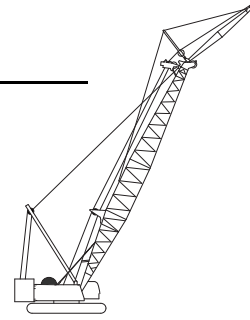


# Liftcrane Jib Capacities

**Jib No. 134 with 12 ft 6 in. Strut on  
Boom No. 74  
99,500 lb Crane Counterweight  
0 lb Carbody Counterweight  
360 Degree Rating**



## MLC165 SERIES 1



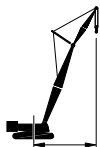
**LIFTING CAPACITIES:** Chart supplements boom capacity chart No. 9288-A. Lifting capacities for various boom lengths, jib lengths, and jib operating radii are for freely suspended loads and do not exceed 75% of a static tipping load. Capacities based on structural competence are denoted by an asterisk (\*).

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

Weight of all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom and jib point sheaves, is considered part of jib load. Boom and jib are 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 in a level position on a firm uniformly supporting surface. Refer to Boom Rigging **No. 81019793** or **No. 83004083**, Jib Assembly **No. 81022482** or **No. 83009103**, Wire Rope Specification chart **No. 9292-A**, and Wind Conditions chart **No. 9289-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 Operator's 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. 9290-A**.



**OPERATING RADIUS:** Operating radius is horizontal distance from axis of rotation to center of vertical hoist line or load block.



**BOOM ANGLE:** Boom angle in degrees (°) is angle between horizontal and centerline of boom butt and inserts, and is an indication of operating radius. In all cases, operating radius shall govern capacity.



**JIB POINT ELEVATION:** Jib point elevation is vertical distance from ground level to centerline of jib point shaft.

**MACHINE EQUIPMENT:** Machine equipped with 26 ft 2 in. crawlers, 43 in. treads, 23 ft 7 in. live mast, 18 part boom hoist reeving, four 28 mm boom pendants, 99,500 lb crane counterweight, and 0 lb carbody counterweight.

Maximum capacity on 26 mm wire rope is 27,558 lb per line (20,000 lb per line when auxiliary drum is used).



99,500 lb Crane Counterweight  
6 side boxes

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

**Auxiliary Drum Deduct**

Deduct 1,300 lb from capacities when boom butt is equipped with auxiliary drum, and 6,0 m (19.7 ft) insert is equipped with wire rope guide sheaves.

**Lower Boom Point Sheave Deduct**

Deduct 600 lb from capacities for boom lengths 147.6 ft thru 196.9 ft when lower boom point is equipped with outer sheave clusters.

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

**Caution:** Combined weight beneath lower and/or upper boom point and jib point sheaves must not exceed block weight shown. Total weight beneath jib point must not exceed 4,000 lb.

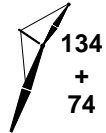
**Table 1**

Raising Ability Over End or Side of Crawlers						
Boom Length (ft)	Fixed Jib No. 134					
	30.0 ft	40.0 ft	50.0 ft	60.0 ft	70.0 ft	80.0 ft
	Block Weight (lb)					
88.6 - 108.3	7,700	7,700	7,700	7,700	7,700	7,700
118.1	7,700	7,700	7,700	7,700	5,800	5,800
128.0	7,700	7,700	5,800	5,800	1,600	1,600
137.8	5,800	5,800	1,600	1,600	1,600	1,600
147.6	5,800	1,600	1,600	1,600	1,600	1,600
157.5	1,600	1,600	1,600	1,600	1,600	#
167.3	1,600	1,600	1,600	#	#	#
177.2	1,600	#	#	a	a	
187.0	#	a	a			
196.9 - 206.7	<b>RAISING NOT PERMITTED</b>					

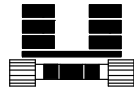
**Table 2**

Raising Ability Over Front of Blocked Crawlers						
Boom Length (ft)	Fixed Jib No. 134					
	30.0 ft	40.0 ft	50.0 ft	60.0 ft	70.0 ft	80.0 ft
	Block Weight (lb)					
88.6 - 108.3	7,700	7,700	7,700	7,700	7,700	7,700
118.1	7,700	7,700	7,700	7,700	5,800	5,800
128.0	7,700	7,700	5,800	5,800	1,600	1,600
137.8	5,800	5,800	1,600	1,600	1,600	1,600
147.6	5,800	1,600	1,600	1,600	1,600	1,600
157.5	1,600	1,600	1,600	1,600	1,600	#
167.3	1,600	1,600	1,600	#	#	#
177.2	1,600	#	#	#	#	#
187.0	#	#	#	#	#	#
196.9	#	#	#	a	a	
206.7	#	a				
	<b>RAISING NOT PERMITTED</b>					
<b>Warning:</b> Crane must remain in-line with crawlers when raising over end of blocked crawlers until operating radius and crane configuration is within 360 degree chart.						

## Explanation of Symbols



Jib No. 134  
+  
Boom No. 74



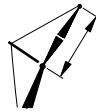
Crane Counterweight  
+  
Carbody Counterweight



360 Degree Rating



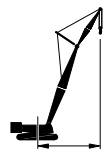
Boom Length



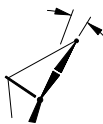
Jib Length



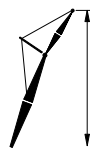
Boom Angle  
(see page 1)



Operating Radius  
(see page 1)



Jib Offset Angle



Jib Point Elevation  
(see page 1)

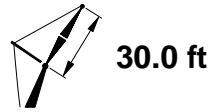
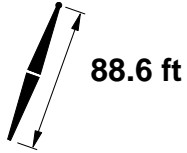
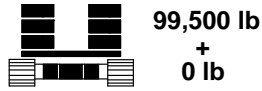
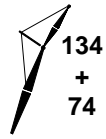


Lifting Capacities  
(see page 1)

REFERENCE ONLY!

# MLC165 S-1

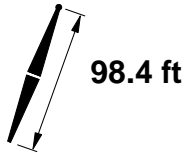
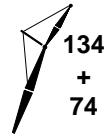
ASME B30.5



	5°			15°			25°					
	ft	°	ft	lb	ft	°	ft	lb	ft			
30	79.1		122.6	55,100*						30		
35	76.6		121.4	55,100*	79.1		120.6	55,100*		35		
40	74.1		120.0	55,100*	76.6		119.2	55,100*	79.2	117.4	46,400*	40
45	71.5		118.3	55,100*	74.0		117.5	55,100*	76.6	115.6	43,800*	45
50	68.9		116.4	55,100*	71.4		115.5	55,100*	73.9	113.6	41,600*	50
55	66.3		114.2	55,100*	68.8		113.3	54,900*	71.2	111.4	39,700*	55
60	63.6		111.7	52,300	66.0		110.8	53,000	68.4	108.8	37,900*	60
65	60.8		108.9	46,800	63.3		108.0	47,400	65.6	105.9	36,300*	65
70	58.0		105.7	42,200	60.4		104.8	42,700	62.7	102.7	34,900*	70
75	55.0		102.2	38,300	57.4		101.3	38,800	59.6	99.1	33,700*	75
80	52.0		98.3	34,900	54.3		97.3	35,300	56.4	95.1	32,600*	80
85	48.7		94.0	32,000	51.1		92.9	32,400	53.1	90.5	31,600*	85
90	45.4		89.1	29,400	47.6		88.0	29,700	49.6	85.4	30,000	90
95	41.8		83.6	27,100	44.0		82.4	27,400	45.8	79.6	27,600	95
100	37.9		77.3	25,100	40.0		75.9	25,300				100
105	33.6		69.9	23,200	35.6		68.4	23,400				105
110	28.7		61.2	21,500								110
115	22.8		50.1	20,000								115

# MLC165 S-1

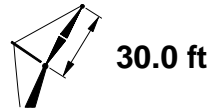
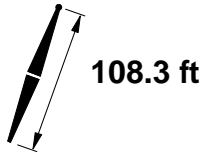
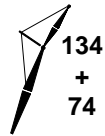
ASME B30.5



	5°			15°			25°			
	ft	°	ft	lb	ft	°	ft	lb	ft	
35	77.6		131.6	55,100*						35
40	75.3		130.3	55,100*	77.7		129.4	55,100*		40
45	73.0		128.7	55,100*	75.3		127.9	55,100*	77.7	45
50	70.6		126.9	55,100*	72.9		126.1	55,100*	75.3	50
55	68.2		124.9	55,100*	70.5		124.1	55,100*	72.8	55
60	65.8		122.7	52,000	68.1		121.8	52,800	70.3	60
65	63.3		120.1	46,500	65.5		119.2	47,200	67.7	65
70	60.7		117.3	41,900	63.0		116.4	42,500	65.1	70
75	58.1		114.2	38,000	60.3		113.3	38,500	62.4	75
80	55.4		110.8	34,600	57.6		109.8	35,100	59.6	80
85	52.6		107.0	31,700	54.7		105.9	32,100	56.7	85
90	49.6		102.7	29,100	51.8		101.7	29,500	53.7	90
95	46.6		98.0	26,800	48.7		96.9	27,100	50.5	95
100	43.3		92.8	24,800	45.4		91.6	25,000	47.1	100
105	39.9		86.9	22,900	41.9		85.6	23,200	43.5	105
110	36.2		80.2	21,300	38.1		78.8	21,500		110
115	32.0		72.4	19,700	33.9		70.9	19,900		115
120	27.3		63.2	18,400						120
125	21.7		51.5	17,100						125

# MLC165 S-1

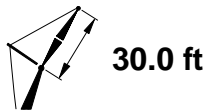
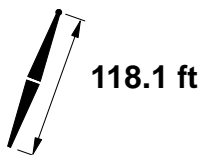
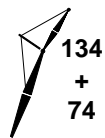
ASME B30.5



	5°			15°			25°			
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
35	78.5	141.7	55,100*							35
40	76.4	140.5	55,100*	78.6	139.6	55,100*				40
45	74.2	139.0	55,100*	76.4	138.2	55,100*	78.6	136.3	45,800*	45
50	72.1	137.4	55,100*	74.2	136.5	55,100*	76.4	134.6	43,700*	50
55	69.9	135.6	55,100*	72.0	134.7	55,100*	74.1	132.7	41,800*	55
60	67.6	133.5	51,600	69.7	132.6	52,400	71.8	130.6	40,100*	60
65	65.3	131.2	46,000	67.4	130.3	46,800	69.5	128.3	38,500*	65
70	63.0	128.6	41,400	65.1	127.7	42,100	67.1	125.6	37,200*	70
75	60.6	125.8	37,500	62.7	124.9	38,100	64.7	122.8	35,900*	75
80	58.2	122.7	34,100	60.2	121.7	34,600	62.2	119.6	34,700*	80
85	55.7	119.3	31,200	57.7	118.3	31,700	59.6	116.1	32,100	85
90	53.1	115.6	28,600	55.1	114.5	29,000	56.9	112.2	29,400	90
95	50.4	111.4	26,300	52.4	110.4	26,700	54.1	107.9	27,000	95
100	47.6	106.9	24,300	49.6	105.8	24,600	51.2	103.2	24,900	100
105	44.7	101.9	22,500	46.6	100.7	22,800	48.2	98.0	23,000	105
110	41.6	96.3	20,800	43.4	95.0	21,100	44.9	92.2	21,300	110
115	38.2	90.1	19,300	40.1	88.7	19,500				115
120	34.6	83.0	17,900	36.4	81.5	18,100				120
125	30.7	74.8	16,700	32.3	73.1	16,800				125
130	26.1	65.1	15,500							130

# MLC165 S-1

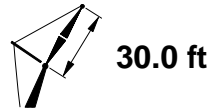
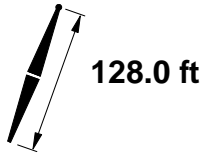
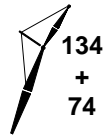
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
35	79.3	151.8	55,100*							35
40	77.3	150.6	55,100*	79.4	149.8	55,100*				40
45	75.3	149.3	55,100*	77.4	148.4	55,100*	79.4	146.5	46,600*	45
50	73.3	147.8	55,100*	75.3	146.9	55,100*	77.4	145.0	44,600*	50
55	71.3	146.1	55,100*	73.3	145.2	55,100*	75.3	143.2	42,700*	55
60	69.2	144.2	51,200	71.2	143.3	52,100	73.2	141.3	41,000*	60
65	67.1	142.0	45,700	69.1	141.1	46,500	71.0	139.1	39,500*	65
70	64.9	139.7	41,100	66.9	138.8	41,800	68.8	136.7	38,100*	70
75	62.8	137.1	37,100	64.7	136.2	37,800	66.6	134.1	36,900*	75
80	60.5	134.3	33,800	62.5	133.3	34,300	64.3	131.2	34,900	80
85	58.3	131.2	30,800	60.2	130.2	31,300	62.0	128.0	31,800	85
90	55.9	127.8	28,200	57.8	126.8	28,700	59.6	124.5	29,100	90
95	53.5	124.1	26,000	55.4	123.1	26,400	57.1	120.7	26,800	95
100	51.0	120.1	23,900	52.9	119.0	24,300	54.5	116.6	24,600	100
105	48.5	115.7	22,100	50.3	114.6	22,400	51.9	112.0	22,700	105
110	45.8	110.9	20,500	47.6	109.7	20,800	49.1	107.0	21,000	110
115	43.0	105.6	19,000	44.7	104.3	19,200	46.2	101.5	19,400	115
120	40.0	99.7	17,600	41.7	98.3	17,800	43.0	95.3	18,000	120
125	36.8	93.1	16,300	38.4	91.6	16,500				125
130	33.3	85.6	15,200	34.9	84.0	15,300				130
135	29.4	77.1	14,100							135
140	25.1	66.9	13,100							140

# MLC165 S-1

ASME B30.5

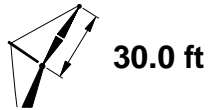
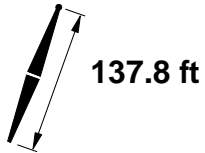
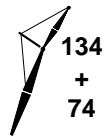


	5°			15°			25°			
	ft	°	ft	lb	ft	°	ft	lb	ft	
40	78.1		160.7	55,100*						40
45	76.3		159.5	55,100*	78.2	158.6	55,100*			45
50	74.4		158.1	55,100*	76.3	157.2	55,100*	78.2	155.2	45,300*
55	72.5		156.5	55,100*	74.4	155.6	55,100*	76.2	153.6	43,500*
60	70.5		154.7	50,900	72.4	153.8	51,900	74.3	151.8	41,900*
65	68.6		152.8	45,400	70.5	151.8	46,200	72.3	149.8	40,400*
70	66.6		150.6	40,800	68.5	149.6	41,500	70.3	147.6	39,000*
75	64.6		148.2	36,800	66.4	147.2	37,500	68.2	145.2	37,800*
80	62.6		145.6	33,500	64.4	144.6	34,100	66.1	142.5	34,600
85	60.5		142.8	30,500	62.3	141.8	31,100	64.0	139.6	31,600
90	58.3		139.7	27,900	60.1	138.7	28,400	61.8	136.4	28,900
95	56.2		136.3	25,700	57.9	135.3	26,100	59.6	133.0	26,500
100	53.9		132.7	23,600	55.7	131.6	24,000	57.3	129.3	24,400
105	51.6		128.8	21,800	53.3	127.6	22,200	54.9	125.2	22,500
110	49.2		124.5	20,200	50.9	123.3	20,500	52.4	120.8	20,800
115	46.7		119.8	18,700	48.4	118.6	19,000	49.9	116.0	19,200
120	44.1		114.7	17,300	45.8	113.4	17,600	47.2	110.7	17,800
125	41.4		109.1	16,100	43.0	107.7	16,300	44.3	104.8	16,500
130	38.5		102.9	14,900	40.1	101.5	15,100			
135	35.4		96.0	13,800	37.0	94.4	14,000			
140	32.1		88.2	12,900	33.5	86.5	13,000			
145	28.3		79.2	11,900						
150	24.1		68.5	11,100						



# MLC165 S-1

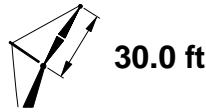
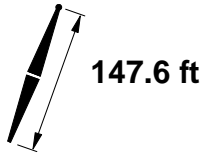
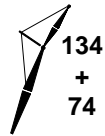
ASME B30.5



	5°			15°			25°			
	ft	°	ft	lb	ft	°	ft	lb	ft	
40	78.8		170.8	55,100*						40
45	77.1		169.7	55,100*	78.9	168.8	55,100*			45
50	75.3		168.3	55,100*	77.1	167.4	55,100*	78.9	165.5	46,100*
55	73.5		166.8	55,100*	75.3	165.9	55,100*	77.1	164.0	44,300*
60	71.7		165.2	50,600	73.5	164.3	51,600	75.3	162.3	42,700*
65	69.9		163.3	45,000	71.7	162.4	45,900	73.4	160.4	41,200*
70	68.1		161.3	40,400	69.8	160.4	41,200	71.5	158.3	39,900*
75	66.2		159.1	36,500	67.9	158.2	37,200	69.6	156.1	37,900
80	64.3		156.7	33,100	66.0	155.7	33,700	67.7	153.6	34,400
85	62.4		154.1	30,100	64.1	153.1	30,700	65.7	150.9	31,300
90	60.4		151.2	27,600	62.1	150.2	28,100	63.7	148.0	28,600
95	58.4		148.2	25,300	60.1	147.1	25,800	61.7	144.9	26,200
100	56.4		144.8	23,200	58.0	143.8	23,700	59.6	141.5	24,100
105	54.3		141.3	21,400	55.9	140.2	21,800	57.4	137.8	22,200
110	52.1		137.4	19,800	53.7	136.3	20,200	55.2	133.8	20,500
115	49.9		133.2	18,300	51.5	132.0	18,600	52.9	129.5	18,900
120	47.6		128.6	16,900	49.2	127.4	17,200	50.5	124.8	17,500
125	45.2		123.7	15,700	46.7	122.4	16,000	48.0	119.7	16,200
130	42.6		118.3	14,500	44.2	117.0	14,800	45.4	114.1	15,000
135	40.0		112.4	13,500	41.5	111.0	13,700			
140	37.2		105.9	12,500	38.7	104.5	12,700			
145	34.2		98.7	11,600	35.6	97.1	11,700			
150	30.9		90.6	10,700	32.3	88.8	10,800			
155	27.3		81.2	9,900						
160	23.2		70.1	9,100						

# MLC165 S-1

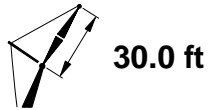
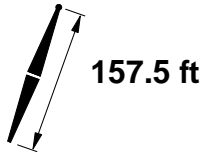
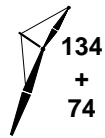
ASME B30.5



	5°			15°			25°			
	ft	°	ft	lb	ft	°	ft	lb	ft	
40	79.5		180.9	55,100*						40
45	77.8		179.8	55,100*	79.5		178.9	55,100*		45
50	76.2		178.5	55,100*	77.9		177.6	55,100*	79.6	50
55	74.5		177.1	55,100*	76.2		176.2	55,100*	77.9	55
60	72.8		175.6	50,700	74.5		174.7	51,700	76.1	60
65	71.1		173.9	45,200	72.8		172.9	46,000	74.4	65
70	69.4		172.0	40,500	71.0		171.0	41,300	72.6	70
75	67.6		169.9	36,600	69.3		168.9	37,300	70.9	75
80	65.8		167.6	33,200	67.5		166.7	33,800	69.1	80
85	64.0		165.2	30,300	65.7		164.2	30,900	67.2	85
90	62.2		162.6	27,700	63.8		161.6	28,200	65.4	90
95	60.4		159.7	25,400	62.0		158.7	25,900	63.5	95
100	58.5		156.7	23,400	60.1		155.6	23,800	61.5	100
105	56.5		153.4	21,600	58.1		152.3	22,000	59.6	105
110	54.6		149.8	19,900	56.1		148.7	20,300	57.5	110
115	52.5		146.0	18,400	54.1		144.9	18,800	55.5	115
120	50.4		141.9	17,100	52.0		140.7	17,400	53.3	120
125	48.3		137.4	15,800	49.8		136.2	16,100	51.1	125
130	46.1		132.6	14,700	47.5		131.4	15,000	48.8	130
135	43.7		127.4	13,600	45.2		126.1	13,900	46.4	135
140	41.3		121.8	12,700	42.7		120.4	12,900	43.9	140
145	38.7		115.6	11,800	40.1		114.2	11,900		145
150	36.0		108.9	10,900	37.4		107.3	11,100		150
155	33.1		101.3	10,100	34.4		99.7	10,200		155
160	29.9		92.9	9,400						160
165	26.4		83.2	8,700						165
170	22.3		71.6	8,000						170

# MLC165 S-1

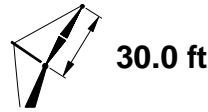
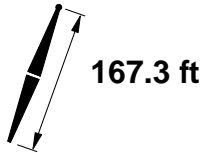
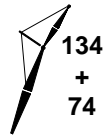
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
45	78.5	189.9	55,100*							45
50	76.9	188.7	55,100*	78.5	187.8	55,100*				50
55	75.3	187.4	55,100*	76.9	186.5	55,100*	78.5	184.5	45,700*	55
60	73.7	185.9	50,400	75.3	185.0	51,400	76.9	183.0	44,100*	60
65	72.1	184.3	44,800	73.7	183.3	45,700	75.3	181.3	42,700*	65
70	70.5	182.5	40,200	72.1	181.6	41,000	73.6	179.5	41,400*	70
75	68.9	180.6	36,200	70.4	179.6	37,000	72.0	177.5	37,700	75
80	67.2	178.4	32,800	68.8	177.5	33,500	70.3	175.4	34,200	80
85	65.5	176.2	29,900	67.1	175.2	30,500	68.6	173.0	31,100	85
90	63.8	173.7	27,300	65.3	172.7	27,900	66.8	170.5	28,400	90
95	62.1	171.0	25,000	63.6	170.0	25,600	65.1	167.8	26,100	95
100	60.3	168.2	23,000	61.8	167.2	23,500	63.3	164.9	24,000	100
105	58.5	165.1	21,200	60.0	164.1	21,600	61.4	161.8	22,100	105
110	56.7	161.9	19,500	58.2	160.8	20,000	59.6	158.4	20,300	110
115	54.8	158.3	18,100	56.3	157.2	18,400	57.6	154.8	18,800	115
120	52.9	154.6	16,700	54.4	153.4	17,000	55.7	151.0	17,400	120
125	51.0	150.5	15,500	52.4	149.4	15,800	53.7	146.8	16,100	125
130	48.9	146.2	14,300	50.4	145.0	14,600	51.6	142.4	14,900	130
135	46.8	141.5	13,300	48.2	140.3	13,500	49.4	137.6	13,800	135
140	44.7	136.5	12,300	46.1	135.2	12,500	47.2	132.4	12,700	140
145	42.4	131.1	11,400	43.8	129.7	11,600	44.9	126.8	11,800	145
150	40.0	125.2	10,500	41.4	123.8	10,700				150
155	37.6	118.7	9,700	38.9	117.3	9,900				155
160	34.9	111.7	9,000	36.2	110.1	9,200				160
165	32.1	103.9	8,300	33.3	102.2	8,400				165
170	29.0	95.1	7,600							170
175	25.5	85.0	7,000							175
180	21.6	73.0	6,400							180

# MLC165 S-1

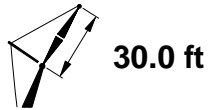
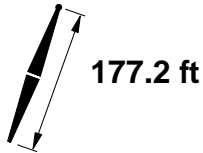
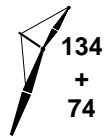
ASME B30.5



	5°			15°			25°			
	ft	°	ft	lb	ft	°	ft	lb	ft	
45	79.1		199.9	55,100*						45
50	77.6		198.8	55,100*	79.1		197.9	55,100*		50
55	76.1		197.6	55,100*	77.6		196.6	55,100*	79.1	55
60	74.6		196.2	50,100	76.1		195.2	51,100	77.6	60
65	73.0		194.6	44,500	74.6		193.7	45,500	76.1	65
70	71.5		193.0	39,900	73.0		192.0	40,700	74.5	70
75	70.0		191.1	35,900	71.5		190.2	36,700	72.9	75
80	68.4		189.1	32,500	69.9		188.2	33,200	71.3	80
85	66.8		187.0	29,600	68.3		186.0	30,200	69.7	85
90	65.2		184.7	27,000	66.7		183.7	27,600	68.1	90
95	63.6		182.2	24,700	65.1		181.2	25,300	66.4	95
100	62.0		179.5	22,700	63.4		178.5	23,200	64.8	100
105	60.3		176.7	20,900	61.7		175.6	21,300	63.1	105
110	58.6		173.6	19,200	60.0		172.6	19,700	61.3	110
115	56.8		170.4	17,700	58.3		169.3	18,100	59.6	115
120	55.1		166.9	16,400	56.5		165.8	16,800	57.7	120
125	53.3		163.1	15,100	54.7		162.0	15,500	55.9	125
130	51.4		159.2	14,000	52.8		158.0	14,300	54.0	130
135	49.5		154.9	12,900	50.9		153.7	13,200	52.0	135
140	47.5		150.3	12,000	48.9		149.1	12,200	50.0	140
145	45.5		145.5	11,100	46.8		144.2	11,300	47.9	145
150	43.4		140.2	10,200	44.7		138.9	10,400	45.8	150
155	41.2		134.5	9,400	42.5		133.2	9,600	43.5	155
160	38.9		128.4	8,700	40.2		127.0	8,900		160
165	36.5		121.7	8,000	37.7		120.2	8,200		165
170	33.9		114.4	7,400	35.1		112.8	7,500		170
175	31.1		106.3	6,700	32.3		104.5	6,900		175
180	28.1		97.2	6,200						180
185	24.8		86.8	5,600						185
190	20.9		74.4	5,100						190

# MLC165 S-1

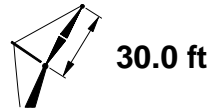
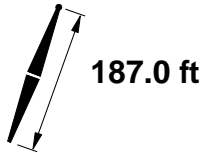
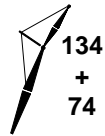
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
45	79.6	210.0	55,100*							45
50	78.2	208.9	55,100*	79.6	208.0	55,100*				50
55	76.7	207.7	55,100*	78.2	206.8	54,900*	79.7	204.8	46,900*	55
60	75.3	206.4	49,700	76.8	205.5	50,900	78.2	203.4	45,400*	60
65	73.9	205.0	44,200	75.3	204.0	45,200	76.7	202.0	44,000*	65
70	72.4	203.4	39,500	73.9	202.4	40,400	75.3	200.3	41,300	70
75	71.0	201.6	35,600	72.4	200.7	36,400	73.8	198.6	37,200	75
80	69.5	199.8	32,200	70.9	198.8	32,900	72.3	196.7	33,700	80
85	68.0	197.7	29,200	69.4	196.7	29,900	70.8	194.6	30,600	85
90	66.5	195.5	26,600	67.9	194.6	27,300	69.2	192.4	27,900	90
95	65.0	193.2	24,400	66.3	192.2	24,900	67.7	190.0	25,500	95
100	63.4	190.7	22,300	64.8	189.7	22,900	66.1	187.5	23,400	100
105	61.8	188.0	20,500	63.2	187.0	21,000	64.5	184.7	21,500	105
110	60.2	185.1	18,800	61.6	184.1	19,300	62.9	181.8	19,800	110
115	58.6	182.1	17,400	60.0	181.0	17,800	61.2	178.7	18,200	115
120	57.0	178.8	16,000	58.3	177.8	16,400	59.5	175.4	16,800	120
125	55.3	175.4	14,800	56.6	174.3	15,100	57.8	171.9	15,500	125
130	53.6	171.7	13,600	54.9	170.6	14,000	56.1	168.1	14,300	130
135	51.8	167.8	12,600	53.1	166.6	12,900	54.3	164.1	13,200	135
140	50.0	163.6	11,600	51.3	162.4	11,900	52.4	159.8	12,100	140
145	48.2	159.1	10,700	49.4	157.9	11,000	50.5	155.2	11,200	145
150	46.2	154.4	9,800	47.5	153.1	10,100	48.6	150.3	10,300	150
155	44.3	149.3	9,100	45.5	148.0	9,300	46.5	145.1	9,500	155
160	42.2	143.8	8,300	43.4	142.4	8,500	44.4	139.4	8,700	160
165	40.1	137.9	7,600	41.3	136.5	7,800				165
170	37.8	131.5	7,000	39.0	130.1	7,100				170
175	35.5	124.6	6,400	36.6	123.0	6,500				175
180	33.0	117.0	5,800	34.1	115.3	5,900				180
185	30.3	108.7	5,200	31.3	106.8	5,300				185
190	27.3	99.2	4,700							190
195	24.0	88.4	4,200							195

# MLC165 S-1

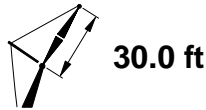
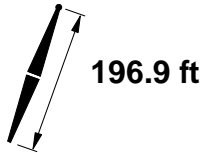
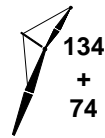
ASME B30.5



	5°			15°			25°			
	ft	°	ft	lb	ft	°	ft	lb	ft	
50	78.7		219.0	55,100*						50
55	77.4		217.9	55,100*	78.8	216.9	54,400*			55
60	76.0		216.6	49,500	77.4	215.7	50,600	78.8	213.6	45,900*
65	74.6		215.2	43,900	76.0	214.3	44,900	77.4	212.2	44,600*
70	73.2		213.7	39,200	74.6	212.8	40,200	76.0	210.7	41,100
75	71.9		212.1	35,300	73.2	211.1	36,100	74.6	209.0	37,000
80	70.5		210.3	31,900	71.8	209.3	32,700	73.1	207.2	33,400
85	69.0		208.4	28,900	70.4	207.4	29,700	71.7	205.3	30,400
90	67.6		206.3	26,400	69.0	205.3	27,000	70.3	203.2	27,700
95	66.2		204.1	24,100	67.5	203.1	24,700	68.8	200.9	25,300
100	64.7		201.7	22,000	66.0	200.7	22,600	67.3	198.5	23,100
105	63.2		199.2	20,200	64.5	198.2	20,700	65.8	195.9	21,200
110	61.7		196.5	18,600	63.0	195.5	19,100	64.3	193.2	19,500
115	60.2		193.6	17,100	61.5	192.6	17,500	62.7	190.3	18,000
120	58.7		190.6	15,700	60.0	189.5	16,200	61.1	187.2	16,500
125	57.1		187.3	14,500	58.4	186.3	14,900	59.5	183.9	15,200
130	55.5		183.9	13,400	56.8	182.8	13,700	57.9	180.4	14,000
135	53.8		180.3	12,300	55.1	179.1	12,600	56.2	176.6	12,900
140	52.2		176.4	11,300	53.4	175.2	11,600	54.5	172.7	11,900
145	50.5		172.3	10,400	51.7	171.1	10,700	52.8	168.5	11,000
150	48.7		167.9	9,600	49.9	166.7	9,900	51.0	164.0	10,100
155	46.9		163.2	8,800	48.1	162.0	9,100	49.1	159.2	9,300
160	45.0		158.3	8,100	46.2	157.0	8,300	47.2	154.1	8,500
165	43.1		153.0	7,400	44.3	151.6	7,600	45.2	148.7	7,800
170	41.1		147.3	6,700	42.3	145.9	6,900	43.2	142.8	7,100
175	39.0		141.2	6,100	40.2	139.7	6,300			
180	36.9		134.6	5,600	38.0	133.0	5,700			
185	34.5		127.4	5,000	35.6	125.8	5,100			
190	32.1		119.6	4,500	33.1	117.8	4,600			
195	29.4		110.9	4,000						

# MLC165 S-1

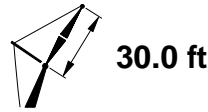
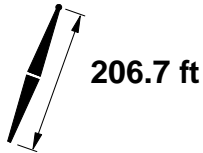
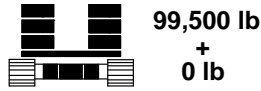
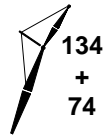
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
50	79.2	229.0	55,100*							50
55	77.9	228.0	55,100*	79.3	227.0	53,900*				55
60	76.6	226.8	49,200	77.9	225.8	50,300	79.3	223.8	46,400*	60
65	75.3	225.5	43,600	76.6	224.5	44,600	78.0	222.4	45,100*	65
70	74.0	224.0	38,900	75.3	223.1	39,900	76.6	221.0	40,800	70
75	72.7	222.4	34,900	74.0	221.5	35,800	75.3	219.4	36,700	75
80	71.3	220.7	31,500	72.6	219.8	32,400	73.9	217.7	33,200	80
85	70.0	218.9	28,600	71.3	217.9	29,300	72.6	215.8	30,100	85
90	68.6	217.0	26,000	69.9	216.0	26,700	71.2	213.8	27,400	90
95	67.3	214.9	23,700	68.6	213.9	24,400	69.8	211.7	25,000	95
100	65.9	212.6	21,700	67.2	211.6	22,300	68.4	209.4	22,800	100
105	64.5	210.2	19,900	65.8	209.2	20,400	67.0	207.0	20,900	105
110	63.1	207.7	18,200	64.3	206.6	18,700	65.5	204.4	19,200	110
115	61.6	205.0	16,700	62.9	203.9	17,200	64.1	201.6	17,600	115
120	60.2	202.1	15,400	61.4	201.0	15,800	62.6	198.7	16,200	120
125	58.7	199.1	14,100	59.9	198.0	14,500	61.1	195.6	14,900	125
130	57.2	195.8	13,000	58.4	194.7	13,400	59.5	192.3	13,700	130
135	55.7	192.4	11,900	56.9	191.3	12,300	58.0	188.9	12,600	135
140	54.1	188.8	11,000	55.3	187.7	11,300	56.4	185.2	11,600	140
145	52.5	185.0	10,000	53.7	183.8	10,400	54.8	181.3	10,600	145
150	50.9	180.9	9,200	52.1	179.7	9,500	53.1	177.1	9,800	150
155	49.2	176.6	8,400	50.4	175.4	8,700	51.4	172.7	8,900	155
160	47.5	172.1	7,700	48.7	170.8	7,900	49.7	168.1	8,200	160
165	45.8	167.2	7,000	46.9	165.9	7,200	47.8	163.1	7,400	165
170	43.9	162.1	6,400	45.1	160.7	6,600	46.0	157.8	6,700	170
175	42.1	156.6	5,800	43.2	155.2	5,900	44.0	152.1	6,100	175
180	40.1	150.7	5,200	41.2	149.2	5,400				180
185	38.1	144.3	4,600	39.1	142.8	4,800				185
190	35.9	137.5	4,100	37.0	135.9	4,300				190

# MLC165 S-1

ASME B30.5

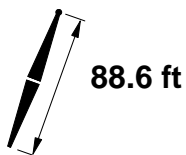
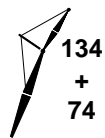


	5°			15°			25°			
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
50	79.7	239.1	55,100*							50
55	78.4	238.1	55,100*							55
60	77.2	236.9	48,800	78.5	236.0	50,100				60
65	75.9	235.6	43,300	77.2	234.7	44,400	78.5	232.6	45,500	65
70	74.7	234.3	38,600	75.9	233.3	39,600	77.2	231.2	40,600	70
75	73.4	232.8	34,600	74.7	231.8	35,500	75.9	229.7	36,500	75
80	72.1	231.2	31,200	73.4	230.2	32,100	74.6	228.1	32,900	80
85	70.9	229.4	28,300	72.1	228.4	29,000	73.3	226.3	29,800	85
90	69.6	227.5	25,700	70.8	226.6	26,400	72.0	224.4	27,100	90
95	68.3	225.5	23,400	69.5	224.5	24,000	70.7	222.4	24,700	95
100	67.0	223.4	21,300	68.2	222.4	22,000	69.4	220.2	22,600	100
105	65.6	221.1	19,500	66.8	220.1	20,100	68.0	217.9	20,600	105
110	64.3	218.7	17,900	65.5	217.7	18,400	66.6	215.5	18,900	110
115	62.9	216.2	16,400	64.1	215.1	16,900	65.3	212.9	17,400	115
120	61.5	213.5	15,000	62.7	212.4	15,500	63.9	210.1	15,900	120
125	60.1	210.6	13,800	61.3	209.5	14,200	62.4	207.2	14,600	125
130	58.7	207.5	12,600	59.9	206.5	13,000	61.0	204.1	13,400	130
135	57.3	204.3	11,600	58.5	203.2	12,000	59.5	200.8	12,300	135
140	55.8	200.9	10,600	57.0	199.8	11,000	58.0	197.4	11,300	140
145	54.3	197.4	9,700	55.5	196.2	10,000	56.5	193.7	10,300	145
150	52.8	193.6	8,900	54.0	192.4	9,200	55.0	189.9	9,500	150
155	51.3	189.6	8,100	52.4	188.4	8,400	53.4	185.8	8,600	155
160	49.7	185.3	7,400	50.8	184.1	7,600	51.8	181.4	7,900	160
165	48.1	180.9	6,700	49.2	179.6	6,900	50.1	176.9	7,100	165
170	46.4	176.1	6,000	47.5	174.8	6,300	48.4	172.0	6,500	170
175	44.7	171.1	5,400	45.8	169.8	5,600	46.6	166.8	5,800	175
180	42.9	165.7	4,800	44.0	164.4	5,000	44.8	161.4	5,200	180
185	41.1	160.0	4,300	42.1	158.6	4,500	42.9	155.5	4,600	185
190				40.2	152.5	4,000				190



# MLC165 S-1

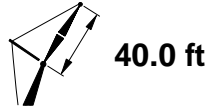
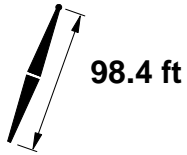
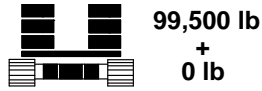
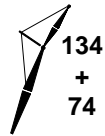
ASME B30.5



	5°			15°			25°			
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
35	78.4	131.7	52,700*							35
40	76.1	130.3	51,400*	79.2	129.2	47,900*				40
45	73.8	128.8	50,100*	76.9	127.7	47,000*				45
50	71.4	127.0	48,800*	74.5	125.9	46,200*	77.6	123.5	35,400*	50
55	69.0	125.0	47,700*	72.1	123.9	45,500*	75.1	121.5	33,700*	55
60	66.6	122.8	46,700*	69.6	121.6	44,800*	72.6	119.1	32,100*	60
65	64.1	120.2	45,700*	67.1	119.0	43,700*	70.0	116.5	30,800*	65
70	61.5	117.4	42,700	64.5	116.2	41,200*	67.4	113.6	29,600*	70
75	58.9	114.3	38,800	61.8	113.1	39,000*	64.7	110.4	28,400*	75
80	56.2	110.9	35,400	59.1	109.6	36,000	61.9	106.8	27,400*	80
85	53.4	107.1	32,500	56.2	105.7	33,000	58.9	102.8	26,500*	85
90	50.5	102.8	29,900	53.3	101.4	30,400	55.9	98.4	25,700*	90
95	47.4	98.2	27,600	50.2	96.7	28,000	52.7	93.5	25,000*	95
100	44.2	92.9	25,600	46.9	91.3	25,900	49.3	88.0	24,400*	100
105	40.7	87.0	23,700	43.4	85.3	24,100	45.6	81.7	23,800*	105
110	37.0	80.3	22,100	39.6	78.5	22,300				110
115	32.9	72.6	20,600	35.3	70.5	20,800				115
120	28.2	63.4	19,200							120
125	22.6	51.8	17,900							125

# MLC165 S-1

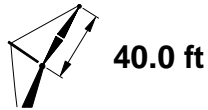
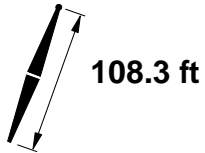
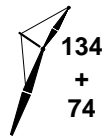
ASME B30.5



	5°			15°			25°			
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
35	79.3	141.8	53,000*							35
40	77.1	140.5	51,700*							40
45	75.0	139.1	50,500*	77.9	138.0	47,200*				45
50	72.8	137.5	49,300*	75.7	136.3	46,500*	78.6	133.9	36,100*	50
55	70.6	135.6	48,300*	73.4	134.5	45,800*	76.3	132.0	34,400*	55
60	68.3	133.6	47,300*	71.2	132.4	45,200*	74.0	129.9	32,900*	60
65	66.1	131.3	46,400*	68.9	130.1	44,600*	71.6	127.5	31,600*	65
70	63.7	128.7	42,400	66.5	127.5	43,100*	69.2	124.9	30,400*	70
75	61.4	125.9	38,500	64.1	124.6	39,200	66.8	122.0	29,300*	75
80	58.9	122.8	35,100	61.6	121.5	35,700	64.3	118.8	28,300*	80
85	56.4	119.4	32,200	59.1	118.1	32,700	61.7	115.2	27,400*	85
90	53.8	115.7	29,600	56.5	114.3	30,100	59.0	111.3	26,600*	90
95	51.1	111.5	27,300	53.8	110.1	27,700	56.2	107.0	25,800*	95
100	48.4	107.0	25,200	50.9	105.5	25,700	53.3	102.3	25,100*	100
105	45.4	102.0	23,400	48.0	100.4	23,800	50.2	97.0	24,100	105
110	42.3	96.4	21,700	44.8	94.8	22,100	46.9	91.1	22,300	110
115	39.0	90.2	20,200	41.4	88.4	20,500				115
120	35.4	83.1	18,900	37.7	81.1	19,100				120
125	31.5	75.0	17,600	33.7	72.7	17,800				125
130	26.9	65.3	16,400							130

# MLC165 S-1

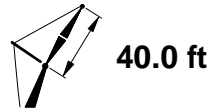
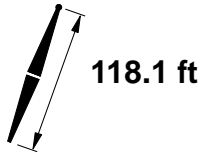
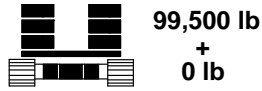
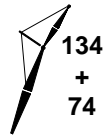
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
40	78.0	150.7	51,900*							40
45	76.0	149.4	50,800*	78.7	148.2	47,400*				45
50	74.0	147.9	49,700*	76.7	146.7	46,800*	79.4	144.2	36,700*	50
55	71.9	146.2	48,700*	74.6	145.0	46,100*	77.3	142.5	35,100*	55
60	69.9	144.2	47,800*	72.5	143.0	45,500*	75.2	140.5	33,700*	60
65	67.8	142.1	46,600	70.4	140.9	44,900*	73.0	138.3	32,400*	65
70	65.6	139.8	42,000	68.2	138.5	42,800	70.8	135.9	31,200*	70
75	63.5	137.2	38,000	66.0	135.9	38,800	68.6	133.3	30,100*	75
80	61.2	134.4	34,600	63.8	133.1	35,300	66.3	130.3	29,100*	80
85	59.0	131.3	31,700	61.5	130.0	32,300	63.9	127.1	28,200*	85
90	56.6	127.9	29,100	59.1	126.5	29,700	61.5	123.7	27,300*	90
95	54.2	124.2	26,800	56.7	122.8	27,300	59.0	119.8	26,600*	95
100	51.7	120.2	24,800	54.2	118.7	25,200	56.4	115.6	25,700	100
105	49.2	115.8	22,900	51.6	114.3	23,400	53.7	111.1	23,700	105
110	46.5	111.0	21,300	48.8	109.4	21,700	50.9	106.0	22,000	110
115	43.7	105.7	19,800	46.0	104.0	20,100	48.0	100.4	20,400	115
120	40.7	99.8	18,400	42.9	98.0	18,700	44.8	94.2	18,900	120
125	37.5	93.2	17,100	39.7	91.3	17,400				125
130	34.0	85.8	16,000	36.1	83.7	16,200				130
135	30.2	77.2	14,900							135
140	25.8	67.0	13,900							140

# MLC165 S-1

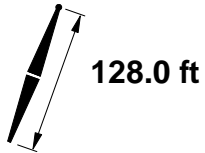
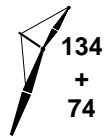
ASME B30.5



	5°			15°			25°				
	ft	°	ft	lb	ft	°	ft	lb	ft		
40	78.8		160.8	52,000*						40	
45	76.9		159.6	50,900*	79.4	158.4	47,500*			45	
50	75.0		158.2	49,900*	77.5	157.0	46,900*			50	
55	73.1		156.6	49,000*	75.6	155.4	46,300*	78.1	152.8	35,700*	55
60	71.2		154.8	48,100*	73.7	153.6	45,700*	76.2	151.0	34,300*	60
65	69.2		152.8	46,300	71.7	151.6	45,200*	74.2	149.0	33,000*	65
70	67.3		150.7	41,600	69.7	149.4	42,500	72.1	146.8	31,900*	70
75	65.3		148.3	37,700	67.7	147.0	38,500	70.1	144.3	30,800*	75
80	63.2		145.7	34,300	65.6	144.4	35,000	68.0	141.6	29,800*	80
85	61.1		142.8	31,300	63.5	141.5	32,000	65.8	138.7	28,900*	85
90	59.0		139.8	28,700	61.4	138.4	29,300	63.6	135.5	28,100*	90
95	56.8		136.4	26,400	59.2	135.0	27,000	61.4	132.1	27,300*	95
100	54.6		132.8	24,400	56.9	131.4	24,900	59.0	128.3	25,400	100
105	52.3		128.8	22,600	54.6	127.4	23,000	56.6	124.2	23,500	105
110	49.9		124.6	20,900	52.1	123.0	21,300	54.2	119.8	21,700	110
115	47.4		119.9	19,400	49.6	118.3	19,800	51.6	114.9	20,100	115
120	44.8		114.8	18,000	47.0	113.1	18,400	48.8	109.5	18,700	120
125	42.1		109.2	16,800	44.2	107.4	17,100	46.0	103.6	17,300	125
130	39.2		103.0	15,600	41.3	101.1	15,900				130
135	36.1		96.1	14,500	38.1	94.0	14,800				135
140	32.7		88.3	13,500	34.7	86.1	13,700				140
145	29.0		79.3	12,600							145
150	24.8		68.7	11,700							150

# MLC165 S-1

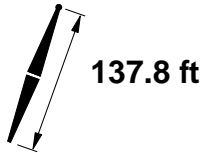
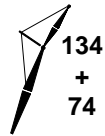
ASME B30.5



	5°			15°			25°			
	ft	°	ft	lb	ft	°	ft	lb	ft	
40	79.4		170.9	52,000*						40
45	77.7		169.7	51,000*						45
50	75.9		168.4	50,100*	78.3	167.2	46,900*			50
55	74.1		166.9	49,200*	76.5	165.7	46,400*	78.9	163.1	36,300*
60	72.3		165.3	48,400*	74.7	164.0	45,900*	77.0	161.4	34,900*
65	70.5		163.4	46,000	72.8	162.2	45,400*	75.2	159.5	33,700*
70	68.7		161.4	41,300	71.0	160.1	42,300	73.3	157.5	32,500*
75	66.8		159.2	37,300	69.1	157.9	38,200	71.4	155.2	31,500*
80	64.9		156.8	34,000	67.2	155.5	34,700	69.4	152.7	30,500*
85	63.0		154.2	31,000	65.3	152.8	31,700	67.4	150.0	29,600*
90	61.0		151.3	28,400	63.3	150.0	29,100	65.4	147.1	28,700*
95	59.0		148.2	26,100	61.2	146.9	26,700	63.4	144.0	27,300
100	57.0		144.9	24,100	59.2	143.5	24,600	61.2	140.5	25,200
105	54.9		141.3	22,200	57.1	139.9	22,800	59.1	136.8	23,200
110	52.7		137.5	20,600	54.9	136.0	21,100	56.8	132.8	21,500
115	50.5		133.3	19,100	52.6	131.7	19,500	54.5	128.4	19,900
120	48.2		128.7	17,700	50.3	127.1	18,100	52.1	123.7	18,500
125	45.8		123.8	16,500	47.8	122.1	16,800	49.6	118.5	17,100
130	43.3		118.4	15,300	45.3	116.7	15,600	47.0	112.9	15,900
135	40.6		112.5	14,300	42.6	110.7	14,500	44.2	106.7	14,800
140	37.8		106.0	13,300	39.8	104.1	13,500			
145	34.8		98.8	12,300	36.7	96.7	12,600			
150	31.6		90.7	11,500	33.4	88.4	11,700			
155	28.0		81.4	10,700						
160	23.8		70.3	9,900						

# MLC165 S-1

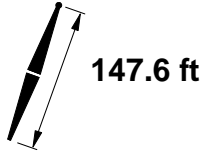
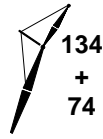
ASME B30.5



	5°			15°			25°				
	ft	°	ft	lb	ft	°	ft	lb	ft		
45	78.4		179.8	51,000*						45	
50	76.7		178.6	50,100*	79.0		177.4	46,900*		50	
55	75.0		177.2	49,300*	77.3		176.0	46,400*	79.5	173.4	36,800*
60	73.4		175.6	48,500*	75.6		174.4	45,900*	77.8	171.8	35,500*
65	71.7		173.9	45,600	73.9		172.7	45,500*	76.1	170.0	34,300*
70	69.9		172.0	40,900	72.1		170.8	42,000	74.3	168.1	33,100*
75	68.2		170.0	37,000	70.4		168.7	37,900	72.5	166.0	32,100*
80	66.4		167.7	33,600	68.6		166.4	34,400	70.7	163.7	31,100*
85	64.6		165.3	30,600	66.8		164.0	31,400	68.9	161.2	30,200*
90	62.8		162.6	28,000	64.9		161.3	28,700	67.0	158.4	29,400*
95	60.9		159.8	25,700	63.1		158.4	26,400	65.1	155.5	27,000
100	59.0		156.7	23,700	61.1		155.3	24,300	63.1	152.4	24,900
105	57.1		153.4	21,900	59.2		152.0	22,400	61.1	149.0	22,900
110	55.1		149.9	20,200	57.2		148.4	20,700	59.1	145.3	21,200
115	53.1		146.1	18,700	55.1		144.5	19,200	57.0	141.3	19,600
120	51.0		141.9	17,300	53.0		140.4	17,800	54.8	137.1	18,200
125	48.9		137.5	16,100	50.8		135.9	16,500	52.6	132.5	16,800
130	46.6		132.7	14,900	48.6		131.0	15,300	50.3	127.5	15,600
135	44.3		127.5	13,900	46.2		125.8	14,200	47.8	122.1	14,500
140	41.9		121.9	12,900	43.8		120.1	13,200	45.3	116.2	13,400
145	39.3		115.7	12,000	41.2		113.8	12,200			
150	36.6		109.0	11,100	38.4		106.9	11,300			
155	33.7		101.5	10,300	35.4		99.2	10,500			
160	30.5		93.0	9,600							
165	27.0		83.3	8,800							
170	23.0		71.8	8,200							

# MLC165 S-1

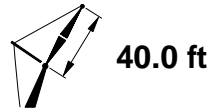
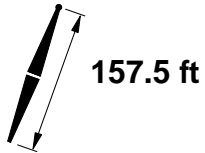
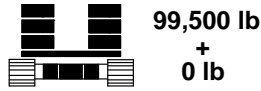
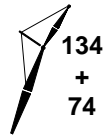
ASME B30.5



	5°			15°			25°			
	ft	°	ft	lb	ft	°	ft	lb	ft	
45	79.0		189.9	50,900*						45
50	77.4		188.8	50,100*	79.6	187.5	46,800*			50
55	75.9		187.4	49,300*	78.0	186.2	46,400*			55
60	74.3		186.0	48,500*	76.4	184.7	45,900*	78.5	182.1	36,000*
65	72.7		184.3	45,700	74.7	183.1	45,500*	76.9	180.4	34,800*
70	71.0		182.6	41,000	73.1	181.3	42,000	75.2	178.6	33,700*
75	69.4		180.6	37,100	71.5	179.3	38,000	73.5	176.6	32,600*
80	67.7		178.5	33,700	69.8	177.2	34,500	71.8	174.4	31,700*
85	66.1		176.2	30,700	68.1	174.9	31,500	70.1	172.1	30,800*
90	64.4		173.8	28,100	66.4	172.4	28,800	68.4	169.6	29,500
95	62.6		171.1	25,800	64.6	169.8	26,500	66.6	166.9	27,100
100	60.9		168.3	23,800	62.9	166.9	24,400	64.8	163.9	25,000
105	59.1		165.2	22,000	61.1	163.8	22,500	62.9	160.8	23,000
110	57.2		161.9	20,300	59.2	160.5	20,800	61.0	157.4	21,300
115	55.4		158.4	18,800	57.3	156.9	19,300	59.1	153.8	19,700
120	53.5		154.6	17,400	55.4	153.1	17,900	57.1	149.9	18,300
125	51.5		150.6	16,200	53.4	149.0	16,600	55.1	145.7	17,000
130	49.5		146.3	15,000	51.4	144.6	15,400	53.0	141.2	15,700
135	47.4		141.6	14,000	49.2	139.9	14,300	50.8	136.4	14,600
140	45.2		136.6	13,000	47.0	134.8	13,300	48.6	131.1	13,600
145	43.0		131.2	12,100	44.8	129.3	12,400	46.2	125.5	12,600
150	40.6		125.3	11,200	42.4	123.4	11,500			
155	38.1		118.8	10,500	39.8	116.8	10,700			
160	35.5		111.8	9,700	37.1	109.6	9,900			
165	32.6		104.0	9,000	34.2	101.7	9,200			
170	29.6		95.2	8,300						
175	26.1		85.1	7,700						
180	22.2		73.2	7,100						

# MLC165 S-1

ASME B30.5

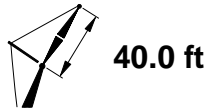
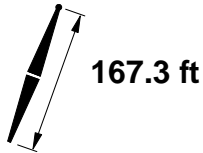
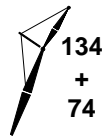


	5°			15°			25°			
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
45	79.6	200.0	50,700*							45
50	78.1	198.9	49,900*							50
55	76.6	197.6	49,200*	78.6	196.4	46,300*				55
60	75.1	196.2	48,500*	77.1	195.0	45,900*	79.1	192.3	36,500*	60
65	73.6	194.7	45,400	75.5	193.4	45,500*	77.6	190.7	35,300*	65
70	72.0	193.0	40,700	74.0	191.7	41,800	76.0	189.0	34,200*	70
75	70.5	191.2	36,700	72.4	189.9	37,700	74.4	187.2	33,200*	75
80	68.9	189.2	33,300	70.9	187.9	34,200	72.8	185.1	32,200*	80
85	67.3	187.1	30,300	69.3	185.7	31,200	71.2	182.9	31,400*	85
90	65.7	184.8	27,700	67.7	183.4	28,500	69.6	180.6	29,300	90
95	64.1	182.3	25,500	66.0	180.9	26,200	67.9	178.0	26,800	95
100	62.5	179.6	23,400	64.4	178.2	24,100	66.2	175.3	24,700	100
105	60.8	176.7	21,600	62.7	175.3	22,200	64.5	172.4	22,800	105
110	59.1	173.7	19,900	61.0	172.3	20,500	62.7	169.2	21,000	110
115	57.4	170.4	18,400	59.2	169.0	18,900	61.0	165.9	19,400	115
120	55.6	166.9	17,100	57.4	165.4	17,500	59.1	162.3	18,000	120
125	53.8	163.2	15,800	55.6	161.7	16,300	57.3	158.4	16,700	125
130	51.9	159.2	14,700	53.7	157.7	15,100	55.4	154.3	15,400	130
135	50.0	155.0	13,600	51.8	153.4	14,000	53.4	149.9	14,300	135
140	48.1	150.4	12,600	49.8	148.8	13,000	51.4	145.2	13,300	140
145	46.0	145.5	11,700	47.8	143.8	12,000	49.2	140.1	12,300	145
150	43.9	140.3	10,900	45.6	138.5	11,200	47.0	134.7	11,400	150
155	41.7	134.6	10,100	43.4	132.8	10,300	44.8	128.7	10,500	155
160	39.4	128.5	9,300	41.1	126.5	9,600				160
165	37.0	121.8	8,600	38.6	119.7	8,800				165
170	34.4	114.5	8,000	36.0	112.3	8,200				170
175	31.7	106.4	7,400	33.2	104.0	7,500				175
180	28.7	97.3	6,800							180
185	25.3	86.9	6,200							185



# MLC165 S-1

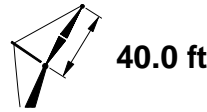
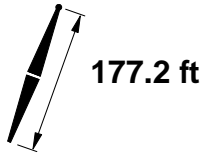
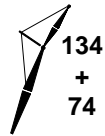
ASME B30.5



	5°			15°			25°			
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
50	78.7	209.0	49,600*							50
55	77.2	207.8	49,000*	79.1	206.5	46,100*				55
60	75.8	206.5	48,300*	77.7	205.2	45,700*	79.7	202.5	36,900*	60
65	74.4	205.0	45,000	76.3	203.7	45,400*	78.2	201.0	35,800*	65
70	72.9	203.4	40,400	74.8	202.1	41,500	76.7	199.4	34,700*	70
75	71.4	201.7	36,400	73.3	200.4	37,400	75.2	197.6	33,700*	75
80	70.0	199.8	33,000	71.8	198.5	33,900	73.7	195.7	32,800*	80
85	68.5	197.8	30,000	70.3	196.5	30,900	72.2	193.6	31,700	85
90	67.0	195.6	27,400	68.8	194.3	28,200	70.6	191.4	29,000	90
95	65.4	193.3	25,100	67.3	191.9	25,900	69.1	189.0	26,600	95
100	63.9	190.8	23,100	65.7	189.4	23,800	67.5	186.5	24,400	100
105	62.3	188.1	21,300	64.1	186.7	21,900	65.9	183.7	22,500	105
110	60.7	185.2	19,600	62.5	183.8	20,200	64.2	180.8	20,700	110
115	59.1	182.2	18,100	60.9	180.7	18,600	62.6	177.6	19,200	115
120	57.5	178.9	16,700	59.2	177.4	17,200	60.9	174.3	17,700	120
125	55.8	175.5	15,500	57.5	174.0	16,000	59.2	170.8	16,400	125
130	54.1	171.8	14,300	55.8	170.2	14,800	57.4	167.0	15,200	130
135	52.3	167.9	13,300	54.0	166.3	13,700	55.6	162.9	14,100	135
140	50.5	163.7	12,300	52.2	162.1	12,700	53.7	158.6	13,000	140
145	48.6	159.2	11,400	50.3	157.5	11,700	51.8	154.0	12,000	145
150	46.7	154.5	10,500	48.4	152.7	10,900	49.8	149.1	11,100	150
155	44.8	149.4	9,800	46.4	147.6	10,100	47.8	143.8	10,300	155
160	42.7	143.9	9,000	44.3	142.0	9,300	45.6	138.1	9,500	160
165	40.6	138.0	8,300	42.2	136.1	8,600				165
170	38.3	131.6	7,700	39.9	129.6	7,900				170
175	36.0	124.7	7,100	37.5	122.6	7,200				175
180	33.5	117.2	6,500	34.9	114.8	6,600				180
185	30.8	108.8	5,900							185
190	27.8	99.4	5,400							190
195	24.5	88.6	4,900							195

# MLC165 S-1

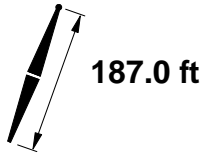
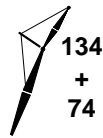
ASME B30.5



	5°			15°			25°			
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
50	79.2	219.1	49,300*							50
55	77.8	217.9	48,600*	79.7	216.6	45,800*				55
60	76.5	216.7	48,000*	78.3	215.4	45,500*				60
65	75.1	215.3	44,700	76.9	214.0	45,000*	78.7	211.3	36,200*	65
70	73.7	213.8	40,000	75.5	212.5	41,200	77.3	209.7	35,100*	70
75	72.3	212.1	36,100	74.1	210.8	37,100	75.9	208.0	34,200*	75
80	70.9	210.3	32,600	72.7	209.0	33,600	74.5	206.2	33,200*	80
85	69.5	208.4	29,700	71.3	207.1	30,600	73.0	204.3	31,500	85
90	68.1	206.4	27,100	69.8	205.0	27,900	71.6	202.2	28,700	90
95	66.6	204.1	24,800	68.4	202.8	25,500	70.1	199.9	26,300	95
100	65.2	201.8	22,700	66.9	200.4	23,400	68.6	197.5	24,100	100
105	63.7	199.2	20,900	65.4	197.8	21,500	67.1	194.9	22,200	105
110	62.2	196.6	19,200	63.9	195.1	19,800	65.6	192.1	20,400	110
115	60.7	193.7	17,700	62.4	192.3	18,300	64.0	189.2	18,900	115
120	59.1	190.6	16,400	60.8	189.2	16,900	62.4	186.1	17,400	120
125	57.6	187.4	15,100	59.2	185.9	15,600	60.8	182.8	16,100	125
130	56.0	184.0	14,000	57.6	182.5	14,400	59.2	179.2	14,900	130
135	54.3	180.3	12,900	56.0	178.8	13,300	57.5	175.5	13,700	135
140	52.7	176.5	11,900	54.3	174.9	12,300	55.8	171.5	12,700	140
145	50.9	172.3	11,000	52.6	170.7	11,400	54.0	167.3	11,700	145
150	49.2	168.0	10,200	50.8	166.3	10,500	52.2	162.8	10,800	150
155	47.4	163.3	9,400	49.0	161.6	9,700	50.3	157.9	10,000	155
160	45.5	158.4	8,600	47.1	156.6	8,900	48.4	152.8	9,200	160
165	43.6	153.1	7,900	45.1	151.2	8,200	46.4	147.3	8,400	165
170	41.6	147.4	7,300	43.1	145.5	7,500	44.3	141.4	7,700	170
175	39.5	141.3	6,700	41.0	139.3	6,900				175
180	37.3	134.7	6,100	38.8	132.6	6,300				180
185	35.0	127.5	5,500	36.4	125.3	5,700				185
190	32.6	119.7	5,000	33.9	117.3	5,200				190
195	29.9	111.0	4,500							195
200	27.1	101.3	4,000							200

# MLC165 S-1

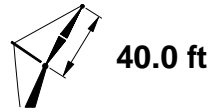
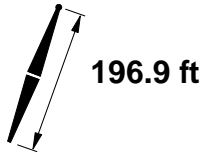
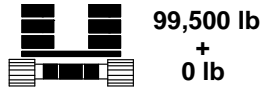
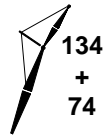
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
50	79.7	229.1	48,800*							50
55	78.4	228.0	48,200*							55
60	77.1	226.8	47,600*	78.8	225.5	45,100*				60
65	75.8	225.5	44,400	77.5	224.2	44,700*	79.3	221.5	36,600*	65
70	74.4	224.1	39,700	76.2	222.8	41,000	77.9	220.0	35,600*	70
75	73.1	222.5	35,800	74.8	221.2	36,900	76.6	218.4	34,600*	75
80	71.8	220.8	32,300	73.5	219.5	33,400	75.2	216.7	33,700*	80
85	70.4	219.0	29,400	72.1	217.6	30,300	73.8	214.8	31,300	85
90	69.1	217.0	26,800	70.8	215.7	27,600	72.5	212.8	28,500	90
95	67.7	214.9	24,500	69.4	213.5	25,300	71.1	210.7	26,100	95
100	66.3	212.7	22,400	68.0	211.3	23,200	69.6	208.4	23,900	100
105	64.9	210.3	20,600	66.6	208.9	21,300	68.2	205.9	22,000	105
110	63.5	207.7	18,900	65.2	206.3	19,600	66.8	203.3	20,200	110
115	62.1	205.0	17,400	63.7	203.6	18,000	65.3	200.6	18,600	115
120	60.6	202.2	16,100	62.3	200.7	16,600	63.8	197.6	17,200	120
125	59.1	199.1	14,800	60.8	197.6	15,400	62.3	194.5	15,900	125
130	57.6	195.9	13,700	59.3	194.4	14,200	60.8	191.2	14,600	130
135	56.1	192.5	12,600	57.7	191.0	13,100	59.2	187.7	13,500	135
140	54.6	188.9	11,600	56.1	187.3	12,100	57.6	184.0	12,500	140
145	53.0	185.1	10,700	54.5	183.5	11,100	56.0	180.1	11,500	145
150	51.3	181.0	9,900	52.9	179.4	10,300	54.3	175.9	10,600	150
155	49.7	176.7	9,100	51.2	175.0	9,500	52.6	171.5	9,800	155
160	48.0	172.1	8,400	49.5	170.4	8,700	50.8	166.8	9,000	160
165	46.2	167.3	7,700	47.7	165.5	8,000	49.0	161.8	8,200	165
170	44.4	162.1	7,000	45.9	160.3	7,300	47.1	156.4	7,500	170
175	42.5	156.6	6,400	44.0	154.7	6,700	45.1	150.7	6,900	175
180	40.6	150.8	5,800	42.0	148.8	6,100				180
185	38.5	144.4	5,300	39.9	142.4	5,500				185
190	36.4	137.6	4,800	37.8	135.4	5,000				190
195	34.1	130.2	4,300	35.5	127.9	4,400				195

# MLC165 S-1

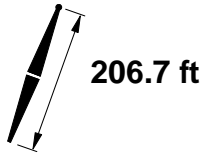
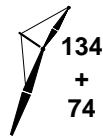
ASME B30.5



	5°			15°			25°			
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
55	78.9	238.1	47,700*							55
60	77.6	237.0	47,100*	79.3	235.7	44,700*				60
65	76.4	235.7	44,100	78.0	234.4	44,300*				65
70	75.1	234.3	39,400	76.8	233.0	40,700	78.5	230.2	36,000*	70
75	73.8	232.8	35,400	75.5	231.5	36,600	77.2	228.7	35,000*	75
80	72.6	231.2	32,000	74.2	229.9	33,100	75.9	227.1	34,100*	80
85	71.3	229.5	29,000	72.9	228.1	30,000	74.6	225.3	31,000	85
90	70.0	227.6	26,400	71.6	226.2	27,300	73.2	223.4	28,200	90
95	68.7	225.6	24,100	70.3	224.2	25,000	71.9	221.4	25,800	95
100	67.4	223.5	22,100	69.0	222.1	22,900	70.6	219.2	23,600	100
105	66.0	221.2	20,200	67.7	219.8	21,000	69.2	216.9	21,700	105
110	64.7	218.8	18,600	66.3	217.4	19,300	67.8	214.4	19,900	110
115	63.3	216.2	17,100	64.9	214.8	17,700	66.5	211.8	18,300	115
120	62.0	213.5	15,700	63.5	212.1	16,300	65.0	209.0	16,900	120
125	60.6	210.6	14,500	62.1	209.2	15,000	63.6	206.1	15,500	125
130	59.2	207.6	13,300	60.7	206.1	13,800	62.2	203.0	14,300	130
135	57.7	204.4	12,200	59.3	202.9	12,700	60.7	199.7	13,200	135
140	56.3	201.0	11,300	57.8	199.5	11,700	59.2	196.2	12,200	140
145	54.8	197.4	10,400	56.3	195.9	10,800	57.7	192.5	11,200	145
150	53.2	193.6	9,500	54.8	192.0	9,900	56.1	188.6	10,300	150
155	51.7	189.6	8,700	53.2	188.0	9,100	54.5	184.5	9,400	155
160	50.1	185.4	8,000	51.6	183.7	8,300	52.9	180.2	8,700	160
165	48.5	180.9	7,300	50.0	179.2	7,600	51.2	175.6	7,900	165
170	46.8	176.2	6,600	48.3	174.4	7,000	49.5	170.7	7,200	170
175	45.1	171.2	6,000	46.5	169.3	6,300	47.7	165.5	6,600	175
180	43.3	165.8	5,500	44.7	163.9	5,700	45.9	159.9	5,900	180
185	41.5	160.1	4,900	42.9	158.2	5,200	44.0	154.0	5,300	185
190	39.6	154.0	4,400	41.0	152.0	4,600				190
195				38.9	145.4	4,100				195

# MLC165 S-1

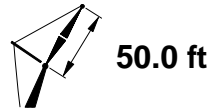
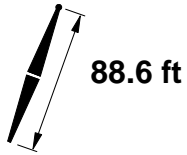
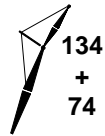
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
55	79.3	248.2	47,000*							55
60	78.1	247.1	46,500*							60
65	76.9	245.9	43,800	78.5	244.5	43,700*				65
70	75.7	244.5	39,100	77.3	243.2	40,400	78.9	240.4	36,300*	70
75	74.5	243.1	35,100	76.1	241.8	36,300	77.7	239.0	35,400*	75
80	73.3	241.6	31,700	74.9	240.2	32,800	76.5	237.4	33,900	80
85	72.1	239.9	28,700	73.6	238.6	29,700	75.2	235.7	30,800	85
90	70.8	238.1	26,100	72.4	236.8	27,000	74.0	233.9	28,000	90
95	69.6	236.2	23,800	71.2	234.8	24,700	72.7	232.0	25,500	95
100	68.3	234.2	21,700	69.9	232.8	22,600	71.4	229.9	23,400	100
105	67.1	232.0	19,900	68.6	230.6	20,700	70.1	227.7	21,400	105
110	65.8	229.7	18,200	67.3	228.3	19,000	68.8	225.3	19,600	110
115	64.5	227.3	16,700	66.0	225.9	17,400	67.5	222.9	18,100	115
120	63.2	224.7	15,400	64.7	223.3	16,000	66.2	220.2	16,600	120
125	61.9	222.0	14,100	63.4	220.5	14,700	64.8	217.5	15,300	125
130	60.5	219.1	13,000	62.0	217.6	13,500	63.4	214.5	14,000	130
135	59.2	216.1	11,900	60.7	214.6	12,400	62.1	211.4	12,900	135
140	57.8	212.9	10,900	59.3	211.4	11,400	60.6	208.1	11,900	140
145	56.4	209.5	10,000	57.9	208.0	10,500	59.2	204.7	10,900	145
150	55.0	206.0	9,200	56.4	204.4	9,600	57.7	201.0	10,000	150
155	53.5	202.2	8,400	55.0	200.6	8,800	56.3	197.2	9,200	155
160	52.0	198.3	7,700	53.5	196.6	8,000	54.7	193.1	8,400	160
165	50.5	194.1	7,000	51.9	192.4	7,300	53.2	188.9	7,600	165
170	49.0	189.7	6,300	50.4	188.0	6,600	51.6	184.3	6,900	170
175	47.4	185.0	5,700	48.8	183.3	6,000	50.0	179.5	6,300	175
180	45.8	180.1	5,100	47.1	178.3	5,400	48.3	174.5	5,600	180
185	44.1	174.9	4,600	45.4	173.0	4,800	46.5	169.1	5,100	185
190	42.3	169.4	4,100	43.7	167.4	4,300	44.7	163.3	4,500	190

# MLC165 S-1

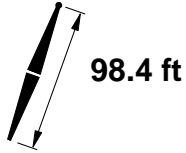
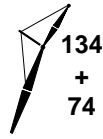
ASME B30.5



	5°			15°			25°				
	ft	°	ft	lb	ft	°	ft	lb	ft		
35	79.7		141.9							35	
40	77.5		140.7							40	
45	75.4		139.3							45	
50	73.2		137.6	41,100*	79.0	138.0	39,300*			50	
55	71.0		135.8	40,100*	76.8	136.4	38,500*			55	
60	68.7		133.7	39,100*	74.6	134.5	37,500*	78.3	131.8	29,600*	60
65	66.5		131.4	38,100*	72.3	132.4	36,700*	76.0	129.6	28,100*	65
70	64.1		128.9	37,000*	70.0	130.1	35,900*	73.6	127.3	26,800*	70
75	61.8		126.1	36,100*	67.7	127.5	34,400*	71.2	124.6	25,600*	75
80	59.3		123.0	35,200*	65.3	124.7	32,500*	68.8	121.7	24,500*	80
85	56.8		119.6	32,900	62.8	121.5	30,900*	66.2	118.5	23,500*	85
90	54.3		115.8	30,300	60.3	118.1	29,400*	63.6	114.9	22,600*	90
95	51.6		111.7	28,000	57.7	114.3	28,000*	60.9	111.0	21,800*	95
100	48.8		107.2	25,900	54.9	110.1	26,800*	58.1	106.7	21,100*	100
105	45.9		102.2	24,100	52.1	105.6	25,700*	55.2	102.0	20,400*	105
110	42.8		96.7	22,500	49.1	100.5	24,500	52.1	96.7	19,800*	110
115	39.5		90.4	20,900	46.0	94.8	22,800	48.8	90.8	19,300*	115
120	35.9		83.4	19,600	42.6	88.4	21,300	45.2	84.1	18,800*	120
125	31.9		75.3	18,300	38.9	81.2	19,900				125
130	27.4		65.6	17,100	34.8	72.8	18,500				130
135	22.0		53.5	16,000							135

# MLC165 S-1

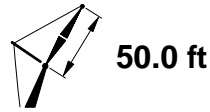
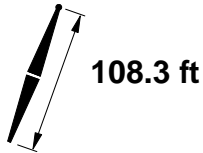
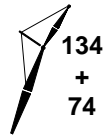
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
40	78.4	150.8	43,500*							40
45	76.4	149.5	42,400*							45
50	74.4	148.0	41,400*	77.7	146.7	38,700*				50
55	72.3	146.3	40,500*	75.7	145.0	37,900*	79.1	142.2	30,200*	55
60	70.2	144.4	39,600*	73.6	143.1	37,100*	77.0	140.2	28,800*	60
65	68.1	142.3	38,700*	71.5	140.9	36,400*	74.8	138.0	27,400*	65
70	66.0	139.9	37,800*	69.3	138.6	35,700*	72.6	135.6	26,200*	70
75	63.8	137.4	36,800*	67.1	135.9	33,900*	70.4	132.9	25,200*	75
80	61.6	134.5	35,500	64.9	133.1	32,200*	68.1	130.0	24,200*	80
85	59.3	131.5	32,500	62.6	130.0	30,700*	65.7	126.8	23,300*	85
90	57.0	128.1	29,900	60.2	126.6	29,300*	63.3	123.3	22,500*	90
95	54.6	124.4	27,600	57.8	122.8	28,100*	60.8	119.5	21,800*	95
100	52.1	120.4	25,600	55.3	118.8	26,100	58.2	115.3	21,100*	100
105	49.6	116.0	23,800	52.7	114.3	24,200	55.5	110.7	20,500*	105
110	46.9	111.2	22,100	49.9	109.4	22,500	52.7	105.6	19,900*	110
115	44.1	105.9	20,600	47.1	104.0	21,000	49.7	100.0	19,400*	115
120	41.1	100.0	19,200	44.0	98.0	19,600	46.5	93.7	19,000*	120
125	37.9	93.5	18,000	40.8	91.3	18,300				125
130	34.4	86.1	16,800	37.2	83.7	17,100				130
135	30.6	77.5	15,700	33.3	74.9	15,900				135
140	26.3	67.4	14,700							140

# MLC165 S-1

ASME B30.5

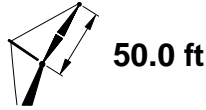
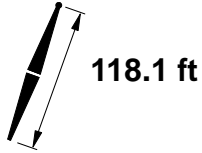
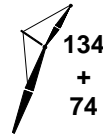


	5°			15°			25°			
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
40	79.1	161.0	43,700*							40
45	77.2	159.7	42,700*							45
50	75.4	158.3	41,700*	78.5	157.0	38,900*				50
55	73.5	156.7	40,800*	76.6	155.4	38,200*				55
60	71.5	155.0	39,900*	74.7	153.6	37,400*	77.9	150.7	29,300*	60
65	69.6	153.0	39,100*	72.7	151.6	36,700*	75.9	148.6	28,100*	65
70	67.6	150.8	38,300*	70.7	149.4	36,100*	73.9	146.4	26,900*	70
75	65.6	148.4	37,400*	68.7	147.0	35,300*	71.8	143.9	25,800*	75
80	63.6	145.8	35,000	66.6	144.4	33,500*	69.7	141.3	24,900*	80
85	61.5	143.0	32,000	64.5	141.5	32,000*	67.5	138.3	24,000*	85
90	59.4	139.9	29,400	62.4	138.4	30,200	65.3	135.1	23,200*	90
95	57.2	136.6	27,100	60.2	135.0	27,800	63.0	131.7	22,400*	95
100	54.9	133.0	25,100	57.9	131.4	25,700	60.7	127.9	21,700*	100
105	52.6	129.0	23,300	55.6	127.4	23,800	58.3	123.8	21,100*	105
110	50.2	124.7	21,600	53.2	123.0	22,100	55.8	119.3	20,500*	110
115	47.8	120.1	20,100	50.6	118.3	20,600	53.2	114.4	20,000*	115
120	45.2	115.0	18,700	48.0	113.1	19,200	50.5	109.0	19,500	120
125	42.5	109.4	17,500	45.2	107.4	17,900	47.6	103.1	18,200	125
130	39.6	103.2	16,300	42.3	101.1	16,700	44.5	96.5	16,900	130
135	36.5	96.3	15,300	39.1	94.0	15,500				135
140	33.2	88.6	14,300	35.7	86.1	14,500				140
145	29.4	79.7	13,300							145
150	25.2	69.1	12,400							150



# MLC165 S-1

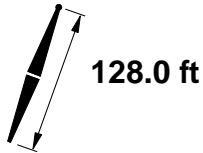
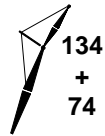
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
45	78.0	169.9	42,800*							45
50	76.2	168.6	41,900*	79.2	167.2	39,100*				50
55	74.5	167.1	41,000*	77.5	165.7	38,400*				55
60	72.7	165.4	40,200*	75.6	164.0	37,700*	78.7	161.0	29,900*	60
65	70.8	163.6	39,500*	73.8	162.2	37,000*	76.8	159.1	28,600*	65
70	69.0	161.6	38,700*	71.9	160.1	36,400*	74.9	157.1	27,500*	70
75	67.1	159.4	37,900*	70.1	157.9	35,800*	73.0	154.8	26,400*	75
80	65.3	156.9	34,600	68.2	155.5	34,800*	71.0	152.3	25,500*	80
85	63.3	154.3	31,700	66.2	152.8	32,500	69.0	149.6	24,600*	85
90	61.4	151.5	29,100	64.2	150.0	29,800	67.0	146.7	23,800*	90
95	59.4	148.4	26,800	62.2	146.9	27,500	64.9	143.5	23,000*	95
100	57.3	145.1	24,700	60.1	143.5	25,400	62.8	140.1	22,300*	100
105	55.2	141.5	22,900	58.0	139.9	23,500	60.6	136.3	21,700*	105
110	53.1	137.6	21,200	55.8	135.9	21,800	58.4	132.3	21,100*	110
115	50.8	133.5	19,700	53.6	131.7	20,200	56.1	127.9	20,600*	115
120	48.5	128.9	18,400	51.2	127.1	18,800	53.7	123.2	19,300	120
125	46.1	124.0	17,100	48.8	122.1	17,500	51.1	118.0	17,900	125
130	43.6	118.6	15,900	46.3	116.6	16,300	48.5	112.3	16,700	130
135	41.0	112.8	14,900	43.6	110.6	15,200	45.7	106.1	15,500	135
140	38.2	106.3	13,900	40.7	104.0	14,200				140
145	35.2	99.1	13,000	37.7	96.7	13,200				145
150	32.0	91.0	12,100	34.3	88.3	12,300				150
155	28.4	81.7	11,300							155
160	24.2	70.7	10,500							160

# MLC165 S-1

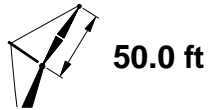
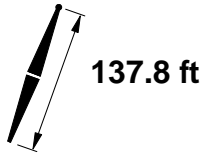
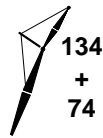
ASME B30.5



	5°			15°			25°				
	ft	°	ft	lb	ft	°	ft	lb	ft		
45	78.7		180.0							45	
50	77.0		178.7							50	
55	75.4		177.4							55	
60	73.7		175.8	78.2	175.9		38,500*			60	
65	72.0		174.1	76.5	174.4		37,900*	79.3	171.4	30,400*	65
				74.8	172.6		37,200*	77.6	169.6	29,100*	
70	70.2		172.2	73.0	170.7		36,600*	75.8	167.6	28,000*	70
75	68.5		170.1	71.3	168.6		36,100*	74.0	165.5	27,000*	75
80	66.7		167.9	69.5	166.4		35,300	72.2	163.2	26,000*	80
85	64.9		165.4	67.7	163.9		32,200	70.4	160.7	25,200*	85
90	63.1		162.8	65.8	161.3		29,600	68.5	158.0	24,400*	90
95	61.3		160.0	64.0	158.4		27,200	66.6	155.0	23,600*	95
100	59.4		156.9	62.0	155.3		25,100	64.6	151.9	22,900*	100
105	57.4		153.6	60.1	152.0		23,200	62.6	148.5	22,300*	105
110	55.5		150.1	58.1	148.4		21,500	60.6	144.8	21,700*	110
115	53.4		146.2	56.0	144.5		20,000	58.5	140.8	20,500	115
120	51.4		142.1	53.9	140.3		18,500	56.3	136.5	19,000	120
125	49.2		137.7	51.7	135.9		17,200	54.0	131.9	17,700	125
130	47.0		132.9	49.5	131.0		16,100	51.7	126.9	16,400	130
135	44.6		127.7	47.1	125.7		15,000	49.3	121.5	15,300	135
140	42.2		122.1	44.7	120.0		13,900	46.7	115.5	14,200	140
145	39.7		116.0	42.1	113.8		13,000	44.0	109.0	13,200	145
150	37.0		109.2	39.3	106.9		12,100				150
155	34.1		101.7	36.3	99.2		11,200				155
160	30.9		93.3	33.1	90.5		10,400				160
165	27.4		83.6								165
170	23.4		72.2								170

# MLC165 S-1

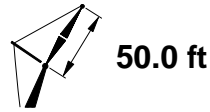
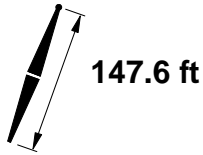
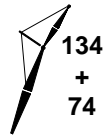
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
45	79.3	190.1	42,800*							45
50	77.7	188.9	42,000*							50
55	76.1	187.6	41,200*	78.8	186.2	38,700*				55
60	74.6	186.1	40,500*	77.2	184.7	38,000*				60
65	72.9	184.5	39,800*	75.6	183.0	37,400*	78.3	179.9	29,600*	65
70	71.3	182.7	39,200*	74.0	181.2	36,800*	76.6	178.1	28,500*	70
75	69.7	180.8	37,300	72.3	179.3	36,200*	74.9	176.1	27,500*	75
80	68.0	178.7	33,900	70.6	177.2	35,000	73.2	174.0	26,600*	80
85	66.4	176.4	31,000	69.0	174.9	31,900	71.5	171.6	25,700*	85
90	64.7	173.9	28,400	67.2	172.4	29,200	69.8	169.1	24,900*	90
95	62.9	171.3	26,100	65.5	169.7	26,900	68.0	166.4	24,200*	95
100	61.2	168.4	24,000	63.7	166.8	24,800	66.2	163.4	23,500*	100
105	59.4	165.4	22,200	61.9	163.7	22,900	64.3	160.3	22,800*	105
110	57.6	162.1	20,500	60.1	160.4	21,200	62.4	156.9	21,800	110
115	55.7	158.6	19,000	58.2	156.9	19,600	60.5	153.2	20,200	115
120	53.8	154.8	17,600	56.2	153.1	18,200	58.5	149.3	18,700	120
125	51.8	150.8	16,400	54.3	149.0	16,900	56.5	145.1	17,400	125
130	49.8	146.5	15,200	52.2	144.6	15,700	54.4	140.6	16,100	130
135	47.7	141.8	14,200	50.1	139.9	14,600	52.2	135.8	15,000	135
140	45.5	136.8	13,200	47.9	134.8	13,600	49.9	130.5	13,900	140
145	43.3	131.4	12,300	45.6	129.3	12,600	47.5	124.8	12,900	145
150	40.9	125.5	11,400	43.2	123.3	11,700	45.1	118.6	12,000	150
155	38.5	119.1	10,600	40.7	116.8	10,900				155
160	35.8	112.1	9,900	38.0	109.6	10,100				160
165	33.0	104.3	9,200	35.1	101.6	9,400				165
170	29.9	95.5	8,500							170
175	26.5	85.5	7,900							175
180	22.6	73.6	7,200							180

# MLC165 S-1

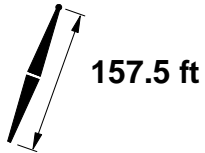
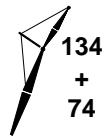
ASME B30.5



	5°			15°			25°			
	ft	°	ft	lb	ft	°	ft	lb	ft	
50	78.3		199.0	41,900*						50
55	76.9		197.8	41,200*	79.4	196.3	38,700*			55
60	75.3		196.4	40,500*	77.9	194.9	38,100*			60
65	73.8		194.9	39,900*	76.4	193.4	37,500*	78.9	190.3	30,100*
70	72.3		193.2	39,200*	74.8	191.7	37,000*	77.3	188.5	29,000*
75	70.8		191.4	37,400	73.3	189.8	36,500*	75.8	186.7	28,000*
80	69.2		189.4	34,000	71.7	187.8	35,000	74.2	184.6	27,100*
85	67.6		187.2	31,000	70.1	185.7	32,000	72.5	182.4	26,200*
90	66.0		184.9	28,400	68.5	183.3	29,300	70.9	180.0	25,400*
95	64.4		182.4	26,100	66.8	180.8	26,900	69.2	177.5	24,700*
100	62.8		179.8	24,100	65.2	178.2	24,800	67.5	174.7	24,000*
105	61.1		176.9	22,200	63.5	175.3	22,900	65.8	171.8	23,300*
110	59.4		173.9	20,600	61.8	172.2	21,200	64.1	168.7	21,900
115	57.6		170.6	19,100	60.0	168.9	19,700	62.3	165.3	20,300
120	55.9		167.1	17,700	58.2	165.4	18,300	60.4	161.7	18,800
125	54.1		163.4	16,500	56.4	161.6	17,000	58.6	157.8	17,500
130	52.2		159.4	15,300	54.5	157.6	15,800	56.6	153.7	16,200
135	50.3		155.2	14,200	52.6	153.3	14,700	54.7	149.3	15,100
140	48.4		150.6	13,300	50.6	148.7	13,700	52.6	144.6	14,100
145	46.3		145.7	12,400	48.6	143.7	12,700	50.5	139.5	13,100
150	44.2		140.5	11,500	46.4	138.4	11,900	48.3	134.0	12,200
155	42.0		134.9	10,700	44.2	132.7	11,000	46.0	128.0	11,300
160	39.7		128.7	10,000	41.9	126.5	10,300			
165	37.3		122.1	9,300	39.4	119.7	9,500			
170	34.8		114.8	8,600	36.8	112.2	8,800			
175	32.0		106.7	8,000	34.0	103.9	8,200			
180	29.0		97.6	7,400						
185	25.7		87.3	6,800						
190	21.8		75.0	6,300						

# MLC165 S-1

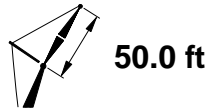
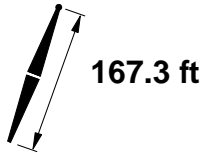
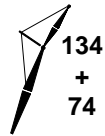
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
50	78.9	209.1	41,800*							50
55	77.5	207.9	41,100*							55
60	76.1	206.6	40,500*	78.5	205.1	38,100*				60
65	74.6	205.2	39,900*	77.0	203.7	37,600*	79.5	200.5	30,500*	65
70	73.2	203.6	39,300*	75.6	202.1	37,000*	78.0	198.9	29,400*	70
75	71.7	201.8	37,000	74.1	200.3	36,500*	76.5	197.1	28,400*	75
80	70.2	200.0	33,600	72.6	198.4	34,700	75.0	195.2	27,500*	80
85	68.7	197.9	30,600	71.1	196.4	31,700	73.4	193.1	26,700*	85
90	67.2	195.8	28,000	69.6	194.2	29,000	71.9	190.9	25,900*	90
95	65.7	193.4	25,700	68.0	191.8	26,600	70.3	188.5	25,100*	95
100	64.2	190.9	23,700	66.5	189.3	24,500	68.7	185.9	24,500*	100
105	62.6	188.2	21,900	64.9	186.6	22,600	67.1	183.1	23,400	105
110	61.0	185.4	20,200	63.3	183.7	20,900	65.5	180.2	21,600	110
115	59.4	182.3	18,700	61.7	180.6	19,300	63.8	177.1	20,000	115
120	57.7	179.1	17,300	60.0	177.4	17,900	62.1	173.7	18,500	120
125	56.1	175.6	16,100	58.3	173.9	16,600	60.4	170.1	17,200	125
130	54.3	172.0	14,900	56.6	170.2	15,500	58.6	166.3	15,900	130
135	52.6	168.0	13,900	54.8	166.2	14,400	56.8	162.3	14,800	135
140	50.8	163.9	12,900	53.0	162.0	13,300	54.9	157.9	13,800	140
145	48.9	159.4	12,000	51.1	157.5	12,400	53.0	153.3	12,800	145
150	47.0	154.7	11,100	49.2	152.6	11,500	51.0	148.4	11,900	150
155	45.1	149.6	10,300	47.2	147.5	10,700	49.0	143.0	11,000	155
160	43.0	144.1	9,600	45.1	141.9	9,900	46.8	137.3	10,200	160
165	40.9	138.2	8,900	42.9	136.0	9,200	44.6	131.1	9,400	165
170	38.6	131.9	8,200	40.6	129.5	8,500				170
175	36.3	125.0	7,600	38.2	122.5	7,900				175
180	33.8	117.4	7,000	35.7	114.7	7,200				180
185	31.1	109.1	6,500	32.9	106.1	6,600				185
190	28.2	99.7	5,900							190
195	24.9	89.0	5,400							195

# MLC165 S-1

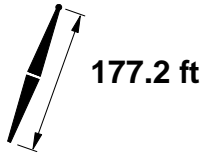
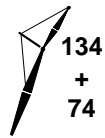
ASME B30.5



	5°			15°			25°			
	ft	°	ft	lb	ft	°	ft	lb	ft	
50	79.4		219.2							50
55	78.1		218.1							55
60	76.7		216.8	79.0	215.3					60
65	75.3		215.4	77.6	213.9	38,100*				65
70	74.0		213.9	76.3	212.4	37,600*				70
75	72.6		212.3	74.9	210.7	37,100*	78.6	209.2	29,800*	75
80	71.2		210.5	73.4	208.9	36,600*	77.1	207.5	28,800*	80
85	69.8		208.6	72.0	207.0	34,500	75.7	205.7	27,900*	85
90	68.3		206.5	70.6	204.9	31,400	74.3	203.7	27,100*	90
95	66.9		204.3	69.1	202.7	28,700	72.8	201.6	26,300*	95
100	65.4		201.9	67.7	200.3	26,300	71.3	199.3	25,600*	100
105	64.0		199.4	66.2	197.8	24,200	69.8	196.9	24,900*	105
110	62.5		196.7	64.7	195.1	22,300	68.3	194.3	23,100	110
115	60.9		193.9	63.1	192.2	20,600	66.8	191.5	21,300	115
120	59.4		190.8	61.6	189.1	19,100	65.2	188.6	19,700	120
125	57.8		187.6	60.0	185.8	17,600	63.6	185.5	18,300	125
130	56.2		184.2	58.4	182.4	16,300	62.0	182.1	16,900	130
135	54.6		180.5	56.7	178.7	15,200	60.3	178.6	15,700	135
140	52.9		176.6	55.0	174.8	14,100	58.7	174.8	14,500	140
145	51.2		172.5	53.3	170.6	13,000	56.9	170.8	13,500	145
150	49.5		168.2	51.5	166.2	12,100	55.2	166.6	12,500	150
155	47.7		163.5	49.7	161.5	11,200	53.3	162.0	11,600	155
160	45.8		158.6	47.8	156.5	10,400	51.5	157.2	10,700	160
165	43.9		153.3	45.9	151.1	9,600	49.5	152.0	9,900	165
170	41.9		147.6	43.8	145.3	8,900	47.5	146.5	9,200	170
175	39.8		141.5	41.7	139.2	8,200	45.4	140.5	8,500	175
180	37.6		134.9	39.5	132.5	7,600				180
185	35.3		127.8	37.2	125.2	7,000				185
190	32.9		120.0	34.7	117.2	6,400				190
195	30.2		111.3			5,800				195
200	27.4		101.7							200
205	24.2		90.6							205

# MLC165 S-1

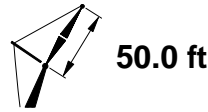
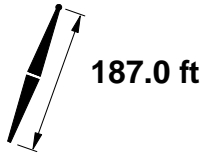
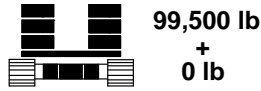
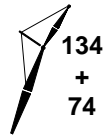
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
55	78.6	228.2	40,700*							55
60	77.3	227.0	40,200*	79.5	225.5	38,000*				60
65	76.0	225.7	39,700*	78.2	224.1	37,500*				65
70	74.7	224.2	39,200*	76.9	222.7	37,100*	79.1	219.4	30,200*	70
75	73.4	222.6	36,400	75.5	221.1	36,700*	77.7	217.8	29,200*	75
80	72.0	221.0	32,900	74.2	219.4	34,200	76.4	216.1	28,400*	80
85	70.7	219.1	30,000	72.9	217.6	31,100	75.0	214.2	27,500*	85
90	69.3	217.2	27,400	71.5	215.6	28,400	73.6	212.2	26,800*	90
95	68.0	215.1	25,000	70.1	213.5	26,000	72.2	210.1	26,000*	95
100	66.6	212.8	23,000	68.7	211.2	23,900	70.8	207.8	24,800	100
105	65.2	210.4	21,100	67.3	208.8	22,000	69.4	205.3	22,800	105
110	63.8	207.9	19,500	65.9	206.2	20,300	67.9	202.7	21,000	110
115	62.3	205.2	18,000	64.4	203.5	18,700	66.4	200.0	19,400	115
120	60.9	202.3	16,600	63.0	200.6	17,300	64.9	197.0	18,000	120
125	59.4	199.3	15,400	61.5	197.6	16,000	63.4	193.9	16,600	125
130	57.9	196.1	14,200	60.0	194.3	14,800	61.9	190.6	15,400	130
135	56.4	192.7	13,100	58.4	190.9	13,700	60.3	187.1	14,200	135
140	54.8	189.1	12,200	56.8	187.2	12,700	58.7	183.3	13,200	140
145	53.2	185.2	11,200	55.2	183.4	11,700	57.1	179.4	12,200	145
150	51.6	181.2	10,400	53.6	179.3	10,900	55.4	175.2	11,300	150
155	49.9	176.9	9,600	51.9	174.9	10,000	53.7	170.7	10,400	155
160	48.2	172.3	8,900	50.2	170.3	9,300	51.9	166.0	9,600	160
165	46.5	167.5	8,200	48.4	165.4	8,500	50.1	161.0	8,900	165
170	44.7	162.3	7,500	46.6	160.2	7,900	48.2	155.6	8,200	170
175	42.8	156.9	6,900	44.7	154.6	7,200	46.2	149.8	7,500	175
180	40.8	151.0	6,300	42.7	148.7	6,600	44.1	143.7	6,800	180
185	38.8	144.7	5,800	40.6	142.2	6,000				185
190	36.7	137.9	5,200	38.4	135.3	5,500				190
195	34.4	130.5	4,800	36.2	127.8	5,000				195
200	32.0	122.4	4,300	33.7	119.5	4,500				200

# MLC165 S-1

ASME B30.5

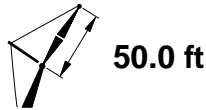
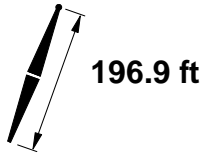
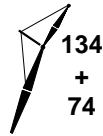


	5°			15°			25°			
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
55	79.1	238.2	40,400*							55
60	77.8	237.1	39,900*							60
65	76.6	235.8	39,400*	78.7	234.3	37,400*				65
70	75.3	234.5	38,900*	77.4	232.9	37,000*	79.6	229.7	30,500*	70
75	74.1	233.0	36,100	76.2	231.4	36,600*	78.3	228.1	29,600*	75
80	72.8	231.4	32,700	74.9	229.8	33,900	77.0	226.5	28,700*	80
85	71.5	229.6	29,700	73.6	228.0	30,800	75.7	224.7	27,900*	85
90	70.2	227.7	27,100	72.3	226.2	28,100	74.4	222.8	27,200*	90
95	68.9	225.8	24,800	71.0	224.1	25,800	73.0	220.7	26,400*	95
100	67.6	223.6	22,700	69.7	222.0	23,600	71.7	218.6	24,600	100
105	66.3	221.4	20,900	68.3	219.7	21,700	70.3	216.2	22,600	105
110	64.9	218.9	19,200	67.0	217.3	20,000	68.9	213.8	20,800	110
115	63.6	216.4	17,700	65.6	214.7	18,500	67.5	211.2	19,200	115
120	62.2	213.7	16,300	64.2	212.0	17,000	66.1	208.4	17,700	120
125	60.8	210.8	15,100	62.8	209.1	15,700	64.7	205.4	16,400	125
130	59.4	207.8	13,900	61.4	206.0	14,600	63.3	202.3	15,200	130
135	58.0	204.6	12,900	59.9	202.8	13,500	61.8	199.0	14,000	135
140	56.5	201.2	11,900	58.5	199.8	12,400	60.3	195.5	13,000	140
145	55.0	197.6	11,000	57.0	195.8	11,500	58.7	191.8	12,000	145
150	53.5	193.8	10,100	55.4	191.9	10,600	57.2	187.9	11,100	150
155	51.9	189.8	9,300	53.9	187.9	9,800	55.6	183.8	10,200	155
160	50.4	185.6	8,600	52.3	183.6	9,000	53.9	179.4	9,400	160
165	48.7	181.1	7,900	50.6	179.1	8,300	52.2	174.8	8,700	165
170	47.1	176.4	7,300	48.9	174.3	7,600	50.5	169.9	8,000	170
175	45.4	171.4	6,600	47.2	169.2	7,000	48.7	164.6	7,300	175
180	43.6	166.0	6,100	45.4	163.8	6,400	46.9	159.1	6,600	180
185	41.8	160.3	5,500	43.5	158.0	5,800	45.0	153.1	6,000	185
190	39.9	154.3	5,000	41.6	151.9	5,300				190
195	37.9	147.7	4,500	39.6	145.2	4,700				195
200	35.8	140.7	4,000	37.5	138.1	4,300				200



# MLC165 S-1

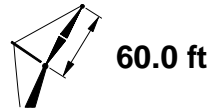
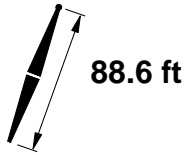
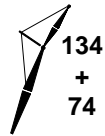
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
55	79.5	248.3	40,000*							55
60	78.3	247.2	39,500*							60
65	77.1	246.0	39,000*	79.2	244.5	37,100*				65
70	75.9	244.7	38,600*	78.0	243.1	36,800*				70
75	74.7	243.3	35,800	76.7	241.7	36,400*	78.8	238.4	30,000*	75
80	73.5	241.7	32,300	75.5	240.1	33,600	77.5	236.8	29,100*	80
85	72.3	240.1	29,300	74.3	238.5	30,600	76.3	235.1	28,300*	85
90	71.1	238.3	26,700	73.1	236.7	27,800	75.0	233.3	27,500*	90
95	69.8	236.4	24,400	71.8	234.7	25,500	73.8	231.3	26,500	95
100	68.6	234.3	22,300	70.5	232.7	23,300	72.5	229.3	24,300	100
105	67.3	232.2	20,500	69.3	230.5	21,400	71.2	227.1	22,300	105
110	66.0	229.9	18,800	68.0	228.2	19,700	69.9	224.7	20,500	110
115	64.7	227.4	17,300	66.7	225.8	18,100	68.6	222.2	18,900	115
120	63.4	224.9	15,900	65.4	223.2	16,700	67.2	219.6	17,400	120
125	62.1	222.2	14,700	64.0	220.4	15,400	65.9	216.8	16,100	125
130	60.8	219.3	13,500	62.7	217.5	14,200	64.5	213.8	14,900	130
135	59.4	216.2	12,500	61.3	214.5	13,100	63.1	210.7	13,700	135
140	58.0	213.1	11,500	59.9	211.3	12,100	61.7	207.4	12,700	140
145	56.6	209.7	10,600	58.5	207.9	11,100	60.2	204.0	11,700	145
150	55.2	206.1	9,700	57.1	204.3	10,300	58.8	200.3	10,800	150
155	53.7	202.4	8,900	55.6	200.5	9,400	57.3	196.5	9,900	155
160	52.3	198.4	8,200	54.1	196.5	8,700	55.7	192.4	9,100	160
165	50.8	194.3	7,500	52.6	192.3	8,000	54.2	188.1	8,300	165
170	49.2	189.9	6,900	51.0	187.9	7,300	52.6	183.5	7,600	170
175	47.6	185.2	6,300	49.4	183.2	6,600	50.9	178.7	7,000	175
180	46.0	180.3	5,700	47.8	178.2	6,000	49.2	173.6	6,300	180
185	44.3	175.1	5,100	46.1	172.9	5,500	47.5	168.2	5,700	185
190	42.6	169.6	4,600	44.3	167.3	4,900	45.7	162.4	5,200	190
195	40.8	163.7	4,100	42.5	161.3	4,400	43.8	156.3	4,600	195

# MLC165 S-1

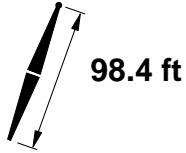
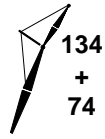
ASME B30.5



	5°			15°			25°				
	ft	°	ft	lb	ft	°	ft	lb	ft		
40	78.5		151.0	37,200*						40	
45	76.5		149.7	36,100*						45	
50	74.5		148.2	35,100*	78.6	146.9	32,600*			50	
55	72.4		146.5	34,000*	76.5	145.2	31,800*			55	
60	70.4		144.6	33,000*	74.5	143.3	31,100*	79.0	140.6	25,700*	60
65	68.3		142.5	32,100*	72.3	141.1	30,400*	76.9	138.5	24,400*	65
70	66.2		140.2	31,200*	70.2	138.8	29,700*	74.7	136.1	23,200*	70
75	64.0		137.6	30,400*	68.0	136.2	28,500*	72.4	133.5	22,100*	75
80	61.8		134.8	29,700*	65.8	133.3	27,000*	70.2	130.6	21,100*	80
85	59.5		131.7	28,900*	63.5	130.2	25,600*	67.8	127.5	20,200*	85
90	57.2		128.3	28,200*	61.1	126.8	24,400*	65.4	124.1	19,400*	90
95	54.8		124.7	27,500*	58.7	123.1	23,300*	62.9	120.3	18,700*	95
100	52.3		120.7	26,200	56.2	119.0	22,300*	60.4	116.2	18,000*	100
105	49.7		116.3	24,400	53.6	114.6	21,400*	57.7	111.6	17,400*	105
110	47.1		111.5	22,700	50.8	109.7	20,500*	54.9	106.6	16,800*	110
115	44.3		106.2	21,200	48.0	104.3	19,700*	51.9	101.1	16,300*	115
120	41.3		100.3	19,800	44.9	98.3	19,000*	48.8	95.0	15,900*	120
125	38.1		93.8	18,600	41.7	91.6	18,400*	45.4	88.1	15,500*	125
130	34.7		86.4	17,400	38.2	84.0	17,700				130
135	30.9		77.9	16,300	34.2	75.3	16,600				135
140	26.5		67.9	15,300							140
145	21.3		55.3	14,400							145

# MLC165 S-1

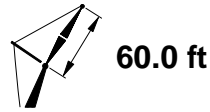
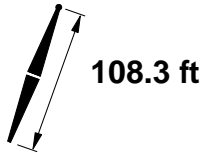
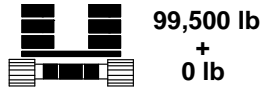
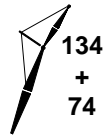
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
40	79.2	161.2	37,300*							40
45	77.4	159.9	36,400*							45
50	75.5	158.5	35,400*	79.3	157.1	32,900*				50
55	73.6	156.9	34,500*	77.4	155.5	32,100*				55
60	71.7	155.2	33,500*	75.5	153.8	31,400*				60
65	69.7	153.2	32,600*	73.5	151.8	30,700*	77.8	149.0	24,900*	65
70	67.7	151.0	31,800*	71.5	149.6	30,100*	75.8	146.9	23,700*	70
75	65.7	148.7	31,000*	69.5	147.2	29,400*	73.7	144.4	22,700*	75
80	63.7	146.1	30,200*	67.4	144.6	28,100*	71.6	141.8	21,700*	80
85	61.6	143.2	29,500*	65.3	141.7	26,700*	69.4	138.9	20,800*	85
90	59.5	140.2	28,800*	63.2	138.6	25,500*	67.3	135.8	20,000*	90
95	57.3	136.8	27,900	61.0	135.2	24,400*	65.0	132.4	19,300*	95
100	55.1	133.2	25,800	58.7	131.6	23,300*	62.7	128.6	18,600*	100
105	52.8	129.3	24,000	56.4	127.6	22,400*	60.3	124.6	18,000*	105
110	50.4	125.0	22,300	54.0	123.2	21,500*	57.8	120.2	17,400*	110
115	47.9	120.4	20,800	51.5	118.5	20,700*	55.2	115.4	16,900*	115
120	45.4	115.3	19,500	48.8	113.3	19,900	52.5	110.1	16,400*	120
125	42.6	109.7	18,200	46.1	107.7	18,600	49.7	104.3	16,000*	125
130	39.8	103.5	17,100	43.1	101.4	17,400	46.6	97.8	15,600*	130
135	36.7	96.7	16,000	40.0	94.4	16,300	43.3	90.5	15,300*	135
140	33.4	89.0	15,000	36.6	86.4	15,300				140
145	29.7	80.1	14,100	32.8	77.2	14,300				145
150	25.5	69.6	13,200							150

# MLC165 S-1

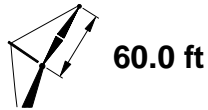
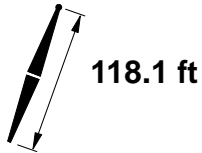
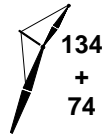
ASME B30.5



	5°			15°			25°			
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
45	78.1	170.1	36,500*							45
50	76.4	168.8	35,700*							50
55	74.6	167.3	34,800*	78.2	165.8	32,300*				55
60	72.8	165.6	33,900*	76.4	164.2	31,600*				60
65	71.0	163.8	33,000*	74.6	162.3	31,000*	78.6	159.5	25,400*	65
70	69.1	161.8	32,200*	72.7	160.3	30,400*	76.7	157.4	24,300*	70
75	67.3	159.6	31,500*	70.8	158.1	29,800*	74.8	155.2	23,200*	75
80	65.4	157.2	30,700*	68.9	155.6	29,200*	72.8	152.8	22,300*	80
85	63.5	154.5	30,000*	67.0	153.0	27,800*	70.8	150.1	21,400*	85
90	61.5	151.7	29,300*	65.0	150.1	26,500*	68.8	147.2	20,600*	90
95	59.5	148.7	27,400	63.0	147.0	25,400*	66.8	144.1	19,800*	95
100	57.5	145.3	25,300	60.9	143.7	24,300*	64.6	140.7	19,200*	100
105	55.4	141.8	23,500	58.8	140.1	23,300*	62.5	137.0	18,500*	105
110	53.2	137.9	21,900	56.6	136.1	22,400*	60.2	133.0	18,000*	110
115	51.0	133.7	20,400	54.3	131.9	20,900	57.9	128.7	17,400*	115
120	48.7	129.2	19,000	52.0	127.3	19,500	55.5	124.1	17,000*	120
125	46.3	124.3	17,700	49.6	122.3	18,200	53.0	119.0	16,500*	125
130	43.8	118.9	16,600	47.0	116.9	17,000	50.4	113.4	16,100*	130
135	41.2	113.1	15,500	44.4	110.9	15,900	47.6	107.3	15,700*	135
140	38.4	106.6	14,500	41.5	104.3	14,900	44.7	100.5	15,300	140
145	35.4	99.4	13,600	38.5	97.0	13,900				145
150	32.2	91.4	12,700	35.1	88.6	13,000				150
155	28.6	82.1	11,900	31.4	79.0	12,200				155
160	24.5	71.2	11,200							160

# MLC165 S-1

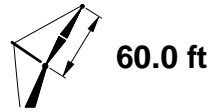
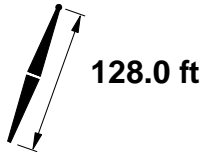
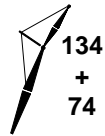
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
45	78.8	180.2	36,600*							45
50	77.1	178.9	35,800*							50
55	75.5	177.6	35,000*	78.9	176.1	32,400*				55
60	73.8	176.0	34,100*	77.2	174.5	31,800*				60
65	72.1	174.3	33,400*	75.5	172.8	31,200*	79.3	169.9	25,900*	65
70	70.4	172.4	32,600*	73.7	170.9	30,600*	77.5	168.0	24,700*	70
75	68.6	170.3	31,800*	72.0	168.8	30,000*	75.7	165.9	23,700*	75
80	66.8	168.1	31,100*	70.2	166.5	29,500*	73.9	163.6	22,800*	80
85	65.1	165.7	30,400*	68.4	164.1	28,800*	72.0	161.1	21,900*	85
90	63.2	163.0	29,300	66.5	161.4	27,500*	70.2	158.4	21,100*	90
95	61.4	160.2	27,000	64.7	158.6	26,300*	68.3	155.5	20,400*	95
100	59.5	157.1	24,900	62.8	155.5	25,300*	66.3	152.4	19,700*	100
105	57.6	153.8	23,100	60.8	152.1	23,800	64.3	149.0	19,100*	105
110	55.6	150.3	21,500	58.8	148.6	22,100	62.3	145.4	18,500*	110
115	53.6	146.5	20,000	56.8	144.7	20,600	60.2	141.5	18,000*	115
120	51.5	142.4	18,600	54.7	140.5	19,200	58.0	137.3	17,500*	120
125	49.3	138.0	17,300	52.5	136.1	17,900	55.8	132.7	17,000*	125
130	47.1	133.2	16,200	50.2	131.2	16,700	53.5	127.8	16,600*	130
135	44.8	128.0	15,100	47.9	126.0	15,600	51.0	122.4	16,100	135
140	42.4	122.4	14,100	45.4	120.3	14,500	48.5	116.6	15,000	140
145	39.8	116.3	13,200	42.8	114.0	13,600	45.8	110.1	14,000	145
150	37.1	109.6	12,400	40.0	107.1	12,700	42.9	103.0	13,000	150
155	34.2	102.1	11,600	37.1	99.5	11,800				155
160	31.1	93.7	10,800	33.8	90.8	11,100				160
165	27.6	84.1	10,100							165
170	23.6	72.7	9,400							170

# MLC165 S-1

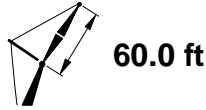
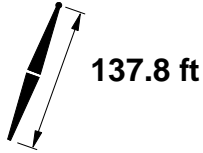
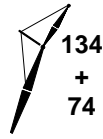
ASME B30.5



	5°			15°			25°				
	ft	°	ft	lb	ft	°	ft	lb	ft		
45	79.4		190.3	36,600*						45	
50	77.8		189.1	35,800*						50	
55	76.2		187.8	35,100*	79.5	186.3	32,600*			55	
60	74.7		186.3	34,400*	77.9	184.8	31,900*			60	
65	73.1		184.7	33,600*	76.3	183.2	31,400*			65	
70	71.4		182.9	32,800*	74.6	181.4	30,800*	78.2	178.4	25,200*	70
75	69.8		181.0	32,200*	73.0	179.4	30,200*	76.5	176.4	24,200*	75
80	68.1		178.9	31,400*	71.3	177.3	29,800*	74.8	174.3	23,200*	80
85	66.5		176.6	30,800*	69.6	175.0	29,300*	73.1	172.0	22,400*	85
90	64.8		174.1	28,900	67.9	172.5	28,500*	71.4	169.5	21,600*	90
95	63.0		171.5	26,700	66.2	169.9	27,300*	69.6	166.8	20,900*	95
100	61.3		168.7	24,600	64.4	167.0	25,500	67.8	163.9	20,200*	100
105	59.5		165.6	22,800	62.6	163.9	23,600	65.9	160.8	19,600*	105
110	57.7		162.3	21,100	60.7	160.6	21,900	64.0	157.4	19,000*	110
115	55.8		158.8	19,600	58.9	157.0	20,300	62.1	153.8	18,400*	115
120	53.9		155.1	18,300	56.9	153.2	18,900	60.1	150.0	17,900*	120
125	51.9		151.0	17,000	54.9	149.2	17,600	58.1	145.8	17,500*	125
130	49.9		146.7	15,800	52.9	144.8	16,400	56.0	141.4	17,000	130
135	47.8		142.1	14,800	50.8	140.1	15,300	53.9	136.5	15,800	135
140	45.7		137.1	13,800	48.6	135.0	14,300	51.6	131.4	14,800	140
145	43.4		131.7	12,900	46.3	129.5	13,300	49.2	125.7	13,800	145
150	41.1		125.8	12,000	43.9	123.5	12,400	46.8	119.6	12,800	150
155	38.6		119.4	11,200	41.4	117.0	11,600	44.2	112.9	12,000	155
160	36.0		112.4	10,500	38.7	109.8	10,800				160
165	33.2		104.6	9,800	35.8	101.9	10,100				165
170	30.1		95.9	9,100	32.6	92.9	9,400				170
175	26.7		85.9	8,500							175
180	22.8		74.1	7,900							180

# MLC165 S-1

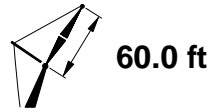
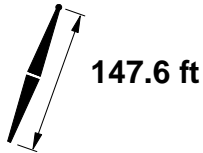
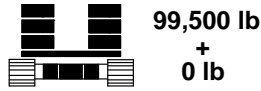
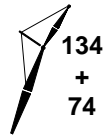
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
50	78.4	199.2	35,800*							50
55	76.9	198.0	35,200*							55
60	75.4	196.6	34,500*	78.5	195.1	32,000*				60
65	73.9	195.1	33,800*	77.0	193.5	31,500*				65
70	72.4	193.4	33,100*	75.4	191.8	30,900*	78.8	188.7	25,600*	70
75	70.9	191.6	32,400*	73.9	190.0	30,500*	77.3	186.9	24,600*	75
80	69.3	189.6	31,700*	72.3	188.0	30,000*	75.7	184.9	23,700*	80
85	67.7	187.4	31,100*	70.7	185.8	29,500*	74.0	182.7	22,800*	85
90	66.1	185.1	28,600	69.1	183.5	29,000*	72.4	180.4	22,100*	90
95	64.5	182.6	26,300	67.5	181.0	27,200	70.7	177.8	21,300*	95
100	62.9	180.0	24,200	65.8	178.3	25,100	69.0	175.1	20,700*	100
105	61.2	177.1	22,400	64.1	175.4	23,200	67.3	172.2	20,000*	105
110	59.5	174.1	20,700	62.4	172.3	21,500	65.6	169.1	19,500*	110
115	57.8	170.8	19,200	60.7	169.1	20,000	63.8	165.8	18,900*	115
120	56.0	167.4	17,800	58.9	165.5	18,500	62.0	162.2	18,400*	120
125	54.2	163.6	16,600	57.1	161.8	17,200	60.1	158.4	17,900*	125
130	52.3	159.7	15,400	55.2	157.8	16,000	58.2	154.3	16,700	130
135	50.4	155.4	14,400	53.3	153.5	14,900	56.2	150.0	15,500	135
140	48.5	150.9	13,400	51.3	148.9	13,900	54.2	145.3	14,500	140
145	46.5	146.0	12,500	49.2	143.9	13,000	52.1	140.2	13,500	145
150	44.4	140.8	11,600	47.1	138.6	12,100	49.9	134.8	12,500	150
155	42.2	135.2	10,800	44.9	132.9	11,200	47.6	128.9	11,700	155
160	39.9	129.1	10,100	42.5	126.7	10,500	45.2	122.6	10,800	160
165	37.5	122.4	9,400	40.1	119.9	9,700				165
170	34.9	115.1	8,700	37.5	112.4	9,000				170
175	32.2	107.1	8,100	34.6	104.2	8,400				175
180	29.2	98.1	7,500	31.5	94.8	7,700				180
185	25.9	87.7	6,900							185
190	22.0	75.5	6,400							190

# MLC165 S-1

ASME B30.5

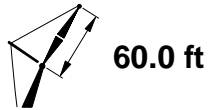
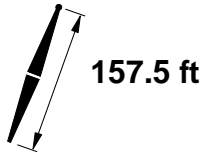
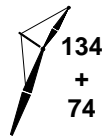


	5°			15°			25°			
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
50	79.0	209.3	35,800*							50
55	77.6	208.1	35,200*							55
60	76.2	206.8	34,500*	79.1	205.3	32,000*				60
65	74.7	205.4	33,900*	77.6	203.8	31,500*				65
70	73.3	203.8	33,300*	76.2	202.2	31,100*	79.4	199.0	26,000*	70
75	71.8	202.0	32,600*	74.7	200.5	30,600*	77.9	197.3	25,000*	75
80	70.3	200.2	32,000*	73.2	198.6	30,100*	76.4	195.4	24,100*	80
85	68.8	198.1	31,200	71.7	196.5	29,700*	74.9	193.3	23,300*	85
90	67.3	196.0	28,600	70.2	194.3	29,300*	73.3	191.1	22,500*	90
95	65.8	193.6	26,300	68.7	192.0	27,300	71.8	188.8	21,800*	95
100	64.3	191.1	24,200	67.1	189.4	25,200	70.2	186.2	21,100*	100
105	62.7	188.5	22,400	65.5	186.7	23,300	68.6	183.5	20,500*	105
110	61.1	185.6	20,700	63.9	183.9	21,500	66.9	180.6	19,900*	110
115	59.5	182.6	19,200	62.3	180.8	20,000	65.3	177.5	19,400*	115
120	57.8	179.3	17,900	60.6	177.5	18,600	63.6	174.2	18,800*	120
125	56.2	175.9	16,600	58.9	174.0	17,300	61.8	170.6	18,000	125
130	54.5	172.2	15,500	57.2	170.3	16,100	60.1	166.9	16,800	130
135	52.7	168.3	14,400	55.4	166.4	15,000	58.3	162.9	15,600	135
140	50.9	164.1	13,400	53.6	162.1	14,000	56.4	158.6	14,600	140
145	49.1	159.7	12,500	51.7	157.6	13,000	54.5	154.0	13,600	145
150	47.2	154.9	11,700	49.8	152.8	12,100	52.5	149.1	12,600	150
155	45.2	149.8	10,900	47.8	147.7	11,300	50.5	143.8	11,800	155
160	43.1	144.4	10,200	45.7	142.1	10,500	48.3	138.2	11,000	160
165	41.0	138.5	9,500	43.6	136.2	9,800	46.1	132.0	10,200	165
170	38.8	132.2	8,800	41.3	129.7	9,100	43.7	125.4	9,500	170
175	36.4	125.3	8,200	38.9	122.7	8,500				175
180	33.9	117.8	7,600	36.3	115.0	7,900				180
185	31.3	109.5	7,000	33.6	106.4	7,300				185
190	28.3	100.1	6,500							190
195	25.1	89.4	6,000							195
200	21.3	76.8	5,500							200



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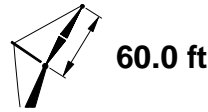
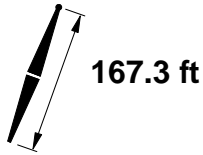
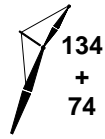
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
50	79.5	219.4	35,600*							50
55	78.2	218.3	35,000*							55
60	76.8	217.0	34,500*	79.6	215.4	32,100*				60
65	75.4	215.6	33,900*	78.2	214.0	31,600*				65
70	74.1	214.1	33,300*	76.8	212.5	31,100*				70
75	72.7	212.5	32,700*	75.4	210.9	30,700*	78.5	207.6	25,400*	75
80	71.3	210.7	32,100*	74.0	209.1	30,200*	77.1	205.8	24,500*	80
85	69.9	208.8	30,800	72.6	207.1	29,800*	75.6	203.9	23,700*	85
90	68.4	206.7	28,200	71.2	205.1	29,300	74.2	201.8	22,900*	90
95	67.0	204.5	25,900	69.7	202.8	27,000	72.7	199.6	22,200*	95
100	65.5	202.1	23,900	68.2	200.4	24,800	71.2	197.2	21,500*	100
105	64.1	199.6	22,000	66.7	197.9	22,900	69.7	194.6	20,900*	105
110	62.6	196.9	20,400	65.2	195.2	21,200	68.1	191.9	20,300*	110
115	61.0	194.1	18,900	63.7	192.3	19,700	66.6	189.0	19,800*	115
120	59.5	191.0	17,500	62.1	189.2	18,200	65.0	185.9	19,100	120
125	57.9	187.8	16,200	60.6	186.0	16,900	63.4	182.6	17,700	125
130	56.3	184.4	15,100	58.9	182.5	15,700	61.7	179.1	16,500	130
135	54.7	180.7	14,000	57.3	178.8	14,600	60.0	175.3	15,300	135
140	53.0	176.9	13,100	55.6	174.9	13,600	58.3	171.4	14,300	140
145	51.3	172.8	12,100	53.9	170.8	12,700	56.6	167.2	13,300	145
150	49.6	168.4	11,300	52.1	166.4	11,800	54.7	162.7	12,300	150
155	47.8	163.8	10,500	50.3	161.7	11,000	52.9	157.9	11,500	155
160	45.9	158.8	9,800	48.4	156.6	10,200	51.0	152.8	10,700	160
165	44.0	153.5	9,100	46.5	151.3	9,500	49.0	147.3	9,900	165
170	42.0	147.9	8,400	44.4	145.5	8,800	46.9	141.4	9,200	170
175	39.9	141.8	7,800	42.3	139.3	8,100	44.7	135.0	8,500	175
180	37.8	135.2	7,200	40.1	132.6	7,500				180
185	35.5	128.1	6,700	37.8	125.4	6,900				185
190	33.0	120.3	6,100	35.3	117.4	6,400				190
195	30.4	111.7	5,600	32.6	108.5	5,900				195
200	27.5	102.1	5,200							200
205	24.4	91.1	4,700							205
210	20.7	78.0	4,300							210

# MLC165 S-1

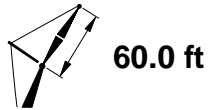
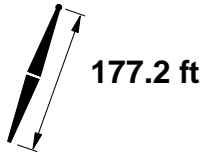
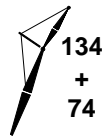
ASME B30.5



	5°			15°			25°				
	ft	°	ft	lb	ft	°	ft	lb	ft		
55	78.7		228.4	34,900*						55	
60	77.4		227.2	34,400*						60	
65	76.1		225.9	33,800*	78.7	224.2	31,500*			65	
70	74.8		224.4	33,300*	77.4	222.8	31,200*			70	
75	73.4		222.8	32,800*	76.1	221.2	30,700*	79.0	217.9	25,700*	75
80	72.1		221.2	32,200*	74.8	219.5	30,300*	77.7	216.2	24,900*	80
85	70.8		219.3	30,500	73.4	217.7	29,900*	76.3	214.4	24,000*	85
90	69.4		217.4	27,900	72.0	215.7	29,100	74.9	212.4	23,300*	90
95	68.0		215.3	25,600	70.7	213.6	26,700	73.5	210.3	22,600*	95
100	66.7		213.0	23,500	69.3	211.3	24,600	72.1	208.0	21,900*	100
105	65.3		210.6	21,700	67.9	208.9	22,600	70.7	205.6	21,300*	105
110	63.9		208.1	20,000	66.4	206.4	20,900	69.2	203.0	20,700*	110
115	62.4		205.4	18,500	65.0	203.6	19,400	67.7	200.3	20,200*	115
120	61.0		202.6	17,200	63.5	200.8	17,900	66.2	197.3	18,800	120
125	59.5		199.5	15,900	62.0	197.7	16,600	64.7	194.2	17,500	125
130	58.0		196.3	14,800	60.5	194.4	15,400	63.2	191.0	16,200	130
135	56.5		192.9	13,700	59.0	191.0	14,300	61.6	187.5	15,100	135
140	54.9		189.3	12,700	57.4	187.4	13,300	60.0	183.8	14,000	140
145	53.3		185.5	11,800	55.8	183.5	12,400	58.4	179.9	13,000	145
150	51.7		181.4	11,000	54.2	179.4	11,500	56.7	175.7	12,100	150
155	50.0		177.1	10,200	52.5	175.1	10,700	55.0	171.3	11,200	155
160	48.3		172.6	9,400	50.7	170.5	9,900	53.2	166.6	10,400	160
165	46.6		167.8	8,700	49.0	165.6	9,200	51.4	161.7	9,600	165
170	44.8		162.6	8,100	47.1	160.4	8,500	49.5	156.3	8,900	170
175	42.9		157.1	7,500	45.2	154.8	7,800	47.6	150.6	8,200	175
180	41.0		151.3	6,900	43.3	148.8	7,200	45.5	144.5	7,600	180
185	38.9		145.0	6,300	41.2	142.4	6,700	43.4	138.0	7,000	185
190	36.8		138.2	5,800	39.0	135.5	6,100				190
195	34.6		130.8	5,300	36.7	128.0	5,600				195
200	32.2		122.8	4,800	34.3	119.7	5,100				200
205	29.6		113.9	4,400	31.6	110.6	4,600				205
210	26.8		104.0	4,000							210

# MLC165 S-1

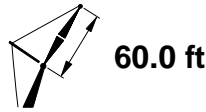
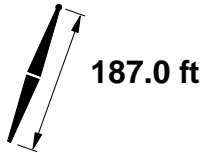
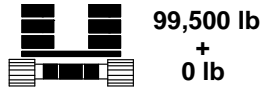
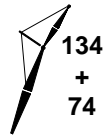
ASME B30.5



	5°			15°			25°			
	ft	°	ft	lb	ft	°	ft	lb	ft	
55	79.2		238.4							55
60	77.9		237.3							60
65	76.7		236.0	79.2	234.4	31,500*				65
70	75.4		234.7	78.0	233.0	31,100*				70
75	74.2		233.2	76.7	231.5	30,700*	79.5	228.2	26,100*	75
80	72.9		231.6	75.4	229.9	30,300*	78.2	226.6	25,200*	80
85	71.6		229.8	74.1	228.1	30,000*	76.9	224.8	24,400*	85
90	70.3		228.0	72.8	226.3	28,800	75.6	222.9	23,700*	90
95	69.0		226.0	71.5	224.3	26,400	74.3	220.9	23,000*	95
100	67.7		223.8	70.2	222.1	24,200	72.9	218.7	22,300*	100
105	66.4		221.6	68.9	219.8	22,300	71.6	216.4	21,700*	105
110	65.0		219.2	67.5	217.4	20,600	70.2	214.0	21,100*	110
115	63.7		216.6	66.1	214.8	19,000	68.8	211.4	20,000	115
120	62.3		213.9	64.7	212.1	17,600	67.4	208.7	18,500	120
125	60.9		211.0	63.3	209.2	16,300	65.9	205.7	17,200	125
130	59.5		208.0	61.9	206.1	15,100	64.5	202.6	15,900	130
135	58.1		204.8	60.5	202.9	14,000	63.0	199.4	14,800	135
140	56.6		201.4	59.0	199.5	13,000	61.5	195.9	13,700	140
145	55.1		197.8	57.5	195.9	12,000	60.0	192.3	12,700	145
150	53.6		194.1	56.0	192.1	11,100	58.4	188.4	11,800	150
155	52.0		190.1	54.4	188.0	10,300	56.8	184.3	10,900	155
160	50.5		185.8	52.8	183.8	9,500	55.2	180.0	10,100	160
165	48.8		181.4	51.2	179.2	8,800	53.5	175.4	9,300	165
170	47.2		176.7	49.5	174.4	8,100	51.8	170.5	8,600	170
175	45.5		171.6	47.7	169.4	7,500	50.0	165.3	7,900	175
180	43.7		166.3	45.9	164.0	6,900	48.2	159.8	7,300	180
185	41.9		160.6	44.1	158.2	6,300	46.3	153.9	6,700	185
190	40.0		154.6	42.2	152.0	5,800	44.3	147.6	6,100	190
195	38.0		148.1	40.1	145.4	5,200				195
200	35.9		141.1	38.0	138.3	4,700				200
205	33.7		133.5	35.8	130.5	4,300				205

# MLC165 S-1

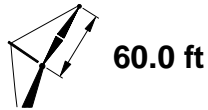
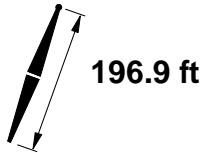
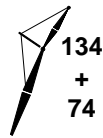
ASME B30.5



	5°			15°			25°			
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
55	79.6	248.5	34,400*							55
60	78.4	247.4	34,000*							60
65	77.2	246.2	33,500*	79.7	244.6	31,400*				65
70	76.0	244.9	33,100*	78.5	243.2	31,000*				70
75	74.8	243.5	32,600*	77.3	241.8	30,600*				75
80	73.6	241.9	32,200*	76.0	240.2	30,300*	78.7	236.9	25,500*	80
85	72.4	240.3	29,800	74.8	238.6	29,900*	77.5	235.2	24,700*	85
90	71.1	238.5	27,200	73.6	236.8	28,500	76.2	233.4	24,000*	90
95	69.9	236.6	24,900	72.3	234.9	26,100	74.9	231.5	23,300*	95
100	68.6	234.5	22,900	71.0	232.8	24,000	73.7	229.4	22,700*	100
105	67.4	232.4	21,000	69.8	230.6	22,100	72.4	227.2	22,000*	105
110	66.1	230.1	19,400	68.5	228.3	20,300	71.1	224.9	21,400	110
115	64.8	227.7	17,800	67.2	225.9	18,800	69.7	222.4	19,800	115
120	63.5	225.1	16,500	65.9	223.3	17,300	68.4	219.8	18,300	120
125	62.2	222.4	15,200	64.5	220.5	16,000	67.0	217.1	17,000	125
130	60.8	219.5	14,100	63.2	217.6	14,800	65.7	214.1	15,700	130
135	59.5	216.5	13,000	61.8	214.6	13,700	64.3	211.0	14,500	135
140	58.1	213.3	12,000	60.4	211.4	12,700	62.9	207.8	13,500	140
145	56.7	209.9	11,100	59.0	208.0	11,800	61.4	204.4	12,500	145
150	55.3	206.4	10,300	57.6	204.4	10,900	60.0	200.7	11,600	150
155	53.8	202.6	9,500	56.1	200.6	10,100	58.5	196.9	10,700	155
160	52.4	198.7	8,700	54.6	196.6	9,300	57.0	192.9	9,900	160
165	50.9	194.5	8,100	53.1	192.4	8,600	55.4	188.6	9,100	165
170	49.3	190.1	7,400	51.5	188.0	7,900	53.8	184.1	8,400	170
175	47.7	185.5	6,800	49.9	183.3	7,200	52.2	179.3	7,700	175
180	46.1	180.6	6,200	48.3	178.3	6,600	50.5	174.3	7,100	180
185	44.4	175.4	5,700	46.6	173.1	6,100	48.7	168.9	6,500	185
190	42.7	169.9	5,200	44.8	167.5	5,500	46.9	163.2	5,900	190
195	40.9	164.0	4,700	43.0	161.5	5,000	45.1	157.1	5,300	195
200	39.1	157.8	4,200	41.1	155.1	4,500	43.1	150.5	4,800	200
205				39.1	148.3	4,000				205

# MLC165 S-1

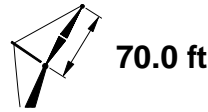
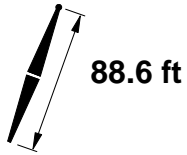
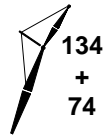
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
60	78.9	257.5	33,700*							60
65	77.7	256.3	33,300*							65
70	76.6	255.1	32,800*	78.9	253.4	30,900*				70
75	75.4	253.7	32,500*	77.8	252.0	30,500*				75
80	74.2	252.2	32,000*	76.6	250.5	30,200*	79.2	247.1	25,800*	80
85	73.1	250.6	29,500	75.4	248.9	29,900*	78.0	245.5	25,100*	85
90	71.9	248.9	26,900	74.2	247.2	28,200	76.8	243.8	24,300*	90
95	70.7	247.1	24,600	73.0	245.4	25,800	75.6	242.0	23,600*	95
100	69.5	245.2	22,500	71.8	243.4	23,700	74.3	240.0	23,000*	100
105	68.3	243.1	20,600	70.6	241.4	21,800	73.1	237.9	22,400*	105
110	67.1	240.9	19,000	69.4	239.1	20,000	71.9	235.7	21,200	110
115	65.9	238.6	17,500	68.1	236.8	18,400	70.6	233.3	19,500	115
120	64.6	236.2	16,100	66.9	234.3	17,000	69.3	230.9	18,000	120
125	63.4	233.6	14,800	65.6	231.7	15,700	68.0	228.2	16,700	125
130	62.1	230.8	13,700	64.3	229.0	14,500	66.7	225.5	15,400	130
135	60.8	228.0	12,600	63.0	226.1	13,400	65.4	222.5	14,300	135
140	59.5	225.0	11,600	61.7	223.0	12,400	64.1	219.5	13,200	140
145	58.2	221.8	10,700	60.4	219.8	11,400	62.7	216.2	12,200	145
150	56.8	218.4	9,900	59.0	216.5	10,500	61.4	212.8	11,200	150
155	55.5	214.9	9,100	57.7	212.9	9,700	59.9	209.2	10,400	155
160	54.1	211.2	8,400	56.2	209.2	8,900	58.5	205.4	9,600	160
165	52.7	207.3	7,700	54.8	205.2	8,200	57.1	201.4	8,800	165
170	51.2	203.2	7,000	53.4	201.1	7,500	55.6	197.2	8,100	170
175	49.7	198.9	6,400	51.9	196.7	6,900	54.1	192.8	7,400	175
180	48.2	194.3	5,800	50.3	192.1	6,300	52.5	188.1	6,800	180
185	46.7	189.5	5,300	48.8	187.2	5,700	50.9	183.1	6,200	185
190	45.1	184.4	4,800	47.2	182.1	5,200	49.2	177.9	5,600	190
195	43.4	179.1	4,300	45.5	176.6	4,600	47.5	172.3	5,000	195
200				43.8	170.9	4,200	45.8	166.4	4,500	200
205							43.9	160.2	4,000	205

# MLC165 S-1

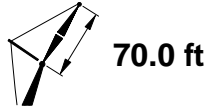
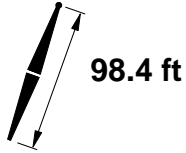
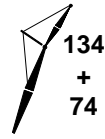
ASME B30.5



	5°			15°			25°					
	ft	°	ft	lb	ft	°	ft	lb	ft			
40	79.1		161.4	31,500*						40		
45	77.2		160.1	30,500*						45		
50	75.3		158.7	29,600*						50		
55	73.4		157.2	28,800*	78.3		156.2	26,500*		55		
60	71.5		155.4	27,900*	76.4		154.4	25,800*		60		
65	69.6		153.4	27,100*	74.4		152.5	25,200*	79.1	149.4	22,000*	65
70	67.6		151.3	26,300*	72.4		150.3	24,700*	77.1	147.2	20,800*	70
75	65.6		148.9	25,600*	70.4		148.0	24,100*	75.0	144.8	19,800*	75
80	63.6		146.3	24,900*	68.4		145.4	23,600*	72.9	142.2	18,900*	80
85	61.5		143.5	24,300*	66.3		142.6	23,100*	70.8	139.3	18,000*	85
90	59.4		140.4	23,600*	64.2		139.6	22,600*	68.6	136.2	17,200*	90
95	57.2		137.1	23,000*	62.0		136.3	21,900*	66.3	132.8	16,500*	95
100	55.0		133.5	22,400*	59.7		132.7	20,800*	64.0	129.1	15,900*	100
105	52.7		129.6	21,900*	57.4		128.7	19,900*	61.6	125.0	15,300*	105
110	50.3		125.3	21,300*	55.0		124.5	19,000*	59.2	120.6	14,800*	110
115	47.8		120.7	20,800*	52.5		119.8	18,200*	56.6	115.8	14,300*	115
120	45.3		115.6	20,100	49.9		114.8	17,500*	53.9	110.6	13,800*	120
125	42.6		110.0	18,900	47.2		109.2	16,800*	51.1	104.8	13,400*	125
130	39.7		103.9	17,700	44.3		103.1	16,200*	48.0	98.3	13,000*	130
135	36.6		97.1	16,700	41.3		96.2	15,700*	44.8	91.1	12,700*	135
140	33.3		89.4	15,700	37.9		88.5	15,200*				140
145	29.7		80.6	14,800	34.2		79.7	14,700*				145
150	25.5		70.1	13,900								150
155	20.4		57.1	13,100								155

# MLC165 S-1

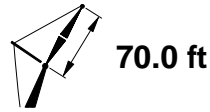
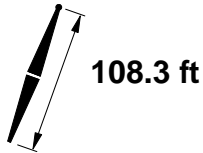
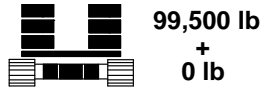
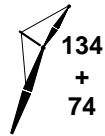
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
45	78.0	170.3	30,800*							45
50	76.2	169.0	29,900*							50
55	74.4	167.5	29,000*	79.0	166.4	26,600*				55
60	72.6	165.8	28,200*	77.2	164.8	26,000*				60
65	70.8	164.0	27,500*	75.4	163.0	25,500*				65
70	69.0	162.0	26,700*	73.5	161.0	24,900*	77.9	157.8	21,300*	70
75	67.1	159.8	26,000*	71.7	158.8	24,400*	76.0	155.5	20,300*	75
80	65.2	157.4	25,400*	69.8	156.4	23,900*	74.0	153.1	19,400*	80
85	63.3	154.8	24,700*	67.8	153.8	23,500*	72.1	150.4	18,500*	85
90	61.4	152.0	24,100*	65.9	151.0	22,900*	70.1	147.6	17,800*	90
95	59.4	148.9	23,500*	63.9	148.0	22,400*	68.0	144.4	17,100*	95
100	57.3	145.6	22,900*	61.8	144.7	21,800*	65.9	141.0	16,400*	100
105	55.2	142.0	22,400*	59.7	141.1	20,800*	63.7	137.4	15,800*	105
110	53.1	138.2	21,800*	57.5	137.3	19,900*	61.5	133.4	15,300*	110
115	50.9	134.0	21,100	55.3	133.1	19,100*	59.2	129.1	14,800*	115
120	48.6	129.5	19,700	53.0	128.6	18,400*	56.8	124.5	14,300*	120
125	46.2	124.6	18,500	50.6	123.7	17,700*	54.3	119.4	13,900*	125
130	43.7	119.2	17,400	48.1	118.4	17,100*	51.7	113.8	13,500*	130
135	41.1	113.4	16,300	45.5	112.5	16,500*	48.9	107.7	13,100*	135
140	38.3	107.0	15,300	42.7	106.1	15,700	46.0	101.0	12,800*	140
145	35.4	99.8	14,400	39.7	98.9	14,800	42.8	93.4	12,500*	145
150	32.1	91.8	13,500	36.4	90.9	13,900				150
155	28.6	82.6	12,700	32.8	81.6	13,000				155
160	24.5	71.8	12,000							160
165	19.6	58.2	11,200							165

# MLC165 S-1

ASME B30.5

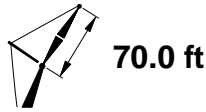
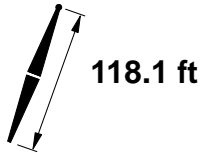


	5°			15°			25°				
	ft	°	ft	lb	ft	°	ft	lb	ft		
45	78.6		180.4	31,000*						45	
50	77.0		179.2	30,100*						50	
55	75.3		177.8	29,300*	79.7	176.7	26,700*			55	
60	73.6		176.2	28,500*	78.0	175.1	26,200*			60	
65	71.9		174.5	27,800*	76.3	173.4	25,700*			65	
70	70.2		172.6	27,000*	74.5	171.6	25,100*	78.6	168.2	21,700*	70
75	68.5		170.6	26,400*	72.8	169.5	24,600*	76.8	166.1	20,700*	75
80	66.7		168.3	25,700*	71.0	167.3	24,200*	75.0	163.9	19,800*	80
85	64.9		165.9	25,200*	69.2	164.9	23,700*	73.2	161.4	19,000*	85
90	63.1		163.3	24,500*	67.4	162.3	23,300*	71.3	158.7	18,200*	90
95	61.3		160.4	24,000*	65.5	159.4	22,800*	69.4	155.8	17,500*	95
100	59.4		157.4	23,400*	63.6	156.4	22,400*	67.5	152.7	16,900*	100
105	57.5		154.1	22,800*	61.7	153.1	21,700*	65.5	149.4	16,300*	105
110	55.5		150.6	22,100	59.7	149.6	20,800*	63.5	145.7	15,800*	110
115	53.5		146.8	20,600	57.7	145.8	20,000*	61.4	141.8	15,300*	115
120	51.4		142.7	19,300	55.6	141.7	19,200*	59.2	137.6	14,800*	120
125	49.3		138.3	18,000	53.4	137.3	18,500*	57.0	133.1	14,400*	125
130	47.0		133.5	16,900	51.2	132.5	17,400	54.7	128.1	14,000*	130
135	44.7		128.4	15,800	48.9	127.4	16,300	52.3	122.8	13,600*	135
140	42.3		122.8	14,800	46.4	121.8	15,300	49.7	117.0	13,200*	140
145	39.8		116.7	13,900	43.9	115.7	14,400	47.0	110.5	12,900*	145
150	37.1		109.9	13,100	41.1	108.9	13,500	44.2	103.5	12,600*	150
155	34.2		102.5	12,300	38.2	101.5	12,600				155
160	31.1		94.2	11,500	35.1	93.1	11,800				160
165	27.6		84.6	10,800	31.5	83.4	11,100				165
170	23.6		73.3	10,100							170



# MLC165 S-1

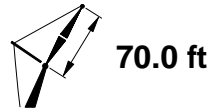
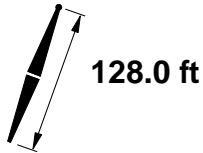
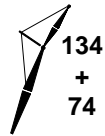
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
45	79.3	190.5	31,000*							45
50	77.7	189.3	30,200*							50
55	76.1	188.0	29,500*							55
60	74.5	186.6	28,700*	78.6	185.4	26,300*				60
65	72.9	184.9	28,000*	77.0	183.8	25,800*				65
70	71.3	183.2	27,300*	75.4	182.0	25,300*	79.3	178.6	22,100*	70
75	69.7	181.2	26,700*	73.7	180.1	24,900*	77.6	176.7	21,100*	75
80	68.0	179.1	26,100*	72.1	178.0	24,400*	75.9	174.5	20,200*	80
85	66.3	176.9	25,500*	70.4	175.8	23,900*	74.2	172.2	19,400*	85
90	64.6	174.4	24,900*	68.7	173.3	23,500*	72.4	169.7	18,700*	90
95	62.9	171.8	24,400*	66.9	170.7	23,100*	70.7	167.0	18,000*	95
100	61.2	168.9	23,900*	65.2	167.9	22,700*	68.9	164.1	17,300*	100
105	59.4	165.9	23,300*	63.4	164.8	22,300*	67.0	161.0	16,800*	105
110	57.6	162.6	21,700	61.6	161.6	21,700*	65.1	157.7	16,200*	110
115	55.7	159.1	20,200	59.7	158.1	20,800*	63.2	154.1	15,700*	115
120	53.8	155.3	18,900	57.8	154.3	19,600	61.3	150.2	15,200*	120
125	51.8	151.3	17,600	55.8	150.3	18,300	59.2	146.1	14,800*	125
130	49.8	147.0	16,500	53.8	146.0	17,100	57.1	141.7	14,400*	130
135	47.8	142.4	15,400	51.7	141.4	16,000	55.0	136.9	14,000*	135
140	45.6	137.4	14,400	49.5	136.4	15,000	52.7	131.7	13,700*	140
145	43.4	132.0	13,500	47.2	131.0	14,000	50.4	126.1	13,300*	145
150	41.0	126.1	12,700	44.9	125.1	13,100	47.9	120.0	13,000*	150
155	38.6	119.8	11,900	42.4	118.7	12,300	45.3	113.3	12,600	155
160	35.9	112.8	11,100	39.8	111.7	11,500	42.5	105.9	11,800	160
165	33.1	105.1	10,400	36.9	103.9	10,800				165
170	30.1	96.4	9,800	33.8	95.2	10,100				170
175	26.7	86.5	9,100	30.4	85.2	9,400				175
180	22.8	74.8	8,500							180

# MLC165 S-1

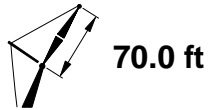
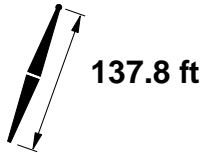
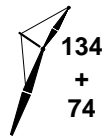
ASME B30.5



	5°			15°			25°			
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
50	78.3	199.5	30,300*							50
55	76.8	198.2	29,600*							55
60	75.3	196.8	28,900*	79.2	195.6	26,400*				60
65	73.8	195.3	28,200*	77.7	194.1	25,900*				65
70	72.3	193.6	27,600*	76.2	192.4	25,400*				70
75	70.7	191.8	27,000*	74.6	190.6	25,000*	78.3	187.1	21,500*	75
80	69.2	189.8	26,400*	73.0	188.7	24,500*	76.7	185.1	20,600*	80
85	67.6	187.7	25,800*	71.5	186.5	24,200*	75.1	182.9	19,800*	85
90	66.0	185.4	25,200*	69.8	184.2	23,800*	73.4	180.6	19,100*	90
95	64.4	182.9	24,700*	68.2	181.8	23,400*	71.8	178.1	18,400*	95
100	62.8	180.2	24,200*	66.6	179.1	23,000*	70.1	175.4	17,800*	100
105	61.1	177.4	23,000	64.9	176.3	22,500*	68.4	172.4	17,200*	105
110	59.4	174.3	21,400	63.2	173.3	22,300*	66.6	169.3	16,600*	110
115	57.7	171.1	19,900	61.4	170.0	20,700	64.8	166.0	16,100*	115
120	55.9	167.6	18,500	59.7	166.5	19,300	63.0	162.5	15,600*	120
125	54.1	163.9	17,300	57.9	162.8	18,000	61.2	158.7	15,200*	125
130	52.3	160.0	16,100	56.0	158.9	16,800	59.2	154.6	14,800*	130
135	50.4	155.7	15,100	54.1	154.6	15,700	57.3	150.2	14,400*	135
140	48.4	151.2	14,100	52.1	150.1	14,700	55.2	145.6	14,000*	140
145	46.4	146.3	13,200	50.1	145.3	13,700	53.1	140.5	13,700*	145
150	44.3	141.1	12,300	48.0	140.0	12,800	51.0	135.1	13,300	150
155	42.1	135.5	11,500	45.8	134.4	12,000	48.7	129.2	12,400	155
160	39.8	129.4	10,800	43.5	128.3	11,200	46.3	122.9	11,600	160
165	37.4	122.8	10,100	41.1	121.6	10,500	43.7	115.9	10,800	165
170	34.9	115.5	9,400	38.5	114.4	9,800				170
175	32.1	107.5	8,800	35.7	106.3	9,100				175
180	29.2	98.5	8,200	32.7	97.2	8,500				180
185	25.9	88.3	7,700							185
190	22.1	76.1	7,100							190

# MLC165 S-1

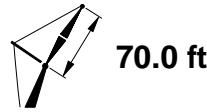
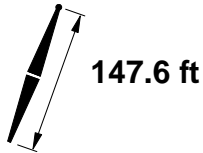
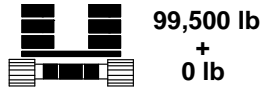
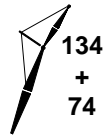
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
50	78.9	209.5	30,400*							50
55	77.5	208.4	29,700*							55
60	76.0	207.0	29,000*							60
65	74.6	205.6	28,400*	78.3	204.4	26,000*				65
70	73.2	204.0	27,700*	76.8	202.8	25,500*				70
75	71.7	202.3	27,100*	75.4	201.1	25,100*	78.9	197.5	21,800*	75
80	70.2	200.4	26,600*	73.9	199.2	24,700*	77.4	195.6	21,000*	80
85	68.7	198.4	26,000*	72.4	197.2	24,300*	75.8	193.5	20,200*	85
90	67.2	196.2	25,300*	70.9	195.0	23,900*	74.3	191.3	19,500*	90
95	65.7	193.9	24,700*	69.4	192.7	23,600*	72.7	188.9	18,800*	95
100	64.2	191.4	24,200*	67.8	190.2	23,200*	71.2	186.4	18,200*	100
105	62.6	188.7	22,600	66.2	187.6	22,800*	69.5	183.7	17,600*	105
110	61.0	185.9	21,000	64.6	184.7	21,900	67.9	180.8	17,000*	110
115	59.4	182.8	19,500	63.0	181.7	20,400	66.3	177.7	16,500*	115
120	57.8	179.6	18,100	61.4	178.5	19,000	64.6	174.4	16,000*	120
125	56.1	176.1	16,800	59.7	175.0	17,600	62.8	170.8	15,600*	125
130	54.4	172.5	15,700	57.9	171.4	16,400	61.1	167.1	15,200*	130
135	52.6	168.6	14,600	56.2	167.4	15,300	59.3	163.1	14,800*	135
140	50.8	164.4	13,700	54.4	163.3	14,300	57.4	158.8	14,400*	140
145	49.0	160.0	12,800	52.5	158.8	13,400	55.5	154.2	13,900	145
150	47.1	155.2	11,900	50.6	154.1	12,500	53.5	149.3	13,000	150
155	45.1	150.2	11,100	48.6	149.0	11,600	51.5	144.1	12,100	155
160	43.1	144.7	10,400	46.6	143.6	10,900	49.3	138.4	11,300	160
165	41.0	138.9	9,700	44.4	137.7	10,100	47.1	132.3	10,500	165
170	38.7	132.6	9,000	42.2	131.4	9,400	44.8	125.7	9,800	170
175	36.4	125.7	8,400	39.8	124.5	8,800	42.3	118.4	9,100	175
180	33.9	118.2	7,800	37.3	116.9	8,200				180
185	31.2	109.9	7,300	34.6	108.6	7,600				185
190	28.3	100.6	6,700	31.6	99.2	7,000				190
195	25.1	90.0	6,200							195
200	21.4	77.5	5,800							200

# MLC165 S-1

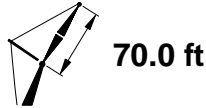
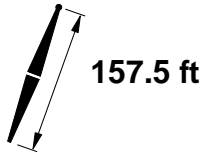
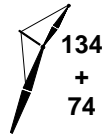
ASME B30.5



	5°			15°			25°			
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
50	79.4	219.6	30,400*							50
55	78.0	218.5	29,700*							55
60	76.7	217.2	29,000*							60
65	75.3	215.9	28,400*	78.9	214.6	26,000*				65
70	73.9	214.4	27,700*	77.5	213.1	25,600*				70
75	72.6	212.7	27,100*	76.1	211.5	25,200*	79.4	207.8	22,200*	75
80	71.2	210.9	26,500*	74.7	209.7	24,800*	78.0	206.0	21,300*	80
85	69.7	209.0	26,000*	73.2	207.8	24,500*	76.5	204.1	20,600*	85
90	68.3	207.0	25,300*	71.8	205.7	24,100*	75.1	202.0	19,800*	90
95	66.9	204.8	24,700*	70.4	203.5	23,700*	73.6	199.7	19,200*	95
100	65.4	202.4	24,200*	68.9	201.2	23,400*	72.1	197.3	18,500*	100
105	64.0	199.9	22,600	67.4	198.7	23,000*	70.6	194.8	18,000*	105
110	62.5	197.2	21,000	65.9	196.0	21,900	69.1	192.0	17,400*	110
115	60.9	194.3	19,500	64.4	193.2	20,400	67.5	189.1	16,900*	115
120	59.4	191.3	18,100	62.8	190.1	19,000	65.9	186.0	16,400*	120
125	57.8	188.1	16,900	61.3	186.9	17,700	64.3	182.7	16,000*	125
130	56.2	184.7	15,700	59.7	183.5	16,500	62.7	179.2	15,600*	130
135	54.6	181.0	14,700	58.0	179.9	15,400	61.0	175.5	15,200*	135
140	52.9	177.2	13,700	56.3	176.0	14,300	59.3	171.6	14,800*	140
145	51.2	173.1	12,800	54.6	171.9	13,400	57.5	167.4	14,000	145
150	49.5	168.7	11,900	52.9	167.6	12,500	55.7	162.9	13,000	150
155	47.7	164.1	11,100	51.1	162.9	11,700	53.8	158.1	12,200	155
160	45.9	159.2	10,400	49.2	158.0	10,900	51.9	153.0	11,300	160
165	43.9	153.9	9,700	47.3	152.7	10,200	49.9	147.5	10,600	165
170	42.0	148.2	9,100	45.3	147.0	9,500	47.8	141.6	9,900	170
175	39.9	142.2	8,500	43.2	140.9	8,900	45.6	135.3	9,200	175
180	37.7	135.6	7,900	41.0	134.4	8,200	43.4	128.4	8,500	180
185	35.4	128.5	7,300	38.7	127.2	7,700				185
190	33.0	120.8	6,800	36.2	119.4	7,100				190
195	30.4	112.2	6,300	33.6	110.8	6,600				195
200	27.5	102.6	5,800	30.7	101.1	6,100				200
205	24.4	91.7	5,400							205
210	20.7	78.7	4,900							210

# MLC165 S-1

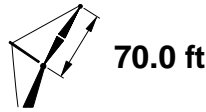
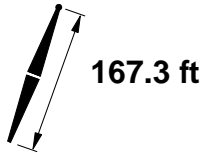
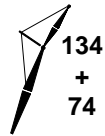
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
55	78.6	228.6	29,500*							55
60	77.3	227.4	28,900*							60
65	76.0	226.1	28,200*	79.4	224.8	26,000*				65
70	74.7	224.6	27,600*	78.0	223.3	25,700*				70
75	73.3	223.1	26,900*	76.7	221.8	25,300*				75
80	72.0	221.4	26,400*	75.4	220.1	24,900*	78.6	216.4	21,700*	80
85	70.7	219.6	25,900*	74.0	218.3	24,500*	77.2	214.5	20,900*	85
90	69.3	217.6	25,400*	72.7	216.4	24,200*	75.8	212.5	20,200*	90
95	67.9	215.5	24,800*	71.3	214.3	23,800*	74.4	210.4	19,500*	95
100	66.6	213.3	24,100	69.9	212.0	23,500*	73.0	208.1	18,900*	100
105	65.2	210.9	22,200	68.5	209.7	23,200*	71.5	205.7	18,300*	105
110	63.8	208.4	20,600	67.1	207.1	21,600	70.1	203.1	17,800*	110
115	62.3	205.7	19,100	65.6	204.4	20,100	68.6	200.4	17,300*	115
120	60.9	202.8	17,700	64.2	201.6	18,600	67.1	197.5	16,800*	120
125	59.4	199.8	16,500	62.7	198.6	17,300	65.6	194.4	16,300*	125
130	57.9	196.6	15,300	61.2	195.4	16,100	64.1	191.1	15,900*	130
135	56.4	193.2	14,300	59.6	192.0	15,000	62.5	187.6	15,500*	135
140	54.8	189.6	13,300	58.1	188.4	14,000	60.9	184.0	14,700	140
145	53.2	185.8	12,400	56.5	184.6	13,100	59.3	180.0	13,700	145
150	51.6	181.7	11,500	54.9	180.5	12,200	57.6	175.9	12,700	150
155	50.0	177.4	10,700	53.2	176.2	11,300	55.9	171.5	11,900	155
160	48.3	172.9	10,000	51.5	171.7	10,600	54.1	166.8	11,000	160
165	46.5	168.1	9,300	49.7	166.9	9,800	52.3	161.8	10,300	165
170	44.7	163.0	8,700	47.9	161.7	9,200	50.4	156.5	9,600	170
175	42.8	157.5	8,100	46.0	156.2	8,500	48.5	150.8	8,900	175
180	40.9	151.6	7,500	44.1	150.4	7,900	46.4	144.7	8,200	180
185	38.9	145.4	6,900	42.0	144.1	7,300	44.3	138.2	7,600	185
190	36.8	138.6	6,400	39.9	137.3	6,800	42.1	131.0	7,000	190
195	34.5	131.3	5,900	37.6	129.9	6,200				195
200	32.1	123.2	5,500	35.2	121.8	5,700				200
205	29.6	114.4	5,000	32.6	112.9	5,300				205
210	26.8	104.5	4,600							210
215	23.7	93.2	4,200							215

# MLC165 S-1

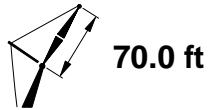
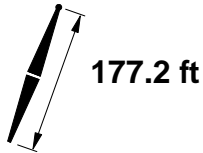
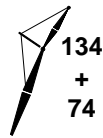
ASME B30.5



	5°			15°			25°			
	ft	°	ft	lb	ft	°	ft	lb	ft	
55	79.1		238.7	29,300*						55
60	77.8		237.5	28,700*						60
65	76.6		236.3	28,100*						65
70	75.3		234.9	27,500*	78.6		233.6	25,600*		70
75	74.1		233.4	26,800*	77.3		232.1	25,300*		75
80	72.8		231.8	26,300*	76.0		230.5	24,900*	79.1	80
85	71.5		230.1	25,700*	74.7		228.7	24,600*	77.8	85
90	70.2		228.2	25,300*	73.4		226.9	24,300*	76.4	90
95	68.9		226.2	24,700*	72.1		224.9	24,000*	75.1	95
100	67.6		224.1	23,700	70.8		222.8	23,600*	73.8	100
105	66.3		221.8	21,900	69.5		220.5	23,100	72.4	105
110	64.9		219.4	20,200	68.1		218.1	21,300	71.0	110
115	63.6		216.9	18,700	66.8		215.6	19,800	69.6	115
120	62.2		214.1	17,400	65.4		212.9	18,300	68.2	120
125	60.8		211.3	16,100	64.0		210.0	17,000	66.8	125
130	59.4		208.3	15,000	62.5		207.0	15,800	65.3	130
135	58.0		205.1	13,900	61.1		203.8	14,700	63.9	135
140	56.5		201.7	12,900	59.6		200.4	13,700	62.4	140
145	55.0		198.1	12,000	58.1		196.9	12,700	60.8	145
150	53.5		194.3	11,200	56.6		193.1	11,900	59.3	150
155	52.0		190.4	10,400	55.1		189.1	11,000	57.7	155
160	50.4		186.1	9,700	53.5		184.9	10,300	56.1	160
165	48.8		181.7	9,000	51.8		180.4	9,500	54.4	165
170	47.1		177.0	8,300	50.2		175.7	8,900	52.7	170
175	45.4		172.0	7,700	48.5		170.7	8,200	50.9	175
180	43.6		166.6	7,100	46.7		165.4	7,600	49.0	180
185	41.8		161.0	6,600	44.8		159.7	7,000	47.1	185
190	39.9		154.9	6,100	42.9		153.6	6,500	45.1	190
195	37.9		148.4	5,600	40.9		147.1	5,900	43.1	195
200	35.9		141.5	5,100	38.8		140.1	5,400		200
205	33.7		133.9	4,700	36.6		132.5	5,000		205
210	31.4		125.6	4,200	34.3		124.1	4,500		210
215					31.7		115.0	4,100		215

# MLC165 S-1

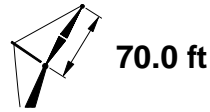
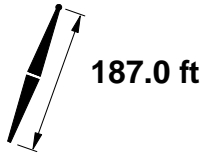
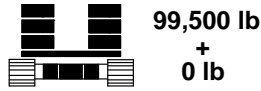
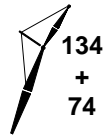
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
55	79.5	248.7	29,000*							55
60	78.3	247.6	28,400*							60
65	77.1	246.4	27,800*							65
70	75.9	245.1	27,300*	79.0	243.7	25,600*				70
75	74.7	243.7	26,600*	77.8	242.3	25,300*				75
80	73.5	242.1	26,200*	76.6	240.8	24,900*	79.5	237.0	22,200*	80
85	72.3	240.5	25,700*	75.4	239.1	24,600*	78.3	235.3	21,500*	85
90	71.0	238.7	25,000*	74.1	237.4	24,300*	77.0	233.5	20,800*	90
95	69.8	236.8	24,700*	72.9	235.5	24,000*	75.8	231.6	20,100*	95
100	68.6	234.8	23,300	71.6	233.5	23,700*	74.5	229.5	19,500*	100
105	67.3	232.6	21,500	70.3	231.3	22,800	73.2	227.3	19,000*	105
110	66.0	230.3	19,800	69.1	229.0	21,000	71.9	225.0	18,400*	110
115	64.7	227.9	18,300	67.8	226.6	19,400	70.6	222.5	17,900*	115
120	63.4	225.3	17,000	66.5	224.1	18,000	69.2	219.9	17,500*	120
125	62.1	222.6	15,700	65.1	221.3	16,700	67.9	217.2	17,000*	125
130	60.8	219.8	14,600	63.8	218.5	15,500	66.5	214.2	16,300	130
135	59.4	216.7	13,500	62.4	215.5	14,400	65.1	211.2	15,200	135
140	58.0	213.6	12,500	61.0	212.3	13,400	63.7	207.9	14,100	140
145	56.6	210.2	11,600	59.6	208.9	12,400	62.2	204.5	13,100	145
150	55.2	206.6	10,800	58.2	205.4	11,500	60.8	200.8	12,200	150
155	53.8	202.9	10,000	56.7	201.6	10,700	59.3	197.0	11,300	155
160	52.3	199.0	9,300	55.3	197.7	9,900	57.8	193.0	10,500	160
165	50.8	194.8	8,600	53.7	193.5	9,200	56.2	188.7	9,700	165
170	49.2	190.4	7,900	52.2	189.2	8,500	54.6	184.2	9,000	170
175	47.7	185.8	7,300	50.6	184.5	7,800	53.0	179.4	8,300	175
180	46.0	180.9	6,700	49.0	179.6	7,200	51.3	174.4	7,700	180
185	44.4	175.7	6,200	47.3	174.4	6,700	49.6	169.0	7,000	185
190	42.6	170.2	5,700	45.5	168.9	6,100	47.8	163.3	6,500	190
195	40.9	164.4	5,200	43.7	163.0	5,600	45.9	157.2	5,900	195
200	39.0	158.1	4,700	41.9	156.7	5,100	43.9	150.7	5,400	200
205	37.1	151.4	4,300	39.9	150.0	4,600	41.9	143.7	4,900	205
210				37.9	142.8	4,200				210

# MLC165 S-1

ASME B30.5

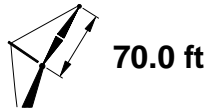
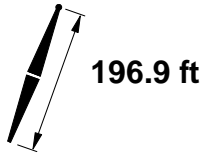
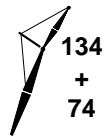


	5°			15°			25°			
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
60	78.8	257.7	28,100*							60
65	77.6	256.6	27,500*							65
70	76.5	255.3	27,000*	79.5	253.9	25,500*				70
75	75.3	253.9	26,500*	78.3	252.5	25,200*				75
80	74.1	252.5	26,100*	77.1	251.1	24,900*				80
85	73.0	250.9	25,500*	76.0	249.5	24,600*	78.8	245.6	21,800*	85
90	71.8	249.2	24,900*	74.8	247.8	24,300*	77.6	243.9	21,100*	90
95	70.6	247.3	24,400*	73.6	246.0	24,000*	76.3	242.0	20,400*	95
100	69.4	245.4	23,000	72.4	244.1	23,700*	75.1	240.1	19,800*	100
105	68.2	243.4	21,200	71.2	242.0	22,500	73.9	238.0	19,300*	105
110	67.0	241.2	19,500	69.9	239.8	20,800	72.6	235.8	18,700*	110
115	65.8	238.9	18,000	68.7	237.5	19,200	71.4	233.4	18,200*	115
120	64.5	236.4	16,700	67.4	235.1	17,700	70.1	230.9	17,800*	120
125	63.3	233.8	15,400	66.2	232.5	16,400	68.8	228.3	17,300*	125
130	62.0	231.1	14,300	64.9	229.8	15,200	67.5	225.5	16,100	130
135	60.7	228.2	13,200	63.6	226.9	14,100	66.2	222.6	15,000	135
140	59.4	225.2	12,200	62.3	223.9	13,100	64.9	219.5	13,900	140
145	58.1	222.0	11,300	61.0	220.7	12,100	63.5	216.3	12,900	145
150	56.7	218.7	10,500	59.6	217.4	11,200	62.1	212.9	11,900	150
155	55.4	215.2	9,700	58.3	213.9	10,400	60.7	209.3	11,100	155
160	54.0	211.5	9,000	56.9	210.2	9,600	59.3	205.5	10,300	160
165	52.6	207.6	8,300	55.4	206.3	8,900	57.8	201.5	9,500	165
170	51.1	203.5	7,600	54.0	202.2	8,200	56.4	197.3	8,800	170
175	49.7	199.2	7,000	52.5	197.9	7,600	54.8	192.9	8,100	175
180	48.2	194.6	6,400	51.0	193.3	7,000	53.3	188.2	7,400	180
185	46.6	189.8	5,900	49.4	188.5	6,400	51.7	183.2	6,800	185
190	45.0	184.8	5,400	47.8	183.4	5,900	50.0	178.0	6,300	190
195	43.4	179.4	4,900	46.2	178.0	5,300	48.3	172.5	5,700	195
200	41.7	173.7	4,400	44.5	172.3	4,900	46.6	166.6	5,200	200
205	40.0	167.7	4,000	42.7	166.3	4,400	44.7	160.3	4,700	205
210							42.8	153.5	4,200	210



# MLC165 S-1

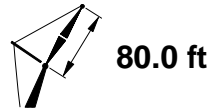
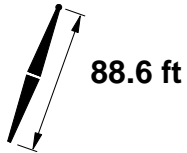
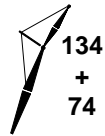
ASME B30.5



	5°			15°			25°			
	ft	°	ft	lb	ft	°	ft	lb	ft	
60	79.2		267.8							60
65	78.1		266.7							65
70	77.0		265.5							70
75	75.9		264.2							75
80	74.8		262.7							80
85	73.6		261.2							85
90	72.5		259.6							90
95	71.4		257.8							95
100	70.2		256.0							100
105	69.1		254.0							105
110	67.9		251.9							110
115	66.7		249.7							115
120	65.5		247.4							120
125	64.3		244.9							125
130	63.1		242.3							130
135	61.9		239.6							135
140	60.7		236.7							140
145	59.4		233.7							145
150	58.1		230.5							150
155	56.9		227.2							155
160	55.5		223.7							160
165	54.2		220.0							165
170	52.9		216.2							170
175	51.5		212.1							175
180	50.1		207.9							180
185	48.6		203.4							185
190	47.1		198.7							190
195	45.6		193.7							195
200	44.1		188.5							200
205										205

# MLC165 S-1

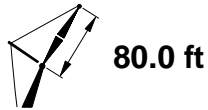
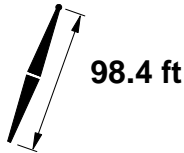
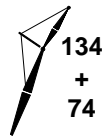
ASME B30.5



	5°			15°			25°					
	ft	°	ft	lb	ft	°	ft	lb	ft			
40	79.6		171.9	23,700*						40		
45	77.9		170.8	23,200*						45		
50	76.1		169.5	22,600*						50		
55	74.4		168.0	22,000*	79.3		166.8	22,200*		55		
60	72.6		166.4	21,400*	77.5		165.2	21,700*		60		
65	70.8		164.6	20,900*	75.7		163.4	21,300*		65		
70	69.0		162.6	20,400*	73.8		161.4	20,800*	78.9	158.3	19,100*	70
75	67.1		160.5	19,900*	72.0		159.2	20,300*	77.0	156.1	18,100*	75
80	65.2		158.1	19,400*	70.1		156.9	19,900*	75.1	153.6	17,200*	80
85	63.3		155.5	18,900*	68.1		154.3	19,500*	73.1	151.0	16,400*	85
90	61.4		152.8	18,500*	66.2		151.5	19,000*	71.1	148.1	15,600*	90
95	59.4		149.8	18,100*	64.2		148.4	18,500*	69.0	145.0	15,000*	95
100	57.4		146.5	17,700*	62.1		145.1	18,100*	66.9	141.7	14,300*	100
105	55.3		143.0	17,300*	60.0		141.6	17,600*	64.8	138.0	13,800*	105
110	53.2		139.2	17,000*	57.9		137.8	17,200*	62.6	134.1	13,200*	110
115	51.0		135.1	16,600*	55.7		133.6	16,600*	60.3	129.8	12,700*	115
120	48.7		130.6	16,400*	53.4		129.1	15,900*	57.9	125.1	12,300*	120
125	46.3		125.8	16,200*	51.0		124.2	15,200*	55.4	120.1	11,900*	125
130	43.9		120.6	15,900*	48.5		118.9	14,600*	52.8	114.6	11,500*	130
135	41.3		114.9	15,500*	45.8		113.1	14,100*	50.1	108.5	11,200*	135
140	38.5		108.6	15,200*	43.1		106.7	13,600*	47.2	101.8	10,800*	140
145	35.6		101.6	14,800*	40.1		99.6	13,100*	44.0	94.3	10,500*	145
150	32.5		93.8	14,100	36.9		91.6	12,700*	40.6	85.8	10,300*	150
155	29.0		84.9	13,300	33.3		82.4	12,300*				155
160	25.1		74.5	12,500	29.2		71.6	11,900*				160
165	20.4		61.6	11,800								165

# MLC165 S-1

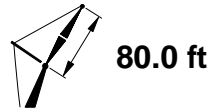
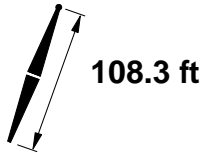
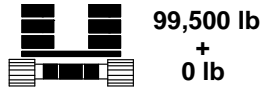
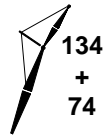
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
45	78.6	180.9	23,100*							45
50	76.9	179.6	22,600*							50
55	75.3	178.3	22,000*							55
60	73.6	176.8	21,500*	78.2	175.5	21,700*				60
65	71.9	175.1	20,900*	76.5	173.8	21,300*				65
70	70.2	173.2	20,400*	74.8	172.0	20,800*	79.6	168.7	19,500*	70
75	68.5	171.2	19,900*	73.0	169.9	20,400*	77.8	166.6	18,500*	75
80	66.7	169.0	19,400*	71.3	167.7	20,000*	76.0	164.4	17,600*	80
85	64.9	166.6	19,000*	69.5	165.3	19,600*	74.2	161.9	16,800*	85
90	63.1	164.0	18,500*	67.7	162.7	19,200*	72.3	159.3	16,100*	90
95	61.3	161.2	18,100*	65.8	159.9	18,900*	70.4	156.4	15,400*	95
100	59.4	158.2	17,700*	63.9	156.8	18,400*	68.5	153.3	14,800*	100
105	57.5	155.0	17,500*	62.0	153.6	18,000*	66.5	149.9	14,200*	105
110	55.5	151.5	17,100*	60.0	150.1	17,500*	64.5	146.3	13,700*	110
115	53.5	147.8	16,800*	58.0	146.3	17,200*	62.4	142.4	13,200*	115
120	51.5	143.7	16,500*	55.9	142.2	16,600*	60.2	138.2	12,700*	120
125	49.3	139.4	16,100*	53.7	137.8	16,000*	58.0	133.7	12,300*	125
130	47.1	134.7	15,900*	51.5	133.1	15,300*	55.7	128.8	11,900*	130
135	44.8	129.7	15,600*	49.2	127.9	14,800*	53.3	123.5	11,600*	135
140	42.5	124.2	15,400	46.8	122.4	14,300*	50.8	117.7	11,200*	140
145	40.0	118.2	14,500	44.2	116.3	13,800*	48.1	111.3	10,900*	145
150	37.3	111.6	13,700	41.5	109.6	13,300*	45.3	104.3	10,600*	150
155	34.5	104.3	12,900	38.6	102.2	12,900*	42.2	96.4	10,400*	155
160	31.4	96.2	12,100	35.5	93.8	12,500				160
165	28.0	87.0	11,400	32.0	84.3	11,700				165
170	24.2	76.1	10,800							170
175	19.6	62.8	10,100							175

# MLC165 S-1

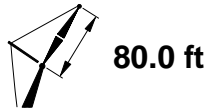
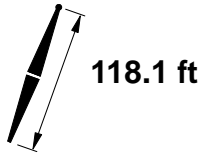
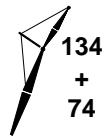
ASME B30.5



	5°			15°			25°				
	ft	°	ft	lb	ft	°	ft	lb	ft		
45	79.2		190.9	23,100*						45	
50	77.6		189.8	22,600*						50	
55	76.1		188.5	22,000*						55	
60	74.5		187.1	21,500*	78.9	185.8	21,700*			60	
65	72.9		185.5	21,000*	77.3	184.2	21,300*			65	
70	71.3		183.7	20,500*	75.6	182.4	20,800*			70	
75	69.6		181.8	20,000*	74.0	180.5	20,400*	78.5	177.1	18,900*	75
80	68.0		179.8	19,500*	72.3	178.4	20,000*	76.8	175.0	18,000*	80
85	66.3		177.5	19,100*	70.6	176.2	19,600*	75.1	172.7	17,200*	85
90	64.6		175.1	18,600*	68.9	173.7	19,300*	73.4	170.2	16,500*	90
95	62.9		172.5	18,200*	67.2	171.1	18,900*	71.6	167.5	15,800*	95
100	61.2		169.7	17,800*	65.5	168.3	18,600*	69.8	164.6	15,200*	100
105	59.4		166.7	17,500*	63.7	165.3	18,300*	68.0	161.5	14,600*	105
110	57.6		163.5	17,200*	61.8	162.0	17,900*	66.1	158.2	14,100*	110
115	55.7		160.0	16,800*	60.0	158.5	17,500*	64.2	154.6	13,600*	115
120	53.8		156.3	16,400*	58.1	154.8	17,100*	62.2	150.8	13,100*	120
125	51.9		152.4	16,200*	56.1	150.8	16,700*	60.2	146.7	12,700*	125
130	49.9		148.1	16,000*	54.1	146.5	16,100*	58.1	142.2	12,300*	130
135	47.8		143.6	15,700*	52.0	141.9	15,500*	55.9	137.5	12,000*	135
140	45.7		138.6	14,900*	49.8	136.9	14,900*	53.7	132.3	11,600*	140
145	43.5		133.3	14,000	47.6	131.5	14,400*	51.4	126.7	11,300*	145
150	41.2		127.6	13,200	45.2	125.7	13,700	48.9	120.7	11,000*	150
155	38.7		121.4	12,400	42.7	119.3	12,800	46.3	114.0	10,700*	155
160	36.2		114.5	11,700	40.1	112.4	12,100	43.6	106.7	10,500*	160
165	33.4		107.0	11,000	37.3	104.6	11,300	40.6	98.5	10,300*	165
170	30.4		98.5	10,300	34.2	96.0	10,600				170
175	27.1		88.9	9,700	30.8	86.1	10,000				175
180	23.4		77.7	9,100							180
185	18.9		63.8	8,500							185

# MLC165 S-1

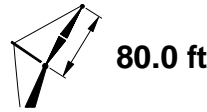
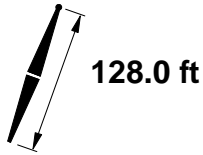
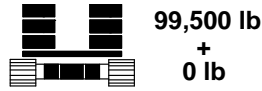
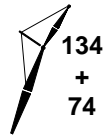
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
50	78.3	199.9	22,500*							50
55	76.8	198.7	22,000*							55
60	75.3	197.3	21,500*	79.4	196.0	21,700*				60
65	73.8	195.8	21,000*	77.9	194.5	21,300*				65
70	72.2	194.2	20,600*	76.4	192.8	20,800*				70
75	70.7	192.4	20,000*	74.8	191.0	20,400*	79.1	187.5	19,200*	75
80	69.1	190.4	19,500*	73.3	189.1	20,000*	77.5	185.5	18,400*	80
85	67.6	188.3	19,100*	71.7	186.9	19,700*	75.9	183.4	17,600*	85
90	66.0	186.1	18,700*	70.1	184.6	19,300*	74.3	181.0	16,900*	90
95	64.4	183.6	18,300*	68.5	182.2	18,900*	72.6	178.5	16,200*	95
100	62.7	181.0	17,900*	66.8	179.5	18,600*	70.9	175.8	15,600*	100
105	61.1	178.2	17,500*	65.1	176.7	18,400*	69.2	172.9	15,000*	105
110	59.4	175.2	17,200*	63.4	173.7	18,100*	67.5	169.8	14,500*	110
115	57.7	172.0	16,900*	61.7	170.4	17,700*	65.7	166.5	14,000*	115
120	55.9	168.6	16,600*	59.9	167.0	17,500*	63.9	163.0	13,500*	120
125	54.1	164.9	16,300*	58.1	163.3	17,100*	62.0	159.2	13,100*	125
130	52.3	161.0	15,900*	56.3	159.4	16,800*	60.1	155.1	12,700*	130
135	50.4	156.8	15,500	54.4	155.1	16,200*	58.2	150.8	12,300*	135
140	48.5	152.4	14,500	52.4	150.6	15,100	56.2	146.1	12,000*	140
145	46.5	147.6	13,600	50.4	145.8	14,200	54.1	141.1	11,700*	145
150	44.4	142.4	12,800	48.3	140.6	13,300	51.9	135.7	11,400*	150
155	42.3	136.9	12,000	46.1	135.0	12,500	49.6	129.9	11,100*	155
160	40.0	130.9	11,300	43.8	128.9	11,700	47.2	123.6	10,800*	160
165	37.6	124.4	10,600	41.4	122.3	11,000	44.7	116.6	10,600*	165
170	35.1	117.3	9,900	38.8	115.0	10,300	42.0	109.0	10,400*	170
175	32.4	109.5	9,300	36.1	107.0	9,600				175
180	29.5	100.8	8,700	33.1	98.0	9,000				180
185	26.3	90.8	8,100	29.8	87.8	8,400				185
190	22.6	79.2	7,600							190
195	18.2	64.8	7,100							195

# MLC165 S-1

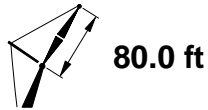
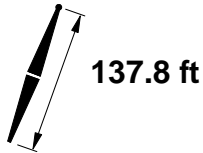
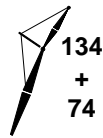
ASME B30.5



	5°			15°			25°				
	ft	°	ft	lb	ft	°	ft	lb	ft		
50	78.8		210.0	22,400*						50	
55	77.4		208.8	21,900*						55	
60	76.0		207.5	21,400*						60	
65	74.6		206.1	21,000*	78.5	204.7	21,300*			65	
70	73.1		204.6	20,500*	77.1	203.2	20,900*			70	
75	71.7		202.9	20,000*	75.6	201.5	20,500*	79.7	197.9	19,500*	75
80	70.2		201.0	19,600*	74.1	199.6	20,100*	78.2	196.0	18,700*	80
85	68.7		199.0	19,100*	72.6	197.6	19,700*	76.7	194.0	17,900*	85
90	67.2		196.9	18,700*	71.1	195.4	19,300*	75.1	191.8	17,200*	90
95	65.7		194.6	18,300*	69.6	193.1	19,000*	73.6	189.4	16,600*	95
100	64.2		192.1	17,900*	68.0	190.6	18,700*	72.0	186.9	15,900*	100
105	62.6		189.5	17,700*	66.5	188.0	18,400*	70.4	184.1	15,400*	105
110	61.0		186.7	17,200*	64.9	185.1	18,100*	68.7	181.2	14,900*	110
115	59.4		183.7	17,000*	63.3	182.1	17,900*	67.1	178.1	14,400*	115
120	57.8		180.5	16,700*	61.6	178.9	17,500*	65.4	174.8	13,900*	120
125	56.1		177.1	16,400*	59.9	175.5	17,400*	63.7	171.3	13,500*	125
130	54.4		173.5	16,100*	58.2	171.8	17,000	61.9	167.6	13,100*	130
135	52.7		169.6	15,100	56.4	167.9	15,900	60.1	163.6	12,700*	135
140	50.9		165.5	14,200	54.6	163.8	14,800	58.3	159.3	12,400*	140
145	49.1		161.1	13,300	52.8	159.3	13,900	56.3	154.8	12,000*	145
150	47.2		156.4	12,400	50.9	154.6	13,000	54.4	149.9	11,700*	150
155	45.2		151.5	11,600	48.9	149.6	12,200	52.3	144.6	11,400*	155
160	43.2		146.1	10,900	46.9	144.1	11,400	50.2	139.0	11,200*	160
165	41.1		140.3	10,200	44.7	138.3	10,700	48.0	132.9	10,900*	165
170	38.9		134.1	9,600	42.5	132.0	10,000	45.7	126.4	10,400	170
175	36.6		127.4	8,900	40.1	125.1	9,300	43.2	119.2	9,700	175
180	34.1		120.0	8,400	37.6	117.6	8,700	40.5	111.2	9,000	180
185	31.5		111.9	7,800	35.0	109.3	8,100				185
190	28.7		102.9	7,300	32.0	100.0	7,600				190
195	25.5		92.6	6,800	28.8	89.4	7,000				195
200	21.9		80.6	6,300							200

# MLC165 S-1

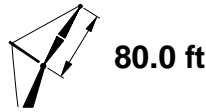
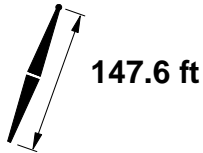
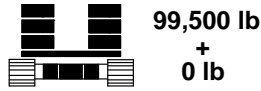
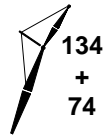
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
50	79.3	220.0	22,300*							50
55	78.0	218.9	21,900*							55
60	76.6	217.7	21,400*							60
65	75.3	216.4	21,000*	79.1	215.0	21,200*				65
70	73.9	214.9	20,500*	77.7	213.5	20,900*				70
75	72.5	213.3	20,000*	76.3	211.8	20,400*				75
80	71.1	211.5	19,600*	74.9	210.1	20,200*	78.8	206.4	19,000*	80
85	69.7	209.6	19,200*	73.5	208.2	19,700*	77.3	204.5	18,300*	85
90	68.3	207.6	18,700*	72.0	206.1	19,400*	75.9	202.4	17,600*	90
95	66.9	205.4	18,300*	70.6	203.9	19,000*	74.4	200.1	16,900*	95
100	65.4	203.1	18,000*	69.1	201.6	18,700*	72.9	197.7	16,300*	100
105	63.9	200.6	17,600*	67.6	199.1	18,400*	71.4	195.2	15,700*	105
110	62.5	198.0	17,300*	66.1	196.4	18,200*	69.8	192.5	15,200*	110
115	60.9	195.1	17,000*	64.6	193.6	17,900*	68.3	189.6	14,700*	115
120	59.4	192.1	16,700*	63.1	190.5	17,500*	66.7	186.5	14,300*	120
125	57.9	189.0	16,400*	61.5	187.3	17,300*	65.1	183.2	13,800*	125
130	56.3	185.6	15,800	59.9	183.9	16,600	63.5	179.7	13,400*	130
135	54.6	182.0	14,700	58.3	180.3	15,500	61.8	176.0	13,100*	135
140	53.0	178.2	13,800	56.6	176.5	14,500	60.1	172.0	12,700*	140
145	51.3	174.1	12,800	54.9	172.4	13,500	58.3	167.8	12,400*	145
150	49.6	169.8	12,000	53.1	168.0	12,600	56.5	163.4	12,100*	150
155	47.8	165.3	11,200	51.3	163.4	11,800	54.7	158.6	11,800*	155
160	45.9	160.4	10,500	49.5	158.5	11,000	52.7	153.5	11,500*	160
165	44.0	155.2	9,800	47.5	153.2	10,300	50.7	148.1	10,800	165
170	42.1	149.6	9,100	45.6	147.6	9,600	48.7	142.2	10,100	170
175	40.0	143.7	8,500	43.5	141.5	9,000	46.5	135.9	9,400	175
180	37.9	137.2	8,000	41.3	135.0	8,400	44.2	129.1	8,700	180
185	35.6	130.3	7,400	39.0	127.9	7,800	41.8	121.6	8,100	185
190	33.2	122.7	6,900	36.5	120.1	7,200				190
195	30.7	114.3	6,400	33.9	111.5	6,700				195
200	27.9	105.0	5,900	31.0	101.9	6,200				200
205	24.8	94.4	5,500							205
210	21.3	81.9	5,000							210

# MLC165 S-1

ASME B30.5

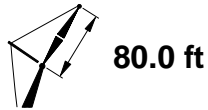
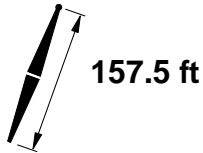
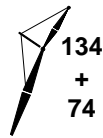


	5°			15°			25°			
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
55	78.5	229.0	21,800*							55
60	77.2	227.9	21,300*							60
65	75.9	226.6	20,900*	79.5	225.1	21,200*				65
70	74.6	225.2	20,400*	78.2	223.7	20,800*				70
75	73.3	223.6	20,000*	76.9	222.2	20,400*				75
80	72.0	222.0	19,600*	75.6	220.5	20,100*	79.3	216.7	19,300*	80
85	70.6	220.2	19,200*	74.2	218.7	19,700*	77.9	214.9	18,600*	85
90	69.3	218.2	18,800*	72.9	216.7	19,400*	76.5	212.9	17,900*	90
95	67.9	216.2	18,400*	71.5	214.7	19,000*	75.1	210.8	17,200*	95
100	66.6	214.0	18,000*	70.1	212.4	18,700*	73.7	208.5	16,600*	100
105	65.2	211.6	17,700*	68.7	210.1	18,400*	72.3	206.1	16,100*	105
110	63.8	209.1	17,300*	67.3	207.5	18,200*	70.8	203.5	15,500*	110
115	62.3	206.4	17,000*	65.8	204.9	17,800*	69.4	200.8	15,100*	115
120	60.9	203.6	16,600*	64.4	202.0	17,700*	67.9	197.9	14,600*	120
125	59.4	200.6	16,300*	62.9	199.0	17,300*	66.4	194.8	14,200*	125
130	57.9	197.4	15,800	61.4	195.8	16,600	64.8	191.5	13,800*	130
135	56.4	194.1	14,700	59.9	192.4	15,500	63.3	188.1	13,400*	135
140	54.9	190.5	13,700	58.3	188.8	14,500	61.7	184.4	13,000*	140
145	53.3	186.8	12,800	56.7	185.0	13,500	60.0	180.5	12,700*	145
150	51.7	182.8	12,000	55.1	181.0	12,700	58.4	176.4	12,400*	150
155	50.0	178.6	11,200	53.4	176.7	11,800	56.7	172.0	12,100*	155
160	48.3	174.1	10,500	51.7	172.2	11,100	54.9	167.3	11,600	160
165	46.6	169.3	9,800	50.0	167.4	10,300	53.1	162.3	10,800	165
170	44.8	164.2	9,100	48.2	162.2	9,700	51.2	157.0	10,100	170
175	43.0	158.9	8,500	46.3	156.8	9,000	49.3	151.4	9,400	175
180	41.0	153.1	8,000	44.3	150.9	8,400	47.2	145.3	8,800	180
185	39.0	146.9	7,400	42.3	144.6	7,800	45.1	138.8	8,200	185
190	36.9	140.3	6,900	40.2	137.9	7,300	42.9	131.7	7,600	190
195	34.7	133.1	6,400	37.9	130.5	6,800	40.5	123.9	7,000	195
200	32.4	125.2	5,900	35.5	122.5	6,300				200
205	29.9	116.6	5,500	33.0	113.7	5,800				205
210	27.2	107.0	5,100	30.1	103.8	5,300				210
215	24.1	96.0	4,700							215
220	20.7	83.2	4,300							220



# MLC165 S-1

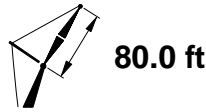
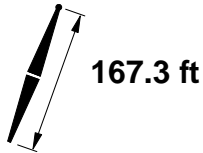
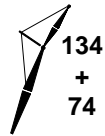
ASME B30.5



	5°			15°			25°			
	ft	°	ft	lb	ft	°	ft	lb	ft	
55	79.0	239.1	21,600*							55
60	77.8	238.0	21,200*							60
65	76.5	236.8	20,800*							65
70	75.3	235.4	20,300*	78.7	233.9	20,700*				70
75	74.0	233.9	19,900*	77.5	232.4	20,400*				75
80	72.8	232.3	19,500*	76.2	230.8	20,000*				80
85	71.5	230.6	19,100*	74.9	229.1	19,700*	78.5	225.3	18,800*	85
90	70.2	228.8	18,700*	73.6	227.3	19,300*	77.1	223.4	18,200*	90
95	68.9	226.8	18,400*	72.3	225.3	19,000*	75.8	221.4	17,500*	95
100	67.6	224.7	18,000*	71.0	223.2	18,700*	74.5	219.2	16,900*	100
105	66.3	222.5	17,700*	69.7	220.9	18,400*	73.1	216.9	16,400*	105
110	64.9	220.1	17,300*	68.3	218.5	18,200*	71.7	214.5	15,900*	110
115	63.6	217.6	17,000*	67.0	216.0	17,800*	70.3	211.9	15,400*	115
120	62.2	214.9	16,700*	65.6	213.3	17,700*	68.9	209.2	14,900*	120
125	60.8	212.1	16,400*	64.2	210.4	17,300*	67.5	206.2	14,500*	125
130	59.4	209.1	15,400	62.8	207.4	16,300	66.1	203.2	14,100*	130
135	58.0	205.9	14,300	61.3	204.2	15,200	64.6	199.9	13,700*	135
140	56.5	202.6	13,300	59.9	200.9	14,100	63.1	196.5	13,300*	140
145	55.1	199.1	12,400	58.4	197.3	13,200	61.6	192.8	13,000*	145
150	53.6	195.3	11,600	56.9	193.5	12,300	60.0	189.0	12,700*	150
155	52.0	191.4	10,800	55.3	189.6	11,500	58.4	184.9	12,100	155
160	50.5	187.2	10,100	53.7	185.4	10,700	56.8	180.6	11,300	160
165	48.8	182.8	9,400	52.1	180.9	10,000	55.1	176.0	10,500	165
170	47.2	178.2	8,700	50.4	176.2	9,300	53.4	171.1	9,800	170
175	45.5	173.2	8,100	48.7	171.2	8,700	51.6	166.0	9,100	175
180	43.7	168.0	7,600	46.9	165.9	8,000	49.8	160.5	8,500	180
185	41.9	162.4	7,000	45.1	160.2	7,500	47.9	154.6	7,900	185
190	40.1	156.4	6,500	43.2	154.2	6,900	45.9	148.3	7,300	190
195	38.1	150.0	6,000	41.2	147.7	6,400	43.8	141.5	6,700	195
200	36.1	143.2	5,500	39.1	140.7	5,900	41.7	134.2	6,200	200
205	33.9	135.8	5,100	36.9	133.1	5,400				205
210	31.6	127.7	4,700	34.6	124.9	5,000				210
215	29.1	118.8	4,300	32.0	115.7	4,500				215
220				29.3	105.5	4,100				220

# MLC165 S-1

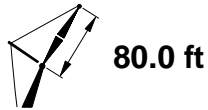
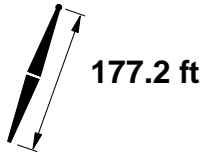
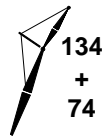
ASME B30.5



	5°			15°			25°					
	ft	°	ft	lb	ft	°	ft	lb	ft			
55	79.4		249.2	21,500*						55		
60	78.3		248.1	21,100*						60		
65	77.1		246.9	20,700*						65		
70	75.9		245.6	20,300*	79.2		244.1	20,700*		70		
75	74.7		244.2	19,900*	78.0		242.7	20,300*		75		
80	73.5		242.7	19,500*	76.8		241.2	20,000*		80		
85	72.2		241.0	19,100*	75.5		239.5	19,700*	78.9	235.6	19,100*	85
90	71.0		239.3	18,700*	74.3		237.8	19,300*	77.7	233.8	18,400*	90
95	69.8		237.4	18,400*	73.1		235.9	19,000*	76.4	231.9	17,800*	95
100	68.5		235.4	18,000*	71.8		233.8	18,700*	75.1	229.8	17,200*	100
105	67.3		233.3	17,700*	70.5		231.7	18,400*	73.9	227.7	16,700*	105
110	66.0		231.0	17,300*	69.3		229.4	18,100*	72.5	225.3	16,200*	110
115	64.7		228.6	17,000*	68.0		227.0	18,000*	71.2	222.9	15,700*	115
120	63.4		226.1	16,800*	66.7		224.4	17,600*	69.9	220.3	15,200*	120
125	62.1		223.4	16,200	65.3		221.7	17,200	68.5	217.5	14,800*	125
130	60.8		220.6	15,000	64.0		218.9	16,000	67.2	214.6	14,400*	130
135	59.4		217.6	14,000	62.6		215.9	14,900	65.8	211.5	14,000*	135
140	58.0		214.4	13,000	61.2		212.7	13,800	64.4	208.3	13,700*	140
145	56.7		211.1	12,100	59.8		209.3	12,900	62.9	204.9	13,300*	145
150	55.2		207.6	11,200	58.4		205.8	12,000	61.5	201.2	12,700	150
155	53.8		203.9	10,500	57.0		202.1	11,200	60.0	197.4	11,900	155
160	52.3		200.0	9,700	55.5		198.2	10,400	58.5	193.4	11,000	160
165	50.8		195.9	9,000	54.0		194.0	9,700	56.9	189.1	10,300	165
170	49.3		191.6	8,400	52.4		189.6	9,000	55.3	184.6	9,600	170
175	47.7		187.0	7,800	50.8		185.0	8,300	53.7	179.9	8,900	175
180	46.1		182.2	7,200	49.2		180.1	7,700	52.0	174.8	8,200	180
185	44.5		177.0	6,700	47.5		174.9	7,200	50.3	169.5	7,600	185
190	42.8		171.6	6,100	45.8		169.4	6,600	48.5	163.8	7,000	190
195	41.0		165.8	5,700	44.0		163.6	6,100	46.6	157.7	6,500	195
200	39.1		159.7	5,200	42.1		157.3	5,600	44.7	151.2	6,000	200
205	37.2		153.1	4,800	40.2		150.6	5,100	42.7	144.2	5,400	205
210	35.2		146.0	4,300	38.1		143.4	4,700	40.5	136.7	5,000	210
215					36.0		135.6	4,200				215

# MLC165 S-1

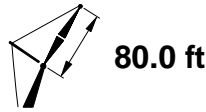
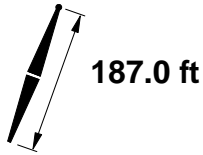
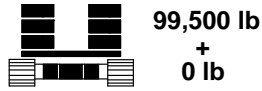
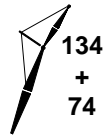
ASME B30.5



ft	5°			15°			25°			ft
	ft	ft	lb	ft	ft	lb	ft	ft	lb	
60	78.7	258.2	21,000*							60
65	77.6	257.0	20,600*							65
70	76.4	255.8	20,200*	79.6	254.3	20,600*				70
75	75.3	254.4	19,800*	78.5	252.9	20,200*				75
80	74.1	253.0	19,400*	77.3	251.4	19,900*				80
85	72.9	251.4	19,100*	76.1	249.9	19,600*	79.4	245.9	19,400*	85
90	71.8	249.7	18,700*	74.9	248.2	19,300*	78.2	244.2	18,700*	90
95	70.6	247.9	18,300*	73.8	246.4	19,000*	77.0	242.4	18,100*	95
100	69.4	246.0	18,000*	72.6	244.4	18,700*	75.8	240.4	17,500*	100
105	68.2	244.0	17,600*	71.3	242.4	18,400*	74.5	238.3	17,000*	105
110	67.0	241.8	17,300*	70.1	240.2	18,200*	73.3	236.1	16,500*	110
115	65.8	239.5	17,100*	68.9	237.9	17,800*	72.0	233.8	16,000*	115
120	64.5	237.1	16,800*	67.6	235.5	17,700*	70.8	231.3	15,500*	120
125	63.3	234.6	15,800*	66.4	232.9	16,800*	69.5	228.7	15,100*	125
130	62.0	231.9	14,600*	65.1	230.2	15,600*	68.2	225.9	14,700*	130
135	60.7	229.0	13,600*	63.8	227.3	14,500*	66.9	223.0	14,300*	135
140	59.4	226.1	12,600*	62.5	224.3	13,500*	65.5	219.9	13,900*	140
145	58.1	222.9	11,700*	61.2	221.2	12,500*	64.2	216.7	13,400*	145
150	56.8	219.6	10,800*	59.8	217.8	11,600*	62.8	213.3	12,400*	150
155	55.4	216.1	10,000*	58.5	214.3	10,800*	61.4	209.7	11,600*	155
160	54.0	212.5	9,300*	57.1	210.6	10,000*	60.0	205.9	10,700*	160
165	52.6	208.6	8,600*	55.6	206.7	9,300*	58.5	201.9	10,000*	165
170	51.2	204.6	8,000*	54.2	202.6	8,600*	57.0	197.7	9,200*	170
175	49.7	200.3	7,400*	52.7	198.3	8,000*	55.5	193.3	8,600*	175
180	48.2	195.8	6,800*	51.2	193.8	7,400*	54.0	188.6	7,900*	180
185	46.7	191.0	6,300*	49.7	189.0	6,800*	52.4	183.7	7,300*	185
190	45.1	186.0	5,700*	48.1	183.9	6,300*	50.7	178.5	6,700*	190
195	43.5	180.7	5,300*	46.4	178.6	5,700*	49.0	172.9	6,200*	195
200	41.8	175.1	4,800*	44.7	172.9	5,200*	47.3	167.0	5,600*	200
205	40.1	169.2	4,400*	43.0	166.8	4,800*	45.4	160.8	5,100*	205
210				41.1	160.4	4,300*	43.5	154.1	4,700*	210
215							41.5	146.9	4,200*	215

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	5°			15°			25°					
	ft	°	ft	lb	ft	°	ft	lb	ft			
60	79.1		268.2	20,800*						60		
65	78.0		267.1	20,400*						65		
70	76.9		265.9	20,100*						70		
75	75.8		264.6	19,700*	78.9		263.1	20,100*		75		
80	74.7		263.2	19,300*	77.8		261.7	19,800*		80		
85	73.6		261.7	19,000*	76.7		260.2	19,500*		85		
90	72.5		260.1	18,600*	75.5		258.6	19,200*	78.7	254.5	19,000*	90
95	71.3		258.4	18,200*	74.4		256.8	18,900*	77.5	252.8	18,300*	95
100	70.2		256.6	17,900*	73.2		255.0	18,600*	76.3	250.9	17,800*	100
105	69.0		254.6	17,600*	72.1		253.0	18,300*	75.2	248.9	17,200*	105
110	67.9		252.6	17,300*	70.9		250.9	18,100*	74.0	246.8	16,700*	110
115	66.7		250.4	17,000*	69.7		248.7	17,800*	72.8	244.5	16,200*	115
120	65.5		248.1	16,700*	68.5		246.4	17,700*	71.6	242.2	15,800*	120
125	64.3		245.6	15,500	67.3		244.0	16,600	70.3	239.7	15,400*	125
130	63.1		243.1	14,300	66.1		241.4	15,400	69.1	237.0	15,000*	130
135	61.9		240.4	13,300	64.9		238.6	14,200	67.8	234.3	14,600*	135
140	60.7		237.5	12,300	63.6		235.8	13,200	66.6	231.4	14,200	140
145	59.4		234.5	11,400	62.4		232.8	12,300	65.3	228.3	13,100	145
150	58.2		231.4	10,500	61.1		229.6	11,400	64.0	225.1	12,200	150
155	56.9		228.1	9,700	59.8		226.3	10,500	62.7	221.7	11,300	155
160	55.6		224.6	9,000	58.5		222.8	9,800	61.3	218.1	10,500	160
165	54.2		221.0	8,300	57.2		219.1	9,000	59.9	214.3	9,700	165
170	52.9		217.2	7,700	55.8		215.3	8,400	58.6	210.4	9,000	170
175	51.5		213.2	7,100	54.4		211.2	7,700	57.1	206.3	8,300	175
180	50.1		209.0	6,500	53.0		207.0	7,100	55.7	201.9	7,700	180
185	48.7		204.6	6,000	51.5		202.5	6,500	54.2	197.3	7,100	185
190	47.2		199.9	5,400	50.1		197.8	6,000	52.7	192.5	6,500	190
195	45.7		195.0	5,000	48.5		192.9	5,500	51.1	187.4	6,000	195
200	44.2		189.8	4,500	47.0		187.6	5,000	49.5	182.0	5,400	200
205	42.6		184.4	4,100	45.4		182.1	4,500	47.8	176.3	4,900	205
210					43.7		176.2	4,100	46.1	170.2	4,400	210
215									44.3	163.7	4,000	215