	87.3	339.6	76.8	341,600	341,600
105	361.2	92.0	338.4	76.0	341,600	341,600
110	359.7	96.7	337.1	75.2	341,600	341,600
115	358.2	101.3	335.8	74.3	341,600	341,600
120	356.6	106.0	334.4	73.5	327,200	341,600
125	354.9	110.7	332.9	72.7	340,200	340,200
130	353.1	115.4	331.3	71.8	292,700	340,200
135	351.2	120.0	329.7	71.0	277,400	338,400
140	349.3	124.7	327.9	70.2	263,300	336,700
145	347.3	129.4	326.1	69.3	250,100	334,400
150	345.1	134.1	324.2	68.5	237,900	328,400
155	342.9	138.8	322.3	67.6	226,400	322,700
160	340.6	143.5	320.2	66.7	215,700	317,200
165	338.2	148.2	318.1	65.9	205,700	312,000
170	335.8	152.9	315.8	65.0	196,300	306,900
175	333.2	157.6	313.5	64.1	187,400	302,100
180	330.5	162.3	311.1	63.2	179,000	296,400
185	327.7	167.0	308.6	62.3	171,100	285,500
190	324.8	171.6	306.0	61.4	163,600	275,300
195	321.8	176.4	303.3	60.5	156,500	265,600
200	318.7	181.1	300.5	59.6	149,800	256,400
205	315.5	185.8	297.6	58.6	143,400	247,700
210	312.2	190.5	294.6	57.7	137,300	239,400
215	308.7	195.2	291.5	56.8	131,500	231,500
220	305.1	199.9	288.2	55.8	125,900	224,000
225	301.4	204.6	284.8	54.8	120,600	216,900
230	297.6	209.4	281.4	53.8	115,600	210,100
235	293.6	214.1	277.7	52.8	110,700	203,600
240	289.5	218.8	274.0	51.8	106,000	197,400
245	285.2	223.5	270.1	50.8	101,600	191,400
250	280.7	228.2	266.0	49.7	97,300	185,700
255	276.1	233.0	261.8	48.6	93,200	180,200
260	271.3	237.7	257.5	47.6	89,200	174,900
270	261.2	247.2	248.2	45.3	81,700	165,000
280	250.2	256.7	238.1	43.0	74,700	155,800
290	238.2	266.2	227.2	40.5	68,100	147,200
300	225.1	275.7	215.1	37.9	62,000	139,300
320	194.5	294.8	187.1	32.2	50,800	124,800

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

	ft	ft	ft	ft	lb	lb
50						
51	371.3	39.3	348.0	85.0	292,800	292,800
52	371.1	40.3	347.9	84.9	292,800	292,800
53	371.0	41.1	347.8	84.7	292,800	292,800
54	370.9	42.1	347.7	84.5	292,800	292,800
55	370.7	43.0	347.6	84.4	292,800	292,800
56	370.6	44.0	347.5	84.2	292,800	292,800
57	370.4	44.9	347.4	84.1	292,800	292,800
58	370.3	45.8	347.3	83.9	292,800	292,800
60	370.0	47.7	347.1	83.6	292,800	292,800
65	369.2	52.4	346.4	82.8	292,800	292,800
70	368.3	57.1	345.7	82.0	292,800	292,800
75	367.4	61.7	345.0	81.2	292,800	292,800
80	366.4	66.5	344.1	80.4	292,800	292,800
85	365.3	71.1	343.3	79.6	292,800	292,800
90	364.1	75.8	342.3	78.8	292,800	292,800
95	362.9	80.5	341.2	78.0	292,800	292,800
100	361.6	85.2	340.1	77.1	292,800	292,800
105	360.2	89.9	339.0	76.3	292,800	292,800
110	358.7	94.6	337.7	75.5	292,800	292,800
115	357.1	99.3	336.4	74.7	292,800	292,800
120	355.5	104.1	335.0	73.9	292,800	292,800
125	353.8	108.7	333.5	73.0	292,800	292,800
130	352.0	113.4	332.0	72.2	292,800	292,800
135	350.2	118.1	330.4	71.4	279,000	289,500
140	348.2	122.9	328.6	70.5	264,800	285,100
145	346.2	127.6	326.9	69.7	251,600	280,800
150	344.0	132.3	325.0	68.8	239,300	276,700
155	341.8	137.0	323.1	67.9	227,800	272,800
160	339.5	141.7	321.0	67.1	217,000	269,000
165	337.1	146.4	318.9	66.2	206,900	265,300
170	334.6	151.1	316.7	65.3	197,500	261,800
175	332.0	155.9	314.4	64.4	188,500	258,500
180	329.3	160.6	312.0	63.5	180,100	255,200
185	326.5	165.4	309.5	62.6	172,200	252,100
190	323.6	170.1	306.9	61.7	164,600	249,100
195	320.6	174.8	304.2	60.8	157,500	246,200
200	317.5	179.5	301.5	59.9	150,700	243,400
205	314.3	184.3	298.5	58.9	144,300	240,700
210	310.9	189.0	295.5	58.0	138,100	238,100
215	307.5	193.8	292.4	57.0	132,300	232,100
220	303.9	198.5	289.2	56.1	126,700	224,600
225	300.2	203.3	285.8	55.1	121,300	217,400
230	296.3	208.0	282.4	54.1	116,200	210,600
235	292.3	212.8	278.7	53.1	111,300	204,100
240	288.1	217.5	275.0	52.1	106,700	197,800
245	283.8	222.3	271.1	51.0	102,200	191,800
250	279.4	227.1	267.0	50.0	97,800	186,100
255	274.7	231.9	262.8	48.9	93,700	180,600
260	269.9	236.6	258.5	47.8	89,700	175,300
270	259.7	246.2	249.2	45.6	82,100	165,300
280	248.6	255.8	239.1	43.2	75,100	156,100
290	236.6	265.4	228.1	40.7	68,500	147,500
300	223.4	275.0	216.0	38.1	62,300	139,500
320						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

341.2 ft 41°						
	ft	ft	ft	ft	ft	ft
50						
51						
52						
53						
54	369.5	39.9	348.0	84.9	244,000	244,000
55	369.4	40.8	347.9	84.8	244,000	244,000
56	369.2	41.8	347.8	84.6	244,000	244,000
57	369.1	42.7	347.7	84.4	244,000	244,000
58	368.9	43.7	347.5	84.3	244,000	244,000
60	368.6	45.5	347.3	84.0	244,000	244,000
65	367.8	50.2	346.7	83.2	244,000	244,000
70	367.0	55.0	346.1	82.4	244,000	244,000
75	366.0	59.6	345.3	81.6	244,000	244,000
80	365.0	64.4	344.5	80.7	244,000	244,000
85	363.9	69.1	343.7	79.9	244,000	244,000
90	362.7	73.8	342.7	79.1	244,000	244,000
95	361.5	78.5	341.7	78.3	244,000	244,000
100	360.2	83.2	340.6	77.5	244,000	244,000
105	358.8	88.0	339.5	76.7	244,000	244,000
110	357.3	92.7	338.2	75.9	244,000	244,000
115	355.7	97.4	336.9	75.0	244,000	244,000
120	354.1	102.1	335.6	74.2	244,000	244,000
125	352.4	106.9	334.1	73.4	244,000	244,000
130	350.6	111.6	332.6	72.5	244,000	244,000
135	348.7	116.3	331.0	71.7	244,000	244,000
140	346.8	121.1	329.3	70.8	244,000	244,000
145	344.7	125.8	327.5	70.0	244,000	244,000
150	342.6	130.6	325.7	69.1	240,600	244,000
155	340.3	135.3	323.7	68.2	229,100	244,000
160	338.0	140.1	321.7	67.4	218,200	242,200
165	335.6	144.8	319.6	66.5	208,100	239,600
170	333.1	149.6	317.4	65.6	198,500	237,100
175	330.5	154.3	315.1	64.7	189,600	234,700
180	327.8	159.1	312.8	63.8	181,100	232,300
185	325.0	163.8	310.3	62.9	173,100	230,100
190	322.1	168.6	307.7	62.0	165,500	227,900
195	319.1	173.4	305.0	61.1	158,300	225,800
200	315.9	178.2	302.3	60.2	151,500	223,800
205	312.7	182.9	299.4	59.2	145,000	221,900
210	309.3	187.7	296.4	58.3	138,800	220,000
215	305.8	192.5	293.3	57.3	132,900	218,200
220	302.2	197.3	290.0	56.3	127,300	216,500
225	298.5	202.1	286.7	55.3	122,000	214,900
230	294.6	206.9	283.2	54.3	116,800	211,000
235	290.5	211.7	279.6	53.3	111,900	204,500
240	286.4	216.5	275.8	52.3	107,200	198,200
245	282.0	221.3	271.9	51.2	102,600	192,200
250	277.5	226.2	267.8	50.2	98,300	186,400
255	272.9	231.0	263.6	49.1	94,100	180,900
260	268.0	235.8	259.2	48.0	90,100	175,600
270	257.7	245.5	249.9	45.7	82,400	165,600
280	246.6	255.2	239.8	43.4	75,300	156,300
290						
300						
320						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

360.9 ft					38.7 ft	
28°					60.0 ft	
ft	ft	ft	ft	°	lb	lb
51	392.1	41.6	367.6	84.9	341,600	341,600
52	392.0	42.6	367.5	84.8	341,600	341,600
53	391.8	43.5	367.4	84.6	341,600	341,600
54	391.7	44.5	367.3	84.5	341,600	341,600
55	391.6	45.4	367.2	84.3	341,600	341,600
56	391.5	46.3	367.1	84.2	341,600	341,600
57	391.3	47.3	367.0	84.0	341,600	341,600
58	391.2	48.2	366.8	83.9	341,600	341,600
59	391.0	49.1	366.7	83.7	341,600	341,600
60	390.9	50.1	366.6	83.6	341,600	341,600
65	390.1	54.8	366.0	82.8	341,600	341,600
70	389.3	59.4	365.3	82.1	341,600	341,600
75	388.4	64.1	364.6	81.3	341,600	341,600
80	387.5	68.8	363.7	80.5	341,600	341,600
85	386.4	73.5	362.9	79.8	341,600	341,600
90	385.3	78.2	361.9	79.0	341,600	341,600
95	384.2	82.9	360.9	78.3	341,600	341,600
100	382.9	87.6	359.8	77.5	341,600	341,600
105	381.6	92.2	358.7	76.7	341,600	341,600
110	380.2	96.9	357.5	75.9	341,600	341,600
115	378.8	101.6	356.2	75.2	337,700	341,600
120	377.3	106.3	354.9	74.4	317,900	341,600
125	375.7	111.0	353.4	73.6	339,000	339,000
130	374.0	115.8	351.9	72.8	339,000	339,000
135	372.2	120.5	350.4	72.0	267,800	339,000
140	370.4	125.1	348.8	71.2	253,500	334,700
145	368.5	129.8	347.1	70.4	240,300	330,400
150	366.5	134.5	345.3	69.6	228,000	326,200
155	364.4	139.3	343.4	68.8	216,500	321,900
160	362.2	144.0	341.5	68.0	205,700	317,700
165	360.0	148.6	339.5	67.2	195,600	313,400
170	357.7	153.4	337.4	66.4	186,100	309,100
175	355.2	158.1	335.2	65.6	177,200	300,500
180	352.7	162.8	332.9	64.7	168,800	288,900
185	350.1	167.5	330.6	63.9	160,800	278,000
190	347.4	172.2	328.2	63.0	153,300	267,700
195	344.7	176.9	325.6	62.2	146,200	258,000
200	341.8	181.6	323.0	61.3	139,400	248,800
205	338.8	186.3	320.3	60.5	133,000	240,100
210	335.7	191.1	317.5	59.6	126,900	231,800
215	332.5	195.8	314.6	58.7	121,000	223,900
220	329.2	200.5	311.6	57.8	115,500	216,400
225	325.7	205.3	308.4	56.9	110,200	209,200
230	322.2	210.0	305.2	56.0	105,100	202,400
235	318.5	214.7	301.9	55.1	100,200	195,900
240	314.7	219.4	298.4	54.1	95,500	189,600
245	310.8	224.2	294.8	53.2	91,100	183,700
250	306.7	228.9	291.1	52.2	86,800	177,900
260	298.2	238.4	283.3	50.3	78,700	167,200
270	289.0	247.9	274.9	48.2	71,100	157,200
280	279.1	257.4	265.9	46.1	64,200	148,000
290	268.5	266.9	256.1	44.0	57,600	139,500
300	257.0	276.4	245.5	41.7	51,500	131,500
320	230.9	295.5	221.5	36.8	40,400	117,000
340	199.2	314.7	192.2	31.2	30,400	104,200

MLC650 VPC-MAX S-3

ASME B30.5



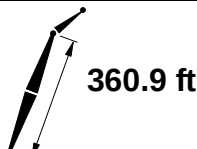
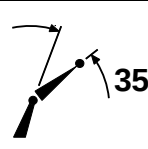
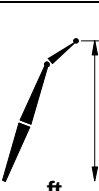
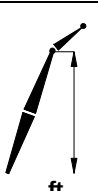
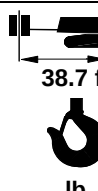
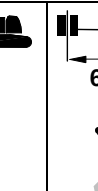
B80



881,800 lb



360°

	 360.9 ft		 35°			
	 ft	 ft	 ft	 ft	 38.7 ft lb	 60.0 ft lb
51						
52						
53	390.8	41.3	367.6	85.0	292,800	292,800
54	390.7	42.2	367.5	84.8	292,800	292,800
55	390.6	43.1	367.4	84.7	292,800	292,800
56	390.4	44.1	367.3	84.5	292,800	292,800
57	390.3	45.0	367.2	84.4	292,800	292,800
58	390.2	45.9	367.1	84.2	292,800	292,800
59	390.0	46.9	367.0	84.1	292,800	292,800
60	389.9	47.8	366.9	83.9	292,800	292,800
65	389.1	52.5	366.3	83.2	292,800	292,800
70	388.3	57.3	365.6	82.4	292,800	292,800
75	387.4	62.0	364.9	81.6	292,800	292,800
80	386.4	66.7	364.1	80.9	292,800	292,800
85	385.4	71.4	363.3	80.1	292,800	292,800
90	384.3	76.0	362.4	79.4	292,800	292,800
95	383.1	80.8	361.4	78.6	292,800	292,800
100	381.9	85.5	360.3	77.8	292,800	292,800
105	380.6	90.2	359.2	77.1	292,800	292,800
110	379.2	94.9	358.0	76.3	292,800	292,800
115	377.7	99.6	356.8	75.5	292,800	292,800
120	376.2	104.4	355.4	74.7	292,800	292,800
125	374.6	109.1	354.1	73.9	292,800	292,800
130	372.9	113.8	352.6	73.1	285,100	292,800
135	371.1	118.5	351.0	72.4	269,600	292,800
140	369.3	123.2	349.4	71.6	255,300	290,600
145	367.4	128.0	347.7	70.8	242,000	286,300
150	365.4	132.7	346.0	70.0	229,600	282,300
155	363.3	137.4	344.2	69.1	218,000	278,300
160	361.1	142.1	342.3	68.3	207,200	274,500
165	358.9	146.8	340.3	67.5	197,000	270,900
170	356.5	151.6	338.2	66.7	187,500	267,400
175	354.1	156.4	336.0	65.9	178,500	264,000
180	351.6	161.1	333.8	65.0	170,000	260,700
185	349.0	165.8	331.4	64.2	162,000	257,500
190	346.3	170.5	329.0	63.3	154,400	254,500
195	343.5	175.3	326.5	62.5	147,300	251,500
200	340.6	180.0	323.9	61.6	140,500	248,700
205	337.6	184.8	321.2	60.7	134,000	240,800
210	334.5	189.5	318.4	59.9	127,800	232,500
215	331.3	194.3	315.5	59.0	121,900	224,600
220	327.9	199.1	312.5	58.1	116,300	217,000
225	324.5	203.8	309.4	57.2	111,000	209,900
230	320.9	208.6	306.2	56.3	105,900	203,000
235	317.2	213.3	302.8	55.3	100,900	196,500
240	313.4	218.1	299.4	54.4	96,200	190,200
245	309.5	222.9	295.8	53.4	91,700	184,200
250	305.4	227.6	292.1	52.5	87,400	178,400
260	296.8	237.2	284.3	50.5	79,200	167,600
270	287.6	246.8	275.9	48.5	71,700	157,600
280	277.7	256.4	266.8	46.4	64,600	148,400
290	267.0	266.0	257.1	44.2	58,100	139,800
300	255.5	275.6	246.5	41.9	51,900	131,800
320	229.2	294.9	222.3	37.0	40,700	117,200
340						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

360.9 ft 41°						
	ft	ft	ft	ft	lb	lb
51						
52						
53						
54						
55	389.2	40.9	367.7	85.0	244,000	244,000
56	389.1	41.9	367.6	84.9	244,000	244,000
57	388.9	42.8	367.5	84.7	244,000	244,000
58	388.8	43.8	367.4	84.6	244,000	244,000
59	388.7	44.7	367.3	84.4	244,000	244,000
60	388.5	45.6	367.1	84.3	244,000	244,000
65	387.8	50.4	366.6	83.5	244,000	244,000
70	386.9	55.1	365.9	82.8	244,000	244,000
75	386.0	59.8	365.2	82.0	244,000	244,000
80	385.1	64.5	364.5	81.2	244,000	244,000
85	384.0	69.3	363.7	80.5	244,000	244,000
90	382.9	74.0	362.8	79.7	244,000	244,000
95	381.7	78.7	361.8	78.9	244,000	244,000
100	380.5	83.5	360.8	78.2	244,000	244,000
105	379.2	88.2	359.7	77.4	244,000	244,000
110	377.8	92.9	358.5	76.6	244,000	244,000
115	376.3	97.7	357.3	75.8	244,000	244,000
120	374.8	102.4	356.0	75.0	244,000	244,000
125	373.2	107.1	354.6	74.3	244,000	244,000
130	371.5	111.9	353.2	73.5	244,000	244,000
135	369.7	116.6	351.7	72.7	244,000	244,000
140	367.9	121.4	350.1	71.9	244,000	244,000
145	365.9	126.1	348.4	71.1	243,600	244,000
150	363.9	130.9	346.7	70.3	231,100	244,000
155	361.8	135.7	344.8	69.4	219,400	244,000
160	359.7	140.4	342.9	68.6	208,500	244,000
165	357.4	145.2	341.0	67.8	198,300	243,600
170	355.0	150.0	338.9	67.0	188,700	241,000
175	352.6	154.7	336.8	66.1	179,700	238,600
180	350.1	159.5	334.5	65.3	171,100	236,200
185	347.5	164.3	332.2	64.5	163,100	233,900
190	344.7	169.0	329.8	63.6	155,500	231,700
195	341.9	173.8	327.3	62.7	148,200	229,600
200	339.0	178.6	324.7	61.9	141,400	227,600
205	336.0	183.4	322.0	61.0	134,900	225,600
210	332.9	188.2	319.2	60.1	128,700	223,700
215	329.6	193.0	316.3	59.2	122,700	221,900
220	326.3	197.7	313.4	58.3	117,100	217,600
225	322.8	202.5	310.3	57.4	111,700	210,400
230	319.3	207.4	307.0	56.5	106,500	203,500
235	315.6	212.2	303.7	55.6	101,600	196,900
240	311.7	217.0	300.2	54.6	96,900	190,700
245	307.8	221.8	296.7	53.7	92,300	184,600
250	303.7	226.6	292.9	52.7	88,000	178,900
260	295.0	236.2	285.1	50.7	79,700	168,000
270	285.7	245.9	276.7	48.7	72,100	158,000
280	275.8	255.6	267.6	46.5	65,000	148,700
290	265.0	265.3	257.8	44.3	58,400	140,000
300	253.3	275.0	247.1	42.0	52,200	132,000
320						
340						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

ft	ft	ft	ft	°	lb	lb
52	401.9	42.6	377.3	84.9	323,900	323,900
53	401.8	43.6	377.2	84.7	323,900	323,900
54	401.6	44.5	377.1	84.6	323,900	323,900
55	401.5	45.5	377.0	84.5	323,900	323,900
56	401.4	46.4	376.9	84.3	323,900	323,900
57	401.2	47.3	376.8	84.2	323,900	323,900
58	401.1	48.3	376.7	84.0	323,900	323,900
59	401.0	49.2	376.6	83.9	323,900	323,900
60	400.8	50.1	376.5	83.7	323,900	323,900
65	400.1	54.9	375.9	83.0	323,900	323,900
70	399.3	59.5	375.2	82.3	323,900	323,900
75	398.4	64.2	374.5	81.5	323,900	323,900
80	397.5	68.9	373.7	80.8	323,900	323,900
85	396.5	73.6	372.8	80.0	323,900	323,900
90	395.4	78.3	371.9	79.3	323,900	323,900
95	394.3	83.0	370.9	78.5	323,900	323,900
100	393.1	87.7	369.9	77.8	323,900	323,900
105	391.8	92.4	368.8	77.1	323,900	323,900
110	390.5	97.1	367.6	76.3	323,900	323,900
115	389.0	101.8	366.3	75.5	323,900	323,900
120	387.6	106.5	365.0	74.8	317,500	323,900
125	386.0	111.2	363.6	74.0	299,400	323,900
130	384.4	115.9	362.2	73.3	282,700	323,900
135	382.7	120.6	360.7	72.5	267,300	320,100
140	380.9	125.3	359.1	71.7	253,100	314,900
145	379.0	130.0	357.4	71.0	239,800	309,800
150	377.1	134.7	355.7	70.2	227,500	304,800
155	375.1	139.5	353.9	69.4	216,000	299,900
160	373.0	144.1	352.0	68.6	205,200	295,200
165	370.8	148.9	350.0	67.8	195,200	290,700
170	368.5	153.6	348.0	67.0	185,700	286,300
175	366.2	158.3	345.9	66.2	176,800	282,000
180	363.7	163.0	343.7	65.4	168,300	277,900
185	361.2	167.7	341.4	64.6	160,400	274,000
190	358.6	172.4	339.1	63.8	152,900	267,400
195	355.9	177.2	336.6	62.9	145,700	257,700
200	353.1	181.9	334.1	62.1	139,000	248,500
205	350.2	186.6	331.5	61.3	132,500	239,700
210	347.2	191.3	328.7	60.4	126,400	231,500
215	344.1	196.0	325.9	59.6	120,600	223,600
220	341.0	200.8	323.0	58.7	115,000	216,100
225	337.6	205.5	320.0	57.8	109,700	208,900
230	334.2	210.2	316.9	57.0	104,600	202,100
235	330.7	215.0	313.7	56.1	99,800	195,600
240	327.1	219.7	310.3	55.2	95,100	189,300
245	323.3	224.5	306.9	54.3	90,600	183,300
250	319.4	229.2	303.3	53.3	86,300	177,600
255	315.4	233.9	299.7	52.4	82,200	172,100
260	311.2	238.7	295.8	51.5	78,200	166,900
270	302.4	248.2	287.8	49.5	70,700	156,900
280	293.0	257.7	279.2	47.5	63,800	147,700
290	283.0	267.2	269.9	45.5	57,200	139,200
300	272.1	276.7	259.9	43.3	51,200	131,200
320	247.7	295.8	237.3	38.7	40,100	116,800
340	218.5	315.0	210.4	33.6	30,200	104,000

MLC650 VPC-MAX S-3

ASME B30.5



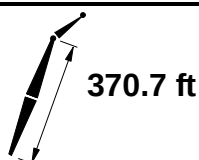
B80



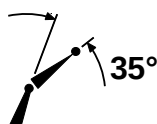
881,800 lb



360°



370.7 ft



35°

	ft	ft	ft	ft	°	38.7 ft lb	60.0 ft lb
52							
53							
54	400.6	42.3	377.4	85.0		292,800	292,800
55	400.5	43.2	377.3	84.8		292,800	292,800
56	400.4	44.1	377.2	84.7		292,800	292,800
57	400.2	45.1	377.1	84.5		292,800	292,800
58	400.1	46.0	377.0	84.4		292,800	292,800
59	400.0	46.9	376.9	84.2		292,800	292,800
60	399.8	47.9	376.8	84.1		292,800	292,800
65	399.1	52.6	376.2	83.3		292,800	292,800
70	398.3	57.3	375.5	82.6		292,800	292,800
75	397.4	62.0	374.8	81.9		292,800	292,800
80	396.5	66.7	374.1	81.1		292,800	292,800
85	395.5	71.5	373.2	80.4		292,800	292,800
90	394.4	76.1	372.3	79.6		292,800	292,800
95	393.2	80.9	371.4	78.9		292,800	292,800
100	392.0	85.6	370.3	78.1		292,800	292,800
105	390.8	90.3	369.3	77.4		292,800	292,800
110	389.4	95.0	368.1	76.6		292,800	292,800
115	388.0	99.7	366.9	75.9		292,800	292,800
120	386.5	104.5	365.6	75.1		292,800	292,800
125	384.9	109.2	364.2	74.4		292,800	292,800
130	383.3	113.9	362.8	73.6		284,700	292,800
135	381.6	118.6	361.3	72.8		269,200	292,800
140	379.8	123.4	359.8	72.0		254,900	292,800
145	377.9	128.1	358.1	71.3		241,500	289,000
150	376.0	132.8	356.4	70.5		229,100	284,900
155	374.0	137.6	354.6	69.7		217,600	281,000
160	371.9	142.3	352.7	68.9		206,700	277,200
165	369.7	147.0	350.8	68.1		196,600	273,600
170	367.4	151.8	348.8	67.3		187,000	270,000
175	365.1	156.5	346.7	66.5		178,000	266,600
180	362.6	161.2	344.5	65.7		169,600	263,300
185	360.1	166.0	342.3	64.9		161,600	260,200
190	357.5	170.7	339.9	64.1		154,000	257,100
195	354.8	175.5	337.5	63.2		146,800	254,100
200	352.0	180.3	335.0	62.4		140,000	249,300
205	349.1	185.0	332.4	61.6		133,500	240,500
210	346.1	189.8	329.6	60.7		127,400	232,200
215	342.9	194.5	326.9	59.9		121,500	224,300
220	339.7	199.3	324.0	59.0		115,900	216,700
225	336.4	204.0	321.0	58.1		110,500	209,500
230	333.0	208.8	317.8	57.2		105,400	202,700
235	329.5	213.6	314.6	56.3		100,500	196,100
240	325.8	218.3	311.3	55.4		95,800	189,900
245	322.0	223.1	307.9	54.5		91,300	183,900
250	318.1	227.9	304.3	53.6		87,000	178,100
255	314.0	232.7	300.6	52.7		82,800	172,600
260	309.9	237.4	296.8	51.7		78,800	167,300
270	301.1	247.0	288.8	49.8		71,300	157,400
280	291.6	256.6	280.1	47.8		64,300	148,100
290	281.5	266.2	270.9	45.7		57,700	139,500
300	270.6	275.9	260.8	43.5		51,600	131,500
320	246.0	295.1	238.3	38.9		40,400	117,000
340							

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

	370.7 ft		41°			
	ft	ft	ft	ft	lb	lb
52						
53						
54						
55						
56	399.0	41.9	377.4	85.0	244,000	244,000
57	398.9	42.8	377.3	84.9	244,000	244,000
58	398.7	43.8	377.2	84.7	244,000	244,000
59	398.6	44.8	377.1	84.6	244,000	244,000
60	398.4	45.7	377.0	84.4	244,000	244,000
65	397.7	50.4	376.5	83.7	244,000	244,000
70	396.9	55.1	375.8	82.9	244,000	244,000
75	396.0	59.9	375.1	82.2	244,000	244,000
80	395.1	64.6	374.4	81.5	244,000	244,000
85	394.1	69.3	373.6	80.7	244,000	244,000
90	393.0	74.1	372.7	80.0	244,000	244,000
95	391.9	78.8	371.8	79.2	244,000	244,000
100	390.6	83.5	370.8	78.5	244,000	244,000
105	389.4	88.3	369.7	77.7	244,000	244,000
110	388.0	93.0	368.6	77.0	244,000	244,000
115	386.6	97.7	367.4	76.2	244,000	244,000
120	385.1	102.5	366.1	75.4	244,000	244,000
125	383.5	107.3	364.8	74.7	244,000	244,000
130	381.9	112.0	363.4	73.9	244,000	244,000
135	380.1	116.7	361.9	73.1	244,000	244,000
140	378.3	121.5	360.4	72.3	244,000	244,000
145	376.5	126.3	358.7	71.6	243,200	244,000
150	374.5	131.1	357.0	70.8	230,700	244,000
155	372.5	135.8	355.3	70.0	219,000	244,000
160	370.4	140.6	353.4	69.2	208,100	244,000
165	368.2	145.3	351.5	68.4	197,900	244,000
170	365.9	150.1	349.5	67.6	188,300	242,900
175	363.6	154.9	347.4	66.8	179,300	240,500
180	361.1	159.7	345.3	66.0	170,700	238,100
185	358.6	164.4	343.0	65.2	162,700	235,800
190	355.9	169.2	340.7	64.3	155,000	233,600
195	353.2	174.0	338.3	63.5	147,800	231,500
200	350.4	178.7	335.8	62.7	141,000	229,400
205	347.5	183.6	333.2	61.8	134,400	227,400
210	344.5	188.3	330.5	61.0	128,200	225,500
215	341.3	193.1	327.7	60.1	122,300	223,700
220	338.1	197.9	324.8	59.2	116,700	217,300
225	334.8	202.7	321.8	58.4	111,300	210,100
230	331.3	207.5	318.7	57.5	106,100	203,200
235	327.8	212.4	315.5	56.6	101,200	196,700
240	324.1	217.1	312.2	55.7	96,500	190,400
245	320.3	222.0	308.7	54.7	91,900	184,300
250	316.4	226.8	305.2	53.8	87,600	178,600
255	312.3	231.6	301.5	52.9	83,400	173,000
260	308.1	236.4	297.6	51.9	79,400	167,700
270	299.2	246.1	289.6	50.0	71,700	157,700
280	289.7	255.8	280.9	47.9	64,600	148,400
290	279.5	265.4	271.7	45.9	58,000	139,800
300	268.5	275.2	261.6	43.7	51,800	131,700
320						
340						

MLC650 VPC-MAX S-3

ASME B30.5



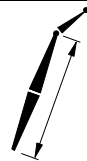
B80



881,800 lb



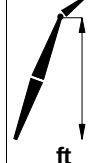
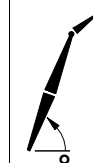
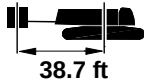
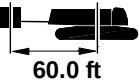
360°



380.6 ft



28°

 380.6 ft  28°						
 ft	 ft	 ft	 ft	 °	 38.7 ft  lb	 60.0 ft  lb
52	411.8	42.7	387.3	85.0	303,400	303,400
53	411.7	43.7	387.2	84.9	303,400	303,400
54	411.5	44.6	387.1	84.7	303,400	303,400
55	411.4	45.5	387.0	84.6	303,400	303,400
56	411.3	46.5	386.9	84.4	303,400	303,400
57	411.2	47.4	386.8	84.3	303,400	303,400
58	411.0	48.3	386.7	84.2	303,400	303,400
59	410.9	49.2	386.6	84.0	303,400	303,400
60	410.8	50.2	386.4	83.9	303,400	303,400
61	410.6	51.2	386.3	83.7	303,400	303,400
65	410.1	54.9	385.9	83.2	303,400	303,400
70	409.3	59.6	385.2	82.4	303,400	303,400
75	408.4	64.3	384.5	81.7	303,400	303,400
80	407.5	69.0	383.7	81.0	303,400	303,400
85	406.5	73.7	382.9	80.3	303,400	303,400
90	405.5	78.4	382.0	79.6	303,400	303,400
95	404.4	83.1	381.0	78.8	303,400	303,400
100	403.2	87.8	380.0	78.1	303,400	303,400
105	402.0	92.5	378.9	77.4	303,400	303,400
110	400.7	97.2	377.8	76.6	303,400	303,400
115	399.3	102.0	376.5	75.9	303,400	303,400
120	397.8	106.6	375.3	75.2	303,400	303,400
125	396.3	111.3	373.9	74.4	297,500	303,400
130	394.7	116.1	372.5	73.7	280,800	303,400
135	393.1	120.8	371.0	72.9	265,400	298,900
140	391.3	125.5	369.5	72.2	251,100	293,700
145	389.5	130.2	367.9	71.4	237,900	288,800
150	387.6	135.0	366.2	70.7	225,600	283,900
155	385.7	139.7	364.4	69.9	214,000	279,100
160	383.6	144.4	362.6	69.2	203,300	274,500
165	381.5	149.1	360.7	68.4	193,200	270,000
170	379.3	153.8	358.7	67.6	183,700	265,600
175	377.1	158.5	356.7	66.8	174,800	261,400
180	374.7	163.3	354.5	66.0	166,300	257,400
185	372.3	168.0	352.3	65.3	158,400	253,400
190	369.7	172.7	350.0	64.5	150,900	249,700
195	367.1	177.4	347.6	63.7	143,700	246,100
200	364.4	182.1	345.2	62.9	137,000	242,600
205	361.6	186.9	342.6	62.0	130,500	238,300
210	358.7	191.6	340.0	61.2	124,400	230,000
215	355.7	196.3	337.3	60.4	118,600	222,100
220	352.6	201.1	334.5	59.6	113,000	214,600
225	349.4	205.8	331.6	58.7	107,700	207,400
230	346.1	210.5	328.6	57.9	102,600	200,600
235	342.7	215.3	325.4	57.0	97,700	194,100
240	339.2	220.1	322.2	56.2	93,100	187,800
250	331.8	229.5	315.4	54.4	84,300	176,100
260	324.0	239.0	308.2	52.6	76,200	165,400
270	315.6	248.5	300.5	50.7	68,700	155,400
280	306.6	258.1	292.2	48.8	61,800	146,200
290	297.0	267.6	283.4	46.9	55,300	137,700
300	286.7	277.1	274.0	44.8	49,200	129,700
320	263.7	296.2	252.7	40.5	38,100	115,300
340	236.6	315.4	227.6	35.7	28,300	102,600
360	203.7	334.7	197.1	30.3	19,400	91,200

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

380.6 ft 35°						
ft	ft	ft	ft	°	lb	lb
52						
53						
54						
55	410.4	43.3	387.2	84.9	292,800	292,800
56	410.3	44.2	387.1	84.8	292,800	292,800
57	410.1	45.2	387.0	84.6	292,800	292,800
58	410.0	46.1	386.9	84.5	292,800	292,800
59	409.9	47.0	386.8	84.4	292,800	292,800
60	409.7	48.0	386.7	84.2	292,800	292,800
61	409.6	48.9	386.6	84.1	292,800	292,800
65	409.0	52.7	386.1	83.5	292,800	292,800
70	408.2	57.4	385.5	82.8	292,800	292,800
75	407.4	62.1	384.8	82.1	292,800	292,800
80	406.5	66.8	384.1	81.3	292,800	292,800
85	405.5	71.6	383.3	80.6	292,800	292,800
90	404.5	76.2	382.4	79.9	292,800	292,800
95	403.3	81.0	381.5	79.2	292,800	292,800
100	402.2	85.7	380.5	78.4	292,800	292,800
105	400.9	90.4	379.4	77.7	292,800	292,800
110	399.6	95.2	378.3	77.0	292,800	292,800
115	398.2	99.9	377.1	76.2	292,800	292,800
120	396.8	104.6	375.8	75.5	292,800	292,800
125	395.2	109.4	374.5	74.7	292,800	292,800
130	393.7	114.1	373.1	74.0	282,800	292,800
135	392.0	118.8	371.7	73.3	267,300	288,200
140	390.2	123.5	370.1	72.5	253,000	283,500
145	388.4	128.3	368.5	71.7	239,600	278,900
150	386.5	133.0	366.9	71.0	227,200	274,400
155	384.6	137.8	365.1	70.2	215,600	270,000
160	382.5	142.5	363.3	69.5	204,800	265,800
165	380.4	147.2	361.4	68.7	194,600	261,600
170	378.2	152.0	359.5	67.9	185,100	257,600
175	375.9	156.8	357.4	67.1	176,100	253,700
180	373.6	161.5	355.3	66.3	167,600	250,000
185	371.1	166.3	353.1	65.5	159,600	246,400
190	368.6	171.0	350.9	64.8	152,000	242,900
195	366.0	175.7	348.5	64.0	144,900	239,600
200	363.2	180.5	346.1	63.1	138,000	236,400
205	360.4	185.3	343.5	62.3	131,600	233,300
210	357.5	190.0	340.9	61.5	125,400	230,400
215	354.5	194.8	338.2	60.7	119,500	222,800
220	351.4	199.5	335.4	59.8	113,900	215,300
225	348.2	204.3	332.5	59.0	108,600	208,100
230	344.9	209.1	329.5	58.1	103,400	201,200
235	341.5	213.9	326.4	57.3	98,500	194,700
240	338.0	218.6	323.2	56.4	93,800	188,400
250	330.6	228.2	316.4	54.6	85,000	176,700
260	322.7	237.8	309.2	52.8	76,900	165,900
270	314.2	247.4	301.5	51.0	69,300	155,900
280	305.2	256.9	293.3	49.1	62,300	146,600
290	295.6	266.5	284.4	47.1	55,700	138,000
300	285.2	276.2	274.9	45.0	49,600	130,000
320	262.1	295.5	253.6	40.7	38,400	115,500
340	234.8	314.8	228.4	35.9	28,500	102,700
360						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

	ft	ft	ft	ft	lb	lb
52						
53						
54						
55						
56						
57	408.8	42.9	387.3	85.0	244,000	244,000
58	408.6	43.9	387.2	84.8	244,000	244,000
59	408.5	44.8	387.1	84.7	244,000	244,000
60	408.4	45.8	387.0	84.6	244,000	244,000
61	408.2	46.7	386.9	84.4	244,000	244,000
65	407.7	50.5	386.4	83.8	244,000	244,000
70	406.9	55.2	385.8	83.1	244,000	244,000
75	406.0	59.9	385.1	82.4	244,000	244,000
80	405.1	64.7	384.4	81.7	244,000	244,000
85	404.1	69.4	383.6	80.9	244,000	244,000
90	403.1	74.2	382.8	80.2	244,000	244,000
95	401.9	78.9	381.9	79.5	244,000	244,000
100	400.8	83.6	380.9	78.8	244,000	244,000
105	399.5	88.4	379.9	78.0	244,000	244,000
110	398.2	93.2	378.7	77.3	244,000	244,000
115	396.8	97.9	377.6	76.5	244,000	244,000
120	395.4	102.7	376.3	75.8	244,000	244,000
125	393.8	107.4	375.1	75.1	244,000	244,000
130	392.2	112.2	373.7	74.3	244,000	244,000
135	390.6	116.9	372.2	73.6	244,000	244,000
140	388.8	121.7	370.7	72.8	244,000	244,000
145	387.0	126.5	369.1	72.0	241,300	244,000
150	385.1	131.2	367.5	71.3	228,800	244,000
155	383.1	136.0	365.8	70.5	217,200	244,000
160	381.1	140.8	364.0	69.7	206,200	244,000
165	378.9	145.5	362.1	69.0	196,000	244,000
170	376.7	150.3	360.2	68.2	186,400	244,000
175	374.4	155.1	358.2	67.4	177,400	242,300
180	372.1	159.8	356.1	66.6	168,800	239,900
185	369.6	164.7	353.9	65.8	160,800	237,700
190	367.1	169.4	351.6	65.0	153,100	235,400
195	364.4	174.2	349.3	64.2	145,900	233,300
200	361.7	179.0	346.8	63.4	139,000	231,200
205	358.9	183.8	344.3	62.6	132,500	228,500
210	355.9	188.6	341.7	61.8	126,300	225,800
215	352.9	193.4	339.0	60.9	120,400	223,200
220	349.8	198.2	336.2	60.1	114,700	215,900
225	346.6	203.0	333.3	59.2	109,300	208,700
230	343.3	207.8	330.3	58.4	104,200	201,800
235	339.8	212.6	327.2	57.5	99,300	195,200
240	336.3	217.4	324.0	56.6	94,500	188,900
250	328.9	227.0	317.3	54.9	85,600	177,100
260	320.9	236.7	310.1	53.0	77,400	166,300
270	312.4	246.3	302.3	51.2	69,800	156,200
280	303.4	256.0	294.1	49.3	62,700	147,000
290	293.6	265.7	285.2	47.3	56,100	138,300
300	283.2	275.4	275.7	45.2	49,900	130,300
320						
340						
360						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

	390.4 ft		28°			
	ft	ft	ft	ft	lb	lb
53	421.6	43.7	397.0	85.0	285,900	285,900
54	421.5	44.6	396.9	84.9	285,900	285,900
55	421.3	45.5	396.8	84.7	285,900	285,900
56	421.2	46.5	396.7	84.6	285,900	285,900
57	421.1	47.4	396.6	84.4	285,900	285,900
58	421.0	48.4	396.5	84.3	285,900	285,900
59	420.8	49.3	396.4	84.2	285,900	285,900
60	420.7	50.3	396.3	84.0	285,900	285,900
61	420.6	51.2	396.2	83.9	285,900	285,900
62	420.4	52.2	396.1	83.7	285,900	285,900
65	420.0	55.0	395.7	83.3	285,900	285,900
70	419.2	59.7	395.1	82.6	285,900	285,900
75	418.4	64.4	394.4	81.9	285,900	285,900
80	417.5	69.1	393.6	81.2	285,900	285,900
85	416.6	73.8	392.8	80.5	285,900	285,900
90	415.6	78.5	391.9	79.8	285,900	285,900
95	414.5	83.2	391.0	79.1	285,900	285,900
100	413.3	87.9	390.0	78.4	285,900	285,900
105	412.1	92.6	388.9	77.7	285,900	285,900
110	410.8	97.4	387.8	77.0	285,900	285,900
115	409.5	102.1	386.6	76.3	285,800	285,800
120	408.1	106.8	385.4	75.5	285,700	285,700
125	406.6	111.5	384.1	74.8	285,600	285,600
130	405.1	116.2	382.7	74.1	282,200	285,500
135	403.4	120.9	381.3	73.4	266,800	280,500
140	401.7	125.6	379.8	72.6	252,500	275,500
145	400.0	130.4	378.2	71.9	239,300	270,600
150	398.2	135.1	376.5	71.2	227,000	265,800
155	396.2	139.8	374.8	70.4	215,400	261,100
160	394.3	144.6	373.0	69.7	204,700	256,600
165	392.2	149.3	371.2	68.9	194,600	252,100
170	390.1	154.0	369.3	68.2	185,100	247,900
175	387.9	158.7	367.3	67.4	176,200	243,800
180	385.6	163.5	365.2	66.7	167,800	239,800
185	383.2	168.2	363.0	65.9	159,800	236,000
190	380.8	172.9	360.8	65.1	152,300	232,300
195	378.2	177.7	358.5	64.3	145,200	228,600
200	375.6	182.4	356.1	63.6	138,400	225,200
205	372.9	187.1	353.6	62.8	132,000	221,900
210	370.1	191.9	351.1	62.0	125,800	218,700
215	367.2	196.6	348.4	61.2	120,000	215,700
220	364.2	201.3	345.7	60.4	114,500	212,700
225	361.1	206.1	342.9	59.6	109,100	208,500
230	357.9	210.8	340.0	58.7	104,100	201,700
235	354.6	215.5	337.0	57.9	99,200	195,200
240	351.2	220.3	333.9	57.1	94,500	188,900
250	344.1	229.8	327.3	55.4	85,800	177,200
260	336.6	239.3	320.4	53.7	77,700	166,500
270	328.5	248.8	313.0	51.9	70,200	156,600
280	319.9	258.3	305.0	50.0	63,300	147,400
290	310.7	267.8	296.6	48.2	56,800	138,800
300	300.9	277.4	287.6	46.2	50,700	130,900
320	279.1	296.5	267.4	42.1	39,700	116,500
340	253.7	315.7	243.9	37.7	29,900	103,800
360	223.5	334.9	215.8	32.7	21,100	92,500

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

	ft	ft	ft	ft	lb	lb
53						
54						
55						
56	420.2	44.3	397.0	84.9	283,200	283,200
57	420.1	45.2	396.9	84.8	283,200	283,200
58	419.9	46.2	396.8	84.6	283,200	283,200
59	419.8	47.1	396.7	84.5	283,200	283,200
60	419.7	48.0	396.6	84.4	283,200	283,200
61	419.5	49.0	396.5	84.2	283,200	283,200
62	419.4	49.9	396.3	84.1	283,200	283,200
65	419.0	52.8	396.0	83.7	283,200	283,200
70	418.2	57.5	395.4	83.0	283,200	283,200
75	417.4	62.2	394.7	82.3	283,200	283,200
80	416.5	66.9	394.0	81.5	283,200	283,200
85	415.5	71.6	393.2	80.8	283,200	283,200
90	414.5	76.4	392.3	80.1	283,200	283,200
95	413.4	81.1	391.4	79.4	283,200	283,200
100	412.3	85.8	390.5	78.7	283,200	283,200
105	411.1	90.5	389.4	78.0	283,200	283,200
110	409.8	95.3	388.3	77.3	283,200	283,200
115	408.4	100.0	387.2	76.6	283,200	283,200
120	407.0	104.7	385.9	75.8	283,200	283,200
125	405.5	109.5	384.6	75.1	280,300	280,300
130	404.0	114.2	383.3	74.4	275,500	275,500
135	402.4	119.0	381.9	73.7	268,700	270,700
140	400.7	123.7	380.4	72.9	254,300	266,100
145	398.9	128.4	378.8	72.2	241,000	261,500
150	397.1	133.2	377.2	71.5	228,600	257,200
155	395.2	137.9	375.5	70.7	217,000	252,800
160	393.2	142.7	373.8	70.0	206,200	248,600
165	391.1	147.4	371.9	69.2	196,000	244,500
170	389.0	152.2	370.0	68.5	186,500	240,600
175	386.8	156.9	368.0	67.7	177,500	236,800
180	384.5	161.7	366.0	66.9	169,000	233,100
185	382.1	166.4	363.8	66.2	161,000	229,500
190	379.6	171.2	361.6	65.4	153,500	226,000
195	377.1	176.0	359.3	64.6	146,300	222,700
200	374.4	180.7	357.0	63.8	139,500	219,600
205	371.7	185.5	354.5	63.1	133,000	216,500
210	368.9	190.2	352.0	62.3	126,800	213,500
215	366.0	195.0	349.3	61.5	121,000	210,700
220	363.0	199.8	346.6	60.6	115,400	208,000
225	359.9	204.5	343.8	59.8	110,000	205,400
230	356.7	209.3	340.9	59.0	104,900	202,300
235	353.4	214.1	337.9	58.2	100,000	199,800
240	350.0	218.8	334.8	57.3	95,300	189,500
250	342.9	228.4	328.3	55.6	86,500	177,800
260	335.3	238.0	321.4	53.9	78,400	167,000
270	327.2	247.6	314.0	52.1	70,800	157,000
280	318.5	257.2	306.1	50.3	63,800	147,800
290	309.3	266.7	297.6	48.4	57,300	139,200
300	299.4	276.4	288.5	46.4	51,200	131,200
320	277.5	295.7	268.3	42.3	40,100	116,700
340	252.0	315.0	244.7	37.8	30,200	104,000
360						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

	390.4 ft		41°			
	ft	ft	ft	ft	lb	lb
53						
54						
55						
56						
57						
58	418.6	43.9	397.0	85.0	244,000	244,000
59	418.4	44.9	396.9	84.8	244,000	244,000
60	418.3	45.8	396.8	84.7	244,000	244,000
61	418.2	46.8	396.7	84.5	244,000	244,000
62	418.0	47.7	396.6	84.4	244,000	244,000
65	417.6	50.5	396.3	84.0	244,000	244,000
70	416.8	55.3	395.7	83.3	244,000	244,000
75	416.0	60.0	395.0	82.6	244,000	244,000
80	415.1	64.8	394.3	81.9	244,000	244,000
85	414.1	69.5	393.6	81.2	244,000	244,000
90	413.1	74.2	392.7	80.5	244,000	244,000
95	412.0	79.0	391.8	79.7	244,000	244,000
100	410.9	83.7	390.9	79.0	244,000	244,000
105	409.7	88.5	389.9	78.3	244,000	244,000
110	408.4	93.2	388.8	77.6	244,000	244,000
115	407.0	98.0	387.7	76.9	244,000	244,000
120	405.6	102.8	386.4	76.1	244,000	244,000
125	404.1	107.5	385.2	75.4	244,000	244,000
130	402.6	112.3	383.9	74.7	244,000	244,000
135	400.9	117.0	382.5	74.0	244,000	244,000
140	399.2	121.8	381.0	73.2	244,000	244,000
145	397.5	126.6	379.4	72.5	242,700	244,000
150	395.6	131.4	377.8	71.7	230,200	244,000
155	393.7	136.1	376.2	71.0	218,500	244,000
160	391.7	140.9	374.4	70.3	207,600	242,300
165	389.6	145.7	372.6	69.5	197,400	238,600
170	387.5	150.4	370.7	68.7	187,800	234,900
175	385.3	155.2	368.8	68.0	178,800	231,300
180	383.0	160.0	366.7	67.2	170,200	227,900
185	380.6	164.8	364.6	66.4	162,200	224,500
190	378.1	169.6	362.4	65.7	154,600	221,300
195	375.5	174.4	360.1	64.9	147,300	218,200
200	372.9	179.2	357.7	64.1	140,500	215,200
205	370.2	184.0	355.3	63.3	134,000	212,400
210	367.3	188.8	352.8	62.5	127,800	209,600
215	364.4	193.5	350.2	61.7	121,800	206,900
220	361.4	198.4	347.4	60.9	116,200	204,400
225	358.3	203.2	344.6	60.1	110,800	202,000
230	355.1	207.9	341.8	59.2	105,700	199,700
235	351.8	212.8	338.7	58.4	100,700	196,300
240	348.3	217.6	335.7	57.6	96,000	190,000
250	341.2	227.2	329.2	55.9	87,100	178,300
260	333.5	236.8	322.2	54.1	78,900	167,400
270	325.4	246.5	314.8	52.3	71,300	157,400
280	316.7	256.2	306.9	50.5	64,300	148,100
290	307.4	265.9	298.4	48.6	57,700	139,500
300	297.5	275.6	289.3	46.6	51,500	131,500
320	275.4	295.1	269.0	42.5	40,300	116,900
340						
360						

MLC650 VPC-MAX S-3

ASME B30.5



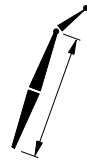
B80



881,800 lb



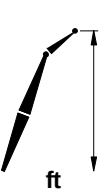
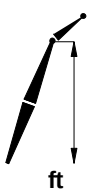
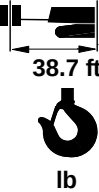
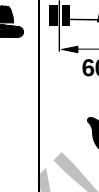
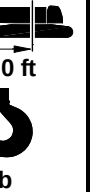
360°



400.3 ft



28°

								
	ft	ft	ft	ft	°	lb	lb	lb
54	431.4	44.7	406.9	85.0	267,900	267,900		
55	431.2	45.6	406.8	84.8	267,900	267,900		
56	431.1	46.6	406.7	84.7	267,900	267,900		
57	431.0	47.5	406.6	84.6	267,900	267,900		
58	430.9	48.5	406.5	84.4	267,900	267,900		
59	430.8	49.4	406.4	84.3	267,900	267,900		
60	430.6	50.3	406.3	84.2	267,900	267,900		
61	430.5	51.3	406.2	84.0	267,900	267,900		
62	430.4	52.2	406.0	83.9	267,900	267,900		
63	430.2	53.2	405.9	83.8	267,900	267,900		
65	429.9	55.0	405.7	83.5	267,900	267,900		
70	429.2	59.8	405.1	82.8	267,900	267,900		
75	428.4	64.5	404.4	82.1	267,900	267,900		
80	427.5	69.2	403.6	81.4	267,900	267,900		
85	426.6	73.9	402.9	80.7	267,800	267,800		
90	425.6	78.6	402.0	80.1	267,700	267,700		
95	424.5	83.3	401.1	79.4	267,700	267,700		
100	423.4	88.1	400.1	78.7	267,600	267,600		
105	422.2	92.8	399.1	78.0	267,500	267,500		
110	421.0	97.5	398.0	77.3	267,400	267,400		
115	419.7	102.2	396.8	76.6	267,300	267,300		
120	418.3	107.0	395.6	75.9	267,200	267,200		
125	416.9	111.7	394.3	75.2	267,000	267,000		
130	415.4	116.4	393.0	74.5	266,900	266,900		
135	413.8	121.1	391.6	73.8	262,800	262,800		
140	412.1	125.8	390.1	73.1	250,500	257,900		
145	410.4	130.6	388.6	72.3	237,200	253,100		
150	408.6	135.3	386.9	71.6	224,900	248,500		
155	406.8	140.0	385.3	70.9	213,400	243,900		
160	404.9	144.7	383.5	70.2	202,600	239,500		
165	402.9	149.5	381.7	69.4	192,500	235,200		
170	400.8	154.2	379.9	68.7	183,000	231,000		
175	398.6	159.0	377.9	68.0	174,100	227,000		
180	396.4	163.7	375.9	67.2	165,700	223,200		
185	394.1	168.4	373.8	66.5	157,700	219,400		
190	391.7	173.2	371.6	65.7	150,200	215,800		
195	389.3	177.9	369.4	65.0	143,000	212,300		
200	386.7	182.6	367.1	64.2	136,300	208,900		
205	384.1	187.4	364.7	63.5	129,800	205,700		
210	381.4	192.1	362.2	62.7	123,700	202,600		
215	378.5	196.9	359.6	61.9	117,900	199,600		
220	375.7	201.6	357.0	61.1	112,300	196,700		
225	372.7	206.3	354.3	60.4	107,000	193,900		
230	369.6	211.1	351.4	59.6	101,900	191,300		
240	363.1	220.6	345.5	58.0	92,400	186,300		
250	356.3	230.1	339.2	56.3	83,700	175,700		
260	349.0	239.6	332.5	54.6	75,600	164,900		
270	341.2	249.1	325.3	52.9	68,100	155,000		
280	332.9	258.6	317.7	51.2	61,100	145,800		
290	324.1	268.2	309.6	49.4	54,700	137,200		
300	314.8	277.8	300.9	47.5	48,600	129,300		
320	294.0	296.8	281.7	43.6	37,600	114,900		
340	270.1	316.0	259.6	39.4	27,800	102,200		
360	242.0	335.2	233.5	34.8	19,100	90,900		
380	208.1	354.5	201.8	29.4		80,800		

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

400.3 ft 35°						
ft	ft	ft	ft	ft	ft	ft
ft	ft	ft	ft	ft	lb	lb
54						
55						
56						
57	430.0	45.2	406.8	84.9	265,600	265,600
58	429.9	46.2	406.7	84.8	265,600	265,600
59	429.7	47.1	406.6	84.6	265,600	265,600
60	429.6	48.0	406.5	84.5	265,600	265,600
61	429.5	49.0	406.4	84.4	265,600	265,600
62	429.3	50.0	406.3	84.2	265,600	265,600
63	429.2	50.9	406.2	84.1	265,600	265,600
65	428.9	52.8	406.0	83.8	265,600	265,600
70	428.2	57.5	405.4	83.1	265,600	265,600
75	427.4	62.3	404.7	82.4	265,600	265,600
80	426.5	67.0	404.0	81.7	265,600	265,600
85	425.5	71.8	403.2	81.1	265,600	265,600
90	424.6	76.5	402.4	80.4	265,600	265,600
95	423.5	81.2	401.5	79.7	265,600	265,600
100	422.4	85.9	400.6	79.0	265,600	265,600
105	421.2	90.7	399.5	78.3	265,600	265,600
110	419.9	95.4	398.5	77.6	265,600	265,600
115	418.6	100.2	397.3	76.9	265,600	265,600
120	417.3	104.9	396.1	76.2	265,500	265,500
125	415.8	109.6	394.9	75.5	263,700	263,700
130	414.3	114.3	393.6	74.8	258,900	258,900
135	412.7	119.1	392.2	74.1	254,300	254,300
140	411.1	123.9	390.7	73.3	249,800	249,800
145	409.3	128.6	389.2	72.6	239,000	245,300
150	407.6	133.3	387.6	71.9	226,600	240,900
155	405.7	138.1	386.0	71.2	215,000	236,700
160	403.8	142.9	384.3	70.5	204,200	232,600
165	401.8	147.6	382.5	69.7	194,000	228,600
170	399.7	152.3	380.6	69.0	184,400	224,700
175	397.5	157.1	378.7	68.3	175,500	221,000
180	395.3	161.9	376.7	67.5	167,000	217,300
185	393.0	166.6	374.6	66.8	159,000	213,800
190	390.6	171.4	372.5	66.0	151,400	210,400
195	388.1	176.2	370.2	65.3	144,200	207,200
200	385.6	180.9	367.9	64.5	137,400	204,100
205	382.9	185.7	365.5	63.7	130,900	201,000
210	380.2	190.4	363.1	63.0	124,800	198,100
215	377.4	195.2	360.5	62.2	118,900	195,300
220	374.5	200.0	357.9	61.4	113,300	192,600
225	371.5	204.8	355.2	60.6	107,900	190,000
230	368.4	209.6	352.4	59.8	102,800	187,500
240	361.9	219.1	346.5	58.2	93,200	182,900
250	355.0	228.7	340.2	56.6	84,400	176,200
260	347.7	238.3	333.5	54.9	76,300	165,400
270	339.9	247.9	326.3	53.2	68,700	155,500
280	331.6	257.5	318.7	51.4	61,700	146,200
290	322.8	267.0	310.6	49.6	55,200	137,600
300	313.3	276.7	301.9	47.7	49,100	129,600
320	292.5	295.9	282.7	43.8	38,000	115,200
340	268.4	315.3	260.4	39.6	28,100	102,400
360	240.2	334.7	234.2	34.9	19,300	91,100
380						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

	ft	ft	ft	ft	lb	lb
54						
55						
56						
57						
58						
59	428.4	44.9	406.9	85.0	244,000	244,000
60	428.2	45.8	406.8	84.8	244,000	244,000
61	428.1	46.8	406.7	84.7	244,000	244,000
62	428.0	47.8	406.6	84.5	244,000	244,000
63	427.8	48.7	406.5	84.4	244,000	244,000
65	427.5	50.6	406.2	84.1	244,000	244,000
70	426.8	55.3	405.7	83.4	244,000	244,000
75	426.0	60.1	405.0	82.8	244,000	244,000
80	425.1	64.8	404.3	82.1	244,000	244,000
85	424.2	69.6	403.6	81.4	244,000	244,000
90	423.2	74.4	402.8	80.7	244,000	244,000
95	422.1	79.1	401.9	80.0	244,000	244,000
100	421.0	83.9	401.0	79.3	244,000	244,000
105	419.8	88.6	400.0	78.6	244,000	244,000
110	418.5	93.4	398.9	77.9	244,000	244,000
115	417.2	98.1	397.8	77.2	244,000	244,000
120	415.8	102.9	396.6	76.5	244,000	244,000
125	414.4	107.6	395.4	75.8	244,000	244,000
130	412.9	112.4	394.1	75.1	244,000	244,000
135	411.3	117.2	392.7	74.3	244,000	244,000
140	409.6	122.0	391.3	73.6	243,300	243,300
145	407.9	126.7	389.8	72.9	239,100	239,100
150	406.1	131.5	388.2	72.2	228,200	235,000
155	404.2	136.3	386.6	71.5	216,600	231,000
160	402.3	141.1	384.9	70.7	205,600	227,200
165	400.3	145.9	383.1	70.0	195,400	223,400
170	398.2	150.6	381.3	69.3	185,800	219,800
175	396.0	155.4	379.4	68.5	176,700	216,200
180	393.8	160.2	377.4	67.8	168,200	212,800
185	391.5	165.0	375.3	67.0	160,100	209,500
190	389.1	169.8	373.2	66.3	152,500	206,300
195	386.6	174.6	371.0	65.5	145,300	203,200
200	384.0	179.4	368.7	64.8	138,400	200,200
205	381.4	184.1	366.3	64.0	131,900	197,400
210	378.6	189.0	363.9	63.2	125,700	194,700
215	375.8	193.8	361.3	62.4	119,800	192,000
220	372.9	198.6	358.7	61.6	114,100	189,500
225	369.9	203.4	356.0	60.9	108,800	187,000
230	366.8	208.2	353.2	60.1	103,600	184,700
240	360.3	217.8	347.3	58.4	93,900	180,300
250	353.3	227.4	341.0	56.8	85,100	176,300
260	346.0	237.1	334.3	55.1	76,900	165,900
270	338.1	246.8	327.2	53.4	69,300	155,900
280	329.8	256.4	319.5	51.6	62,200	146,600
290	320.9	266.1	311.4	49.8	55,600	138,000
300	311.4	275.8	302.7	47.9	49,500	129,900
320	290.4	295.3	283.4	44.0	38,300	115,400
340						
360						
380						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

410.1 ft					28°	
ft	ft	ft	ft	ft	lb	lb
55	441.2	45.7	416.6	85.0	251,400	251,400
56	441.0	46.7	416.5	84.8	251,400	251,400
57	440.9	47.6	416.4	84.7	251,400	251,400
58	440.8	48.5	416.3	84.6	251,400	251,400
59	440.7	49.4	416.2	84.4	251,400	251,400
60	440.5	50.4	416.1	84.3	251,400	251,400
61	440.4	51.3	416.0	84.2	251,400	251,400
62	440.3	52.2	415.9	84.0	251,400	251,400
63	440.2	53.2	415.8	83.9	251,400	251,400
64	440.0	54.2	415.7	83.8	251,400	251,400
65	439.9	55.1	415.6	83.6	251,400	251,400
70	439.1	59.8	415.0	83.0	251,300	251,300
75	438.4	64.5	414.3	82.3	251,200	251,200
80	437.5	69.3	413.6	81.6	251,200	251,200
85	436.6	74.0	412.8	81.0	251,100	251,100
90	435.6	78.7	411.9	80.3	251,000	251,000
95	434.6	83.4	411.0	79.6	250,900	250,900
100	433.5	88.1	410.1	78.9	250,800	250,800
105	432.4	92.9	409.1	78.3	250,700	250,700
110	431.1	97.6	408.0	77.6	250,600	250,600
115	429.9	102.3	406.9	76.9	250,400	250,400
120	428.5	107.1	405.7	76.2	250,300	250,300
125	427.1	111.8	404.4	75.5	250,200	250,200
130	425.6	116.5	403.1	74.8	250,000	250,000
135	424.1	121.2	401.8	74.1	246,800	246,800
140	422.5	125.9	400.3	73.5	242,100	242,100
145	420.8	130.7	398.8	72.8	236,600	237,500
150	419.1	135.4	397.3	72.1	224,300	233,000
155	417.3	140.2	395.6	71.4	212,800	228,600
160	415.4	144.9	393.9	70.6	202,000	224,300
165	413.5	149.7	392.2	69.9	191,900	220,200
170	411.4	154.4	390.3	69.2	182,400	216,200
175	409.4	159.1	388.5	68.5	173,500	212,300
180	407.2	163.8	386.5	67.8	165,100	208,500
185	404.9	168.6	384.4	67.1	157,100	204,900
190	402.6	173.4	382.3	66.3	149,600	201,400
195	400.2	178.1	380.1	65.6	142,400	198,000
200	397.8	182.8	377.9	64.9	135,700	194,700
205	395.2	187.6	375.6	64.1	129,200	191,500
210	392.6	192.3	373.2	63.4	123,100	188,500
215	389.8	197.1	370.6	62.6	117,300	185,500
220	387.0	201.8	368.1	61.9	111,700	182,700
225	384.1	206.6	365.4	61.1	106,400	180,000
230	381.1	211.3	362.7	60.3	101,300	177,500
240	374.9	220.8	357.0	58.8	91,800	172,600
250	368.2	230.3	350.8	57.2	83,100	168,100
260	361.2	239.8	344.4	55.6	75,000	164,000
270	353.7	249.4	337.5	53.9	67,500	154,500
280	345.8	258.9	330.1	52.2	60,600	145,300
290	337.3	268.4	322.3	50.5	54,100	136,800
300	328.3	278.0	314.0	48.7	48,000	128,900
320	308.5	297.1	295.7	45.0	37,000	114,500
340	285.9	316.3	274.6	41.0	27,300	101,800
360	259.6	335.5	250.2	36.7	18,600	90,500
380	228.4	354.8	221.1	31.8		80,400

MLC650 VPC-MAX S-3

ASME B30.5



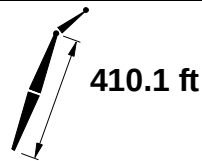
B80



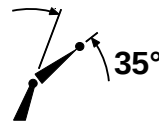
881,800 lb



360°



410.1 ft



35°

	ft	ft	ft	ft	°	38.7 ft lb	60.0 ft lb
55							
56							
57		439.9	45.3	416.7	85.0	249,400	249,400
58		439.8	46.2	416.6	84.9	249,400	249,400
59		439.6	47.1	416.5	84.8	249,400	249,400
60		439.5	48.1	416.4	84.6	249,400	249,400
61		439.4	49.1	416.3	84.5	249,400	249,400
62		439.3	50.1	416.2	84.3	249,400	249,400
63		439.1	51.0	416.1	84.2	249,400	249,400
64		439.0	51.9	416.0	84.1	249,400	249,400
65		438.8	52.9	415.8	83.9	249,400	249,400
70		438.1	57.6	415.3	83.3	249,400	249,400
75		437.3	62.3	414.6	82.6	249,400	249,400
80		436.5	67.1	413.9	81.9	249,300	249,300
85		435.6	71.8	413.1	81.3	249,300	249,300
90		434.6	76.5	412.3	80.6	249,200	249,200
95		433.6	81.3	411.5	79.9	249,200	249,200
100		432.5	86.0	410.5	79.2	249,100	249,100
105		431.3	90.8	409.5	78.6	249,000	249,000
110		430.1	95.5	408.5	77.9	249,000	249,000
115		428.8	100.2	407.4	77.2	248,900	248,900
120		427.5	105.0	406.2	76.5	248,800	248,800
125		426.1	109.7	405.0	75.8	248,600	248,600
130		424.6	114.5	403.7	75.1	244,000	244,000
135		423.0	119.3	402.3	74.4	239,500	239,500
140		421.4	124.0	400.9	73.7	235,000	235,000
145		419.8	128.7	399.5	73.0	230,700	230,700
150		418.0	133.5	397.9	72.3	226,000	226,500
155		416.2	138.3	396.3	71.6	214,400	222,400
160		414.3	143.0	394.6	70.9	203,600	218,300
165		412.4	147.7	392.9	70.2	193,400	214,500
170		410.3	152.5	391.1	69.5	183,900	210,700
175		408.2	157.3	389.2	68.8	174,900	207,000
180		406.1	162.1	387.2	68.1	166,400	203,500
185		403.8	166.8	385.2	67.3	158,400	200,000
190		401.5	171.5	383.1	66.6	150,800	196,700
195		399.1	176.4	381.0	65.9	143,600	193,500
200		396.6	181.1	378.7	65.1	136,800	190,500
205		394.0	185.9	376.4	64.4	130,300	187,400
210		391.4	190.6	374.0	63.6	124,200	184,600
215		388.7	195.4	371.5	62.9	118,300	181,800
220		385.8	200.2	369.0	62.1	112,700	179,200
225		382.9	205.0	366.3	61.4	107,300	176,600
230		379.9	209.7	363.6	60.6	102,200	174,100
240		373.7	219.3	357.9	59.0	92,600	169,500
250		367.0	228.9	351.8	57.4	83,800	165,300
260		359.9	238.5	345.3	55.8	75,700	161,400
270		352.4	248.0	338.5	54.2	68,200	155,000
280		344.4	257.7	331.1	52.5	61,200	145,800
290		335.9	267.2	323.3	50.7	54,600	137,200
300		326.9	276.9	315.0	48.9	48,500	129,200
320		307.0	296.2	296.6	45.2	37,400	114,800
340		284.3	315.5	275.6	41.2	27,600	102,000
360		257.8	334.9	251.0	36.8	18,800	90,700
380							

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

	ft	ft	ft	ft	lb	lb
55						
56						
57						
58						
59						
60	438.1	45.9	416.6	84.9	244,000	244,000
61	438.0	46.9	416.5	84.8	244,000	244,000
62	437.9	47.8	416.4	84.7	244,000	244,000
63	437.7	48.7	416.3	84.5	244,000	244,000
64	437.6	49.7	416.2	84.4	244,000	244,000
65	437.5	50.6	416.1	84.3	244,000	244,000
70	436.7	55.4	415.5	83.6	244,000	244,000
75	435.9	60.2	414.9	82.9	244,000	244,000
80	435.1	64.9	414.2	82.2	244,000	244,000
85	434.2	69.6	413.5	81.6	244,000	244,000
90	433.2	74.4	412.7	80.9	244,000	244,000
95	432.2	79.2	411.9	80.2	244,000	244,000
100	431.1	83.9	410.9	79.5	244,000	244,000
105	429.9	88.7	410.0	78.9	244,000	244,000
110	428.7	93.4	409.0	78.2	244,000	244,000
115	427.4	98.2	407.9	77.5	244,000	244,000
120	426.0	103.0	406.7	76.8	244,000	244,000
125	424.6	107.8	405.5	76.1	242,200	242,200
130	423.2	112.5	404.2	75.4	237,900	237,900
135	421.6	117.3	402.9	74.7	233,600	233,600
140	420.0	122.1	401.5	74.0	229,400	229,400
145	418.3	126.8	400.1	73.3	225,300	225,300
150	416.6	131.6	398.5	72.6	221,300	221,300
155	414.7	136.4	396.9	71.9	216,000	217,400
160	412.9	141.2	395.3	71.2	205,100	213,600
165	410.9	146.0	393.5	70.5	194,900	209,900
170	408.9	150.7	391.8	69.8	185,200	206,300
175	406.8	155.5	389.9	69.1	176,200	202,900
180	404.6	160.3	387.9	68.3	167,600	199,500
185	402.3	165.1	385.9	67.6	159,600	196,300
190	400.0	169.9	383.9	66.9	152,000	193,100
195	397.6	174.7	381.7	66.1	144,700	190,100
200	395.1	179.5	379.5	65.4	137,900	187,200
205	392.5	184.3	377.2	64.6	131,300	184,300
210	389.8	189.1	374.8	63.9	125,100	181,600
215	387.1	193.9	372.3	63.1	119,200	178,900
220	384.3	198.7	369.8	62.4	113,600	176,400
225	381.4	203.5	367.1	61.6	108,200	174,000
230	378.3	208.3	364.4	60.8	103,000	171,700
240	372.0	218.0	358.7	59.3	93,400	167,300
250	365.3	227.6	352.6	57.7	84,500	163,300
260	358.2	237.3	346.2	56.0	76,300	159,600
270	350.7	246.9	339.3	54.4	68,700	155,500
280	342.7	256.6	331.9	52.7	61,700	146,200
290	334.1	266.3	324.1	50.9	55,100	137,600
300	325.0	276.0	315.8	49.1	48,900	129,500
320	305.0	295.4	297.4	45.4	37,800	115,000
340	282.1	315.0	276.2	41.3	27,800	102,200
360						
380						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

ft	ft	ft	ft	°	lb	lb
56	450.9	46.7	426.4	84.9	243,700	243,700
57	450.8	47.6	426.3	84.8	243,700	243,700
58	450.7	48.6	426.2	84.7	243,700	243,700
59	450.6	49.5	426.1	84.6	243,700	243,700
60	450.5	50.4	426.0	84.4	243,700	243,700
61	450.3	51.4	425.9	84.3	243,700	243,700
62	450.2	52.3	425.8	84.2	243,700	243,700
63	450.1	53.3	425.7	84.0	243,700	243,700
64	449.9	54.2	425.5	83.9	243,700	243,700
65	449.8	55.2	425.4	83.8	243,700	243,700
70	449.1	59.9	424.8	83.1	243,700	243,700
75	448.3	64.6	424.2	82.5	243,600	243,600
80	447.5	69.3	423.5	81.8	243,500	243,500
85	446.6	74.1	422.7	81.2	243,500	243,500
90	445.7	78.8	421.9	80.5	243,400	243,400
95	444.7	83.5	421.0	79.8	243,300	243,300
100	443.6	88.2	420.1	79.2	243,200	243,200
105	442.5	93.0	419.1	78.5	243,100	243,100
110	441.3	97.7	418.0	77.9	242,900	242,900
115	440.0	102.4	416.9	77.2	242,700	242,700
120	438.7	107.2	415.8	76.5	242,600	242,600
125	437.3	111.9	414.6	75.9	242,500	242,500
130	435.9	116.6	413.3	75.2	242,300	242,300
135	434.4	121.4	411.9	74.5	242,100	242,100
140	432.8	126.1	410.5	73.8	241,900	241,900
145	431.2	130.8	409.1	73.2	230,400	241,700
150	429.5	135.6	407.5	72.5	218,000	241,500
155	427.8	140.3	405.9	71.8	206,400	241,300
160	425.9	145.1	404.3	71.1	195,600	241,100
165	424.0	149.8	402.6	70.4	185,500	241,000
170	422.1	154.5	400.8	69.7	176,000	240,700
175	420.0	159.3	398.9	69.0	167,000	240,500
180	417.9	164.0	397.0	68.3	158,500	240,300
185	415.7	168.7	395.1	67.6	150,600	239,300
190	413.5	173.5	393.0	66.9	143,000	236,000
195	411.1	178.3	390.8	66.2	135,900	232,800
200	408.7	183.0	388.7	65.5	129,100	229,600
205	406.2	187.7	386.4	64.8	122,600	226,500
210	403.7	192.5	384.0	64.0	116,500	223,500
215	401.0	197.3	381.6	63.3	110,600	216,100
220	398.3	202.1	379.1	62.6	105,000	208,600
225	395.5	206.8	376.5	61.8	99,700	201,400
230	392.6	211.5	373.9	61.1	94,600	194,600
240	386.5	221.0	368.3	59.6	85,000	181,800
250	380.1	230.6	362.4	58.0	76,300	170,100
260	373.3	240.1	356.1	56.5	68,200	159,300
270	366.0	249.7	349.4	54.9	60,700	149,400
280	358.4	259.1	342.4	53.2	53,700	140,200
290	350.2	268.7	334.8	51.6	47,200	131,600
300	341.6	278.2	326.8	49.9	41,100	123,600
320	322.7	297.4	309.3	46.3	30,100	109,200
340	301.1	316.5	289.2	42.5	20,300	96,500
360	276.3	335.7	266.2	38.4		85,200
380	247.3	355.1	239.1	33.8		75,100
400	212.2	374.4	206.3	28.6		66,000

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

419.9 ft 35°						
	ft	ft	ft	ft	lb	lb
56						
57						
58						
59						
60	449.4	48.2	426.2	84.7	242,200	242,200
61	449.3	49.1	426.1	84.6	242,200	242,200
62	449.2	50.1	426.0	84.5	242,200	242,200
63	449.0	51.0	425.9	84.3	242,200	242,200
64	448.9	52.0	425.8	84.2	242,200	242,200
65	448.8	52.9	425.7	84.1	242,200	242,200
70	448.1	57.6	425.1	83.4	242,200	242,200
75	447.3	62.4	424.5	82.8	242,200	242,200
80	446.5	67.1	423.8	82.1	242,100	242,100
85	445.6	71.9	423.1	81.5	242,100	242,100
90	444.6	76.6	422.3	80.8	242,000	242,000
95	443.6	81.3	421.4	80.1	241,900	241,900
100	442.5	86.1	420.5	79.5	241,800	241,800
105	441.4	90.9	419.5	78.8	241,800	241,800
110	440.2	95.6	418.5	78.2	241,700	241,700
115	439.0	100.3	417.4	77.5	241,600	241,600
120	437.7	105.1	416.3	76.8	241,400	241,400
125	436.3	109.8	415.1	76.1	241,300	241,300
130	434.8	114.6	413.8	75.5	241,200	241,200
135	433.3	119.4	412.5	74.8	241,100	241,100
140	431.8	124.1	411.1	74.1	240,900	240,900
145	430.1	128.9	409.7	73.4	232,300	240,800
150	428.4	133.6	408.2	72.8	219,800	240,600
155	426.7	138.4	406.6	72.1	208,200	240,500
160	424.8	143.2	405.0	71.4	197,300	240,300
165	422.9	147.9	403.3	70.7	187,100	240,200
170	421.0	152.7	401.5	70.0	177,500	240,000
175	418.9	157.5	399.7	69.3	168,500	238,800
180	416.8	162.2	397.8	68.6	160,000	235,600
185	414.6	166.9	395.8	67.9	151,900	232,400
190	412.3	171.7	393.8	67.2	144,300	229,400
195	410.0	176.5	391.7	66.5	137,100	226,400
200	407.6	181.3	389.5	65.7	130,300	223,400
205	405.1	186.0	387.2	65.0	123,800	220,600
210	402.5	190.8	384.9	64.3	117,600	217,800
215	399.9	195.6	382.5	63.6	111,700	215,200
220	397.1	200.4	380.0	62.8	106,100	209,400
225	394.3	205.1	377.4	62.1	100,700	202,200
230	391.4	209.9	374.8	61.3	95,600	195,300
240	385.3	219.5	369.2	59.8	85,900	182,500
250	378.9	229.1	363.3	58.3	77,100	170,700
260	372.0	238.7	357.1	56.7	68,900	159,900
270	364.8	248.3	350.4	55.1	61,400	149,900
280	357.1	257.9	343.3	53.5	54,300	140,600
290	348.9	267.5	335.8	51.8	47,800	132,100
300	340.2	277.1	327.8	50.1	41,700	124,000
320	321.2	296.4	310.2	46.5	30,500	109,600
340	299.5	315.7	290.2	42.7	20,700	96,800
360	274.6	335.1	267.0	38.6		85,500
380						
400						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

419.9 ft 41°						
	ft	ft	ft	ft	lb	lb
56						
57						
58						
59						
60						
61	447.9	46.9	426.3	84.9	241,300	241,300
62	447.8	47.8	426.3	84.8	241,300	241,300
63	447.7	48.8	426.2	84.7	241,300	241,300
64	447.5	49.7	426.1	84.5	241,300	241,300
65	447.4	50.7	426.0	84.4	241,300	241,300
70	446.7	55.4	425.4	83.7	241,300	241,300
75	445.9	60.2	424.8	83.1	241,300	241,300
80	445.1	64.9	424.1	82.4	241,300	241,300
85	444.2	69.7	423.4	81.8	241,300	241,300
90	443.2	74.4	422.6	81.1	241,300	241,300
95	442.2	79.3	421.8	80.4	241,300	241,300
100	441.1	84.0	420.9	79.8	241,300	241,300
105	440.0	88.8	420.0	79.1	241,300	241,300
110	438.8	93.5	419.0	78.4	241,200	241,200
115	437.6	98.3	417.9	77.8	241,200	241,200
120	436.2	103.0	416.8	77.1	241,100	241,100
125	434.9	107.9	415.6	76.4	241,100	241,100
130	433.4	112.6	414.4	75.8	241,000	241,000
135	431.9	117.4	413.1	75.1	240,900	240,900
140	430.3	122.2	411.7	74.4	240,800	240,800
145	428.7	127.0	410.3	73.7	234,100	240,800
150	427.0	131.7	408.8	73.0	221,600	240,700
155	425.2	136.5	407.2	72.3	209,900	240,600
160	423.4	141.3	405.6	71.6	198,900	240,500
165	421.5	146.1	403.9	70.9	188,600	238,600
170	419.5	150.9	402.2	70.2	179,000	235,500
175	417.4	155.7	400.4	69.5	169,900	232,400
180	415.3	160.4	398.5	68.8	161,300	229,400
185	413.1	165.2	396.5	68.1	153,200	226,500
190	410.8	170.1	394.5	67.4	145,600	223,600
195	408.5	174.8	392.4	66.7	138,300	220,900
200	406.1	179.6	390.2	66.0	131,400	218,100
205	403.6	184.5	388.0	65.3	124,900	215,500
210	401.0	189.3	385.7	64.5	118,600	212,900
215	398.3	194.1	383.3	63.8	112,700	210,500
220	395.6	198.9	380.8	63.0	107,000	208,100
225	392.7	203.7	378.2	62.3	101,600	202,900
230	389.8	208.5	375.6	61.6	96,400	196,000
240	383.7	218.1	370.0	60.0	86,700	183,100
250	377.2	227.7	364.2	58.5	77,800	171,300
260	370.4	237.4	357.9	56.9	69,600	160,400
270	363.1	247.1	351.2	55.3	62,000	150,400
280	355.3	256.8	344.2	53.7	54,900	141,100
290	347.1	266.4	336.6	52.0	48,300	132,400
300	338.4	276.1	328.6	50.3	42,100	124,400
320	319.2	295.6	311.0	46.7	30,900	109,800
340	297.4	315.1	290.9	42.8	20,900	97,000
360						
380						
400						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

	429.8 ft		28°			
	ft	ft	ft	ft	lb	lb
57	460.7	47.7	436.2	84.9	233,200	233,200
58	460.6	48.6	436.1	84.8	233,100	233,100
59	460.5	49.5	436.0	84.7	233,100	233,100
60	460.4	50.5	435.9	84.5	233,100	233,100
61	460.3	51.5	435.8	84.4	233,100	233,100
62	460.1	52.4	435.7	84.3	233,100	233,100
63	460.0	53.3	435.6	84.2	233,100	233,100
64	459.9	54.3	435.5	84.0	233,100	233,100
65	459.7	55.3	435.4	83.9	233,100	233,100
70	459.0	59.9	434.8	83.3	233,000	233,000
75	458.3	64.7	434.2	82.6	233,000	233,000
80	457.5	69.4	433.5	82.0	232,800	232,800
85	456.6	74.1	432.7	81.4	232,800	232,800
90	455.7	78.9	431.9	80.7	232,600	232,600
95	454.7	83.6	431.1	80.1	232,500	232,500
100	453.7	88.3	430.2	79.4	232,400	232,400
105	452.6	93.1	429.2	78.8	232,200	232,200
110	451.4	97.8	428.2	78.1	232,100	232,100
115	450.2	102.6	427.1	77.5	232,000	232,000
120	448.9	107.3	425.9	76.8	231,800	231,800
125	447.6	112.1	424.7	76.2	231,600	231,600
130	446.2	116.8	423.5	75.5	231,400	231,400
135	444.7	121.5	422.2	74.9	231,200	231,200
140	443.2	126.3	420.8	74.2	231,000	231,000
145	441.6	131.0	419.4	73.5	230,900	230,900
150	439.9	135.8	417.9	72.9	219,400	230,700
155	438.2	140.5	416.3	72.2	207,800	230,500
160	436.4	145.3	414.7	71.5	197,000	230,200
165	434.6	150.0	413.0	70.9	186,900	230,000
170	432.6	154.8	411.3	70.2	177,400	229,800
175	430.7	159.5	409.5	69.5	168,400	229,600
180	428.6	164.2	407.6	68.8	160,000	226,800
185	426.5	169.0	405.7	68.1	152,000	223,400
190	424.3	173.8	403.7	67.4	144,400	220,100
195	422.0	178.5	401.6	66.7	137,300	216,900
200	419.7	183.3	399.5	66.0	130,500	213,800
205	417.2	188.0	397.3	65.3	124,000	210,800
210	414.7	192.8	395.0	64.6	117,900	207,900
215	412.2	197.5	392.6	63.9	112,100	205,100
220	409.5	202.3	390.2	63.2	106,500	202,400
225	406.8	207.0	387.7	62.5	101,200	199,700
230	404.0	211.8	385.1	61.8	96,100	195,700
235	401.1	216.6	382.4	61.0	91,200	189,100
240	398.1	221.3	379.7	60.3	86,500	182,900
250	391.8	230.8	373.9	58.8	77,700	171,200
260	385.2	240.4	367.8	57.3	69,600	160,400
270	378.2	249.9	361.4	55.8	62,200	150,500
280	370.8	259.5	354.5	54.2	55,200	141,300
290	363.0	269.0	347.2	52.6	48,700	132,700
300	354.7	278.6	339.5	50.9	42,600	124,800
320	336.5	297.7	322.6	47.5	31,600	110,400
340	315.9	316.9	303.5	43.9	21,900	97,700
360	292.4	336.1	281.6	40.0	13,200	86,400
380	265.3	355.3	256.3	35.7		76,400
400	233.0	374.7	226.1	30.9		67,300

MLC650 VPC-MAX S-3

ASME B30.5



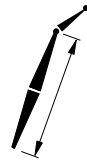
B80



881,800 lb



360°



429.8 ft



35°

	ft	ft	ft	ft	°	38.7 ft lb	60.0 ft lb
57							
58							
59							
60		459.3	48.2	436.2	84.9	231,900	231,900
61		459.2	49.2	436.1	84.7	231,900	231,900
62		459.1	50.1	436.0	84.6	231,800	231,800
63		459.0	51.1	435.9	84.5	231,800	231,800
64		458.8	52.0	435.8	84.3	231,800	231,800
65		458.7	53.0	435.7	84.2	231,800	231,800
70		458.0	57.7	435.1	83.6	231,800	231,800
75		457.2	62.5	434.5	82.9	231,700	231,700
80		456.4	67.2	433.8	82.3	231,600	231,600
85		455.6	71.9	433.1	81.7	231,600	231,600
90		454.6	76.7	432.3	81.0	231,500	231,500
95		453.7	81.4	431.5	80.4	231,400	231,400
100		452.6	86.2	430.6	79.7	231,300	231,300
105		451.5	91.0	429.6	79.1	231,200	231,200
110		450.3	95.7	428.6	78.4	231,000	231,000
115		449.1	100.5	427.6	77.8	230,900	230,900
120		447.8	105.2	426.5	77.1	230,800	230,800
125		446.5	110.0	425.3	76.5	230,600	230,600
130		445.1	114.7	424.0	75.8	230,500	230,500
135		443.6	119.5	422.7	75.1	230,400	230,400
140		442.1	124.3	421.4	74.5	230,200	230,200
145		440.5	129.0	420.0	73.8	230,100	230,100
150		438.8	133.8	418.5	73.1	221,200	230,000
155		437.1	138.5	417.0	72.5	209,600	229,700
160		435.3	143.3	415.4	71.8	198,700	229,600
165		433.5	148.1	413.7	71.1	188,500	229,400
170		431.5	152.9	412.0	70.4	178,900	227,000
175		429.5	157.6	410.2	69.8	169,900	223,700
180		427.5	162.4	408.4	69.1	161,400	220,500
185		425.4	167.1	406.5	68.4	153,400	217,400
190		423.1	171.9	404.5	67.7	145,800	214,300
195		420.9	176.7	402.4	67.0	138,600	211,300
200		418.5	181.5	400.3	66.3	131,700	208,500
205		416.1	186.2	398.1	65.6	125,200	205,600
210		413.6	191.0	395.8	64.9	119,000	202,900
215		411.0	195.8	393.5	64.2	113,100	200,200
220		408.4	200.6	391.0	63.5	107,500	197,700
225		405.6	205.4	388.6	62.7	102,200	195,200
230		402.8	210.2	386.0	62.0	97,000	192,800
235		399.9	214.9	383.3	61.3	92,100	189,900
240		396.9	219.7	380.6	60.5	87,400	183,600
250		390.6	229.3	374.9	59.1	78,600	171,800
260		384.0	238.9	368.8	57.5	70,400	161,000
270		377.0	248.5	362.3	56.0	62,900	151,000
280		369.5	258.1	355.5	54.4	55,900	141,800
290		361.7	267.7	348.2	52.8	49,300	133,200
300		353.3	277.4	340.5	51.1	43,200	125,200
320		335.0	296.6	323.6	47.7	32,100	110,700
340		314.4	315.9	304.5	44.1	22,300	98,000
360		290.8	335.3	282.5	40.2	13,500	86,700
380		263.4	354.8	257.1	35.9		76,500
400							

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

429.8 ft 41°						
	ft	ft	ft	ft	lb	lb
57						
58						
59						
60						
61	457.8	46.9	436.3	85.0	231,200	231,200
62	457.7	47.9	436.2	84.9	231,200	231,200
63	457.6	48.8	436.1	84.8	231,200	231,200
64	457.5	49.8	436.0	84.6	231,200	231,200
65	457.3	50.7	435.9	84.5	231,200	231,200
70	456.6	55.5	435.4	83.9	231,100	231,100
75	455.9	60.2	434.8	83.2	231,100	231,100
80	455.1	65.0	434.1	82.6	231,100	231,100
85	454.2	69.8	433.4	81.9	231,000	231,000
90	453.2	74.6	432.7	81.3	231,000	231,000
95	452.3	79.3	431.9	80.7	231,000	231,000
100	451.2	84.1	431.0	80.0	230,900	230,900
105	450.1	88.8	430.1	79.4	230,800	230,800
110	448.9	93.7	429.1	78.7	230,800	230,800
115	447.7	98.4	428.0	78.0	230,700	230,700
120	446.4	103.2	426.9	77.4	230,600	230,600
125	445.1	107.9	425.8	76.7	230,600	230,600
130	443.7	112.7	424.6	76.1	230,400	230,400
135	442.2	117.6	423.3	75.4	230,300	230,300
140	440.7	122.3	422.0	74.7	230,300	230,300
145	439.1	127.1	420.6	74.1	230,100	230,100
150	437.4	131.9	419.1	73.4	223,000	230,000
155	435.7	136.7	417.6	72.7	211,300	229,900
160	433.9	141.4	416.0	72.1	200,300	227,400
165	432.0	146.2	414.4	71.4	190,000	224,200
170	430.1	151.0	412.7	70.7	180,400	221,100
175	428.1	155.9	410.9	70.0	171,300	218,000
180	426.0	160.6	409.1	69.3	162,700	215,000
185	423.9	165.4	407.2	68.6	154,700	212,100
190	421.7	170.2	405.2	67.9	147,000	209,300
195	419.4	175.1	403.1	67.2	139,700	206,500
200	417.0	179.8	401.0	66.5	132,900	203,800
205	414.6	184.6	398.8	65.8	126,300	201,200
210	412.1	189.4	396.6	65.1	120,100	198,600
215	409.5	194.3	394.2	64.4	114,100	196,100
220	406.8	199.1	391.8	63.7	108,500	193,700
225	404.0	203.9	389.3	63.0	103,100	191,400
230	401.2	208.7	386.8	62.2	97,900	189,100
235	398.3	213.5	384.1	61.5	93,000	187,000
240	395.3	218.3	381.4	60.8	88,200	184,200
250	389.0	228.0	375.7	59.3	79,300	172,400
260	382.3	237.6	369.6	57.7	71,100	161,500
270	375.3	247.3	363.2	56.2	63,500	151,500
280	367.8	257.0	356.3	54.6	56,400	142,200
290	359.9	266.7	349.1	53.0	49,800	133,600
300	351.5	276.4	341.3	51.3	43,700	125,600
320	333.1	295.8	324.4	47.9	32,500	111,000
340	312.3	315.3	305.2	44.2	22,600	98,200
360						
380						
400						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

439.6 ft 28°						
	ft	ft	ft	ft	lb	lb
58	470.5	48.6	446.0	84.9	221,300	221,300
59	470.4	49.6	445.9	84.8	221,300	221,300
60	470.3	50.5	445.8	84.7	221,300	221,300
61	470.2	51.5	445.7	84.5	221,300	221,300
62	470.0	52.4	445.6	84.4	221,200	221,200
63	469.9	53.4	445.5	84.3	221,200	221,200
64	469.8	54.3	445.4	84.2	221,200	221,200
65	469.7	55.2	445.3	84.0	221,200	221,200
66	469.5	56.2	445.1	83.9	221,200	221,200
70	469.0	60.0	444.7	83.4	221,200	221,200
75	468.2	64.7	444.1	82.8	221,000	221,000
80	467.5	69.5	443.4	82.2	221,000	221,000
85	466.6	74.2	442.6	81.5	220,800	220,800
90	465.7	79.0	441.9	80.9	220,700	220,700
95	464.7	83.7	441.0	80.3	220,600	220,600
100	463.7	88.5	440.1	79.6	220,400	220,400
105	462.6	93.2	439.2	79.0	220,300	220,300
110	461.5	97.9	438.2	78.4	220,100	220,100
115	460.3	102.7	437.1	77.7	219,900	219,900
120	459.1	107.4	436.0	77.1	219,700	219,700
125	457.8	112.1	434.8	76.5	219,500	219,500
130	456.4	116.9	433.6	75.8	219,400	219,400
135	455.0	121.7	432.3	75.2	219,100	219,100
140	453.5	126.4	431.0	74.5	218,900	218,900
145	451.9	131.1	429.6	73.9	218,700	218,700
150	450.3	135.9	428.1	73.2	217,300	218,500
155	448.6	140.6	426.6	72.6	205,700	218,300
160	446.9	145.4	425.0	71.9	194,900	218,100
165	445.1	150.2	423.4	71.3	184,800	217,800
170	443.2	154.9	421.7	70.6	175,300	217,700
175	441.2	159.6	419.9	70.0	166,300	215,000
180	439.2	164.4	418.1	69.3	157,800	211,600
185	437.2	169.1	416.2	68.6	149,800	208,400
190	435.0	173.9	414.2	67.9	142,300	205,100
195	432.8	178.6	412.2	67.3	135,100	202,000
200	430.5	183.4	410.2	66.6	128,300	199,000
205	428.2	188.2	408.0	65.9	121,900	196,000
210	425.7	192.9	405.8	65.2	115,700	193,200
215	423.2	197.7	403.4	64.5	109,900	190,400
220	420.7	202.5	401.1	63.8	104,300	187,700
225	418.0	207.2	398.7	63.1	99,000	185,100
230	415.3	212.0	396.1	62.4	93,900	182,600
235	412.4	216.8	393.5	61.7	89,000	180,200
240	409.5	221.5	390.9	61.0	84,300	177,800
250	403.5	231.1	385.3	59.6	75,600	169,600
260	397.1	240.6	379.3	58.1	67,500	158,800
270	390.3	250.1	373.1	56.6	60,000	148,900
280	383.1	259.7	366.5	55.1	53,000	139,700
290	375.5	269.2	359.4	53.5	46,500	131,100
300	367.5	278.8	352.0	51.9	40,500	123,200
320	350.0	298.0	335.7	48.6	29,500	108,800
340	330.3	317.1	317.4	45.2	19,700	96,100
360	308.0	336.4	296.5	41.5		84,800
380	282.4	355.6	272.6	37.4		74,800
400	252.4	374.9	244.6	33.0		65,700

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

	439.6 ft		35°			
	ft	ft	ft	ft	lb	lb
58						
59						
60	469.2	48.2	446.0	85.0	220,300	220,300
61	469.1	49.2	445.9	84.8	220,200	220,200
62	469.0	50.2	445.8	84.7	220,200	220,200
63	468.9	51.1	445.7	84.6	220,200	220,200
64	468.8	52.1	445.6	84.5	220,200	220,200
65	468.6	53.0	445.5	84.3	220,200	220,200
66	468.5	54.0	445.4	84.2	220,200	220,200
70	467.9	57.7	445.0	83.7	220,100	220,100
75	467.2	62.5	444.4	83.1	220,000	220,000
80	466.4	67.3	443.7	82.5	219,900	219,900
85	465.6	72.0	443.0	81.8	219,800	219,800
90	464.7	76.7	442.2	81.2	219,700	219,700
95	463.7	81.6	441.4	80.6	219,600	219,600
100	462.7	86.3	440.5	79.9	219,500	219,500
105	461.6	91.0	439.6	79.3	219,400	219,400
110	460.5	95.8	438.6	78.7	219,200	219,200
115	459.3	100.5	437.6	78.0	219,100	219,100
120	458.0	105.3	436.5	77.4	218,900	218,900
125	456.7	110.0	435.4	76.8	218,700	218,700
130	455.3	114.9	434.1	76.1	218,600	218,600
135	453.9	119.6	432.9	75.5	218,400	218,400
140	452.4	124.4	431.6	74.8	218,200	218,200
145	450.8	129.2	430.2	74.2	218,100	218,100
150	449.2	133.9	428.7	73.5	217,900	217,900
155	447.5	138.6	427.3	72.9	207,500	217,700
160	445.8	143.4	425.7	72.2	196,600	217,600
165	444.0	148.2	424.1	71.5	186,400	215,800
170	442.1	153.0	422.4	70.9	176,800	212,500
175	440.1	157.7	420.7	70.2	167,800	209,300
180	438.1	162.5	418.8	69.6	159,300	206,100
185	436.1	167.3	417.0	68.9	151,300	203,000
190	433.9	172.1	415.0	68.2	143,600	200,000
195	431.7	176.9	413.0	67.5	136,400	197,100
200	429.4	181.7	410.9	66.8	129,600	194,300
205	427.0	186.4	408.8	66.2	123,100	191,500
210	424.6	191.2	406.6	65.5	116,900	188,800
215	422.1	196.0	404.3	64.8	111,000	186,200
220	419.5	200.7	402.0	64.1	105,400	183,700
225	416.8	205.6	399.5	63.4	100,000	181,200
230	414.1	210.3	397.0	62.7	94,900	178,800
235	411.3	215.1	394.4	62.0	90,000	176,500
240	408.4	219.9	391.8	61.2	85,300	174,300
250	402.3	229.5	386.2	59.8	76,400	170,000
260	395.8	239.1	380.3	58.3	68,300	159,400
270	389.0	248.7	374.1	56.8	60,700	149,400
280	381.9	258.3	367.4	55.3	53,700	140,200
290	374.2	267.9	360.4	53.7	47,200	131,600
300	366.2	277.6	353.0	52.1	41,100	123,600
320	348.6	296.8	336.7	48.8	30,000	109,100
340	328.8	316.2	318.3	45.4	20,100	96,400
360	306.4	335.5	297.5	41.6		85,100
380	280.6	355.0	273.4	37.6		75,000
400						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

439.6 ft 41°						
	ft	ft	ft	ft	lb	lb
58						
59						
60						
61						
62	467.6	47.9	446.0	85.0	219,700	219,700
63	467.5	48.9	445.9	84.9	219,700	219,700
64	467.4	49.8	445.8	84.8	219,700	219,700
65	467.2	50.8	445.8	84.6	219,700	219,700
66	467.1	51.7	445.6	84.5	219,700	219,700
70	466.6	55.5	445.2	84.0	219,700	219,700
75	465.8	60.3	444.6	83.4	219,600	219,600
80	465.0	65.1	444.0	82.7	219,600	219,600
85	464.2	69.9	443.3	82.1	219,500	219,500
90	463.3	74.6	442.6	81.5	219,400	219,400
95	462.3	79.4	441.8	80.9	219,300	219,300
100	461.3	84.2	440.9	80.2	219,200	219,200
105	460.2	88.9	440.0	79.6	219,100	219,100
110	459.0	93.7	439.1	78.9	219,100	219,100
115	457.8	98.5	438.0	78.3	218,900	218,900
120	456.6	103.3	437.0	77.7	218,800	218,800
125	455.3	108.0	435.9	77.0	218,700	218,700
130	453.9	112.9	434.7	76.4	218,600	218,600
135	452.5	117.6	433.4	75.7	218,500	218,500
140	451.0	122.4	432.1	75.1	218,400	218,400
145	449.4	127.2	430.8	74.4	218,200	218,200
150	447.8	132.0	429.3	73.8	218,100	218,100
155	446.1	136.8	427.9	73.1	209,300	216,900
160	444.3	141.6	426.3	72.5	198,300	213,600
165	442.5	146.3	424.7	71.8	188,000	210,500
170	440.6	151.2	423.0	71.1	178,300	207,400
175	438.7	155.9	421.3	70.5	169,300	204,400
180	436.7	160.7	419.5	69.8	160,700	201,400
185	434.6	165.6	417.6	69.1	152,600	198,500
190	432.4	170.3	415.7	68.5	144,900	195,600
195	430.2	175.2	413.7	67.8	137,700	192,900
200	427.9	180.0	411.7	67.1	130,800	190,200
205	425.5	184.8	409.5	66.4	124,200	187,600
210	423.1	189.6	407.3	65.7	118,000	185,100
215	420.6	194.4	405.1	65.0	112,000	182,600
220	418.0	199.2	402.7	64.3	106,400	180,200
225	415.3	204.0	400.3	63.6	101,000	177,900
230	412.5	208.8	397.8	62.9	95,800	175,600
235	409.7	213.6	395.2	62.2	90,900	173,500
240	406.8	218.4	392.6	61.5	86,100	171,300
250	400.7	228.1	387.0	60.0	77,200	167,300
260	394.2	237.8	381.1	58.5	69,000	160,000
270	387.4	247.5	374.9	57.0	61,400	149,900
280	380.1	257.1	368.3	55.5	54,300	140,600
290	372.5	266.8	361.3	53.9	47,700	132,000
300	364.4	276.5	353.8	52.3	41,600	124,000
320	346.7	295.9	337.5	49.0	30,400	109,400
340	326.8	315.4	319.1	45.5	20,500	96,600
360	304.2	335.0	298.1	41.7		85,300
380						
400						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

	449.5 ft		28°			
	ft	ft	ft	ft	lb	lb
58	480.4	48.7	455.9	85.0	210,500	210,500
59	480.3	49.7	455.8	84.9	210,500	210,500
60	480.2	50.6	455.7	84.8	210,500	210,500
61	480.1	51.5	455.6	84.7	210,400	210,400
62	480.0	52.5	455.5	84.5	210,400	210,400
63	479.8	53.5	455.4	84.4	210,400	210,400
64	479.7	54.4	455.3	84.3	210,400	210,400
65	479.6	55.3	455.2	84.2	210,400	210,400
66	479.5	56.3	455.1	84.0	210,400	210,400
67	479.3	57.2	455.0	83.9	210,400	210,400
70	478.9	60.1	454.6	83.6	210,300	210,300
75	478.2	64.8	454.0	82.9	210,100	210,100
80	477.4	69.6	453.4	82.3	210,000	210,000
85	476.6	74.3	452.7	81.7	209,900	209,900
90	475.7	79.0	451.9	81.1	209,700	209,700
95	474.8	83.8	451.1	80.5	209,600	209,600
100	473.8	88.6	450.2	79.9	209,300	209,300
105	472.7	93.3	449.3	79.2	209,200	209,200
110	471.6	98.1	448.3	78.6	209,000	209,000
115	470.4	102.8	447.2	78.0	208,800	208,800
120	469.2	107.5	446.2	77.4	208,600	208,600
125	467.9	112.3	445.0	76.8	208,400	208,400
130	466.6	117.0	443.8	76.1	208,200	208,200
135	465.2	121.8	442.6	75.5	208,000	208,000
140	463.7	126.5	441.2	74.9	207,800	207,800
145	462.2	131.3	439.9	74.2	207,600	207,600
150	460.6	136.0	438.4	73.6	207,300	207,300
155	459.0	140.8	436.9	73.0	205,100	207,100
160	457.3	145.6	435.4	72.3	194,300	206,900
165	455.5	150.3	433.8	71.7	184,200	206,700
170	453.7	155.0	432.2	71.0	174,600	204,800
175	451.8	159.8	430.4	70.4	165,700	201,500
180	449.9	164.6	428.6	69.7	157,200	198,300
185	447.8	169.3	426.8	69.1	149,200	195,000
190	445.7	174.1	424.9	68.4	141,700	192,000
195	443.6	178.9	422.9	67.8	134,500	189,000
200	441.4	183.6	420.9	67.1	127,700	186,000
205	439.1	188.4	418.8	66.4	121,300	183,100
210	436.7	193.2	416.6	65.8	115,100	180,400
215	434.3	197.9	414.4	65.1	109,300	177,600
220	431.7	202.7	412.0	64.4	103,700	175,000
230	426.5	212.2	407.2	63.1	93,300	170,000
240	420.9	221.7	402.1	61.7	83,700	165,300
250	415.0	231.3	396.6	60.3	74,900	160,900
260	408.8	240.8	390.9	58.8	66,800	156,800
270	402.2	250.4	384.8	57.4	59,300	148,400
280	395.3	260.0	378.4	55.9	52,400	139,200
290	387.9	269.5	371.6	54.4	45,900	130,700
300	380.2	279.1	364.4	52.9	39,900	122,700
320	363.3	298.3	348.7	49.7	28,900	108,300
340	344.4	317.5	331.0	46.4	19,200	95,700
360	323.1	336.7	311.1	42.8		84,400
380	298.8	356.0	288.4	39.0		74,400
400	270.8	375.3	262.1	34.9		65,300
420	237.5	394.6	231.0	30.2		57,100

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

449.5 ft 35°						
ft	ft	ft	ft	°	38.7 ft lb	60.0 ft lb
58						
59						
60						
61	479.0	49.3	455.9	84.9	209,500	209,500
62	478.9	50.2	455.8	84.8	209,500	209,500
63	478.8	51.1	455.7	84.7	209,500	209,500
64	478.7	52.2	455.6	84.6	209,500	209,500
65	478.5	53.1	455.5	84.5	209,500	209,500
66	478.4	54.0	455.4	84.3	209,400	209,400
67	478.3	54.9	455.3	84.2	209,400	209,400
70	477.9	57.8	454.9	83.8	209,400	209,400
75	477.2	62.6	454.3	83.2	209,200	209,200
80	476.4	67.4	453.7	82.6	209,200	209,200
85	475.5	72.1	453.0	82.0	209,000	209,000
90	474.7	76.9	452.2	81.4	208,800	208,800
95	473.7	81.6	451.4	80.8	208,700	208,700
100	472.7	86.3	450.6	80.2	208,500	208,500
105	471.7	91.1	449.7	79.5	208,400	208,400
110	470.5	95.9	448.7	78.9	208,200	208,200
115	469.4	100.7	447.7	78.3	208,100	208,100
120	468.2	105.4	446.6	77.7	207,900	207,900
125	466.9	110.2	445.5	77.0	207,700	207,700
130	465.5	115.0	444.3	76.4	207,500	207,500
135	464.1	119.7	443.1	75.8	207,400	207,400
140	462.7	124.5	441.8	75.1	207,200	207,200
145	461.1	129.3	440.4	74.5	207,000	207,000
150	459.6	134.0	439.1	73.9	206,800	206,800
155	457.9	138.8	437.6	73.2	206,600	206,600
160	456.2	143.6	436.1	72.6	196,100	206,200
165	454.4	148.3	434.5	72.0	185,800	202,900
170	452.6	153.1	432.8	71.3	176,200	199,700
175	450.7	157.9	431.1	70.7	167,200	196,500
180	448.7	162.7	429.4	70.0	158,700	193,500
185	446.7	167.5	427.5	69.3	150,700	190,400
190	444.6	172.2	425.6	68.7	143,000	187,500
195	442.5	177.1	423.7	68.0	135,800	184,600
200	440.2	181.8	421.7	67.4	129,000	181,900
205	437.9	186.6	419.6	66.7	122,500	179,100
210	435.5	191.4	417.4	66.0	116,300	176,500
215	433.1	196.2	415.2	65.3	110,400	174,000
220	430.6	200.9	412.9	64.7	104,800	171,500
230	425.3	210.6	408.1	63.3	94,300	166,700
240	419.7	220.2	403.0	61.9	84,700	162,200
250	413.8	229.8	397.5	60.5	75,800	158,100
260	407.6	239.4	391.8	59.1	67,700	154,100
270	401.0	248.9	385.8	57.6	60,100	149,000
280	394.0	258.6	379.3	56.1	53,100	139,700
290	386.7	268.2	372.5	54.6	46,600	131,200
300	378.9	277.8	365.4	53.1	40,500	123,200
320	361.9	297.1	349.7	49.9	29,400	108,700
340	342.9	316.4	332.0	46.6	19,600	96,000
360	321.5	335.8	312.1	43.0		84,700
380	297.1	355.2	289.3	39.2		74,600
400	268.9	374.7	262.9	35.0		65,400
420						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

	ft	ft	ft	ft	lb	lb
58						
59						
60						
61						
62						
63	477.4	48.9	455.9	85.0	209,100	209,100
64	477.3	49.9	455.8	84.9	209,000	209,000
65	477.2	50.8	455.7	84.7	209,000	209,000
66	477.0	51.8	455.6	84.6	209,000	209,000
67	476.9	52.7	455.5	84.5	209,000	209,000
70	476.5	55.6	455.2	84.1	209,000	209,000
75	475.8	60.4	454.6	83.5	208,900	208,900
80	475.0	65.1	454.0	82.9	208,800	208,800
85	474.2	69.9	453.3	82.3	208,700	208,700
90	473.3	74.7	452.6	81.7	208,600	208,600
95	472.3	79.5	451.8	81.0	208,500	208,500
100	471.3	84.3	451.0	80.4	208,400	208,400
105	470.3	89.0	450.1	79.8	208,300	208,300
110	469.1	93.8	449.2	79.2	208,100	208,100
115	468.0	98.6	448.2	78.6	208,000	208,000
120	466.7	103.4	447.1	77.9	207,900	207,900
125	465.5	108.1	446.0	77.3	207,700	207,700
130	464.1	112.9	444.8	76.7	207,600	207,600
135	462.7	117.8	443.6	76.0	207,400	207,400
140	461.2	122.5	442.3	75.4	207,300	207,300
145	459.7	127.3	441.0	74.8	207,100	207,100
150	458.1	132.2	439.6	74.1	207,000	207,000
155	456.5	136.9	438.2	73.5	204,500	204,500
160	454.8	141.7	436.7	72.8	197,700	201,300
165	453.0	146.5	435.1	72.2	187,400	198,200
170	451.1	151.3	433.5	71.6	177,800	195,200
175	449.2	156.1	431.8	70.9	168,700	192,200
180	447.3	160.9	430.0	70.2	160,100	189,300
185	445.2	165.7	428.2	69.6	152,000	186,400
190	443.1	170.6	426.3	68.9	144,300	183,600
195	441.0	175.3	424.4	68.3	137,100	180,900
200	438.7	180.2	422.4	67.6	130,200	178,300
205	436.4	185.0	420.3	66.9	123,600	175,700
210	434.0	189.8	418.2	66.3	117,400	173,200
215	431.6	194.6	415.9	65.6	111,500	170,800
220	429.0	199.4	413.6	64.9	105,800	168,400
230	423.8	209.0	408.8	63.5	95,200	163,900
240	418.2	218.7	403.8	62.1	85,500	159,700
250	412.2	228.3	398.4	60.7	76,600	155,700
260	406.0	238.0	392.7	59.3	68,400	152,000
270	399.3	247.6	386.6	57.8	60,800	148,500
280	392.3	257.3	380.2	56.3	53,700	140,200
290	384.9	267.0	373.4	54.8	47,100	131,600
300	377.1	276.7	366.2	53.3	41,000	123,600
320	360.1	296.1	350.5	50.1	29,800	109,000
340	341.0	315.6	332.8	46.7	19,900	96,200
360	319.4	335.2	312.8	43.1		84,900
380						
400						
420						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

ft	ft	ft	ft	°	lb	lb
59	490.2	49.7	465.7	85.0	200,000	200,000
60	490.1	50.6	465.6	84.9	199,900	199,900
61	490.0	51.6	465.5	84.8	199,900	199,900
62	489.9	52.5	465.4	84.6	199,900	199,900
63	489.7	53.5	465.3	84.5	199,900	199,900
64	489.6	54.4	465.2	84.4	199,800	199,800
65	489.5	55.4	465.1	84.3	199,800	199,800
66	489.4	56.3	465.0	84.2	199,800	199,800
67	489.2	57.3	464.9	84.0	199,800	199,800
68	489.1	58.2	464.7	83.9	199,800	199,800
70	488.8	60.1	464.5	83.7	199,700	199,700
75	488.1	64.9	463.9	83.1	199,600	199,600
80	487.4	69.6	463.3	82.5	199,400	199,400
85	486.6	74.4	462.6	81.9	199,200	199,200
90	485.7	79.1	461.8	81.3	199,100	199,100
95	484.8	83.8	461.0	80.7	198,900	198,900
100	483.8	88.6	460.1	80.1	198,700	198,700
105	482.8	93.3	459.2	79.5	198,500	198,500
110	481.7	98.1	458.3	78.9	198,300	198,300
115	480.5	102.9	457.3	78.3	198,000	198,000
120	479.4	107.6	456.2	77.6	197,800	197,800
125	478.1	112.4	455.1	77.0	197,600	197,600
130	476.8	117.1	453.9	76.4	197,400	197,400
135	475.4	121.9	452.7	75.8	197,100	197,100
140	474.0	126.6	451.4	75.2	196,900	196,900
145	472.5	131.4	450.0	74.6	196,700	196,700
150	471.0	136.1	448.7	74.0	196,500	196,500
155	469.4	140.9	447.2	73.3	196,200	196,200
160	467.7	145.7	445.7	72.7	192,200	196,000
165	466.0	150.5	444.1	72.1	182,000	195,500
170	464.2	155.2	442.5	71.4	172,500	192,200
175	462.3	160.0	440.8	70.8	163,500	189,000
180	460.4	164.8	439.0	70.2	155,000	185,800
185	458.4	169.5	437.3	69.5	147,000	182,700
190	456.4	174.2	435.4	68.9	139,500	179,700
195	454.3	179.0	433.5	68.3	132,300	176,700
200	452.1	183.8	431.5	67.6	125,500	173,900
205	449.9	188.5	429.4	67.0	119,100	171,100
210	447.6	193.3	427.3	66.3	112,900	168,400
215	445.2	198.1	425.1	65.7	107,100	165,700
220	442.8	202.9	422.8	65.0	101,500	163,200
230	437.6	212.4	418.1	63.7	91,000	158,300
240	432.2	222.0	413.1	62.3	81,500	153,600
250	426.5	231.5	407.9	60.9	72,700	149,300
260	420.4	241.1	402.3	59.6	64,600	145,300
270	414.1	250.6	396.3	58.1	57,100	141,400
280	407.3	260.2	390.1	56.7	50,200	137,600
290	400.2	269.7	383.5	55.3	43,700	129,000
300	392.7	279.3	376.5	53.8	37,600	121,000
320	376.4	298.5	361.3	50.7	26,700	106,700
340	358.2	317.7	344.3	47.5	16,900	94,000
360	337.8	336.9	325.2	44.1		82,800
380	314.7	356.2	303.7	40.5		72,700
400	288.2	375.5	278.8	36.6		63,700
420	257.4	394.8	249.9	32.2		55,400

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

459.3 ft 35°						
ft	ft	ft	ft	°	lb	lb
59						
60						
61						
62	488.8	50.2	465.6	84.9	199,200	199,200
63	488.7	51.2	465.5	84.8	199,200	199,200
64	488.6	52.1	465.4	84.7	199,100	199,100
65	488.5	53.1	465.3	84.6	199,100	199,100
66	488.3	54.0	465.2	84.5	199,000	199,000
67	488.2	55.0	465.1	84.3	199,000	199,000
68	488.1	55.9	465.0	84.2	199,000	199,000
70	487.8	57.8	464.8	84.0	199,000	199,000
75	487.1	62.6	464.2	83.4	198,800	198,800
80	486.3	67.4	463.6	82.8	198,700	198,700
85	485.5	72.2	462.9	82.2	198,500	198,500
90	484.7	76.9	462.2	81.6	198,400	198,400
95	483.7	81.6	461.4	81.0	198,200	198,200
100	482.8	86.4	460.5	80.4	198,000	198,000
105	481.7	91.2	459.6	79.7	197,800	197,800
110	480.6	96.0	458.7	79.1	197,700	197,700
115	479.5	100.7	457.7	78.5	197,500	197,500
120	478.3	105.5	456.7	77.9	197,300	197,300
125	477.0	110.3	455.6	77.3	197,100	197,100
130	475.7	115.0	454.4	76.7	196,900	196,900
135	474.3	119.8	453.2	76.1	196,700	196,700
140	472.9	124.6	451.9	75.5	196,500	196,500
145	471.4	129.4	450.6	74.8	196,300	196,300
150	469.9	134.1	449.2	74.2	196,100	196,100
155	468.3	138.9	447.8	73.6	195,800	195,800
160	466.6	143.7	446.3	73.0	193,900	194,000
165	464.9	148.5	444.8	72.3	183,700	190,800
170	463.1	153.2	443.2	71.7	174,100	187,700
175	461.2	158.1	441.5	71.1	165,100	184,600
180	459.3	162.8	439.8	70.4	156,600	181,500
185	457.3	167.6	438.0	69.8	148,500	178,600
190	455.3	172.4	436.1	69.2	140,900	175,800
195	453.2	177.2	434.2	68.5	133,700	173,000
200	451.0	182.0	432.2	67.9	126,800	170,300
205	448.8	186.8	430.2	67.2	120,300	167,600
210	446.4	191.5	428.1	66.6	114,100	165,000
215	444.1	196.3	425.9	65.9	108,200	162,500
220	441.6	201.1	423.7	65.2	102,600	160,000
230	436.5	210.7	419.0	63.9	92,100	155,400
240	431.0	220.3	414.0	62.5	82,500	150,900
250	425.3	229.9	408.8	61.2	73,600	146,900
260	419.2	239.5	403.2	59.8	65,500	143,000
270	412.8	249.2	397.3	58.4	57,900	139,400
280	406.1	258.7	391.0	56.9	50,900	135,900
290	398.9	268.4	384.5	55.5	44,400	129,500
300	391.4	278.0	377.5	54.0	38,300	121,500
320	375.0	297.3	362.3	50.9	27,200	107,100
340	356.8	316.6	345.4	47.7	17,400	94,300
360	336.2	336.0	326.2	44.3		83,100
380	313.0	355.4	304.6	40.6		72,900
400	286.4	374.9	279.7	36.7		63,800
420						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

	ft	ft	ft	ft	lb	lb
59						
60						
61						
62						
63						
64	487.2	49.9	465.6	85.0	198,800	198,800
65	487.1	50.9	465.5	84.9	198,800	198,800
66	487.0	51.8	465.4	84.7	198,800	198,800
67	486.8	52.8	465.4	84.6	198,800	198,800
68	486.7	53.7	465.2	84.5	198,800	198,800
70	486.4	55.6	465.0	84.3	198,800	198,800
75	485.7	60.4	464.5	83.7	198,600	198,600
80	484.9	65.2	463.9	83.0	198,500	198,500
85	484.1	70.0	463.2	82.4	198,400	198,400
90	483.3	74.8	462.5	81.8	198,200	198,200
95	482.3	79.5	461.7	81.2	198,100	198,100
100	481.4	84.3	460.9	80.6	197,900	197,900
105	480.3	89.1	460.0	80.0	197,800	197,800
110	479.2	93.9	459.1	79.4	197,600	197,600
115	478.1	98.7	458.2	78.8	197,500	197,500
120	476.9	103.4	457.1	78.2	197,300	197,300
125	475.6	108.3	456.0	77.6	197,200	197,200
130	474.3	113.0	454.9	77.0	197,000	197,000
135	472.9	117.8	453.7	76.3	196,800	196,800
140	471.5	122.6	452.5	75.7	196,600	196,600
145	470.0	127.4	451.2	75.1	196,500	196,500
150	468.4	132.2	449.8	74.5	196,000	196,000
155	466.8	137.0	448.4	73.8	192,900	192,900
160	465.2	141.8	446.9	73.2	189,800	189,800
165	463.4	146.6	445.4	72.6	185,400	186,700
170	461.6	151.4	443.8	71.9	175,700	183,600
175	459.8	156.2	442.1	71.3	166,600	180,700
180	457.8	161.0	440.4	70.7	158,000	177,800
185	455.9	165.8	438.7	70.0	149,900	175,100
190	453.8	170.7	436.8	69.4	142,200	172,300
195	451.7	175.4	434.9	68.7	134,900	169,700
200	449.5	180.3	432.9	68.1	128,000	167,100
205	447.2	185.1	430.9	67.4	121,500	164,500
210	444.9	189.9	428.8	66.8	115,300	162,000
215	442.5	194.7	426.7	66.1	109,300	159,700
220	440.1	199.5	424.4	65.5	103,600	157,300
230	434.9	209.1	419.8	64.1	93,100	152,900
240	429.5	218.8	414.8	62.8	83,400	148,600
250	423.7	228.5	409.6	61.4	74,400	144,700
260	417.6	238.1	404.0	60.0	66,200	141,000
270	411.2	247.8	398.1	58.6	58,600	137,600
280	404.4	257.5	391.9	57.1	51,500	134,300
290	397.2	267.2	385.3	55.7	45,000	130,000
300	389.7	276.8	378.3	54.2	38,800	121,900
320	373.2	296.3	363.1	51.1	27,600	107,400
340	354.8	315.8	346.1	47.8	17,800	94,600
360	334.2	335.3	327.0	44.4		83,300
380						
400						
420						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

469.2 ft 28°						
ft	ft	ft	ft	°	lb	lb
60	500.0	50.7	475.5	85.0	189,500	189,500
61	499.9	51.7	475.4	84.9	189,400	189,400
62	499.8	52.6	475.3	84.8	189,400	189,400
63	499.7	53.5	475.2	84.6	189,400	189,400
64	499.5	54.5	475.1	84.5	189,300	189,300
65	499.4	55.5	475.0	84.4	189,300	189,300
66	499.3	56.4	474.9	84.3	189,200	189,200
67	499.2	57.3	474.8	84.2	189,200	189,200
68	499.0	58.3	474.7	84.0	189,200	189,200
69	498.9	59.2	474.6	83.9	189,100	189,100
70	498.8	60.2	474.5	83.8	189,100	189,100
75	498.1	65.0	473.9	83.2	188,900	188,900
80	497.3	69.7	473.2	82.6	188,700	188,700
85	496.5	74.4	472.6	82.1	188,500	188,500
90	495.7	79.2	471.8	81.5	188,300	188,300
95	494.8	83.9	471.0	80.9	188,100	188,100
100	493.8	88.7	470.2	80.3	187,800	187,800
105	492.8	93.5	469.3	79.7	187,700	187,700
110	491.8	98.2	468.4	79.1	187,400	187,400
115	490.6	103.0	467.4	78.5	187,200	187,200
120	489.5	107.8	466.3	77.9	187,000	187,000
125	488.2	112.5	465.2	77.3	186,700	186,700
130	487.0	117.2	464.1	76.7	186,500	186,500
135	485.6	122.1	462.9	76.1	186,200	186,200
140	484.2	126.8	461.6	75.5	186,000	186,000
145	482.8	131.6	460.3	74.9	185,800	185,800
150	481.3	136.3	458.9	74.3	185,500	185,500
155	479.7	141.1	457.5	73.7	185,300	185,300
160	478.1	145.8	456.0	73.1	185,000	185,000
165	476.4	150.6	454.5	72.4	183,400	184,800
170	474.6	155.4	452.9	71.8	173,800	181,900
175	472.8	160.1	451.3	71.2	164,900	178,800
180	471.0	164.9	449.5	70.6	156,400	175,800
185	469.0	169.6	447.8	70.0	148,400	172,800
190	467.0	174.4	446.0	69.3	140,900	169,900
195	465.0	179.2	444.1	68.7	133,700	167,100
200	462.9	184.0	442.1	68.1	126,900	164,300
205	460.7	188.7	440.1	67.5	120,400	161,700
210	458.4	193.5	438.0	66.8	114,300	159,100
220	453.7	203.1	433.7	65.5	102,900	154,100
230	448.7	212.7	429.1	64.2	92,400	149,300
240	443.4	222.2	424.2	62.9	82,900	144,900
250	437.9	231.7	419.1	61.6	74,100	140,600
260	432.0	241.3	413.6	60.2	66,000	136,800
270	425.8	250.9	407.9	58.9	58,500	133,100
280	419.2	260.5	401.8	57.5	51,600	129,600
290	412.3	270.0	395.4	56.1	45,100	126,300
300	405.0	279.6	388.6	54.6	39,000	122,100
320	389.3	298.8	373.9	51.7	28,100	107,700
340	371.7	318.0	357.5	48.6	18,400	95,100
360	352.1	337.2	339.2	45.3		83,900
380	330.0	356.5	318.5	41.9		73,800
400	305.0	375.8	295.0	38.1		64,800
420	276.1	395.1	267.8	34.0		56,600
440	241.9	414.6	235.7	29.4		49,100

MLC650 VPC-MAX S-3

ASME B30.5



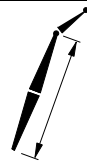
B80



881,800 lb



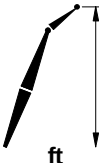
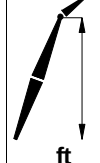
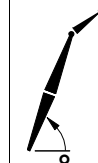
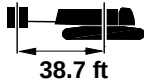
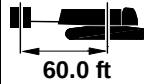
360°



469.2 ft



35°

 469.2 ft  35°						
 ft	 ft	 ft	 ft	 °	 38.7 ft  lb	 60.0 ft  lb
60						
61						
62	498.7	50.3	475.6	85.0	188,300	188,300
63	498.6	51.3	475.5	84.9	188,200	188,200
64	498.5	52.2	475.4	84.8	188,200	188,200
65	498.4	53.1	475.3	84.7	188,200	188,200
66	498.2	54.1	475.2	84.6	188,100	188,100
67	498.1	55.1	475.1	84.4	188,100	188,100
68	498.0	56.0	475.0	84.3	188,100	188,100
69	497.9	56.9	474.9	84.2	188,100	188,100
70	497.7	57.9	474.7	84.1	188,000	188,000
75	497.0	62.7	474.2	83.5	187,800	187,800
80	496.3	67.5	473.6	82.9	187,700	187,700
85	495.5	72.2	472.9	82.3	187,500	187,500
90	494.6	77.0	472.2	81.7	187,300	187,300
95	493.7	81.7	471.4	81.1	187,000	187,000
100	492.8	86.5	470.6	80.6	186,900	186,900
105	491.8	91.3	469.7	80.0	186,700	186,700
110	490.7	96.0	468.8	79.4	186,400	186,400
115	489.6	100.8	467.8	78.8	186,300	186,300
120	488.4	105.6	466.8	78.2	186,000	186,000
125	487.2	110.4	465.7	77.6	185,800	185,800
130	485.9	115.2	464.6	77.0	185,600	185,600
135	484.6	119.9	463.4	76.4	185,400	185,400
140	483.2	124.7	462.2	75.8	185,200	185,200
145	481.7	129.5	460.9	75.2	185,000	185,000
150	480.2	134.3	459.5	74.5	184,800	184,800
155	478.6	139.0	458.1	73.9	184,600	184,600
160	477.0	143.9	456.6	73.3	184,000	184,000
165	475.3	148.6	455.1	72.7	180,900	180,900
170	473.5	153.4	453.6	72.1	175,500	177,800
175	471.7	158.2	451.9	71.5	166,400	174,900
180	469.9	163.0	450.2	70.8	157,900	172,000
185	467.9	167.7	448.5	70.2	149,900	169,200
190	465.9	172.5	446.7	69.6	142,300	166,400
195	463.9	177.3	444.8	69.0	135,000	163,700
200	461.7	182.2	442.9	68.3	128,200	161,100
205	459.5	186.9	440.9	67.7	121,700	158,500
210	457.3	191.7	438.8	67.1	115,500	156,000
220	452.6	201.3	434.5	65.8	104,000	151,300
230	447.6	210.9	430.0	64.5	93,500	146,700
240	442.3	220.5	425.1	63.1	83,900	142,500
250	436.7	230.1	420.0	61.8	75,000	138,400
260	430.8	239.8	414.5	60.5	66,900	134,600
270	424.6	249.4	408.8	59.1	59,300	131,100
280	418.0	259.0	402.7	57.7	52,300	127,800
290	411.1	268.6	396.3	56.3	45,800	124,700
300	403.8	278.2	389.6	54.8	39,700	121,800
320	387.9	297.5	374.9	51.9	28,600	108,200
340	370.3	316.9	358.5	48.8	18,900	95,400
360	350.6	336.2	340.1	45.5		84,200
380	328.5	355.7	319.4	42.0		74,100
400	303.3	375.1	295.8	38.3		65,000
420						
440						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

469.2 ft 41°						
ft	ft	ft	ft	°	lb	lb
60						
61						
62						
63						
64						
65	497.0	50.9	475.5	85.0	187,500	187,500
66	496.9	51.8	475.4	84.8	187,500	187,500
67	496.7	52.8	475.3	84.7	187,500	187,500
68	496.6	53.8	475.2	84.6	187,500	187,500
69	496.5	54.7	475.1	84.5	187,400	187,400
70	496.3	55.7	475.0	84.4	187,400	187,400
75	495.7	60.4	474.5	83.8	187,200	187,200
80	494.9	65.3	473.8	83.2	187,100	187,100
85	494.1	70.1	473.2	82.6	187,000	187,000
90	493.3	74.8	472.5	82.0	186,800	186,800
95	492.3	79.6	471.8	81.4	186,600	186,600
100	491.4	84.4	471.0	80.8	186,500	186,500
105	490.4	89.1	470.1	80.2	186,300	186,300
110	489.3	94.0	469.2	79.6	186,100	186,100
115	488.2	98.8	468.2	79.0	185,900	185,900
120	487.0	103.6	467.2	78.4	185,700	185,700
125	485.8	108.3	466.2	77.8	185,600	185,600
130	484.5	113.1	465.1	77.2	185,400	185,400
135	483.1	117.9	463.9	76.6	185,300	185,300
140	481.7	122.8	462.7	76.0	185,000	185,000
145	480.3	127.5	461.4	75.4	184,900	184,900
150	478.7	132.4	460.1	74.8	184,800	184,800
155	477.2	137.2	458.7	74.2	183,100	183,100
160	475.5	141.9	457.2	73.6	180,100	180,100
165	473.8	146.7	455.7	72.9	177,200	177,200
170	472.1	151.6	454.2	72.3	174,300	174,300
175	470.3	156.4	452.6	71.7	167,900	171,400
180	468.4	161.1	450.9	71.1	159,400	168,700
185	466.4	166.0	449.2	70.5	151,300	166,000
190	464.4	170.8	447.4	69.8	143,600	163,300
195	462.4	175.6	445.5	69.2	136,300	160,700
200	460.2	180.4	443.6	68.6	129,400	158,200
205	458.0	185.3	441.6	67.9	122,900	155,800
210	455.8	190.1	439.5	67.3	116,600	153,300
220	451.0	199.7	435.3	66.0	105,000	148,800
230	446.0	209.4	430.7	64.7	94,400	144,500
240	440.7	219.0	425.9	63.4	84,800	140,400
250	435.1	228.7	420.8	62.0	75,900	136,500
260	429.2	238.3	415.3	60.7	67,600	132,900
270	422.9	248.0	409.6	59.3	60,000	129,500
280	416.3	257.7	403.6	57.9	53,000	126,300
290	409.4	267.4	397.2	56.5	46,400	123,400
300	402.0	277.1	390.4	55.0	40,200	120,600
320	386.1	296.5	375.7	52.0	29,100	108,500
340	368.4	316.0	359.3	48.9	19,200	95,700
360	348.6	335.5	340.9	45.6		84,400
380	326.3	355.1	320.1	42.1		74,200
400						
420						
440						

MLC650 VPC-MAX S-3

ASME B30.5



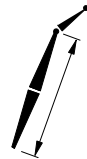
B80



881,800 lb



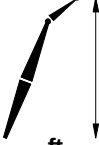
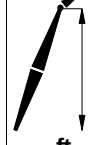
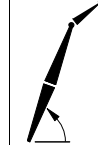
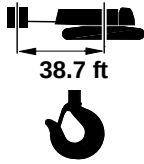
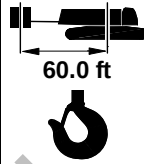
360°



479.0 ft



28°

 479.0 ft  28°						
 ft	 ft	 ft	 ft	 °	 38.7 ft lb	 60.0 ft lb
61	509.8	51.7	485.3	85.0	180,300	180,300
62	509.7	52.6	485.2	84.9	180,300	180,300
63	509.6	53.6	485.1	84.7	180,200	180,200
64	509.4	54.5	485.0	84.6	180,200	180,200
65	509.3	55.4	484.9	84.5	180,200	180,200
66	509.2	56.4	484.8	84.4	180,100	180,100
67	509.1	57.3	484.7	84.3	180,100	180,100
68	509.0	58.3	484.6	84.2	180,000	180,000
69	508.8	59.2	484.5	84.1	180,000	180,000
70	508.7	60.2	484.3	83.9	179,900	179,900
75	508.0	65.0	483.8	83.4	179,700	179,700
80	507.3	69.7	483.1	82.8	179,500	179,500
85	506.5	74.5	482.5	82.2	179,300	179,300
90	505.7	79.2	481.7	81.6	179,100	179,100
95	504.8	84.0	481.0	81.1	178,800	178,800
100	503.9	88.8	480.1	80.5	178,600	178,600
105	502.9	93.5	479.3	79.9	178,400	178,400
110	501.8	98.3	478.3	79.3	178,100	178,100
115	500.7	103.1	477.4	78.7	177,800	177,800
120	499.6	107.8	476.3	78.1	177,600	177,600
125	498.4	112.6	475.3	77.6	177,300	177,300
130	497.1	117.4	474.1	77.0	177,100	177,100
135	495.8	122.1	472.9	76.4	176,800	176,800
140	494.5	126.9	471.7	75.8	176,600	176,600
145	493.0	131.7	470.4	75.2	176,300	176,300
150	491.6	136.4	469.1	74.6	176,100	176,100
155	490.0	141.2	467.7	74.0	175,800	175,800
160	488.4	146.0	466.3	73.4	175,600	175,600
165	486.8	150.7	464.7	72.8	174,700	174,700
170	485.1	155.5	463.2	72.2	171,600	171,600
175	483.3	160.3	461.6	71.6	162,700	168,500
180	481.5	165.0	459.9	71.0	154,300	165,600
185	479.6	169.8	458.2	70.4	146,300	162,700
190	477.6	174.6	456.4	69.8	138,700	159,900
195	475.6	179.4	454.5	69.2	131,500	157,100
200	473.6	184.1	452.7	68.5	124,700	154,400
205	471.4	188.9	450.7	67.9	118,300	151,800
210	469.2	193.7	448.7	67.3	112,100	149,300
215	467.0	198.4	446.6	66.7	106,300	146,800
220	464.6	203.2	444.4	66.0	100,700	144,400
230	459.8	212.8	439.9	64.8	90,200	139,800
240	454.6	222.4	435.2	63.5	80,700	135,400
250	449.2	231.9	430.1	62.2	71,900	131,300
260	443.4	241.5	424.8	60.9	63,800	127,500
270	437.4	251.0	419.2	59.6	56,300	123,900
280	431.0	260.6	413.3	58.2	49,400	120,500
290	424.3	270.2	407.0	56.8	42,900	117,300
300	417.3	279.8	400.5	55.4	36,800	114,400
320	402.0	299.0	386.2	52.6	25,900	106,100
340	385.0	318.2	370.4	49.6	16,200	93,500
360	366.1	337.5	352.7	46.4		82,200
380	345.0	356.7	332.9	43.1		72,200
400	321.2	376.0	310.5	39.6		63,200
420	293.9	395.3	284.9	35.7		55,000
440	262.2	414.8	255.0	31.4		47,500

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

	479.0 ft		35°			
	ft	ft	ft	ft	lb	lb
61						
62						
63	508.5	51.3	485.3	85.0	179,300	179,300
64	508.4	52.2	485.2	84.9	179,300	179,300
65	508.3	53.2	485.1	84.8	179,300	179,300
66	508.2	54.1	485.0	84.7	179,200	179,200
67	508.0	55.1	484.9	84.6	179,200	179,200
68	507.9	56.0	484.8	84.4	179,100	179,100
69	507.8	57.0	484.7	84.3	179,100	179,100
70	507.7	57.9	484.6	84.2	179,100	179,100
75	507.0	62.7	484.0	83.6	178,800	178,800
80	506.2	67.5	483.4	83.1	178,600	178,600
85	505.5	72.3	482.8	82.5	178,400	178,400
90	504.6	77.0	482.1	81.9	178,200	178,200
95	503.7	81.8	481.3	81.3	177,900	177,900
100	502.8	86.6	480.5	80.7	177,700	177,700
105	501.8	91.4	479.7	80.2	177,500	177,500
110	500.8	96.1	478.8	79.6	177,300	177,300
115	499.7	101.0	477.8	79.0	177,000	177,000
120	498.5	105.7	476.8	78.4	176,800	176,800
125	497.3	110.5	475.7	77.8	176,600	176,600
130	496.1	115.3	474.6	77.2	176,300	176,300
135	494.7	120.0	473.5	76.6	176,100	176,100
140	493.4	124.8	472.3	76.0	175,900	175,900
145	492.0	129.6	471.0	75.5	175,700	175,700
150	490.5	134.4	469.7	74.9	175,500	175,500
155	488.9	139.2	468.3	74.3	175,200	175,200
160	487.3	144.0	466.9	73.7	173,900	173,900
165	485.7	148.8	465.4	73.1	170,900	170,900
170	484.0	153.5	463.8	72.5	167,900	167,900
175	482.2	158.3	462.2	71.8	164,300	165,100
180	480.4	163.1	460.6	71.2	155,800	162,200
185	478.5	167.9	458.9	70.6	147,800	159,400
190	476.5	172.7	457.1	70.0	140,100	156,700
195	474.5	177.5	455.3	69.4	132,900	154,100
200	472.4	182.2	453.4	68.8	126,100	151,600
205	470.3	187.1	451.4	68.2	119,600	149,000
210	468.1	191.9	449.4	67.5	113,400	146,600
215	465.8	196.7	447.4	66.9	107,500	144,200
220	463.5	201.5	445.2	66.3	101,800	141,900
230	458.6	211.1	440.8	65.0	91,300	137,500
240	453.4	220.6	436.0	63.7	81,700	133,300
250	448.0	230.3	431.0	62.4	72,900	129,400
260	442.2	239.9	425.7	61.1	64,700	125,600
270	436.2	249.5	420.1	59.8	57,100	122,200
280	429.8	259.1	414.3	58.4	50,100	118,900
290	423.1	268.8	408.0	57.0	43,600	115,900
300	416.0	278.4	401.5	55.6	37,500	113,000
320	400.7	297.7	387.2	52.8	26,500	106,500
340	383.6	317.1	371.4	49.8	16,700	93,800
360	364.7	336.4	353.7	46.6		82,600
380	343.5	355.8	333.9	43.3		72,500
400	319.5	375.3	311.4	39.7		63,400
420	292.1	394.8	285.7	35.8		55,100
440						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

479.0 ft 41°						
	ft	ft	ft	ft	lb	lb
61						
62						
63						
64						
65						
66	506.8	51.9	485.2	84.9	178,700	178,700
67	506.7	52.9	485.1	84.8	178,700	178,700
68	506.5	53.8	485.0	84.7	178,700	178,700
69	506.4	54.8	484.9	84.6	178,600	178,600
70	506.3	55.7	484.8	84.5	178,600	178,600
75	505.6	60.5	484.3	83.9	178,400	178,400
80	504.9	65.3	483.7	83.3	178,200	178,200
85	504.1	70.1	483.1	82.7	178,100	178,100
90	503.2	74.9	482.4	82.2	177,900	177,900
95	502.3	79.6	481.7	81.6	177,700	177,700
100	501.4	84.4	480.9	81.0	177,500	177,500
105	500.4	89.3	480.1	80.4	177,200	177,200
110	499.4	94.0	479.2	79.8	177,100	177,100
115	498.3	98.8	478.2	79.2	176,800	176,800
120	497.1	103.6	477.2	78.7	176,700	176,700
125	495.9	108.4	476.2	78.1	176,500	176,500
130	494.6	113.2	475.1	77.5	176,300	176,300
135	493.3	118.0	474.0	76.9	176,100	176,100
140	492.0	122.8	472.8	76.3	175,800	175,800
145	490.5	127.6	471.5	75.7	175,600	175,600
150	489.0	132.5	470.2	75.1	175,500	175,500
155	487.5	137.3	468.9	74.5	173,400	173,400
160	485.9	142.1	467.4	73.9	170,500	170,500
165	484.2	146.8	466.0	73.3	167,600	167,600
170	482.5	151.7	464.4	72.7	164,700	164,700
175	480.7	156.4	462.9	72.1	161,900	161,900
180	478.9	161.2	461.2	71.5	157,300	159,200
185	477.0	166.1	459.5	70.9	149,200	156,600
190	475.0	170.9	457.8	70.2	141,500	154,000
195	473.0	175.7	456.0	69.6	134,200	151,400
200	470.9	180.5	454.1	69.0	127,300	149,000
205	468.8	185.3	452.2	68.4	120,800	146,600
210	466.6	190.2	450.2	67.8	114,500	144,200
215	464.3	195.0	448.1	67.1	108,600	142,000
220	462.0	199.8	446.0	66.5	102,900	139,700
230	457.1	209.5	441.5	65.2	92,300	135,500
240	451.9	219.1	436.8	63.9	82,600	131,500
250	446.4	228.8	431.8	62.6	73,700	127,600
260	440.6	238.4	426.6	61.3	65,500	124,100
270	434.6	248.1	421.0	60.0	57,900	120,800
280	428.2	257.8	415.1	58.6	50,800	117,600
290	421.4	267.5	408.8	57.2	44,200	114,600
300	414.3	277.2	402.3	55.8	38,100	111,900
320	398.9	296.6	388.1	52.9	27,000	106,900
340	381.8	316.1	372.2	49.9	17,100	94,100
360	362.7	335.6	354.5	46.7		82,800
380	341.4	355.2	334.6	43.4		72,700
400						
420						
440						

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

488.8 ft					28°	
ft	ft	ft	ft	°	38.7 ft lb	60.0 ft lb
62	519.6	52.7	495.0	85.0	172,200	172,200
63	519.5	53.6	494.9	84.8	172,100	172,100
64	519.4	54.6	494.8	84.7	172,100	172,100
65	519.2	55.5	494.7	84.6	172,000	172,000
66	519.1	56.5	494.6	84.5	172,000	172,000
67	519.0	57.4	494.5	84.4	171,900	171,900
68	518.9	58.4	494.4	84.3	171,900	171,900
69	518.7	59.3	494.3	84.2	171,800	171,800
70	518.6	60.3	494.2	84.1	171,800	171,800
71	518.5	61.2	494.1	83.9	171,700	171,700
75	518.0	65.1	493.6	83.5	171,500	171,500
80	517.2	69.8	493.0	82.9	171,300	171,300
85	516.5	74.6	492.3	82.4	171,000	171,000
90	515.7	79.3	491.6	81.8	170,700	170,700
95	514.8	84.1	490.9	81.2	170,500	170,500
100	513.9	88.9	490.1	80.7	170,200	170,200
105	512.9	93.6	489.2	80.1	169,900	169,900
110	511.9	98.4	488.3	79.5	169,700	169,700
115	510.8	103.2	487.4	78.9	169,400	169,400
120	509.7	107.9	486.4	78.4	169,200	169,200
125	508.5	112.7	485.3	77.8	168,900	168,900
130	507.3	117.4	484.2	77.2	168,700	168,700
135	506.0	122.2	483.0	76.6	168,400	168,400
140	504.7	127.0	481.8	76.1	168,100	168,100
145	503.3	131.8	480.6	75.5	167,900	167,900
150	501.8	136.5	479.2	74.9	167,600	167,600
155	500.3	141.3	477.9	74.3	167,400	167,400
160	498.8	146.1	476.5	73.7	166,700	166,700
165	497.1	150.9	475.0	73.1	166,300	166,300
170	495.5	155.7	473.5	72.6	162,300	162,300
175	493.7	160.4	471.9	72.0	159,300	159,300
180	492.0	165.2	470.3	71.4	153,500	156,500
185	490.1	170.0	468.6	70.8	145,500	153,600
190	488.2	174.7	466.8	70.2	137,900	151,000
195	486.2	179.5	465.0	69.6	130,800	148,300
200	484.2	184.3	463.1	69.0	124,000	145,600
205	482.1	189.0	461.2	68.4	117,500	143,100
210	480.0	193.8	459.3	67.8	111,400	140,700
220	475.5	203.4	455.1	66.5	99,900	135,900
230	470.7	213.0	450.7	65.3	89,500	131,400
240	465.7	222.6	446.1	64.0	79,900	127,100
250	460.4	232.1	441.2	62.8	71,100	123,100
260	454.8	241.7	436.0	61.5	63,000	119,400
270	448.9	251.3	430.5	60.2	55,600	115,900
280	442.7	260.8	424.8	58.9	48,600	112,500
290	436.2	270.4	418.7	57.6	42,100	109,400
300	429.4	280.0	412.3	56.2	36,100	106,500
320	414.5	299.2	398.4	53.4	25,100	101,200
340	398.1	318.4	383.1	50.5	15,400	92,900
360	379.9	337.6	366.1	47.5		81,700
380	359.6	356.9	347.0	44.3		71,700
400	336.8	376.2	325.6	40.9		62,700
420	311.0	395.6	301.3	37.3		54,500
440	281.3	415.0	273.3	33.3		47,000
460	246.2	434.4	240.2	28.7		40,200

MLC650 VPC-MAX S-3

ASME B30.5



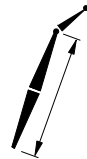
B80



881,800 lb



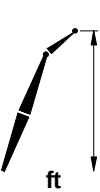
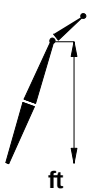
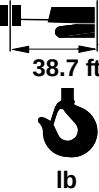
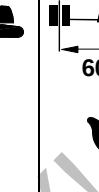
360°



488.8 ft



35°

							
	ft	ft	ft	ft	°	lb	lb
62							
63							
64	518.3	52.3	495.0	85.0		171,200	171,200
65	518.2	53.2	495.0	84.9		171,200	171,200
66	518.1	54.2	494.9	84.8		171,200	171,200
67	518.0	55.1	494.8	84.7		171,200	171,200
68	517.8	56.1	494.7	84.5		171,100	171,100
69	517.7	57.1	494.6	84.4		171,000	171,000
70	517.6	58.0	494.5	84.3		171,000	171,000
71	517.4	59.0	494.3	84.2		170,900	170,900
75	516.9	62.8	493.9	83.8		170,800	170,800
80	516.2	67.5	493.3	83.2		170,600	170,600
85	515.4	72.3	492.7	82.6		170,200	170,200
90	514.6	77.1	492.0	82.1		170,000	170,000
95	513.7	81.9	491.2	81.5		169,800	169,800
100	512.8	86.7	490.4	80.9		169,500	169,500
105	511.9	91.5	489.6	80.3		169,300	169,300
110	510.8	96.2	488.7	79.8		169,000	169,000
115	509.8	101.0	487.8	79.2		168,800	168,800
120	508.6	105.7	486.8	78.6		168,500	168,500
125	507.4	110.6	485.8	78.1		168,300	168,300
130	506.2	115.4	484.7	77.5		168,100	168,100
135	504.9	120.1	483.6	76.9		167,800	167,800
140	503.6	124.9	482.4	76.3		167,600	167,600
145	502.2	129.7	481.1	75.7		167,300	167,300
150	500.7	134.5	479.8	75.2		167,000	167,000
155	499.2	139.2	478.5	74.6		166,900	166,900
160	497.7	144.0	477.1	74.0		164,800	164,800
165	496.1	148.8	475.6	73.4		161,900	161,900
170	494.4	153.6	474.1	72.8		159,000	159,000
175	492.6	158.4	472.6	72.2		156,200	156,200
180	490.9	163.2	470.9	71.6		153,500	153,500
185	489.0	168.1	469.2	71.0		147,000	150,800
190	487.1	172.8	467.5	70.4		139,400	148,100
195	485.1	177.6	465.7	69.8		132,200	145,600
200	483.1	182.4	463.9	69.2		125,300	143,100
205	481.0	187.2	462.0	68.6		118,800	140,700
210	478.8	192.0	460.0	68.0		112,600	138,300
220	474.3	201.6	455.9	66.8		101,100	133,600
230	469.6	211.2	451.5	65.5		90,600	129,300
240	464.5	220.8	446.9	64.3		81,000	125,200
250	459.2	230.4	442.0	63.0		72,100	121,400
260	453.6	240.0	436.9	61.7		64,000	117,700
270	447.7	249.7	431.4	60.4		56,400	114,300
280	441.5	259.3	425.7	59.1		49,400	111,100
290	435.0	268.9	419.6	57.8		42,900	108,100
300	428.1	278.6	413.3	56.4		36,800	105,300
320	413.2	297.9	399.5	53.6		25,700	100,200
340	396.8	317.3	384.1	50.7		16,000	93,300
360	378.5	336.6	367.1	47.7			82,000
380	358.1	356.0	348.0	44.5			71,900
400	335.2	375.5	326.5	41.1			62,900
420	309.2	395.0	302.1	37.4			54,600
440							
460							

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

	488.8 ft		41°			
	ft	ft	ft	ft	lb	lb
62						
63						
64						
65						
66						
67	516.6	52.9	495.0	84.9	170,800	170,800
68	516.4	53.8	494.9	84.8	170,800	170,800
69	516.3	54.8	494.8	84.7	170,700	170,700
70	516.2	55.8	494.7	84.6	170,700	170,700
71	516.1	56.7	494.6	84.5	170,600	170,600
75	515.5	60.5	494.2	84.0	170,500	170,500
80	514.8	65.3	493.6	83.5	170,200	170,200
85	514.0	70.1	493.0	82.9	170,000	170,000
90	513.2	74.9	492.3	82.3	169,800	169,800
95	512.3	79.7	491.6	81.7	169,600	169,600
100	511.4	84.5	490.8	81.2	169,400	169,400
105	510.4	89.3	490.0	80.6	169,100	169,100
110	509.4	94.1	489.1	80.0	168,900	168,900
115	508.3	98.9	488.2	79.5	168,700	168,700
120	507.2	103.7	487.2	78.9	168,500	168,500
125	506.0	108.5	486.2	78.3	168,200	168,200
130	504.8	113.3	485.2	77.7	168,000	168,000
135	503.5	118.1	484.0	77.1	167,800	167,800
140	502.2	122.9	482.9	76.6	167,600	167,600
145	500.8	127.7	481.6	76.0	167,400	167,400
150	499.3	132.5	480.4	75.4	167,200	167,200
155	497.8	137.4	479.0	74.8	164,700	164,700
160	496.2	142.1	477.7	74.2	161,700	161,700
165	494.6	146.9	476.2	73.6	158,900	158,900
170	492.9	151.8	474.7	73.0	156,100	156,100
175	491.2	156.5	473.2	72.4	153,500	153,500
180	489.4	161.4	471.6	71.8	150,800	150,800
185	487.5	166.2	469.9	71.2	148,200	148,200
190	485.6	171.0	468.2	70.6	140,800	145,700
195	483.6	175.8	466.4	70.0	133,500	143,200
200	481.6	180.6	464.6	69.4	126,600	140,800
205	479.5	185.5	462.7	68.8	120,000	138,500
210	477.3	190.3	460.7	68.2	113,800	136,100
220	472.8	199.9	456.6	67.0	102,200	131,700
230	468.0	209.6	452.3	65.7	91,600	127,500
240	463.0	219.3	447.7	64.5	81,900	123,600
250	457.7	228.9	442.8	63.2	73,000	119,900
260	452.0	238.6	437.7	61.9	64,800	116,300
270	446.1	248.2	432.3	60.6	57,200	113,100
280	439.9	258.0	426.5	59.3	50,100	109,900
290	433.3	267.6	420.5	57.9	43,500	107,000
300	426.4	277.4	414.1	56.6	37,400	104,300
320	411.5	296.8	400.3	53.8	26,200	99,300
340	394.9	316.2	385.0	50.9	16,400	93,600
360	376.6	335.7	367.9	47.8		82,300
380	356.1	355.3	348.7	44.6		72,100
400						
420						
440						
460						

MLC650 VPC-MAX S-3

ASME B30.5



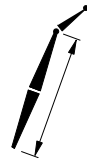
B80



881,800 lb



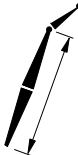
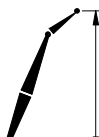
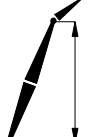
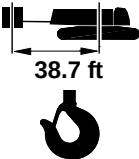
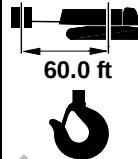
360°



498.7 ft



28°

 						
						
ft	ft	ft	ft	°	lb	lb
65	529.1	55.6	504.7	84.7	163,700	163,700
66	529.0	56.5	504.6	84.6	163,700	163,700
67	528.9	57.5	504.5	84.5	163,600	163,600
68	528.8	58.4	504.4	84.4	163,600	163,600
69	528.7	59.4	504.3	84.3	163,500	163,500
70	528.5	60.3	504.2	84.2	163,500	163,500
71	528.4	61.3	504.0	84.1	163,500	163,500
75	527.9	65.1	503.6	83.6	163,200	163,200
80	527.2	69.9	503.0	83.1	162,900	162,900
85	526.4	74.6	502.3	82.5	162,700	162,700
90	525.6	79.4	501.6	81.9	162,400	162,400
95	524.8	84.2	500.9	81.4	162,100	162,100
100	523.9	88.9	500.1	80.8	161,800	161,800
105	522.9	93.7	499.3	80.3	161,600	161,600
110	521.9	98.5	498.4	79.7	161,300	161,300
115	520.9	103.3	497.4	79.2	161,000	161,000
120	519.8	108.0	496.4	78.6	160,700	160,700
125	518.6	112.8	495.4	78.0	160,400	160,400
130	517.4	117.6	494.3	77.5	160,100	160,100
135	516.2	122.3	493.2	76.9	159,900	159,900
140	514.9	127.1	492.0	76.3	159,000	159,000
145	513.5	131.9	490.8	75.8	158,200	158,200
150	512.1	136.7	489.5	75.2	157,400	157,400
155	510.6	141.4	488.1	74.6	156,600	156,600
160	509.1	146.2	486.8	74.1	155,800	155,800
165	507.5	151.0	485.3	73.5	155,000	155,000
170	505.9	155.7	483.8	72.9	153,400	153,400
175	504.2	160.5	482.3	72.3	150,500	150,500
180	502.4	165.3	480.7	71.7	147,800	147,800
185	500.6	170.1	479.0	71.2	143,300	145,000
190	498.7	174.9	477.3	70.6	135,800	142,400
195	496.8	179.7	475.5	70.0	128,600	139,800
200	494.8	184.5	473.7	69.4	121,800	137,200
205	492.8	189.2	471.8	68.8	115,300	134,700
210	490.7	194.0	469.9	68.2	109,100	132,300
215	488.5	198.8	467.9	67.6	103,300	130,000
220	486.3	203.6	465.8	67.0	97,700	127,700
225	484.0	208.4	463.7	66.4	92,400	125,500
230	481.7	213.1	461.6	65.8	87,300	123,300
235	479.2	217.9	459.3	65.2	82,400	121,200
240	476.8	222.8	457.0	64.6	77,700	119,100
250	471.6	232.3	452.2	63.3	68,900	115,300
260	466.1	241.9	447.1	62.1	60,800	111,600
270	460.4	251.4	441.8	60.8	53,300	108,100
280	454.4	261.1	436.2	59.5	46,400	104,800
290	448.0	270.7	430.3	58.2	39,900	101,700
300	441.3	280.2	424.1	56.9	33,800	98,900
320	426.9	299.5	410.6	54.2	22,900	93,700
340	411.0	318.7	395.7	51.4	13,200	89,200
360	393.4	337.9	379.2	48.5		80,000
380	373.9	357.2	360.9	45.4		70,000
400	352.1	376.5	340.3	42.2		61,000
420	327.5	395.8	317.2	38.7		52,800
440	299.5	415.2	290.8	34.9		45,400
460	266.8	434.7	260.0	30.7		38,600

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

		498.7 ft		35°			
						38.7 ft	60.0 ft
ft	ft	ft	ft	°	lb	lb	lb
65	528.1	53.3	504.9	85.0	163,100	163,100	163,100
66	528.0	54.2	504.8	84.9	163,100	163,100	163,100
67	527.9	55.2	504.7	84.8	163,000	163,000	163,000
68	527.7	56.1	504.6	84.7	163,000	163,000	163,000
69	527.6	57.1	504.5	84.5	162,900	162,900	162,900
70	527.5	58.0	504.4	84.4	162,900	162,900	162,900
71	527.4	59.1	504.3	84.3	162,800	162,800	162,800
75	526.8	62.8	503.9	83.9	162,600	162,600	162,600
80	526.1	67.6	503.3	83.3	162,300	162,300	162,300
85	525.4	72.4	502.7	82.8	162,100	162,100	162,100
90	524.6	77.2	502.0	82.2	161,800	161,800	161,800
95	523.7	81.9	501.3	81.7	161,600	161,600	161,600
100	522.8	86.7	500.5	81.1	161,300	161,300	161,300
105	521.9	91.5	499.7	80.5	161,000	161,000	161,000
110	520.9	96.3	498.8	80.0	160,700	160,700	160,700
115	519.8	101.1	497.9	79.4	160,500	160,500	160,500
120	518.7	105.9	496.9	78.8	160,200	160,200	160,200
125	517.6	110.7	495.9	78.3	160,000	160,000	160,000
130	516.4	115.4	494.8	77.7	159,600	159,600	159,600
135	515.1	120.2	493.7	77.2	159,400	159,400	159,400
140	513.8	125.0	492.5	76.6	159,100	159,100	159,100
145	512.4	129.8	491.3	76.0	158,300	158,300	158,300
150	511.0	134.6	490.0	75.4	157,500	157,500	157,500
155	509.5	139.4	488.7	74.9	156,800	156,800	156,800
160	508.0	144.2	487.3	74.3	156,000	156,000	156,000
165	506.4	148.9	485.9	73.7	153,300	153,300	153,300
170	504.8	153.7	484.5	73.1	150,500	150,500	150,500
175	503.1	158.5	482.9	72.6	147,800	147,800	147,800
180	501.3	163.4	481.3	72.0	145,000	145,000	145,000
185	499.5	168.2	479.7	71.4	142,400	142,400	142,400
190	497.6	173.0	478.0	70.8	137,200	139,900	139,900
195	495.7	177.8	476.2	70.2	130,000	137,400	137,400
200	493.7	182.6	474.4	69.6	123,200	134,900	134,900
205	491.7	187.4	472.6	69.0	116,600	132,500	132,500
210	489.6	192.2	470.6	68.4	110,400	130,200	130,200
215	487.4	197.0	468.7	67.8	104,500	127,900	127,900
220	485.2	201.8	466.6	67.2	98,900	125,700	125,700
225	482.9	206.6	464.5	66.6	93,500	123,600	123,600
230	480.5	211.4	462.4	66.0	88,400	121,500	121,500
235	478.1	216.2	460.1	65.4	83,500	119,400	119,400
240	475.6	221.0	457.9	64.8	78,800	117,500	117,500
250	470.4	230.6	453.1	63.6	69,900	113,700	113,700
260	464.9	240.2	448.1	62.3	61,700	110,100	110,100
270	459.2	249.9	442.7	61.0	54,200	106,800	106,800
280	453.1	259.5	437.1	59.8	47,200	103,600	103,600
290	446.8	269.2	431.2	58.5	40,600	100,600	100,600
300	440.1	278.8	425.0	57.1	34,600	97,800	97,800
320	425.6	298.1	411.6	54.4	23,500	92,800	92,800
340	409.7	317.5	396.7	51.6	13,700	88,400	88,400
360	392.0	336.8	380.2	48.7		80,400	80,400
380	372.4	356.2	361.9	45.6		70,300	70,300
400	350.5	375.7	341.3	42.3		61,200	61,200
420	325.8	395.1	318.1	38.8		53,000	53,000
440	297.6	414.7	291.6	35.0		45,500	45,500
460							

MLC650 VPC-MAX S-3

ASME B30.5



B80



881,800 lb



360°

ft	ft	ft	ft	°	lb	lb
65						
66						
67	526.5	52.9	504.9	85.0	162,800	162,800
68	526.4	53.9	504.8	84.9	162,800	162,800
69	526.2	54.8	504.7	84.8	162,700	162,700
70	526.1	55.8	504.6	84.7	162,700	162,700
71	526.0	56.7	504.5	84.6	162,600	162,600
75	525.5	60.6	504.1	84.1	162,500	162,500
80	524.7	65.4	503.6	83.6	162,200	162,200
85	524.0	70.2	503.0	83.0	161,900	161,900
90	523.2	75.0	502.3	82.5	161,700	161,700
95	522.3	79.8	501.6	81.9	161,400	161,400
100	521.4	84.6	500.8	81.3	161,200	161,200
105	520.5	89.4	500.0	80.8	161,000	161,000
110	519.5	94.2	499.2	80.2	160,700	160,700
115	518.4	99.0	498.3	79.7	160,400	160,400
120	517.3	103.8	497.3	79.1	160,200	160,200
125	516.1	108.6	496.3	78.5	159,900	159,900
130	514.9	113.4	495.3	78.0	159,700	159,700
135	513.7	118.2	494.2	77.4	159,400	159,400
140	512.4	123.0	493.0	76.8	159,200	159,200
145	511.0	127.8	491.8	76.3	159,000	159,000
150	509.6	132.6	490.6	75.7	158,700	158,700
155	508.1	137.4	489.3	75.1	156,200	156,200
160	506.5	142.3	487.9	74.5	153,400	153,400
165	505.0	147.0	486.5	74.0	150,700	150,700
170	503.3	151.8	485.1	73.4	147,900	147,900
175	501.6	156.7	483.5	72.8	145,300	145,300
180	499.9	161.5	482.0	72.2	142,700	142,700
185	498.0	166.4	480.3	71.6	140,100	140,100
190	496.2	171.1	478.7	71.0	137,700	137,700
195	494.2	175.9	476.9	70.4	131,400	135,200
200	492.2	180.8	475.1	69.8	124,500	132,900
205	490.2	185.6	473.3	69.3	117,900	130,500
210	488.1	190.4	471.4	68.7	111,700	128,300
215	485.9	195.2	469.4	68.1	105,700	126,100
220	483.7	200.1	467.3	67.4	100,000	123,900
225	481.4	204.9	465.3	66.8	94,600	121,900
230	479.0	209.7	463.1	66.2	89,400	119,800
235	476.6	214.5	460.9	65.6	84,500	117,900
240	474.1	219.4	458.6	65.0	79,700	115,900
250	468.8	229.1	453.9	63.8	70,800	112,300
260	463.4	238.8	448.8	62.5	62,600	108,800
270	457.6	248.4	443.5	61.2	55,000	105,600
280	451.5	258.1	438.0	59.9	47,900	102,500
290	445.1	267.8	432.1	58.6	41,300	99,700
300	438.4	277.6	425.8	57.3	35,200	96,900
320	423.9	297.0	412.4	54.6	24,000	92,000
340	407.9	316.4	397.6	51.8	14,200	87,700
360	390.1	335.9	381.0	48.8		80,700
380	370.4	355.5	362.6	45.7		70,500
400						
420						
440						
460						